# Green IT The best practices collection 2009



# **CONTENTS**

Establishment of the Green IT Promotion Council	1
Green IT AWARD 2009 Introduction	3
Grobal Partner Introduction	16
Green IT Promotion Council, Members List	17
Member Introduction	21
Product Introduction	39
What is JEITA?	28
INDEX1	34

### Establishment of the Green IT Promotion Council

### Establishment outline

Global warming is a top-priority issue requiring an urgent, global-scale response.

Recognizing that radical technological innovation has a critical role to play in achieving harmony between our economic and social activities and the global environment, Japan has created the "Cool Earth-Innovative Energy Technology Program" for the development of new technologies from a long-term perspective. IT and electronics technologies stand to make a major contribution to realizing these new technologies.

The greater economic, logistical and administrative efficiency achieved through the sophisticated control and management enabled by IT and electronics technologies should also generate greater productivity and greater energy efficiency in all economic and social activities, contributing substantially to reducing environmental impact.

At the same time, by 2025 the full-scale introduction of IT is expected to have boosted international information flows by around 200 times the level in 2006. This information explosion will also vastly increase the number of IT devices in use, positioning the energy consumption of IT devices themselves as a key issue.

The Japanese government has developed the "Green IT Initiative" as a means of achieving a balance between

environmental protection and economic growth. The Green IT Promotion Council was established on 1 February 2008 as an industry-government-university partnership for promoting concrete action under this initiative.

We at the Green IT Promotion Council look forward to utilizing the manufacturing, environment and energy-saving technological capacity that is Japan's strength to transform all aspects of our economy, society and lifestyles, while also working toward further Energy-saving of and by IT devices.



Estab**l**ishment

Activity of Green IT Promotion Council corporate with Ministry of Economy, Trade and Industry, National Institute of Advanced Industrial Science and Technology (AIST), New Energy and Industrial Technology Development Organization (NEDO) and Representatives of academia as observers.

### Activities in FY2009

### 1) Role of the Diffusion Education Committee

Contributes to energy conservation and  $CO_2$  emissions reduction by (a) embedding green IT activities across society toward achieving both environmental conservation and economic growth, and (b) publicizing firms' outstanding environmental technologies at home and offshore to promote the utilization of

products and technologies with high energy efficiency. Also widely communicates the results achieved by the Technology Study and Survey and Evaluation Committees to encourage the development of future guidelines on global warming and efforts currently required.

### ② Role of the Technology Study Committee

Identifies IT energy-saving technologies and creates roadmaps, drawing on these in considerations toward the advance and expansion of green IT technologies.

《Energy-saving Technology Development Roadmap evaluation and utilization》

In early FY2009, the committee will engage in a comprehensive evaluation and review of the results of investigations by the FY2008 Technology Study Committee and the Survey and Evaluation Committee, etc., as well as follow-up studies, looking toward the strategic utilization of the Roadmap.

### **3** Role of the Survey and Evaluation Committee

Quantifies energy-saving in IT devices and in the various areas of society through IT toward a low-carbon society. To this end, the committee aims to establish green IT evaluation tools (benchmarks) to make visible the impact of green IT in terms of energy-saving and the contribution to CO<sub>2</sub> reduction.

Also examines green IT policies and initiatives offshore to identify the current status of initiatives and investigations around the world toward the international dissemination of green IT achievements.

### Activities in FY2008

#### Conclusion of MOUs with offshore groups

To expand green IT activities globally, the Green IT Promotion Council concluded memoranda of understanding (MOUs) with US groups The Green Grid and the Climate Savers Computing Initiative in May 2008 and with the Korea Green Business IT Association in January 2009, laying the foundations for strengthening international partnerships.

#### **Diffusion Education**

#### **Green IT International Symposium**

We held the Green IT International Symposium in Tokyo in May 2008, comprising speeches and discussion by representatives from the government, research institutes and Japanese and foreign companies on green IT initiatives and expectations.



# G8 Hokkaido Toyako Summit exhibition assistance and the Green IT Pavilion

At the G8 Hokkaido Toyako Summit in July 2008, the Green IT Promotion Council assisted in organizing the Environmental Showcase and Zero Emission House exhibitions and also operated the Green IT Pavilion at the International Media Center, introducing company initiatives.

#### **Green IT Awards 2008**

The Green IT Promotion Council created the Green IT Awards with the cooperation of the Ministry of Economy, Trade and Industry, presenting these for outstanding IT products, solutions and services.



#### CEATEC JAPAN 2008 Green IT Pavilion

At CEATEC JAPAN 2008, we introduced companies' latest products and Green IT Award winners.



#### **Technology Studies**

# ① Energy-saving of IT: Creation of a technology roadmap for IT and electronics

We are developing a roadmap on energy-saving up to 2025 that covers key IT devices (servers, storage devices, displays, computers, routers) for which power consumption is expected to soar in line with the coming information explosion, as well as the semiconductors underpinning these devices.

Another such roadmap is being developed for those devices which are said to consume around 70 percent of household power (air conditioners, refrigerators, lighting and televisions), as well as the record and replay devices (DVDs, etc.) which are expected to take hold in the market over the coming years.

#### Energy-saving by IT: Studies on energy-saving in society

The concept of virtual mobility emerged in FY2007 from the work of the Technology Policy Working Group, which operates under the Technology Strategy Committee within the Japan Electronics and Information Technology Industries Association (JEITA), one of the Green IT Promotion Council's founders. We undertook a study on virtual mobility for people and things as an issue that needs to be further advanced and developed, highlighting key cases and promising technologies.

In the area of energy management systems, in addition to the Home Energy Management System (HEMS) and the Building Energy Management System (BEMS), we also looked at Enterprise EMS and Social EMS with a view to total optimization, putting together technology development recommendations.

### Surveys and Evaluations

#### 1) Measuring and forecasting energy-saving of IT devices

We developed benchmarks for comparing the energy efficiency of 10 IT devices. Using this method and dissemination rates for the various devices, we also forecast the energy consumption and reduction effect by 2025 and by 2050.

#### ② Creating energy-saving indicators and forecasting energy-saving effects for data centers

We drew up forecasts on the future energy consumption and reduction effect of data centers based on expected server dissemination numbers, etc, with final adjustments reflecting Technology Study Committee results. We considered new indices for evaluating the energy-saving performance of data centers.



Workshop " Data Centers energy -Saving indicators" with US and EU

#### 3 Measuring and forecasting energy-saving by IT

We considered IT solution categories (industry, office, home, transportation, etc.) and elements for evaluating the CO<sub>2</sub> reduction effect where various types of solutions were introduced, developing an effect calculation formula for each type of solution. Based on this formula, we considered examples of evaluations of the amount contributed to energy-saving by IT.

#### 4 Considering methods of evaluating firms' environmental contribution

We looked at methods for quantitatively evaluating the amount which companies developing and supplying green IT have contributed to CO2 reduction of and by IT. In FY2008, we examined basic methodologies for making visible the degree of contribution across the entire supply chain, identifying challenges and means of utilization.

#### **5** Surveying offshore policies, etc.

In our FY2008 survey, we focused on the US and the EU, examining key initiatives, both government- and private-sector-led, in these regions.

# Green IT AWARD 2009

# introduction

#### **Energy Saving of IT**

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METI Minister's Awards	NTT DATA CORPORATION NTT FACILITIES, INC.	Green Data Center <sup>®</sup> Service	
METI Commerce and Information Policy, Director-General's Awards	Alaxala Networks Corp.	Dynamic Energy Saving System for Communication Networks	
Green IT Promotion Council Chairman's Awards	Toshiba Corporation	Contribution to the prevention of glo- bal warming by providing environmen- tally conscious PCs to global market	
Green IT Awards Judging Committee Special Awards	Hitachi,Ltd.	Energy Conservation of Servers by Hitachi Virtualization Tecnology	
	FUJITSU LIMITED	Blade server system designed for less power consumption and less load on the air-conditioning of data centers	
	AMD Japan,Ltd.	Six-core AMD Opteron™ Processor	

#### **Energy Saving by IT**

METI Minister's Awards	Yokogawa Electric Corporation	Use of IT to Eliminate Energy Waste on Production Lines
METI Commerce and Information Policy, Director-General's Awards	Suzuyo & Co.,Ltd. FUJITSU LIMITED	Logistic System for CO2 Reduction by Modal Sift
Green IT Promotion Council Chairman's Awards	KOJIMA PRESS INDUSTRY CO.,LTD.	The reduction of CO2 by Green-IT for user companies
Green IT Awards Judging Committee Special Awards	NEC Corporation	CO2 emission visualization and reduction service for household and region "Carbon Diet"
	Green University of Tokyo Project	The Green University of Tokyo Project: Field Experiments of "Green by IT/ICT" at Faculty of Engineering Bldg.2
	Sumitomo Mitsui Banking Corporation NEC Corporation Oki Electric Industry Co., Ltd.	The Next Generation Banking Termi- nal System (CUTE)



# [Energy-saving of IT]

# Green Data Center® Service

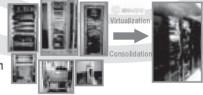


Solar power system



■ High-voltage DC Power supply system





Virtualization technology



Highly-efficient air-conditioning design



High-efficient rack design

NTT DATA CORPORATION is one of the biggest data center suppliers in Japan with about 680,000 m² of gross floor area. We are now promoting Green Data Center® Project by integrating our IT and facility technologies in order to reduce negative impacts on the environment from data centers. Specifically, we have introduced several green technologies to our data center located in Tokyo. In order to reduce power consumption, we consolidated and integrated servers with virtualization technologies. At the same time we introduced a carbon-free solar power system to use green power. As to energy efficiency, we improved it by a high-voltage DC power supply system and we also improved cooling efficiency with seismic isolator built-in system "Aisle Capping\*."

With these actions altogether, we aim to reduce 30% of annual power consumption comparing to that of our conventional data centers.

\* "Aisle Capping" is a registered trademark of NTT FACILITIES, INC. "Green Data Center" is a registered trademark of NTT DATA CORPORATION.

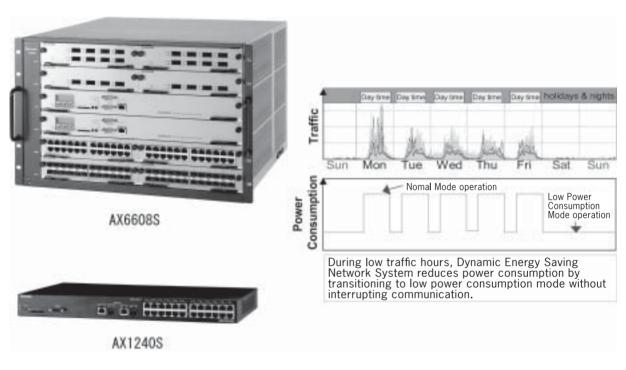
# NTT DATA CORPORATION / NTT FACILITIES, INC.



METI Commerce and Information Policy, Director-General's Awards

[Energy-saving of IT]

# Dynamic Energy Saving System for Communication Networks



Dynamic Energy Saving Network System can reduce its power consumption while its traffic is low by changing operating mode of its sub-systems without disturbing its communication;

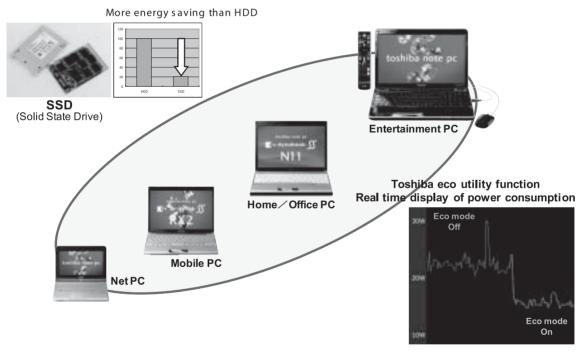
- Decreasing processing capacity of core switches.
- Cutting off the power suply to redundant supervisor module.
- Truning unused floor switches into sleep mode.
- Cutting power feeding to unused line circuits and status display LEDs.

# Alaxala Networks Corp.



# [Energy-saving of IT]

# Contribution to the prevention of global warming by providing environmentally conscious PCs to global market Toshiba new PC lineup



In an effort to prevent global warming, Toshiba has been exerting maximum efforts to seek further energy saving for our products.

We are proud to announce that all Toshiba 2009 New PC Lineups are ENERGY STAR® V5.0 qualified and most of them feature Toshiba Eco-Utility function.

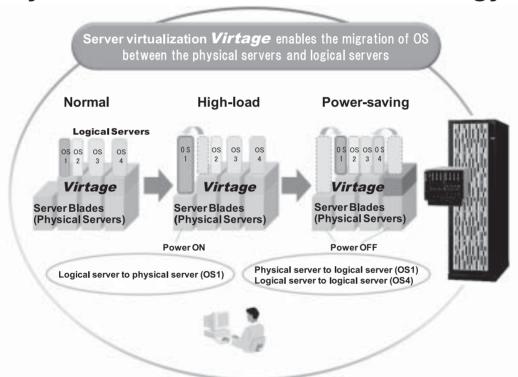
And wide range of lineup is designed ready to incorporate SSD (Solid State Drive) which has excellent environmental efficiency through product life cycle.

# **Toshiba Corporation**



# (Energy-saving of IT)

# Energy Conservation of Servers by Hitachi Virtualization Technology



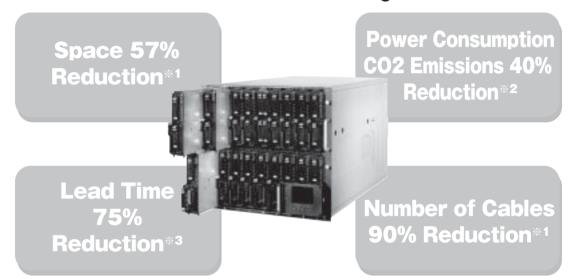
Hitachi server virtualization technology "**Virtage**" supports migration of operating systems between physical servers and logical servers as well as migration between logical servers. This unique feature is possible since operating systems on logical servers operate very similarly to operating systems running on physical servers. Depending on the user's operating policy, the total power consumption of system can be cut down by moving an operating system on a physical server to a logical server, thereby reducing the number of running physical servers.

Hitachi, Ltd.



# [Energy-saving of IT]

# Blade server system designed for less power consumption and less load on the air-conditioning of data centers



### **Blade Server PRIMERGY BX900**

- %1 Comparison with system that combines 18 rack type servers
- $\ensuremath{\%2}$  Effect of reduction of consolidating 18 rack type servers about three years ago
- \*3 Effect of reduction when rack type server is consolidated in SAN boot system

PRIMERGY BX900 is a blade server for the largest systems.

With the industry's best high-density mounting, of 18 server blades in just 10U of rack space, it is testament to the use of the latest packaging technology and energy conservation techniques.

At just 40% power consumption compared with conventional racked systems, the load on data center air conditioning is greatly reduced. In addition, its highly efficient air-flow design maximizes cooling efficiency.

### **FUJITSU LIMITED**



[Energy-saving of IT]

# Six-core AMD Opteron™ Processor



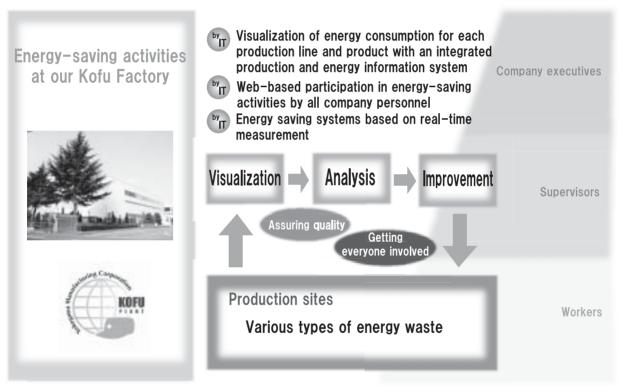
Six-Core AMD Opteron<sup>™</sup> processor Series, using a 45nm SOI Immersion lithography process deliver performance efficiency to handle real world workloads with superior value and energy efficiency at every price point. AMD technology-based servers deliver one platform to support the top-line demands of your business with a total cost advantage you can take right to the bottom-line.

AMD Japan, Ltd.



# [Energy-saving by IT]

# Use of IT to Eliminate Energy Waste on Production Lines



Yokogawa Electric Corporation is making efforts to improve its energy efficiency through (1) the use of an integrated production and energy information system to visualize energy consumption and identify energy waste on a production line and product basis, and (2) Web-based initiatives to increase the participation of all company personnel (including executives). Through these measures, in fiscal year 2008 the Company's Kofu Factory was able to reduce its CO2 emissions by 18.5%, or approximately 3,000 tons, compared to fiscal year 1998 levels.

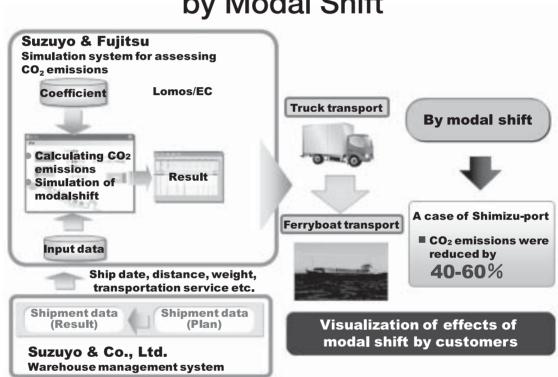
# Yokogawa Electric Corporation



METI Commerce and Information Policy, Director-General's Awards

[Energy-saving by IT]

# Logistic System for CO<sub>2</sub> Reduction by Modal Shift



A feature of the logistic system is that it enables users to easily monitor the CO2 emissions associated with transportation, by combining a warehouse management system and a physical distribution management solution (LOMOS / EC) that visualizes the CO2 emissions.

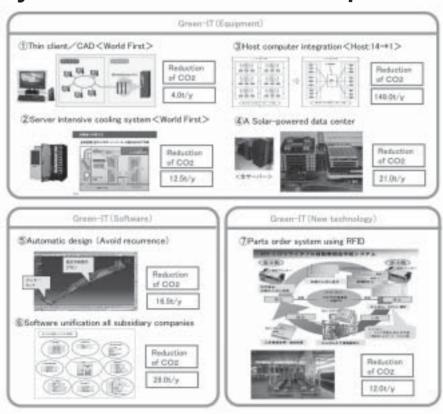
An effect brought by a change in transportation such as modal shift and consolidation of cargos will be visualized, which can be used to improve the physical distribution in a proactive manner. For example, a case of modal shift at the Shimizu-port brought reduction of CO<sub>2</sub> emissions by 40 to 60 %.

Suzuyo & Co.,Ltd. / FUJITSU LIMITED



# [Energy-saving by IT]

# The reduction of CO<sub>2</sub> by Green-IT for user companies



Recently, the power consumption of IT has been increasing.

However, few users tackle this issue.

When we looked at the power consumption of IT we use, we found out that it made up 83% of the total power consumption of our head-office building.

Therefore, we think about and develop user case study in IT, and realized CO2 reduction 222 tons per year.

# KOJIMA PRESS INDUSTRY CO.,LTD.



# [Energy-saving by IT]

# CO<sub>2</sub> emission visualization and reduction service for household and region "Carbon Diet"

#### **Carbon Diet**

- Connect an automated electricity measurement unit to the home electricity meter.
- ◆ Data is automatically transmitted to NEC's BIGLOBE server.
   ⇒ Can easily participate in environmental activities.



# Reduction of CO<sub>2</sub> emission by 10%

(3 month trial from April to June)

Carbon Diet is the web service that automatically measures and transmits the amount of power consumption by a ZigBee-based device attached to the circuit breaker panel.

This service provides games that enable people to reduce the everyday power consumption and CO<sub>2</sub> emission, and to enjoy energy saving.

NEC conducted a three-month trial in 100 employees' homes from April though June this year, resulting in reducing CO<sub>2</sub> emission by 10 percent, compared with the same month last year.

# **NEC Corporation**



# (Energy-saving by IT)

# The Green University of Tokyo Project: Field Experiments of "Green by IT/ICT" at Faculty of Engineering Bldg.2



- Asahi Kasei Microdevices Corporation
- · Cisco Systems, Inc
- Citrix Systems Japan K.K.
- · Cimx Corporation.
- · Daikin Industries, Ltd.
- Digital Electronics Corporation
- Fuji Xerox Co., Ltd.
- · Fuiitsu Limited
- ITOCHU Corporation
- · Japan Agiletech Co., Ltd.
- KAJIMA CORPORATION
- · Kantokowa Co., Ltd.
- . KOKUYO Co..Ltd.
- · Mitsubishi Corporation
- · Mitsubishi Research Institute,Inc.
- MITSUI KNOWLEDGE INDUSTRY CO., LTD.
- NEC Corporation
- Nippon Telegraph and Telephone Corporation
- NTT FACILITIES, INC
- . OMRON Corporation
- Panasonic Corporation



- · Panasonic Electric Works Co., Ltd.
- SHIMIZU CORPORATION
- Takenaka Corporation
- Toshiba Corporation
- Ubiteq, Inc.
- · Watanabe Electric Industry Co., Ltd.
- · WILLCOM, Inc
- Yamatake Corporation
- Yokogawa Electric Corporation
- Facility Network Interoperability Consortium
- Green IT Promotion Council
   IPv6 Promotion Council.

- LONMARK JAPAN
   Nagoya University
   OKAYAMA IPv6 CONSORTIUM.
- Ritsumeikan Asia Pacific University
   Shizuoka University.
- The Institute of Electrical Engineers of Japan
   The Institute of Electrical Installation Engineers of Japan
- The University of Tokyo
- Tokyo Metropolitan Research Institute for Environmental Protection
   WIDE Project.

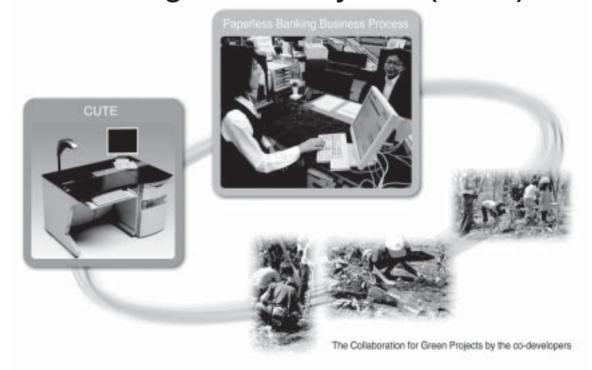
Green University of Tokyo Project has started its activity since June, 2008 as a business-academia collaboration project. At the faculty of Engineering Bldg, 2, the project has conducted various demonstration experiments for facility managements in terms of both "Green of IT" and "Green by IT", and also focused on an educational campaign for "Green IT". The project now works on a standardization of facility managements to make our Green IT technologies pervasive.

# Green University of Tokyo Project



[Energy-saving by IT]

# The Next Generation Banking Terminal System (CUTE)



CUTE is the Next Generation Banking Terminal System, which embodies the concept of the highest care for customer experience.

The system has not only improved the productivity of the employee and satisfaction of our customer, but also contributed to the reduction of environmental load, reducing consumption of over 3 million pieces of papers or CO<sub>2</sub> emission by 23%.

Our company is also committed to keep engaging in the environmentally friendly programs with the co-developers of the CUTE system, NEC and OKI corporations.

Sumitomo Mitsui Banking Corporation / NEC Corporation / Oki Electric Industry Co., Ltd.

### **Grobal Partner Introduction**

#### The Green Grid

#### Launched February 2007

The Green Grid is a global consortium dedicated to improving energy efficiency in data centers and business computing eco-systems. The Green Grid does not endorse any vendor-specific products or solutions, and will seek to provide industry-wide recommendations on best practices, metrics and technologies that will improve overall data center energy efficiencies.

We have developed collaborative working relationships with governments, government and industry influencers and standards bodies around the world.

PUE (Power Usage Effectiveness) is one of the key metrics developed and promoted by The Green Grid. This metric is defined to boost data center power efficiency by showing whether a data center's total power load is being used effectively in IT devices. PUE has received broad adoption in the industry around the world to estimate energy efficiency.

Membership is open to organizations interested in data center operational efficiency at the Contributor, General or Associate Member level. By becoming members, organizations can participate in global data center efficiency improvement activities and present themselves both at home and abroad as actively addressing environmental issues.

Additional information is available at: www.thegreengrid.org

#### Digital Energy Solutions Campaign (DESC)

#### Established on November 18, 2008

To work with policymakers globally, to implement public policies that enable and expand the role of IT in improving society-wide energy efficiency, and reducing global warming.

- · Identification of effective IT usages to save energy.
- · Clarification of the effects of "Green by IT".
- · Exchange of policy ideas for promoting "Green by IT" (US, Europe, and Japan).
- · Sharing of best practices for "Green by IT" among industries and governments.
- · Promotion of programs on "Green by IT".
- Policy influence and promotion activities of "Green by IT" for all countries and regions except developed countries.
- · Highlight of how much "Green by IT" promotion impacts on an international climate change policy.

http://www.behindthegreen.org/

#### **Climate Savers Computing Initiative**

#### Launched 12 June 2007

A non-profit group of eco-conscious consumers, businesses and conservation organizations.

The initiative was started in the spirit of the WWF's Climate Savers program, which has mobilized over a dozen companies since 1999 to cut carbon dioxide emissions, demonstrating that reducing emissions is good business.

The goal of the Climate Savers Computing Initiative is to promote the development, deployment and adoption of smart technologies that can both improve the efficiency of a computer's power delivery and reduce the energy consumed when the computer is in an inactive state.

As participants in the Climate Savers Computing Initiative, computer and component manufacturers commit to producing products that meet specified power-efficiency targets, and corporate participants commit to purchasing power-efficient computing products

Mission of the Climate Savers Computing Initiative This initiative seeks to reduce global CO<sub>2</sub> emissions from the operation of computers by 54 million tons per year, equivalent to the annual output of 11 million cars or 20 coal-fired power plants. With your help, this effort will lead to a 50 percent reduction in power consumption by computers by 2010, and committed participants could collectively save US\$5.5 billion (around 550 billion yen) in energy costs.

http://www.climatesaverscomputing.org/

#### **Korea Green Business IT Association**

#### Established in January 2009

A private-sector association that aims to use ICT to boost energy efficiency out in industry and prevent global warming.

The association tackles green IT in two main areas. One is the development and dissemination of environmentally-friendly products that can reduce the amount of power used in the IT area, such as high-efficiency computers. The other is the development of environmentally-friendly IT technologies such as factory automation and intelligent transport systems and disseminating these out across industry as a whole to save energy and reduce emissions of carbon and other environmental pollutants.

http://www.greenbiz.or.kr

# **Green IT Promotion Council, Members List**

#### **Member Companies**

A Accenture Japan Ltd.

AIMS Corporation Inc.

ALAXALA Networks Corp.

Alexsolutions inc.

ALPHA TECHNO CO.,LTD.

Alpine Electronics, Inc.

ALPS ELECTRIC CO.,LTD.

AMD Japan, Ltd.

Anritsu Corporation

**Anywire Corporation** 

APC Japan,Inc.

ARCHES Co., Ltd.

Asahi Kasei Microdevices Corporation

ASIA NETWORKS CO.,LTD.

Attractlive Co., Ltd.

Autodesk Ltd.

Avago Technologies Japan, Ltd.

Azport Co.,Ltd.

B Bit-isle Inc.

BURRTEC.CO.,LTD.

C CA Japan, Ltd.

**CAC** Corporation

CANON INC.

Canon IT Solutions Inc.

CASIO COMPUTER CO.,LTD.

**CHINO Corporation** 

CiMX CO.,LTD.

Circle-one Co., Ltd.

Cisco Systems G.K.

Citrix Systems Japan K.K.

**CMK CORPORATION** 

CONEXTIVO Inc.

**COPAN Systems** 

Credo Consulting Group Co., Ltd.

COSEL CO..LTD.

**CSK HOLDINGS CORPORATION** 

D DAIDO ELECTRIC IND.CO.,LTD.

Daiwa Institute of Research Business Innovation Ltd.

Daiwa Institute of Research Ltd.

Dell Japan Inc.

Deloitte Touche Tohmatsu

DELTA ELECTRONICS(JAPAN), INC.

Denki Kogyo Company, Limited

**DENSO CORPORATION** 

Digita Electronics Corporation

D-Link Japan K.K.

**Dreamnet Corporation** 

DTS CORPORATION

E EASTCo.,Ltd.Japan

Eco Concierge Co.,Ltd.

eco-reform.inc.

ELISNET Co., Ltd.

E-NA CO.,LTD.

ENS Inc.

eshopacademy

Eta Electric Industry Co., Ltd.

Evixar Japan, Inc.

**F** FDK CORPORATION

FOSTER ELECTRIC CO.,LTD.

Freespace Inc.

Fuji Electric Holdings Co.,Ltd.

Fuji Electric Systems Co.,Ltd.

Fuji Xerox Co.,Ltd.

Fujikura Ltd.

FUJITSU ADVANCED ENGINEERING LIMITED

**FUJITSU FIP CORPORATION** 

FUJITSU LIMITED

FURUKAWA ELECTRIC CO.,LTD.

G Garenet Co.,Ltd.

GE Japan Corporation

Gemest.co.,Ltd.

Global Gates Co.,Ltd.

GMO HOSTING & SECURITY, INC.

Gomez Consulting Co., Ltd.

**H** HBA Corporation

Hewlett-Packard Japan, Ltd.

himico Solutions, Inc.

HIOKI E.E. CORPORATION

HIRAKAWA HEWTECH CORP.

Hitachi Appliances, Inc.

Hitachi Cable,Ltd.

Hitachi Information Systems, Ltd.

Hitachi Kokusai Electric Inc.

Hitachi Metals.Ltd.

Hitachi Software Engineering Co.,Ltd.

Hitachi Systems and Services, Ltd.

Hitachi, Ltd.

HMC Co.,Ltd.

HOKURIKU ELECTRIC INDUSTRY CO.,LTD.

HONDA ENGINEERING CO.,LTD.

HORIBA,Ltd.

I IBM Japan, Ltd.

**INES Corporation** 

Infineon Technologies Japan K.K.

Infinitec Co.,Ltd.

INFORMATION DEVELOPMENT CO.,LTD.

Information Technical Center Co.,Ltd.

INTEC Holdings,Ltd.

Intel K.K.

Internet Initiative Japan Inc.

IP CORE-Lab.Inc.

ISA Co., Ltd.

Isoroot,Inc.

IT Holdings Corporation

ITOCHU Techno-Solutions Corporation

ITOH DENKI Co.,LTD.

ivyedge inc.

IWATSU ELECTRIC CO.,LTD.

IX Knowledge Inc.

J JALCO CO.,LTD.

Japan Information Processing Service Co., Ltd.

Japan Novel Corporation

Japan radio Co.,Ltd.

Japan Resistor Mfg. Co.,Ltd.

Japan Ryouka System Co.,Ltd.

Japan Snow Engine Co.,Ltd.

JFE Systems, Inc.

**K** KAJIMA CORPORATION

Kanden System Solutions Co.,Inc.

Kawamura Electric Inc.

KEISOKU GIKEN CO.,LTD.

Kikusui Electronics Corp.

**KOA** Corporation

Konica Minolta Business Technologies, Inc.

KONISHIYASU CO.,LTD.

K-Opticom Corporation

KOZOKEIKAKU ENGINEERING Inc.

**KYOCERA** Corporation

KYUHEN CO., Inc.

KYUSHU ELECTRIC POWER CO., INC.

L Lasmile Corporation

LEADER ELECTRONICS CORP.

LG Electronics Japan Inc.

LINCREA CORPORATION

Logicom Corporation

Logizard co,.Ltd.

Marubeni Information Systems Co.,Ltd.

MARUWA CO.,LTD.

Media Place Co., Ltd.

Media Work

MIC Associates.Inc.

Micro Arts Corporation

Microsoft Co.,Ltd.

Mitsubishi Corporation

Mitsubishi Electric Corporation

MITSUBISHI ELECTRIC INFORMATION SYSTEMS CORPORATION

Mizuho Information & Research Institute, Inc.

Molex Japan Co.,Ltd.

Murata Manufacturing Co.,Ltd.

N N2-Technology Corporation

Nakayo Telecommunications, Inc.

NCL Communications K.K.

**NEC Corporation** 

**NEC Electronics Corporation** 

NEC Soft,Ltd.

Net Brains, Inc.

NET CHART JAPAN Inc.

Net One Systems Co.,Ltd.

Netcube, Inc.

NETMARKS Inc.

New Japan Radio Co.,Ltd.

nextEDGE Technology K.K.

NICHICON CORPORATION

Nihon Dengyo Kosaku Co.,Ltd.

NIHON FORM SERVICE CO.,LTD.

NIHON KOHDEN CORPORATION

Nihon TANDBERG K.K.

Nihon Unisys,Ltd.

Nikkei Business Publications, Inc.

NIPPON CHEMI-CON CORPORATION

Nippon Computer System Co.,Ltd.

Nippon DICS Co.,Ltd.

Nippon informationTechnology Consulting Co.,Ltd.

Nipron Co.,Ltd.

NISSHO ELECTRONICS CORPORATION

NITTO KOGYO CORPORATION

Nomura Research Institute, Ltd.

Nortel Networks Japan

NOX Co.,LTD.

NS Solutions Corporation

**NSK Corporation** 

NTT BizLink,Inc.

NTT Communications

NTT DATA CORPORATION

NTT FACILITIES, INC.

Osaki Computer Engineering Co.,Ltd.

Ocean Bridge Inc.

Oi Electric Co.,Ltd.

Oki Electric Industry Co., Ltd.

**OMRON** Corporation

One Off Inc.

Openstyle Technology Inc.

Osaka Gas Information System Research Institute Co.,Ltd.

OTSUKA CORPORATION

P Pacific Net Co.,Ltd.

Panasonic Corporation

Panasonic Electronic Devices Co., Ltd.

PANDUIT CORPORATION

Paragon Software K.K.

PC Help Desk

PCA CORPORATION

PFB Co.,Ltd.

PFU LIMITED

PIONEER CORPORATION

Plat'Home Co.,Ltd.

Polycom (Japan) K.K.

primus

Q Quality Corporation

R RAUL Inc.

Renesas Technology Corp.

Research Center of Computational Mechanics, Inc.

RICOH COMPANY LTD.

RISOKAGAKU CORPORATION

Rittal K.K.

ROHM CO.,LTD.

Rubycon Corporation

S SAKURA Internet Inc.

Samsung Japan Corporation

Sankosha Corporation

SANYO Electric Co.,Ltd.

SAS Institute Japan Ltd.

SAXA, Inc.

SBF Consulting

Second Selction Inc.

SEIKO EPSON CORPORATION

SHARP CORPORATION

Shiba Soku Co.,Ltd.

SHINDENGEN ELECTRIC MANUFACTURING CO.,LTD.

Shinwa heat treatmant Co.,Ltd.

Showa-marketing-Systems Co.,Ltd.

SJI Inc.

skuld.inc Co.,Ltd.

Skyarch Networks Inc.

**SMK Corporation** 

Soken management Co.,Ltd.

Sony Corporation

SORUN Corp.

Spline Network Inc. Co.,Ltd.

Stanford Internet Solutions, Corp.

STANLEY ELECTRIC CO.,LTD.

SUD Co.,Ltd.

Sumisho Computer Systems Corporation

SUMITOMO DENSETSU CO.,LTD.

Sumitomo Electric Industries,LTD.

Sun Microsystmes K.K.

Sybase K.K.

Symantec Japan, Inc.

systemlink Co.,Ltd.

EXE Inc.

TABUCHI ELECTRIC CO.,LTD.

Taiyo Yuden Co.,Ltd.

TAIYOSHA ELECTRIC CO.,LTD.

Takasago Thermal Engineering Co.,Ltd.

**TDK Corporation** 

TechVisor.JP,Ltd.

TEIKOKU TSUSHIN KOGYO CO.,LTD.

TEMPSTAFF TECHNOLOGIES Co.,Ltd.

TERRA Inc.

Texas Instruments Japan Limited

TOEI DENGYO Co.,Ltd.

TOKYO ELECTRIC POWER COMPANY

Tomorrow Net Co.,LTD.

TONETS CORPORATION

**Toshiba Corporation** 

TOSHIBA TEC CORPORATION

TSUSHINKOGYO ELECTRIC WIRE & CABLE CO.,LTD.

U UCHIDA YOKO CO., LTD.

UEJIMAKIKAKU

UFIT Co..Ltd.

V V-cube, Inc.

Venus Technologies,Inc.

VICTOKAI CORPORATION

Victor Company of Japan, Limited

**VORTECHS CORPORATION** 

weave Co.,Ltd.

Wellbean Co., Inc.

Will Co.,Ltd.

- X Xyratex Japan Limited
- Y Yamatake Corporation

Yamato Business Support Corp.

YASKAWA ELECTRIC CORPORATION

Yokogawa Electric Corporation

Z ZOICCS Co.,Ltd.

Zuken Net Wave, Inc.

#### **Member Associations**

- A Association of Super-Advanced Electronics Technologies(ASET)
- Communications and Information network Association of Japan
- **E** ECHONET Consortium
- Japan Automobile Manufacturers Association, Inc.

Japan Business Machine and Information System Industries Association

Japan Electric Lamp Manufacturers Association

Japan Electric Measuring Instruments Manufacturers' Association

Japan Electrical Wiring Devices and Equipment Industries Association

Japan Electronicsand Information Technology Industries Association

Japan Information Technology Services Industry Association

Japan Institute of Information Technology

Japan Luminaires Association

Japan Photovoltaic Energy Association

Japan Prefabricated Construction Suppliers & Manufacturers Association

Japan Users Association of Information Systems

- N NHK Engineering Services,Inc.
- Optoelectronic Industry and Technology Development Association
- R Research and Development Association for Future Electron Devices
- S Storage Networking Industry Association Japan Forum(SNIA-J)
- The Energy Conservation Center, Japan

THE JAPAN ELECTRICAL MANUFACTURERS' ASSOCIATION

# Member Introduction

#### **ALAXALA Networks Corporation**

#### Address

Shinkawasaki Mitsui Bldg. West Tower, 890 Kashimada, Saiwai-ku, Kawasaki, Kanagawa, 212-0058, Japan

#### Contact

Business and Sales Division E-mail:http://www.alaxala.com/jp/contact/ URL:http://www.alaxala.com/en/

#### Product, activities introduction

As a rapid growth of IT utilization, communication traffic is increasing and we can no longer ignore total power consumption of the communication networks. ALAXALA develops low power consuming network equipment with innovation of basic architecture and application of cutting edge semiconductor technologies. In addition to it, ALAXALA is working on low-carbon infrastructure, with innovative reduction of network power consumption during low-traffic period without interrupting important communications, which has been believed difficult previously.

#### ALPS ELECTRIC CO., LTD.

#### **Address**

1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo 145-8501. Japan

#### Contact

Environmental Planning Dept. TEL:03-3726-1211 E-mail:kankyou@jp.alps.com

#### Product, activities introduction

All aspects of product design must be considered in terms of environmental impact. The different stages of a product's life cycle include procurement of materials and parts, production, transportation and final use.

Alps Electric adopted a product assessment procedure - "LCA (life cycle assessment)" in which we assess the environment impact of each product during each stage of its life cycle, focusing on CO2 emissions, to reduce the impact our products will have on the environment. At the same time, we are developing products, such as with low power consumption, which contribute to Green IT. To curtail CO2 emission in our business operations, we aim, by fiscal 2010, to reduce CO2 emissions levels per unit of output by 15% of fiscal 2004 levels. In attempting to reach this target, we have been making improvements in hardware by adopting highly e-cient devices and switching to energy-saving machinery. We have also improved operation methods of our equipment, and regularly conduct "energy patrols" which create awareness among employees in saving energy.

#### **Anritsu Corporation**

#### **Address**

5-1-1 Onna, Atsugi, Kanagawa 243-8555, Japan

#### Contact

Corporate Communication Department TEL:046-296-6671 FAX:046-225-8358 E-mail:AN-Info@anritsu.com URL:http://www.anritsu.com/

#### Product, activities introduction

Anritsu is expanding its business focusing on the production of measuring instruments that support the development of the communications network. As conservation of the global environment becomes an international issue, we are being aware of our responsibility as a corporation to supply products that lead to a reduction in the environmental load by utilizing our technologies. For this reason, we have decided to give environmental considerations to the entire lifecycle of our products, including the phase of customer use as well as that of recycling. We are pressing ahead with various measures to enhance the 'power-saving', 'resource-saving' and 'cleanness' features of products, such as increasing the operating speed of our measuring instruments, unification of several instrument functions into a single unit, minimization of product sizes and disuse of harmful substances. Furthermore, in response to the increased electricity consumption for IT equipment associated with the sharp rise in information traffic, we are supplying products that contribute to reduced electricity consumption employing our own unique technologies. Anritsu is determined to continue its efforts toward building a low-carbon society, on the basis of technological knowledge accumulated over our history of more than 110 years.

#### **Anywire Corporation**

#### **Address**

8-1 Shimoinden, Inouchi, Nagaokakyo-city, kyoto 617-0813

#### Contact

IDC/ICT Monitoring Team TEL:+81-75-956-1611 FAX:+81-75-956-1613 E-mail:idcict@anywire.jp URL:http://www.anywire.jp

#### Product, activities introduction

World's first original Four Duplex AnyWireBus communication chip has been developed. Just two signal wires make the transmission of four directions simultaneously possible by the serial multiple transmission method by four Duplex communication. In other words, hundreds of signal electric wires can be consolidated into only two signal wires. Thus, wiring material can be reduced in wiring work, and can be recycled by establishing sensor networks in various applications, drastically contributing to work improvement. Because the sensor and the measurement node can be detached, the utility value of a data central application running 24 hours 365 days becomes higher even without stopping the power supply. This sensor network technology encourages all employees of a corporation to consider environmental issues and development and sales of an effective product to a further energy saving and environmental protection, offering environmental watch support product aiming conservation of energy and resource saving.

#### ARCHES Co.,Ltd.

#### **Address**

Incubation Facilities Office 4, Nagoya Institute of Technology Gokiso-cho, Showa-ku, Nagoya

#### Contact

IT Division

TEL:+81-52-735-5844 FAX:+81-52-735-5845 E-mail:info@arches.co.jp URL:http://arches.co.jp/en/

#### Product, activities introduction

We developed an eco-action point system for a popular FM radio station in Tokyo. We work on the development of the eco-action point system of an original enterprise.

Corporate person's eco-motivation UP system 'ecomoti' we developed, and executed it.

In ecomoti, 17000 participants achieve the CO2 reduction effect 294 tons and the cost reduction effect 7.7 million yen by the introduction of SONY Corporation. We are the leading company in the software development of the environment and the social contribution type. And we aims at development that aims solving the problem that a negative environmental impact decrease and the earth today for the earth of the future have.

#### **CAC Corporation**

#### Address

24-1 Hakozakicho, Nihonbashi, Chuo-ku, Tokyo

#### Contact

Low Carbon System Initiative TEL:81-3-6667-8047 FAX:81-3-5641-3177 E-mail:info-lcsi@cac.co.jp URL:http://www.cac.co.jp/

#### Product. activities introduction

CAC Corporation provides corporate clients with comprehensive solutions for achieving a low-carbon society by:

- Developing an overall chain between corporate tasks and environmental goals that increases efficiency -> energy conservation -> cost reduction -> CO2 reduction.
- 2. Effectively applying IT to achieve the effective visibility, practical efficiency, and value that is necessary for a low-carbon society.
- 3. Providing a full range of services such as assistance with regulatory compliance, formulation of green IT policies, consulting and IT implementation.

CAC continues to be the IT services company that clients can't do without when working towards a low-carbon society.

#### Canon IT Solutions Inc.

#### **Address**

11-28, 3-chome, Mita, Minato-ku, Tokyo

#### Contact

Environmental Solution Sales Department

TEL:+81-3-5730-7064 FAX:+81-3-5730-7096

E-mail:ecovation@canon-its.co.jp

URL:http://www.canon-its.co.jp/environment/ mfca/index.html

#### Product, activities introduction

We developed an integrated environmental systems from Canon's "monodukuri" manufacturing perspective, supporting work that creates an environmental burden through the aggregate calculation of chemical substance content and survey administration, while increasing resource productivity, improving business revenue, and providing Material Flow Cost Accounting (MFCA) services to realize a reduction in the burden on the environment.

#### **CONEXTIVO Inc.**

#### **Address**

1-13-35, Izumi, higashi-ku, Nagoya-City, Aichi, Japan

#### Contact

Planning and Marketing Dept. TEL:052-950-1060 FAX:052-950-1061 E-mail:info@conextivo.co.jp URL:http://www.conextivo.com/

#### Product, activities introduction

With environmental conservation through business activities as our goal, we offer solutions that support customer environmental policies. Through web system development, we can help to minimize natural resource depletion by reducing workload. And through server virtualization we can reduce the number of physical servers. In these ways we are striving towards reducing energy consumption.

# Daiwa Institute of Research Business Innovation Ltd.

#### **Address**

Riverside Yomiuri Building, 36-2 Nihonbashi Hakozaki-Cho, Chuo-Ku, Tokyo 103-0015 Japan

#### Contact

Corporate Planning Department TEL:+81-3-6365-6781 URL:http://www.dir.co.jp/english/bi/

#### Product, activities introduction

Daiwa Institute of Research Business Innovation is taking proactive steps to reduce energy consumption in its data centers as an experienced service provider.

The company started to build a roadmap to reduce CO2 emission in its facilities, and has been taking steps to meet the regulation which will be revised in 2010. Future steps will focus on saving electricity, which will include deploying information systems to optimize electricity consumption in its office buildings and cleverly utilizing sensors to estimate future electricity consumption.

As a member of the Green IT Promotion Council, the company will keep leveraging its skills and experience to contribute to better energy efficiency, and will provide effective solutions for the protection of the environment to client through to realize better energy efficiency and to reduce CO2 using virtualizing systems to renewal of IT resource.

#### Daiwa Institute of Research Ltd.

#### **Address**

15-6 Fuyuki, Koto-ku, Tokyo 135-8460 Japan

#### Contact

Information Technology Research & Development Division
TEL:+81-3-5620-6958
FAX:+81-3-5620-6959
E-mail:green-innovation@dir.co.jp
URL:http://www.dir.co.jp/souken/green/

#### Product, activities introduction

Daiwa Institute of Research (DIR) is promoting the 'Green Innovation' project which researches how businesses can address environmental issues. We will discuss environmental topics covering regulation, environmental management, emissions trading and worldwide trends which we have complied over more than ten years. We will introduce, define and evaluate trends and topics related to 'going green'

By considering implementation of the latest technology and services such as server integration, virtualization and green datacenters, we will provide information on reducing carbon emissions through IT solutions.

#### Dell Japan Inc.

#### Address

Solid Square East Tower 20F, 580 Horikawa-cho, Saiwai-ku, Kawasaki, 212-8589 Japan

#### Contact

**GRBO** 

TEL:81-44-520-7680 E-mail:jpenvconsult@dell.com URL:http://www.dell.jp/kankyo/

#### Product. activities introduction

Dell's environmental vision is "to create a company culture where environmental excellence is second nature". Direct model, shortening business process and enhancing efficiency, enables to reduce environmental load. To contribute more on good environment, we are continually working on pollution reduction with waste and others, low carbon activity.

As an example, Dell achieved carbon neutrality on its electricity at Dell facility all over the world in 2008. This is done by green power such as wind power, solar power and biogas and by planting in developing country.

Our final goal on environment is "be a greenest company in the world" We are steadily make strides toward the goal.

#### D-Link Japan K.K.

#### Address

SOWA Gotanda Building 2F 2-7-18 Higashigotanda SHINAGAWA-ku. Tokvo

#### Contact

Marketing Communication TEL:03-5792-5103 FAX:03-5792-5105 E-mail:djp\_mc@dlink-jp.com URL:http://www.dlink-jp.com

#### Product, activities introduction

The following approach is done as part of the corporate philosophy. D-Link Green provide eco-friendly alternatives without compromising performance. And its designed to help conserve energy, protect our environment from harmful substances and reduce waste by using recyclable packaging.

Moreover, the service center in D-Link EU is recycling 90% of the facilities waste. It completely conforms to the RoHS Directive of EU by which all products protect both the customer and the environment.

The power adapter is made to conform to the energy efficiency guideline so that D-Link may observe WEEE of EU, and decrease the greenhouse gas discharge. In the future, D-Link will keep making the ecologically friendly product as the first network enterprise that became Energy Star partner.

#### Eco Concierge Co.,Ltd.

#### Address

801 Fujimorinishi-machi, Meitou-ku, Nagoya city, Aichi-pre, Japan Zip 465-0022

#### Contact

The planning departmet of environment tecnology TEL:052-777-2701 FAX:052-777-2702 E-mail:eco@530.jp URL:http://530.jp

#### Product, activities introduction

Our company takes the information technology and is aiming at the efficiency improvement of the business.

As main force's business, The collection transportation of industrial waste and the management of the business are promoted and the WEB technology is promoted and the use reduction of paper and the efficiency improvement such as dispatching the car. Moreover, a wireless technology is used as the energy-saving technology doing, the product that dose is developed the cooperation of "Electrical appliance's making simple seeing of energy".

#### **ECHONET Consortium**

#### **Address**

c/o Central Melco Corporation, Sinagawa Bldg. 7F, 3-26-33 Takanawa, Minato-ku, Tokyo, 108-0074

#### Contact

Secretariat. TEL:+81-3-5447-5235 FAX:+81-3-5447-5236 E-mail:info@echonet.gr.jp

URL:http://www.echonet.gr.jp/english/index.htm

#### Product, activities introduction

The ECHONET Consortium has developed and promoted "the ECHONET Specification", a standard transmission specification for home network systems of energy management, health care, home security, etc. which provides peace, safety, and comfort to homes. The specification has brought us interoperability of different manufacturers' home appliances, easily-wired transmission for both newly built or existing houses using power line or wireless, and API enabling people to develop various services. The specification was incorporated in the field test of the government project, HEMS (Home Energy Management System). And it is accelerated that ECHONET compliant products has been introduced to markets. Recently, the ECHONET Specification was approved as international standards for home network. The ECHONET Consortium prioritizes the promotion of the ECHONET system.

#### FOSTER ELECTRIC CO.,LTD.

#### **Address**

512 Miyazawa-cho, Akishima, Tokyo, Japan

#### Contact

CSR Dept. Environmental Group TEL:042-546-2470 E-mail:mmotohas@foster.co.jp

#### Product, activities introduction

Speakers, the main product of the Foster group, show a stronger tendency of the small lightweighting with the spread of PC and mobile telephones, and use materials are reduced. Moreover, we contribute to the global environment by decrease of VOC (Volatile Organic Compounds) contained in the adhesive, decrease of the adhesive by the supersonic wave welding, and omission of a dry process with the velocity stiffening adhesive, etc. in the manufacturing process. Moreover, to overcome the increase of the power consumption caused because the conversion efficiency from the electrical energy to the acoustic energy falls miniaturizing, we are aiming at the adoption improvement of a stronger neodymium from the ferrite as a magnet used for a magnetic circuit.

Furthermore, we put in power by the development of head phone type speakers. This means the compensating decline in conversion efficiency, not by using a large speaker from an ear apart, but by using a small speaker close to an ear.

#### Fuji Electric Systems Co., Ltd.

#### **Address**

1, Fuji-machi, Hino-city, Tokyo

#### Contact

Solution Engineering Dept. Society&Enviroment Automation Div. TEL:+81-42-585-6267 FAX:+81-042-585-6267 E-mail:useinfo@fesys.co.jp URL:http://www.exchangeuse.com/

#### Product. activities introduction

Fuji Electric Systems Co., Ltd. offer the following environment and the energy conservation solution to an industrial field and the public welfare field, and contribute to the global environment.

- Quantification and analysis of amount of energy use by energy measurement
- 2. Energy conservation diagnosis and the measures
- 3. Quantification of useless amount of energy use
- 4. Energy conservation activity that uses work flow system

In this book, the usage of the workflow system, the feature, and the effect of energy conservation of the work flow system introduction are shown.

#### Fuji Xerox Co., Ltd.

#### **Address**

9-7-3, Akasaka Minato-ku, Tokyo, Japan

#### Contact

Corporate Social Responsibility Department TEL:+81-3-6271-5162 FAX:+81-3-6271-5167

E-mail:takashi.saeki@fujixerox.co.jp URL:http://www.fujixerox.co.jp/eng/

#### Product, activities introduction

Fuji Xerox strives to be a world leader in contributing to the environmental conservation of customers and society through our products and services.

- · Besides helping customers visualize the environmental impact of their offices and operations, as well as providing them with value and utility such as improved productivity, it offers a Green Office Program as a comprehensive solution for reducing environmental impact through saving energy, space and resource.
- · Fuji Xerox Co. Ltd. will launch eight models of full-color digital multifunction devices for offices on August 28, 2009: four models in the ApeosPort-IV series, and four models in the DocuCentre-IV series. The new products incorporate new environmental technologies to lower Typical Electricity Consumption (TEC) by 75 percent (Note 1) compared to a previous model, achieving industry leading energy saving performance (Note 2).

Note 1 Compared to ApeosPort-III C4405 PFST

Note 2 In case of color multifunction devices with monochrome print speed of 25/35/45/55ppm, as of July 2009.

#### **FUJITSU LIMITED**

#### Address

Shiodome City Center, 1-5-2 Higashi-Shimbashi, Minato-ku, Tokyo 105-7123, Japan

#### Contact

Sustainable Development Div. Corporate Environmental Affairs Unit TEL :+81-44-754-3413

FAX:+81-44-754-3326

Contact:http://www.fujitsu.com/global/about/environment/ contact.html

URL :http://www.fujitsu.com/global/about/environment/

#### Product, activities introduction

Since its establishment, Fujitsu has always seen the environment as an important topic and has undertaken ongoing environmental management activities. Seeing it as part of our social responsibility, since 2007, Fujitsu has promoted its Green Policy Innovation project to support customers in reducing their environmental load.

This project uses the environmental technology and know-how possessed by the Group to provide Green IT that includes energy-saving IT equipment and IT applications that help reduce environmental load on society. The aim is to reduce CO2 emissions by 7 million tons or more over the four years from fiscal 2007 through fiscal 2010.

Fujitsu will continue to offer Green IT products and services, through innovation of all activities including technology and product development, incorporated practice, and our provision to the customers.

#### FURUKAWA ELECTRIC CO., LTD.

#### **Address**

2-2-3, Marunouchi, Chiyoda-ku, Tokyo 100-8322

#### Contact

SALES & MARKET PLANNING DEPARTMENT TEL: 81-3-3286-3208 FAX: 81-3-3286-3923

URL:http://www.furukawa.co.jp/english/

#### Product, activities introduction

Furukawa Electric is a one-stop provider of optical fibers, components essential to optical transmission paths, as well as system construction with optical component and maintenance services. As servers and routers support higher speeds and larger capacities, communications capacity is growing. In response to this trend, we offer high-gain semiconductor lasers, optical fiber amplifiers characterized with stability in high temperature ranges, temperature independent arrayed waveguide grating (AWG) and other technologies for miniaturizing and integrating functions to achieve reduced power consumption. To address heat problems arising from higher integration density and enhanced device functionality, we offer heat pipes and other heat radiation products as well as thermal solution technologies. To meet growing demand for energy conservation, we are accelerating our efforts to develop super low-loss transmission lines, full-optical direct signal processing, optical interconnection technologies that pave the way for inter-device, intra-device and around-circuit-board optical transmission that is ultra-small in size, high density and has low power consumption, and high-performance heat sinks.

#### Gomes Consulting Co.,Ltd.

#### **Address**

Izumi garden tower 18F, 1-6-1Roppongi, Minato-ku Tokyo JAPAN

#### Contact

GPN center in advisory division TEL:03-6229-0831 FAX:03-6589-7965 E-mail:gomez-info@gomez.co.jp URL:http://www.gomez.co.jp/

#### Product, activities introduction

- 1. Provide an ASP tool "GPN" that monitars performance of websites.
- 2.Consulting services for high performance websites by using "GPN". A high performance website uses much less power so it links to reduce pressure on the environment.

#### Hewlett-Packard Japan, Ltd.

#### Address

7-Gobancho, Chiyoda-ku, Tokyo 102-0076, Japan

#### Contact

Government Public Affairs TEL:03-3335-8233

#### Product, activities introduction

"In order to contribute to save power consumption and energy, for the products perspective, HP is actively improving the individual performance such as power saving of PCs, servers, storages, printers, while further developing the comprehensive solution proposal based on those efforts. For the customer, by actively implementing such that solution and/or services, they could proceed their activities for power saving including by the minimization of the number of devices through IT consolidation and improvement on device utilization. HP is also promoting a proposal to contribute to power saving for the overall enterprise activities such as the minimization on both the movement of "objects" through applications such as supply chain control system and the movement of "people" through high performance conference system HP Halo collaboration system, as well as reduction on the environmental load."

#### HIRAKAWA HEWTECH CORP.

#### **Address**

JK Omori-building, 3-28-10 Minami Ooi shinagawa-ku. Tokvo-to

#### Contact

Device sales Group TEL:81-3-5493-1721 FAX:81-3-5493-1702 E-mail:yoshio oka@hewtech.co.jp URL:http://www.hewtech.co.jp

#### Product, activities introduction

As a manufacurer that develops, manufactures, and provides services for a wide assortment of electric wires for the electrical and electronic industries, as well as transmission and broadcasting equipment, mwdical tubes, etc., Hirakawa hewtech.corp. promotes environmental management activities based on a Basic Environmental Plocy and an Environmental Action Guidelines.

#### Hitachi Information Systems, Ltd.

#### **Address**

1-2-1 Osaki, Shinagawa-ku, Tokyo Japan

#### Contact

CSR Division Environment Management Center TEL:03-5435-7779 FAX:03-5435-2706

E-mail:kankyo@hitachijoho.com URL:http://www.hitachijoho.com/

#### Product, activities introduction

Hitachi Information Systems is positively supporting the optimization of the IT system of the customer who considered energy conservation by use the virtualization technology and SaaS/PaaS (Cloud Computing Service). Moreover, our data center also promotes the power saving of about 30% by using the virtualization technology.

# Hitachi Software Engineering Co.,Ltd. (HitachiSoft)

#### **Address**

4-12-7, Higashishinagawa, Shinagawa-ku, Tokyo 140-0002, Japan

#### Contact

@Sales24 TEL:03-5479-8831 FAX:03-5780-1056 URL:http://hitachisoft.jp/english/

#### Product, activities introduction

HitachiSoft believes that conservation of the global environment is an important issue for all people in the world. HitachiSoft has developed environmentally friendly GreenIT products, and provides systems solutions that also help protect the planet

The influence of the life cycle of the whole product to the environment is evaluated in the value of CO2. We are striving for reduction of the environmental load of the society by GreenIT.

#### Hitachi Systems & Services,Ltd.

#### **Address**

JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo, 108-8350, Japan

#### Contact

Research & Development Center TEL:+81-3-6718-5726 FAX:+81-3-6718-5837 E-mail:kzy-tanaka@hitachi-system.co.jp URL:http://www.hitachi-system.co.jp/e\_profile/

#### Product, activities introduction

Hitachi Systems helps clients move to green IT enterprises by developing and distributing green IT related products focused on: IT environment improvements such as server consolidation and virtualization; office environment improvements such as paperless technologies and energy management; business improvements including delivery consolidation management, telecommuting, and many others.

And also, Hitachi Systems with Hitachi co-developed a method called SI-LCA to evaluate CO2 emission and has been assessing the environmental impact of systems, software and services throughout their lifecycles, then contribute to the social environmental impact improvement.

#### Hitachi.Ltd.

#### **Address**

Hitachi Omori 2nd Bldg.,27-18,Minami Oi 6-chome,Shinagawa-Ku,Tokyo,Japan

#### Contact

Harmonious Computing Management Center, Strategic Business Development Division, Strategy Planning & Development Office, Information & Telecommunication Systems TEL: 03-5471-2285

E-mail:harmonious@itg.hitachi.co.jp URL:http://www.hitachi.co.jp/products/it/

#### Product, activities introduction

Hitachi Group launched a long-term plan called Environmental Vision 2025 in December 2007 to conserve global environment and to realize sustainable society. Under the vision, Hitachi will reduce CO2 emission by 100 million tons annually in fisical 2025. In the ICT field, Hitachi executes two activities of Harmonious Green Plan and Project CoolCenter50. The goal of Harmonious Green Plan is to reduce CO2 emission from ICT equipment, such as servers, storage systems and network equipment, by 330,000 tons over the next 5 years. Project CoolCenter50 targets halving power consumption at datacenters, including ICT equipment and facilities such as air conditioners and power supplying units, over 5 years. In addition, Hitachi developed a method called SI-LCA to evaluate CO2 emission and has been assessing the environmental impact of systems, software and services throughout their lifecycles.

#### HONDA ENGINEERING CO., LTD.

#### Address

Parelle Mitsui Bldg., 8, Higashida-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan

#### Contact

MS committee secretariat TEL:044-221-1333 FAX:044-221-1334 F-mail:ms-committee@hong

E-mail:ms-committee@honda-eng.co.jp URL:http://www.honda-eng.co.jp/

#### Product, activities introduction

We offer the software products, solution service that contribute to decrease in the volume of Environment.

#### **IBM Japan**

#### **Address**

19-21, Nihonbashi, hakozaki-cyo, cyuo-ku, Tokyo, 103-8510 Japan

#### Contact

Site&Facilities Services SPL Brand ITS-Japan TEL:+81-3-3808-8953 FAX:+81-3-3664-4792 E-mail:kazuma@jp.ibm.com URL:http://www.ibm.com

#### Product, activities introduction

IBM is actively pursuing the leadership of the environmental protection in any business activities such as operation, products, utilization of the technology. IBM in 1971, started environment management system of company with setting the environment policy.

IBM will pursue the leadership of all business activities through the environmental protection.

The subject is in a wide range of industries such as the work of the environment safety, environment program, energy saving, the environment audit, continuous improvement activities, and utilizing know-how of IBM product to resolve urgent problems of the Earth's environment.

#### Infinitec Co.,Ltd.

#### **Address**

F, 5-25-16 higashi-gotanda, shinagawa, Tokvo

#### Contact

Sales Dept.
TEL:81-3-5739-0150
FAX:81-3-5739-0151
E-mail:kuremoto@infinitec.co.jp
URL:http://w3.infinitec.co.jp/english/software.html

#### Product, activities introduction

PrintOne, the multi-vendor available package software developped by Infinitec, helps you to save printing paper, ink and tonar on every printer. PrintOne can also change all color printers to monochrome as default. To cut off unnecessary printout is the 1st Green IT task in your office now.

#### Intel Corporation

#### **Address**

2200 Mission College Blvd. Santa Clara, CA 95054-1549 USA

#### Contact

TEL: (408) 765-8080 (US) URL: http://www.intel.com

#### Product, activities introduction

Intel advances Green IT with Intel® Xeon® Processor 5500 series widely accepted from small business to data centers as well as Intel Core™2 Duo Processor for clients with improved performance and energy efficiency. With Inte® vPro™ Technology providing the power management solution on clients, Intel contributes to both Green of IT and Green by IT.

#### Intel K.K.

#### Address

5th Floor, Kokusai Building, 3-1-1, Marunouchi, Chiyoda-ku, Tokyo

#### Contact

TEL:81-3-5223-9100 FAX:81-29-847-8450 URL:http://www.intel.com

#### Product, activities introduction

Intel advances Green IT with Intel® Xeon® Processor 5500 series widely accepted from small business to data centers as well as Intel Core™2 Duo Processor for clients with improved performance and energy efficiency. With Inte® vPro™ Technology providing the power management solution on clients, Intel contributes to both Green of IT and Green by IT.

#### **IP-CORE Lab Inc.**

#### **Address**

GRAND VAN OGIKUBO II 15-16, Ogikubo-5, Suginami-Ku, Tokyo, Japan ZIP 167-0051

#### Contact

Market Promotion Division TEL:+81 3-6768-8405 FAX:+81 3-5347-2835 E-mail:contact@ip-core.jp URL:http://www.ip-core.jp

#### Product, activities introduction

We are venture companies dealing with development of the characteristic information processing equipment, a design, sale. For the realization of the energy saving of the IT equipment, we develop a good server equipment of the electricity consumption efficiency. Server NX51 which can work with slight electricity such as the solar battery and The loading rate of the 19 inches rack commercialized server NX120 which realized 100%.

#### IX Knowledge Inc.

#### **Address**

3-22-23, MSC Bldg., Kaigan, Minato-ku, Tokyo

#### Contact

Quality Management Division TEL:+81-3-6400-7017 FAX:+81-3-6400-7901 E-mail:git@ikic.co.jp URL:http://www.ikic.co.jp/

#### Product, activities introduction

As a "Coordinator of IT and the business", we are providing total solutions (System development, maintenance, and operation). Our action agenda is "Tie various IT-assisted services well, and provide new value to our customer."

We will introduce green IT positively and propose best solution for our customer based on this action agenda.

#### JFE Systems, Inc.

#### Address

1-3, Taihei 4-chome Sumida-ku, Tokyo 130-0012, Japan

#### Contact

e-Document Solutions Sales Dept. System Products Div. TEL: 81-3-5637-2207 FAX: 81-3-5637-2722 E-mail:iwase@jfe-systems.com URL:http://www.jfe-systems.com/

#### Product, activities introduction

JFE Systems Inc. (JFE-SI) has 40 year experience of integrating and developing large scale and high level information systems in the various field of the Steel Industry. The state of art technology brought up through such experience is now JFE-SI's competitive edge which has been highly appreciated by not only steel industry but also various leading industries in Japan. JFE-SI has completed many large scale information systems of various industries by catching up with always evolving advanced technologies and always changing business circumstances. Such foresight, pioneer spirit and advanced know-how which we accumulated are also our strength.

JFE-SI believes that IT systems should be not only for improving the effectiveness of business activities but also for saving power and energy in the view point of the global environment preservation. Our electronic document management system "FiBridge II" contributes greatly to the protection of green resources and the reduction of CO2 by saving enterprises from generating large volume of paper documents.

#### Logizard co.,Ltd.

#### **Address**

3-6-23, Shibakoen, Minato-ku, Tokyo, Japan

#### Contact

sales div. TEL::03-3432-2571 FAX::03-3432-2797 E-mail:info@logizard.co.jp URL:www.logizard.co.jp

#### Product, activities introduction

We contribute to green by promoting the common joint usage with using Saa-S/ASP for a logistics system.

#### MARUWA CO..LTD.

#### Address

3-83, Minamihonjigahara-cho, Owariasahi-city, Aichi-pref., 488-0044, Japan

#### Contact

management planning group TEL:81-561-51-0841 FAX:81-561-51-0845 URL:http://www.maruwa-g.com/e/

#### Product, activities introduction

- 1. we develop electronic components made of ceramics in our manufactures, which have the merit of producing earth-conscious.
- 2. we develop LEDs in our manufactures, which have the merits of producing earth-conscious.
- 3. we are proceeding material recycle and reuse.

#### MIC Associates, Inc.

#### **Address**

Sakuramasamune bldg., 12-12 Higashi-Nihonbashi, 3-chome. Chuo-ku. Tokyo 103-0004. Japan

#### Contact

Sales Engineering Div. TEL:03-5614-3757 FAX:03-5614-3752 E-mail:info@micassoc.co.jp URL:www.micassoc.co.ip

#### Product, activities introduction

All of our XRS storage products are RoHS compliant and more than 80% power conversion efficiency. Also, these all RAID products are equipped with the advanced power management feature, which enable drives sun-off while the storage keep idle for data access. This feature cause approx. 40% power reduction in spun-off mode form that in regular active condition. JBOD products for OEM customers for long-term archiving data has powerful feature which make power on/off of individual hard disk drives in the shelf with a command. This provides the opportunity for customer to build unique lower power archiving storage system. Please visit www.micassoc.co.jp

#### Microsoft Co., Ltd.

#### **Address**

Odakyu Southern Tower, 2-2-1 Yoyogi, Shibuya-ku, Tokyo 151-8583

#### Contact

Corporate Affairs
TEL:03-4413-5134
FAX:03-4413-8070
E-mail:mtakeha@microsoft.com
URL:http://www.microsoft.com/environment/

#### Product, activities introduction

Microsoft addresses environmental conservation as an important business challenge and promotes global efforts in three key areas: (1) Using Information Technology to Improve Energy Efficiency, (2) Accelerating Research Breakthroughs, and (3) Responsible Environmental Leadership. We as a leading software company especially focus on our core skills to provide innovative technologies: advanced energy efficiency features in Microsoft's Windows Vista and Windows 7 as well as our virtualization technology Hyper-V on Windows Server 2008 R2 help realize "Green of IT" and Microsoft's wide range of unified communications products that enable telework are instrumental in achieving "Green by IT." Microsoft will continue to be committed to driving its global efforts for environmental sustainability.

#### Mitsubishi Corporation

#### **Address**

3-1, Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100-8086, Japan

#### Contact

Consulting & SI Business Unit, Information Security Business TEL: 03-3210-5905 FAX: 03-3210-3353 E-mail: shingaku.kochi@mitsubishicorp.com

#### Product, activities introduction

BigFix Power Management, that Mitsubishi Corporation offers to Japanese market, is a solution designed to reduce CO2 gas emissions from PCs. With the BigFix Power Management, enterprises, even that have over 100,000PCs, can monitor and control the usage and power settings of their PCs. Mitsubishi Corporation actually confirmed 22% energy reduction as a result of its internal evaluation of the solution. By offering this solution, we aim to contribute to reduction of CO2 gas emissions from offices.

#### Mitsubishi Electric Corporation

#### **Address**

2-7-3, Marunouchi Chiyoda-ku Tokyo 100-8310, Japan

URL:http://www.mc-security.jp/bigfix/

#### Contact

Government & External Relations Office TEL:+81-3-3218-4224 FAX:+81-3-3218-4297

E-mail:greenit@nx.MitsubishiElectric.co.jp URL:http://global.mitsubishielectric.com/

#### Product, activities introduction

The Mitsubishi Electric Group applies both its existing and newly developed technologies to continuously improve its products, and contributes to society by offering compact and lightweight, high-performance, resource- and energy-saving products and services. In 2007, Mitsubishi Electric announced Environmental Vision 2021, a plan that includes goals such as reducing CO2 emissions resulting from product usage by 30%. The company is promoting Green IT in line with this vision, leveraging its strengths in developing and manufacturing energy-saving devices and products. In addition, in June 2009, Mitsubishi Electric announced "eco changes" as an environmental statement for use in Japan. This statement represents the company's ongoing environmental management challenge of countering global warming and establishing a recycling-based society through a broad range of business activities for homes, offices, factories, infrastructure, and even the realms of space.

# Mitsubishi Electric Information Systems Corporation

#### **Address**

MS Shibaura Bldg. 4-13-23 Shibaura, Minato-ku, Tokyo 108-0023

#### Contact

TEL:03-5445-7500 URL:http://www.mdis.co.jp/

#### Product, activities introduction

Mitsubishi Electric Information Systems Corporation contributes customers' activities to reduce the environmental impact through the system integration in the areas of manufacturing, logistics, and administrative activities.

MDIS supports the steps to reduce environmental impact, such as collecting information, setting goal, actions, evaluation, and further improvement with system integration utilizing specialized system solutions.

For example, Manufacturing Execution System enables to visualize the environmental impact of manufacturing processes and streamlines the processes. For the logistics, Logistics Execution System reduces total CO2 emission and the cost of distributions.

#### Murata Manufacturing Co., Ltd.

#### **Address**

10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kvoto 617-8555

#### Contact

Corporate Communication Department TEL:81-75-955-6786 FAX:075-955-6526 E-mail:publicity\_mmc@murata.co.jp URL:http://www.murata.com/

#### Product, activities introduction

Murata is Implementing Environmentally Conscious Design, in which it promotes reduction of the use of environmentally hazardous substance and effective use of resources by designing compact, energy-saving products for contribution to Green IT.

. To ensure Environmentally Conscious Design, in November 2004 we began product assessment throughout the Group in which we evaluate environmental impacts in advance and incorporate changes to reduce these impacts. Product assessment takes place prior to Design Review, which takes place in the development stage. The evaluation is then repeated during the prototype stage and at market launch.

Murata conducts product assessment to reduce the environmental impact of its products throughout their life cycle(parts and materials procurement, production, transport, use) .

Murata's representative products, such as monolithic ceramic capacitors and chip ferrite beads, are assessed using the Life Cycle Assessment (LCA) methodology. Not only products, but also production machines are subjected to LCA at their design stage.

#### **NEC Corporation**

#### **Address**

7-1, Shiba 5-chome, Minato-ku, Tokyo

#### Contact

Environmental Management Division TEL:+81-3-3798-6617 FAX:+81-3-3798-9186 E-mail:info@eco.jp.nec.com URL:http://www.nec.com/

#### Product, activities introduction

It is over 40 years since NEC established an environment specified section in 1970, and has been promoting environmental activities ever since.

As an IT solution provider, NEC focuses on the environmental impact that we produce and started actions to reduce it by taking advantage of IT with a concept of "ecology through IT." NEC is now promoting its concept and implementing environmental activities under it. In 2003, NEC announced "environmental management vision 2010" that is to eliminate the total direct and indirect CO2 emissions by 2010 through improved energy efficiency in products, IT solutions, etc. This vision includes two elements of Green IT. One is Green of IT, which represents energy saving of the products, and the other is Green by IT, which represents IT solutions contribution toward environment. NEC aims to be a leading global company, leveraging the power of innovation to realize an information society friendly to humans and the earth.

#### **NEC Electronics Corporation**

#### Address

1753 Simonumabe, Nakahara-Ku, Kwasaki, Kanagawa 211-8668 Japan

#### Contact

Corporate Communication Department TEL:+81 44 435 5111 URL:http://www.necel.com/

#### Product, activities introduction

NEC Electronics believes that being a good corporate citizen requires strong environmental management policies and a commitment to conserving our global resources. In addition to developing green products, we are making efforts to implement measures to

Prevent global warming

Reduce the use of chemical substances

Recycle resources at the production stage

Develop a recycling-oriented society that can support sustainable development

#### NEC Soft, Ltd.

#### **Address**

1-18-7 Shinkiba, Koto-ku, Tokyo, Japan

#### Contact

Corporate Social Responsibility Promotion Division TEL::03-5534-2222
E-mail:info@necsoft.com

#### Product, activities introduction

"NEC Soft, Ltd. aim to realize the affluent information society by helping our customers develop their intellectual values through our tried and tested information technologies." With this company philosophy, NEC Soft provides systems to enhance conveniences of its customers' corporate activities and daily lives, at the same time being eco-friendly. A good example of this is its product named "WitchyMail" (Company Webmail System). This product realizes ca. 64% reduction of CO2 emissions compared to the conventional email, based on the company research, by enabling customers to utilize email service outside the office, reducing their travel there to check one. To enhance the motivation of creating these eco-friendly products, NEC Soft implements all of its staffs to eco-education, and conducts product environment assessment (measuring environmental burden at the planning and production stage). The company also contributes to the local community and its environment by regular cleaning around the neighborhood and creating a herbal garden.

#### NetBrains Co..Ltd.

#### **Address**

Grandoru Osaka Kitahama bld. 1-1-27, Kitahama, Chuo-ku. Osaka

#### Contact

Green IT Business Unit TEL:06-6121-3060 E-mail:nnishiguchi@netbrains.co.jp

#### Product, activities introduction

To be the upward tendency of IT equipment and capacity accompanying the explosive increase in information, The Storage and The environment which uses IT equipment are observed especially at our company. 1. Storage Assessment Service: Grasp of the use situation of many files. 2. Enhanced MAID Storage of COPAN Systems as Green IT Products introduction support service (reduction of 85% or more of electric power, and air-conditioning expense, and saving of installation floor area: conventional ratio) 3. Backup Operation consulting service 4. Environment-monitoring and Power Supply Management System of Matsushita Electric Works, Itd. introduction support service, etc. We can support promotion of Green IT through activity as above.

As other activities of our company, We are undertaking the business process consultancy business such as 5. Internal Control Support Service and 6. ISO Attestation Acquisition Support Service etc.

#### Netmarks Inc.

#### **Address**

1-1-1 Toyosu, Koutou-ku, Tokyo

#### Contact

Market Development Division TEL:81-3-5144-1100 FAX:81-3-6866-4311 E-mail:info@netmarks.co.jp URL:http://www.netmarks.co.jp/english/index.html

#### Product, activities introduction

We are ISO14001 certified in 2004. As one of the environmental program,

Netmarks and Unisys Group is "PowerWorkPlace" the Green by IT solutions Proposed. "PowerWorkPlace" is, IP telephony, legacy telephone, email, video conferencing, Web conferencing, etc., an integration.

"PowerWorkPlace" is to build a unified communications platform.

This basis, labor productivity and to enable the diversification of working styles, such as telework. As a result, reduces employee travel and commuting, reduce greenhouse gases associated with the move.

Green of IT solutions, it is as follows.

Customer's server, storage, network integration, to promote migration and virtualization.

This is due to reach a customer ICT infrastructure optimization.

As a result, can reduce electricity consumption, greenhouse gas emissions will be reduced due to this.

#### Net One Systems Co., Ltd.

#### **∆**ddress

Sphere Tower Tennoz, 2-8 Higashi shinagawa 2-Chome, Shinagawa-ku, Tokyo 140-8621

#### Contact

PMO Promotion Department, Service Pormotion Division, Business Poromotion Operation TEL:+81-3-5462-0950 FAX:+81-3-5462-4747

E-mail:m-kashiwa@netone.co.jp URL:http://www.netone.co.jp

#### Product. activities introduction

Net One Systems proposes "Project Neo Green "as an approach to Green IT. "Project Neo Green" consists of four approaches.

- 1. Selection of Green: Choose energy-saving technologies
- 2. Creation of Green: Integration & Virtualization of Network, Server and Storage. Cloud Computing and Unified Communication system
- 3. Visibility of Green: Electric power monitoring system and Environment observation system
- 4. Finding of Green: Environment assessment service

NetOne Systems offers comprehensive sloutions of Green IT.

#### New Japan Radio Co.,Ltd.

#### **Address**

3-10, Nihonbashi Yokoyama-cho, Chuo-ku, Tokyo 103-8456, Japan

#### Contact

ADVERTISING DEPARTMENT SEMICONDUCTOR SALES & MARKETING DIVISION TEL: 049-278-1497 E-mail:knamiki@njr.co.jp

#### Product, activities introduction

We have developed NJL7502 optical sensor without hazardous substance cadmium to replace CdS cells. The NJL7502 is an illuminance sensor composed of a Si (silicon) phototransistor and an infrared-filter resin with peak sensitivity close to the relative luminous efficiency of the human eye. It detects the ambient brightness (illuminance) and converts it to output current. This sensor forms an optical filter on an environment-friendly Si (silicon) phototransistor and can replace CdS cell illuminance sensors currently used in many applications.

#### nextEDGE Technology, K.K.

#### **Address**

206 Tsukuba City Industry Promotion Center, 2-5-1 Azuma, Tsukuba, Ibaraki

#### Contact

TEL:029-858-1126
FAX:029-858-7510
E-mail:contact@nextEDGEtech.com
URL:http://www.nextEDGEtech.com/

#### Product, activities introduction

We introduce overseas computer software with new technology to Japanese market.

We have been promoting 'GreenIT' to our customers via web site www.shareEDGE. com since 2008.

#### Nihon TANDBERG K.K.

#### Address

1-11-9 Azabudai, Minato-ku, Tokyo

#### Contact

TEL:03-6230-3519 FAX:03-6230-3511 E-mail:info@tandbergjapan.com URL:http://www.tandbergjapan.com

#### Product. activities introduction

TANDBEG is a global leader in Telepresence, HD video conference system and mobile video solutions. By using a wide range of video system TANDBERG provides, it is possible to reduce the long-distance business trips, short-distance business trips, commuting to the office and working over time which reduce the usage of various transportation method such as air plane, train, and bus. Also not only to reduce CO2, the video system enable people to utilize the time used to travel to something more prouctive. One of TANDBERG customers, Vodafone reduced 13,500 flight per year which equals to the reduciton of more than 5,500 tons of CO2 emission.

#### Nihon Unisys, Ltd.

#### **Address**

1-1-1 Toyosu, Koto-ku Tokyo 135-8560 Japan

#### Contact

Public Policy Promotion TEL:+81-3-5546-4111 FAX:+81-3-5546-7832 E-mail:seisaku-wg@unisys.co.jp

URL:http://www.unisys.co.jp/welcome-e.html

#### Product, activities introduction

Nihon Unisys Group is seeking 'What we can do for the global (Earth) environment through ICT'. For example, we have been addressing the work style changes by facilitating telework and paperless office. We also have been providing a service called 'Cloud Computing' in which our customers share computer and software resources through the internet so that the electric power consumption can be reduced.

#### NISSHO ELECTRONICS CORPORATION

#### **Address**

7-3-1 Tsukiji, Chuo-ku, Tokyo, Japan

#### Contact

CSR & Legal Dept. TEL:81-3-3544-3826 FAX:81-3-3542-2070 E-mail:aktakayama@nissho-ele.co.jp URL:http://www.nissho-ele.co.jp/e-HP/e-index.html

#### Product, activities introduction

Nissho Electronics provides countermeasures to global environmental issues by proposing both "Green by IT" and "Green of IT" solutions and services. To reduce usage of resource, we provide electronic form system enabling paperless society; to reduce energy consumption and space, we provide highly efficient networking equipments and server virtualization solutions; and to reduce carbonemission, we provide carbon-neutral storage. Furthermore we strongly focus on ITO and BPO solutions to replace our customer's IT assets. We aim to provide the utmost efficient service at the right time, on the right spot, and by the right size. Our company credo "Your Best Partner" has been and will continually be applied to the globe itself.

#### NITTO KOGYO CORPORATION

#### **Address**

2201, Kanihara, Nagakute-cho, Aichi County, Aichi Prefecture 480-1189

#### Contact

Technical Support Department TEL:0561-64-0152 FAX:0561-62-3911 E-mail:support@nito.co.jp URL:http://www.nito.co.jp

#### Product, activities introduction

We are a leading company of developing 19inches' system racks, cabinets and thermal management products which are perfect for communications network and data center. We are engaged in various solutions to thermal problems of data centers, contributing to promote the Green IT.

For example, we offer "Aisle Capping\*", which has jointly-developed with NTT FACILITIES, INC. for efficient thermal management, environmental monitoring system which unifies the management of power current and temperature, and thermal air current analysis to find out the best solution.

\*Aisle Capping is a patented invention and registered trademark of NTT FACILITIES, INC.

#### Nomura Research Institute, Ltd.

#### **Address**

Marunouchi Kitaguchi Building, 1-6-5 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan

#### Contact

Corporate Communications Department

TEL:+81-3-6660-8370 FAX:+81-3-6660-8373 E-mail:kouhou@nri.co.jp

URL:http://www.nri.co.jp/english/

#### Product, activities introduction

NRI is actively committed to both "Green of NRI" and "Green by NRI".

For the "Green of NRI", it is targeted for the Economizing all of NRI's own Data Centers, which are consuming 80% of the entire Electricity consumed by NRI. NRI is an active and contributing member of the U.S. originated Eco-Data Center Consortium called "The Green Grid", and exchanging information with other members and outside associates world wide to discuss how to make Data Centers more energy efficient and built such and operate such. For the "Green by NRI", as an IT service provider, NRI's IT Service is providing reduced CO2 output of each subscribed Customers. This is provided by an ASP like shared application system service, where each customer could reduce their own IT Department's CO2 output numbers. Also, NRI is providing a mobile digital phone network based ITS Service, where transportation portion of the customer business could reduce CO2 outputs by utilizing this service. NRI is committed to provide further creation of IT Services which will assist with the Social Infrastructure in both efficiency increase and CO2 outputs reduction.

#### **NSK Corporation**

#### **Address**

2-3-1 Kudan Minami, Chiyoda-ku, Tokyo, Japan

#### Contact

Marketing Div. TEL:81-3-5213-1543 FAX:81-3-5213-1527 E-mail:fsaitou@nsk-net.co.jp URL:http://www.nsk-net.co.jp

#### Product, activities introduction

We are proposing and provide comfortable office environment by efficient use IT systems. And also NSK contracted with Milliken Company in US to provide and construction Milliken carpet to your office for reduce carbon by long life use. You can feel our new concept office at NSK Live Office in NSK headquarter.

#### NTT DATA CORPORATION

#### **Address**

Toyosu Center Bldg.,3-3, Toyosu 3-chome, Koto-ku. Tokyo

#### Contact

**Environmental Management Promotion Office** 

TEL :+81-50-5546-8094 FAX :+81-3-5546-8133

E-mail:greenit@am.nttdata.co.jp

URL:http://www.nttdata.co.jp/green\_it/index.html

#### Product, activities introduction

NTT DATA Group provides IT infrastructures and solutions for the reduction of the environment load, as your partner who visualizes and realizes innovation.

The catch phrase, "Green IT Orchestration for sustainable society", implies that optimizing industries and the society as a whole than individual organization is more suitable to aim at for the reduction of the environment load and to achieve the low carbon society.

The system of Green IT solutions

- · IT infrastructures: Green Data Center, technology for energy-saving of data centers and products for energy-saving of office buildings.
- · IT solutions: supporting service of the environmental business, consulting for the environmental management, the reductions of the environment load in daily work.

#### Oki Electric Industry Co., Ltd.

#### **Address**

3-16-11 Nishi-Shimbashi, Minato-ku, Tokyo, 105-8460, Japan

#### Contact

Public Relations Division TEL:+81-3-5403-1211 FAX:+81-3-5459-0146 E-mail:press@oki.com URL:http://www.oki.com/

#### Product, activities introduction

The OKI Group's policy advocates the promotion of Green IT by utilizing information technology for saving energy. It is particularly expected that the OKI Group's new technologies will be utilized widely in the enterprise and transportation domain in energy conservation. The OKI Group currently provides a number of products and solutions including Visual Nexus, a video conference system designed to reduce CO2 with transportation, and web sensing systems to measure and collect environmental data.

■OKI Receives the Jury's Special Award of the Green IT Awards 2008 In 2008, the OKI Group's energy conservation system for distribution outlets received the Jury's Special Award of the Green IT Awards. This system enables energy-saving by utilizing ZigBee wireless sensor network. We will continue to develop new energy-saving products and services for various aspects of society, and contribute to the realization of a low carbon society.

#### Osaki computer engineering CO.,LTD.

#### Address

1-11-2, Osaki, Shinagawa-ku, Tokyo Japan

#### Contact

Infrastructure business generalization part control technical group

TEL:+81-0436-76-9126 FAX:+81-0436-76-9132 E-mail:motomiya@oce.co.jp/ URL:http://www.oce.co.jp/

#### Product, activities introduction

Our company is dealing with introduction and employment / maintenance construction of computer equipment (air-conditioning, electric equipment, etc.) of a government office institution from the first, constructed energy-saving control of the air conditioner of a computer lab by the relation, and has gained the track record. Recently, the know-how of old energy saving is supplied, a its company data center is designed and built, energy-saving diagnostic service based on the employment is offered, and the proposal and system delivery of the repair work of equipment, an air-conditioning controller, an electric power supervising system, etc. are concentrated on.

#### **Panasonic Corporation**

#### **Address**

1006 Kadoma, Kadoma City, Osaka 571-8501, Japan

#### Contact

Environmental Planning Group Corporate Environmental Affairs Division

TEL:+81-6-6909-5577 FAX:+81-6-6909-1163

E-mail:tomita.katsumi@jp.panasonic.com

URL:http://panasonic.net/

#### Product, activities introduction

Panasonic aims for development and sales of environmentally-conscious products, naming all its electrical and electronics products 'Green IT.' Setting a global warming prevention as the most globally critical issue, we are making various efforts on technological development and commercialization of products which lead to CO2 reduction. In April 2007, Panasonic introduced a new environmental mark, 'eco ideas', whose basic message is Panasonic leads the way...with 'eco ideas.' Announcing 'eco ideas' Strategy in October 2007 and setting the environmental mark as a symbol of our initiatives, we strive to commercialize energy-creating products, such as fuel cells, and to increase the number of industry's most energy-efficient products. One of the representative products is a Hi-vision Blu-ray Disk Recorder (BW970 and other model series) which utilizes less resources with a compact body, as well as realizes lower power consumption and standby power consumption.

#### **Panduit Corporation**

#### Address

Shinagawa NSS Bldg. 2 chome 13-31, Konan Minato-ku, Tokyo 108-0075

#### Contact

Customer Service TEL:03-6863-6050 FAX:03-6863-6100 E-mail:jpn-info-e@panduit.com URL:http://www.panduit.com

#### Product, activities introduction

Panduit can contribute datacenter and server-room airflow-cooling improvement based on proposals of Panduit original innovative cable routing system and higher heat dissipation rack system and so on. Moreover Panduit advocates "Unified Physical Infrastructure" concept which is meant that Panduit will lead an open architecture and reasonable costs of entire building energy management and high efficient facility control system.

#### **PFU LIMITED**

#### **Address**

Nu 98-2 unoke kahoku ishikawa, Japan

#### Contact

Environment Div. TEL:076-283-1212 E-mail:Kitade.kazuhiko@pfu.fujitsu.com

#### Product, activities introduction

An action for the green IT of PFU is Super Green product and an offer of the environmental consideration solution. With the Super Green product, there is environment element in either of the environmental element such as "energy saving", " 3R design / technology", " Chemical material", "the environmental contribution materials / technology" than leaders and, in a market product or comparison with the our product, establishes it as a superior product and a system, we ship the products such as image scanner or the low consumption electricity computer till now. Contributing to environmental reduction by solution (hardware, software, service) connected to the environmental consideration solution for "energy saving", "resource saving", "a chemical substance-saving", "promotion of efficiency." I offer paper document computerization solution and form printing solution till now.

#### Polycom (Japan) K.K.

#### **Address**

6F Kioicho Fukudaya Bldg., 6-12 Kioi-cho, Chiyoda-ku, Tokyo 102-0094, Japan

#### Contact

Marketing TEL:03-5213-2501 E-mail:jpmarketing@polycom.com

#### Product, activities introduction

We build green products.

Our products are compatible with renewable energy from diverse sources. We strive to continually improve energy consumption. Our products are RoHS and WEEE compliant.

We show customers how they can be greener on day one with our solutions.

With our innovative Going Green with Polycom three step methodologies, Polycom in concert with our authorized partners help customers benchmark video readiness; implement systems ensuring service quality and operational efficiency; as well as track and report a video call's savings in travel miles, cost of travel, carbon depletion and system usage.

As a global company located in forty countries, we minimize our own environmental impact. We strive to continually reduce our carbon impact. We conserve natural resources, recycle whenever possible, and mandate usage of our own solutions in lieu of travel. Our employees are encouraged to reduce their personal emissions using Polycom technologies in the office and from their homes.

#### **Quality Corporation**

#### Address

1-4-5 Hirakawacho, Chiyoda-ku, Tokyo 102-0093, Japan

#### Contact

Product marketing & Customerrelation TEL:03-5275-6124 E-mail:sales@quality.co.jp

#### Product, activities introduction

The IT equipment of the office of which number keeps increasing rapidly every year is targeted in the power saving measures and attention has gathered though the power saving of the server and the equipment efficiency improvement at the data center, etc. tend to be paid attention as for "Green IT". Especially, one a person brings PC the effect now as green IT from which the inside of natural and the power consumption reduction of client PC are right now started.

IT asset management tool "QAW/QND Plus" of the quality doesn't only cover everything from in-house PC a grasp of the situation to detection and the composition maintenance and the management measure of the PC security risk by the one stop. The reduction in a useless standby power requirement by the power consumption grasp of PC, the compulsion shift to the power saving mode, and the power supply management is pressed, and it contributes to the amount of the CO2 exhaust in the office and the reduction in expenditure.

#### RAUL Inc.

#### Address

11-1 Aizumicho, Shinjuku-ku, Tokyo

#### Contact

Sales Division. TEL:03-6411-0858 FAX:03-6856-4305 E-mail:info@ra-ul.com URL:http://www.ra-ul.com

#### Product, activities introduction

Raul Inc. specialized in green electricity and emission trading.

We offer "Green Site License" (GSL) service as part of our company's business. It allows users to run their websites by using green electricity.

"Green Site License" (GSL) is currently serving 800 companies with 1,500 sites in total within the first year since we launched the service.

### RICOH COMPANY, LTD.

### Address

8-13-1 Ginza, Chuo-ku, Tokyo 104-8222, Japan

### Contact

Public Relations Department TEL:+81-3-6278-5228 FAX:+81-3-3543-8126 E-mail:koho@ricoh.co.jp

### Product, activities introduction

Since its foundation, Ricoh has always placed the customer first, creating new value through our imaging devices and other products, while providing world-class services. We now live in changing times: this is true for information technology as well as our environment. To respond to these changes, three "Ricoh values" inform everything we do: "Harmonize with the environment," "Simplify your life and work," and "Support knowledge management." At Ricoh we see no incompatibility between environmental action and running a successful business: as a result we lay great stress on environmentally friendly products and services.

### SANKOSHA CORPORATION

### Address

3-8, Osaki 4-Chome, Shinagawa-Ku, Tokyo, 141-0032. Japan

#### Contact

Energy-Saving System Department TEL:81-42-770-0289 FAX:81-42-770-0297 E-mail:esco-info@sankosha.co.jp URL:http://www.sankosha.co.jp/eng

### Product, activities introduction

Sankosha's mission is to reduce energy consumption of commercial facilities such as office buildings shopping centers or convenience stores by combination of the best suited techniques. Under the ESCO (Energy Service Company) scheme, Sankosha consistently undertakes energy diagnosis, designing, construction, verification and guarantee services for energy-saving, and contributes to reduce discharging CO2 gas.

Also, Sankosha has more than half a century of proven experience in lightning protection, such as protectors, grounding systems. Using reliable technology and a total system approach, Sankosha protects facilities that support the highly information-dependent society and Green IT promotion from lightning damage.

### SANYO Electric Co., Ltd.

#### Address

1-1-1,Sakata,Oizumi-Machi,Ora-Gun, Gunma 370-0596,Japan

### Contact

Commercial Solutions Company Airconditioners Business Division Business Planning Dept. TEL:+81-276-61-5164

FAX:+81-276-61-8601 E-mail:kazuo.nomura@sanyo.com URL:http://sanyo.com/

### Product, activities introduction

In pursuing businesses as a "leading company for energy and environment," the Sanyo Group's future vision is to be a contributor in resolving the global environmental/energy problems with its superior technological capabilities. From this perspective, Sanyo is promoting the development of technologies and products. In particular, considering the emission control of the CO2 responsible for global warming as a top-priority issue, the Sanyo Group has formulated the "Global Environmental Action Plan. "Among the goals set is to become "Carbon Neutral\*1 in 2010 whereby the CO2 emission reduction through use of group-wide environmentally-conscious products, including solar cells and rechargeable batteries, equals the CO2 output from business activities worldwide.

Through its current and future use of environmentally-conscious products the Sanyo Group has committed itself to CO2 emission reduction activities and Sanyo's ultimate aim is that by 2020 CO2 emission reduction through product use significantly surpasses CO2 output from business activities. Thus, Sanyo is aiming to become a company that can contribute to realizing a "Carbon Minus"\*1 society.

\*1 "Carbon Neutral" and "Carbon Minus" are terms selected for use by Sanyo. "CO2 emission reduction through product use" is calculated based on Sanyo's criteria.

### SAS Institute Japan Ltd.

### **Address**

Roppongi Hills Mori Tower 11th floor, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6111 Japan

### Contact

Marketing Division. TEL:03-6434-3700 FAX:03-6434-3701 E-mail:JPNSASInfo@sas.com URL:http://www.sas.com/jp

### Product, activities introduction

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions, SAS helps customers improve performance and deliver value by making better decisions faster

SAS® Sustainability Management enables an organization to measure, manage and report on the Triple Bottom Line - environmental, social and economic indicators - and determine business strategies that reduce risk and increase shareholder value.

### **SEIKO EPSON CORPORATION**

### **Address**

11F Shinjuku NB Bldg,2-4-1 Nishishinjuku, Shinjuku-ku,Tokyo Japan

### Contact

Government & Public Affairs Department TEL:81-3-3348-8531 FAX:81-3-3348-5161 E-mail:hirabayashi.yasuhisa@exc.epson.co.jp URL:http://www.epson.co.jp/e/

### Product, activities introduction

Epson seeks to reduce CO2 and other greenhouse gas emissions from its world-wide operations. As part of our efforts to cut our CO2 emissions, we are conserving energy by improving monitoring and controls, increasing the energy efficiency of our plant facilities and production equipment, innovating our production processes, and introducing new energy sources. To reduce emissions of greenhouse gases other than CO2, we are using abatement technologies or simply finding ways to use less of these gases in the first place.

### SHARP CORPORATION

#### Address

22-22 Nagaike-cho, Abeno-ku, Osaka 545-8522, Japan

#### Contact

Tokyo Branch Liaison Department 1-9-2, Nakase, Mihama-ku, Chiba-shi, Chiba 261-8520, JAPAN

TEL: 043-299-8207 FAX:043-299-8209

E-mail:sasaki.shotaro@sharp.co.ip URL:http://sharp-world.com/

### Product, activities introduction

Sharp contributes to the realization of a low-carbon society with photovoltaic energy creation, by providing ultra-low power consumption products such as next generation LCD TVs and LED lighting, and through the development of home energy management

Since fiscal 2004, strengthening its commitment to the environment has been a basic management policy of the Sharp Group.

Sharp has declared a medium-term corporate objective of becoming an environmentally advanced company and defined its corporate vision as: Sharp's energy-creating and energy-saving products will more than balance out Sharp's greenhouse gas emissions. To reach these goals, Sharp has deployed a Super Green Strategy that aims to achieve the highest level of environmental consciousness in all corporate activities.

### SINDENGEN ELECTRIC MFG.CO.,LTD.

### Address

NEW-OHTEMACHI BLDG., 2-2-1, OHTEMACHI, CHIYODA-KU, TOKYO 100-0004, JAPAN

POWER SYSTEMS DIV.GROUP POWER SYSTEM SALES DIV. TEL::03-3279-4435

### Product, activities introduction

As a approach of the environment-conscious product, the our corporate mission that pursues is contribute to the society with the human race by pursuing the conversion efficiency of energy to the utmost limit

The amount of the exhaust of CO2 when transported by lightening the semiconductor product can be reduced. There is conservation of energy and saving resource by making the retifier unit for the mass power supply system and information and the communication apparatus highly effective.

And, the development of the converter for the car for the environment etc. are the examples. Especially on a highly effective side, the product that pursues the efficiency such as highly effective DC power, DC/DC onverters, and AC/DC power supplies, and power IC is developed on a highly effective side to the utmost limit.

Like this our company is promoting Green IT from the side of the power saving. It is contributing to the energy conservation and the reduction of greenhouse gas by supplying products that consider the environment such as a low loss semiconductors and highly effective power supplies where the green engineering that had been cultivated up to now was applied as a power electronics manufacturer to the market.

### Sony Corporation

### **Address**

1-7-1, Konan, Minato-ku, Tokyo, 108-0075

**Environmental Affairs Department** TEL:81-3-5448-4985 FAX:81-3-5448-4996 E-mail:ead-com@jp.sony.com URL:http://www.sonv.co.ip/

### Product, activities introduction

Sony reinforces energy saving measures at its manufacturing plants, offices and in the products itself by using IT tecnologies. At the Sony Headquarters building, which received the Green IT Award, almost 50% energy saving could be achieved compared to regular buildings, by applying know-how of a high efficiency energy generating system etc which was developped in 1998 at Sony's semiconductor plant. Regarding energy saving by LCD TVs, by adopting a highly energy efficient backlight, the LCD TV has energy-efficiency achievement rates of more than 200% of the standard set forth under Japan's Law Concerning the Rational Use of Energy. This set is equipped with the world's first Presence Sensor that automatically switches off the picture when no one is present in the vicinity after a user-set timeframe, offering an easy way to reduce energy usage.

### Spline Network Inc.

### **Address**

Kamon Bldg.2F. 2-6-11 Shibuva. Shibuva-ku. Tokyo, Japan 150-0002

### Contact

Marketing Div. TEL:+81-3-5464-5468 FAX:+81-3-5464-5458 sales@spline-network.co.jp URL:http://www.spline-network.co.jp/

### Product, activities introduction

The spline network Ltd. was established by experts of the IT industry to supply the professional business software in 2002. We develop high-quality software in the enterprise, government, and the education market. It is sold through the sales agent with professional support. Especially, we are focus in green IT product like "TonerSaver". High-quality software that reduces the cost and time is developed in consideration of ecology.

### Storage Networking Industry Association Japan Forum (SNIA-J)

### Address

4-1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki, 211-8588, Japan

### Contact

Secretariat TEL: 044-754-7734 FAX none E-mail:office@snia-j.org URL:http://www.snia-j.org/

### Product, activities introduction

SNIA is the non-profit trade association that has the mission to lead the storage industry worldwide in developing and promoting standards, technologies, and educational services to empower organizations in the management of information. Worldwide headquarters is in San Francisco and has 7 Active International Affiliates. SNIA Japan Forum was established in 2001

SNIA's 7 Forums and Initiatives primarily focus on technology promotion and technical marketing activities

Data Management Forum, Green Storage Initiative, Ethernet Storage Forum, Storage Management Initiative, Solid State Storage Initiative, Storage Security Industry Forum, XAM Initiative SNIA's Green Storage Initiative (GSI) is dedicated to advancing energy efficiency and conservation in all networked storage technologies in an effort to minimize the environmental impact of data storage operations with coordinating work with leading governmental and organziational groups, such as the EPA and The Green Grid.

### SUD Co.,Ltd.

### Address

32F NOMURA BLDG. 1-26-2 NISHI-SINJUKU SHIJUKU-KU TOKYO

### Contact

TEL:03-5325-3287 E-mail:info@sud.jp URL:http://www.sud.jp

### Product, activities introduction

Our company is doing the consulting, management, and the trust of the call center and the data center. Certain safety keeps the server, data, and the telephone of the enterprise. We have a lot of experiences in the project and the trust of these facilities in a domestic major city. We will help peculiar acquisition of the subsidy to various places and the surveys of the place together with the administration that aims at local activation, and provide effective service.

### Sumitomo Densetsu Co., Ltd.

#### **Address**

3-12-15 Mita, Minato-ku, Tokyo 108-8303

#### Contact

Information and Telecommunications System Division Business Planning Department TEL:+81-3-3454-7483

FAX:+81-3-3454-7483 FAX:+81-3-3454-7489 E-mail:greenit@sem.co.jp

URL:http://www.sem.co.jp/english/

### Product, activities introduction

Constructive action and continual improvement for environmental problem is one of the top priority management issues to us. We treat our fundamental principal as social contribution to sustainable development through the all our environmentally protective and friendly business. As approaching to Green by IT, we provide the solutions such as energy management systems and so on.

### Symantec Japan, Inc.

### **Address**

Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052

### Contact

Product Markeing
TEL:+81-3-5114-4340
FAX:+81-3-5114-4040
URL:www.symantec.com/

### Product, activities introduction

Symantec offers software basis approach to support building green environment of the data center. Based on the software, Symantec's green IT solutions maximizes existing IT resources and enables to build green IT environment flexibly.

### **Texas Instruments Japan limited**

### Address

Nishi-Shinjuku Mitsi Bldg, 6-24-1, Nishi-Shinjuku, Shinjuku-ku, Tokyo

### Contact

Product Information Center TEL:813-4331-2000 URL:http://www.ti.com

### Product, activities introduction

Texas Instruments (NYSE: TXN) helps customers solve problems and develop new electronics that make the world smarter, healthier, safer, greener and more fun. A global semiconductor company, TI innovates through design, sales and manufacturing operations in more than 30 countries. For more information, go to www ti com

### **Toshiba Corporation**

### **Address**

1-1, Shibaura 1-Chome, Minato-ku, Tokyo, 105-8001

### Contact

External Relations Division TEL:+81-3-3457-2369 FAX:+81-3-5444-9215

E-mail:takanobu1.watanabe@toshiba.co.jp URL:http://www.toshiba.co.jp/index.htm

### Product, activities introduction

Toshiba Group, "a corporate citizen of planet Earth", is committed to realizing richer life-styles lived in harmony with the planet. Guided by "Toshiba Group Environmental Vision 2050," the Group is implementing measures to boost environmental efficiency 10 times by FY2050, against the benchmark of FY2000.

The core target is to reduce projected CO2 emissions by the equivalent of 117.7 million tons a year by 2025. We will achieve this by developing highly efficient power supply equipment and systems; improving the efficiency of IT equipment; saving energy by applying IT technology to social infrastructure and the high level management of home appliances; and the provision of environmentally friendly home appliances and office equipment. By working to mitigate climate change, make efficient use of resources and promote careful management of chemicals, Toshiba Group will continue to innovate, to create value, and to promote livestyles in harmony with the Earth.

### **UEJIMA KIKAKU inc.**

#### Address

Twin building tabata A 1-13-10,HigashiTabata Kita-ku Tokyo114-0013 Japan

#### Contact

IT service Sales Department TEL:03-5692-5030 FAX:03-5692-5035 E-mail:info@uknet.co.jp URL:http://www.uknet.co.jp

### Product, activities introduction

Our company is making an effort to promote "green IT" by server virtualization. The server virtualization is a high technology to logically use a physical hardware, which is your IT infrastructure, as several virtualized servers and networking equipments. We realize your request that your hardware assets are effectively used, IT investments are reduced and carbon dioxide emissions are reduced by the high technology. We also realize that your system maintenance costs are reduced and quality is improved.

### Ufit Co.,Ltd.

#### Address

1-2-3, Shibaura, Minato-ku, Tokyo 105-8007, Japan

#### Contact

System Solution Planning Dept. TEL:03-5765-1231 E-mail:solutions@nas.ufit.co.jp

### Product, activities introduction

The green IT policy of UFIT commits to using less toner when printing along with introducing a paperless system. We care about global environment while implementing cost-cutting measures.

- ■Developing "Lessper": the paperless solution system that conforms to the e-Document Law
- Electronically storing the documents such as invoice and receipt that were originally controlled in the form of paper documents
- Ensuring the authenticity of electronically stored documents by applying the provisions of the e-Document Law
- Reducing the cost associated with handling of paper documents (document storage/transport) while implementing paperless system
- ■Utilizing "TonerSaver": the eco-solution software to cut down toner usage
- Reducing the amount of toner usage by up to 50% with using the software
- keeping print quality without decreasing the resolution of letters, figures and images while reducing the toner usage amount
- Complying with the company policy by conducting centralized control of toner usage reduction rate

### azbil group Yamatake Corporation

### **Address**

Tokyo bldg. 2-7-3 Marunouchi, Chiyoda-ku, Tokyo, 100-6419, JAPAN

### Contact

External Relations
TEL:81-3-6810-1000
FAX:81-3-5220-7270
E-mail:https://www.azbil.com/form/URL:http://www.azbil.com/

### Product, activities introduction

Under the azbil Group philosophy of "realizing safety, comfort and fulfillment in people's lives and contributing to global environmental preservation through human-centered automation", we promote to develop products and solutions that optimize energy usage for buildings and factories as an important pillar of our businesses. The azbil Group is providing energy management & analysis package, air flow management system and instrument network modules as those representative examples.

### Yokogawa Electric Corporation

### Address

2-9-32 Nakacho, Musashino-shi, Tokyo

### Contact

Public Relations & Investor Relations TEL:0422-52-5530 FAX:0422-55-6492 URL:http://www.yokogawa.com/

### Product, activities introduction

The main objective of our environmental management is to reduce the environmental burden of the business activities carried out by Yokogawa and its customers. To achieve these goals, we are taking positive steps to lessen our impact on the environment through measures that reduce energy consumption and generate less chemical waste, which is in addition to an ongoing effort to create environmentally friendly products. To reduce its CO2 emissions, Yokogawa is participating in the "Team Minus 6%" national campaign. For the Yokogawa Group companies in Japan, CO2 emissions on a unit-sales basis were 10.4 t-CO2 per 100 million yen in fiscal year 2008, a reduction of 60.1% from the fiscal year 1990 figure. Yokogawa's main business is Industrial Automation and Control which contributed to overcome oil crisis in the 1970s. It was a good example of progress of IT technology. Now Japanese energy-saving technology leads the world. Yokogawa would like to continue these activities steadly.

# Product Introduction

# of IT(Energy-saving of IT)

IT equipment · · · · · · · · · · · · · · · · · · ·	40
PC	40
Server ·····	44
Storage · · · · · · · · · · · · · · · · · · ·	52
Router/Switch · · · · · · · · · · · · · · · · · · ·	
Display·····	59
Electronics ·····	
TV	
DVD	63
Refrigerator · · · · · · · · · · · · · · · · · · ·	
Lighting ·····	65
Air conditioner · · · · · · · · · · · · · · · · · · ·	
Data center · · · · · · · · · · · · · · · · · · ·	
Data center · · · · · · · · · · · · · · · · · · ·	
Parts ·····	75
Semiconductor	75

### **EPSON DIRECT CORPORATION Endeavor NP11-V**

### **Nettop personal computer**

A nettop PC equipped with all the basic performance in a compact body. Highly excellent in power saving and cost performance.

### [Usage/field]

A personal desktop computer, which supports internet and e-mail functions for home and office use.

#### [Use conditions]

Requires AC 100V

#### [Features]

Endeavor NP11-V is nettop PC loaded with Microsoft Windows XP and Intel Atom processor in a compact body of 20mm in width, 153.5mm in depth, and 172.5mm in height. Its small footprint could be set up into a space of only 114cm<sup>2</sup> including its stand. It also comes with an optional display mount kit possible to set up as an "all in one PC". The high heat rejection rate design requires no system fan which decreases the operation noise to be only 17dB.

Meets international ENERGY STAR program, low power consumption at 14W idle activity and 1.3W standby. Reduced CO<sub>2</sub> equivalent of 40.2kg (about 40%) of the global warm-

ing load of product lifecycle compared with the compact desk-top PC Endeavor ST120E. \*Calculation based on the evaluation result of the ECO-LEAF Environmental Label.



#### Contact

### **EPSON DIRECT CORPORATION CS & Quality Control Dept**

1059, Muraimachi, Yoshikawa, Matsumoto City, Nagano, Japan TEL 81-50-2000-3722 FAX 81-263-85-6024 E-mail eco\_edc@exc.epson.co.jp URL http://shop.epson.jp

### IT equipment

### Middleware that Reduces Power Consumption of PCs

Fujitsu Limited Systemwalker Desktop Patrol V14g

Systemwalker realizes energy-saving and cost reduction through visualizing power consumed by each PC in offices and consolidating the management of energy-saving setup

### [Usage/field]

Total management of IT resources in security setting, asset management, power consumption and energy-saving setup enables visualization of power consumption and energy-saving.

### [Use conditions]

Management Server: Windows 2000 server, Windows server 2003, 2008 Client: Windows 2000 Pro., XP, Vista,

Windows 2000 server, Windows server 2003, 2008

### [Features]

- Systemwalker Desktop Patrol V14g can display estimated amounts of power consumed by PC's in offices.
- It allows administrators (management servers) to change the power saving setting of each PC.
- · Reports are created for administrators with the amounts of power consumption and reduction



[Prerequisite] Working hours per day, 9 hours (including break time), is reduced by 40% (3.6 hours).

[PC model used for power cousumption calculation] Desktop PC (FMV D5380) / Laptop PC (FMV E8280)

[Annual power consumption]

■Desktop PC: 9 hours x (281+37)W x 20 days x 12 months= 686.8 kWh ■Laptop PC: 9 hours x 28W x 20 days x 12 months= 67.3 kWh

[Estimated amounts of reduced power]
■ Desktop PC: 3.6 hours x (281+37)W x 20 days x 12 months= 274.8 kWh
■ Laptop PC: 3.6 hours x 28W x 20 days x 12 months= 24.2 kWh

### Contact

### Fujitsu Limited Fujitsu Contact Line

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan

TEL +81-120-933-200

URL http://www.fujitsu.com/global/services/software/ systemwalker/

# **Energy Efficient Client PC**

Intel K.K. Intel® vPro™ Technology

Intel® vPro™ Technology based PC reduces energy and the management cost significantly by its high-functioning manageability.

### [Usage/field]

Enhanced performance and energy efficient business client platform

### [Use conditions]

Intel® vPro™ Technology based client PC

#### [Features]

When it comes to the energy cost in IT, data center usually gets the attention given the density of the IT equipments.

While each indivusal energy consumption of PC client devices tends to be smaller relative to server platforms, overall energy consumption of the PC cannot be ignored given volume of the devices placed in the office

By replacing exisiting client PC with the latest model, an amount of energy saving in return is very significant.

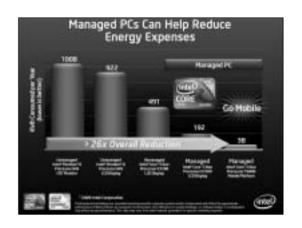
nergy-saving effect

Energy cost is an increasingly important piece of the TCO puzzle.

The number of PCs in the world grows every year.

Intel provides the responses by delivering world-leading performance and energy efficiency, without painful performance tradeoffs.

Platform power management and mobile platforms represent the best ways to dramatically reduce your company's energy costs and global energy footprint.



#### Contact

#### Intel K.K.

5th Floor, Kokusai Building, 3-1-1, Marunouchi, Chiyoda-ku, Tokyo

TEL 81-3-5223-9100 FAX 81-29-847-8450 URL http://www.intel.com/vPro/

### IT equipment

### Solution for power reduction of PC

Mitsubishi Corporation BigFix Power Management

BigFix Power Management is a solution designed to reduce CO2 gas emissions from PCs.

### [Usage/field]

BigFix Power Management can support whole process to reduce CO2 gas emmisions, collecting data, reporting and action.

### [Use conditions]

Electricity, Windows Server and Internet Access

### [Features]

With the BigFix Power Management, enterprises, even that have over 100,000PCs, can monitor and control the usage and power settings of their PCs.



Energy-saving effe

Mitsubishi Corporation actually confirmed 22% energy reduction as a result of its internal evaluation of the solution. It is said that about 19% of power usage of office is from PC and monitor, which means that the BigFix Power Management can achieve 4% reduction from total energy usage of an office.

### Contact

### Mitsubishi Corporation

Consulting & SI Business Unit, Information Security Business 3-1, Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100-8086, Japan TEL 03-3210-5905 FAX 03-3210-3353 E-mail shingaku.kochi@mitsubishicorp.com URL http://www.mc-security.jp/bigfix/

### Murata Manufacturing Co., Ltd. MPL3000 series

### **Digital Ballast**

Murata Manufacturing Co., Ltd. commercialize new ballast, "MPL3000 series" for projector lamps.

### [Usage/field]

- Ballast for Projector Lamps

### [Use conditions]

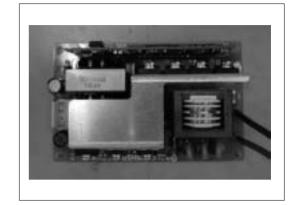
- Input Voltage: DC250~400V
- Output Voltage: Rated Power ~300W (Attached Product:230W)

#### [Features]

- Power source for short arc metal halide lamp: Rated Power 300W
- Input Voltage: DC250~400V
- High efficiency: 94%
- Achieving smaller size and lighter weight by improving efficiency.
- Excellent lighting performance and achieving a lamp long life.
- Responding to the many variations in light modulation control requirements such as using external synchronous oscillation, serial data, and pulse light modulation necessary for projectors using Digital Micromirror Devices.



- Achieving high conversion efficiency over 90% by the real-time best control.
- Achieving lamp long life by decreasing the inrush current by the high-speed current control.



### Contact

# Murata Manufacturing Co., Ltd. Corporate Communication Department

10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto 617-8555 TEL 81-75-955-6786 FAX 075-955-6526 E-mail publicity\_mmc@murata.co.jp URL http://www.murata.com/

### IT equipment

### **Power saving PC**

NEC Personal Products, Ltd. Mate Type MG

### All-in-one PC which balanced of performance and power conservation

### [Usage/field]

**Business PC** 

### [Use conditions]

Power AC100V $\pm$ 10%, 50/60Hz

Temperature 10~35°C, Humidity 20~80%

### [Features]

Mate TypeMG has enhanced power saving features.

- Power saving functions
  - Brightness Controll button
  - LCD Back-Light Off button
  - Application for ECO Mode setting
- Power saving parts
  - Intel low power CPU
  - 2-Lamp LCD



Mate TypeMG achieved over 50% power saving compared with 2005 model.

Annual electricity bill will be decreased by JPY3,830 per unit. (Calcurated by 1PC. Working time of PC per day is 8 hours. And high power working is 60% in a day. Electricity bill of hour is \( \)22/kWh.)

### Reference URL

http://www.nec.co.jp/products/bizpc/promotion/eco/eco\_simulator/index.htm



### Contact

NEC Personal Products, Ltd. 121 Contact Center 11-1, Osaki 1-Chome, Shinagawa-ku, Tokyo, Japan TEL Free Call: 0120-977-121 (not availabe from outside of Japan)

URL http://www.nec.com/

### Mobile PC

Business Mobile PC with rugged, lightweight and long battery life.

Ruggedness and high-quality contribute to reduction of total cost through its operation period by suppressing malfunction and opportunity loss.

Ruggedness and lightweight serve for reduction of environmental load in resource savings, and long battery life serves in energy savings.

### [Usage/field]

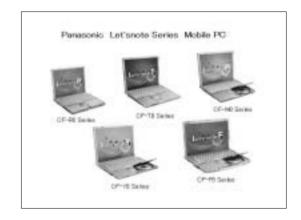
Business Mobile PC, easy to carry for its light weight body, with convenient network access by built-in Wireless LAN.

#### [Use conditions]

Input Power: AC100V-240V(50Hz/60Hz)

#### [Features]

- Rugged design that is resistant against drops, water spillage, vibration and pressure reduces PC failure and lost opportunities.
- "Lightweight and long battery life" by our own technology achieves mobility in a variety of business scenes.
- Strengthening information security provides safe use especially at introduction and at disposal of PC.
- · High performance enhances users' productivity.



#### Contac

### **Panasonic Corporation**

Environmental Affairs Team, IT Products Division Networks Company 1-10-12 Yagumohigashi-machi, Moriguti City, Osaka 570-0021, Japan TEL 81-50-3787-3000 FAX 81-6-6906-6629 E-mail shigeno.tohru@jp.panasonic.com URL http://panasonic.net/avc/toughbook/

# Energy-saving eff

In order to measure energy efficiency of PC, we use the indicator of "Energy Consumption Efficiency"instead of power consumption. We judge it if the value is lower, the PC is more energy saving. For example, "Energy Consumption Efficiency" of CF-W8G, one of our current models, is 0.00026. It is about 1/25 energy consumption level compared to one of our models in 2000 CF-M2, which value was 0.0066.

Thus, our current model can process a certain tasks with only 1/25 energy.

### IT equipment

# **Color Digital Multifunction Devices**

Fuji Xerox Co., Ltd. ApeosPort-IV, DocuCentre-IV series

### [Usage/field]

full-color digital multifunction devices for offices

### [Use conditions]

electronic power supply AC100V±10%, 15A, 50/60Hz

### [Features]

- The newly developed fusing device incorporates an IH belt that heats up with the
  world's fatest startup time of three seconds.\* Thereby the fusing device does
  not have to be preheated, achieving zero power consumption when not printing.
- Light emitting diodes (LEDs), which allow energy saving, are used as the light sources for image scanning as well as for the exposure unit of the print engine.
- The energy-efficient EA-Eco Toner is adopted for the first time in products for office use. Its fusing temperature is lower by approximately 20 degrees Celsius compared to conventional EA toner, cutting power use in fusing by around 15 percent.
- \* Applicable for ApeosPort-IV C3370/C2270



### Contact

### Fuji Xerox Co., Ltd. Corporate Social Responsibility Department

9-7-3, Akasaka Minato-ku, Tokyo, Japan TEL +81-3-6271-5162 FAX +81-3-6271-5167 E-mail takashi.saeki@fujixerox.co.jp URL http://www.fujixerox.co.jp/eng

Energy-saving effe

The new products incorporate new environmental technologies to lower Typical Electricity Consumption (Note1) by 75 percent compared to a previous model (Note2), achieving industry leading (Note3) energy saving performance.

Note1:The amount of power by a printer, copy machine, or other office equipment over a conceptual week

fice equipment over a conceptual week Note2:Compared to ApeosPort-III C4405 PFST

Note3:In case of color multifunction devices with monochrome print speed of 25/35/45/55ppm, as of July 2009

### Prevention of Global Warming by energy saving Note PC Toshiba Corporation Toshiba 2009 New PC Lineups

For new 2009 PC Lineups, CO2 emission are reduced further by enhanced energy saving function. And this allows all 2009 models to be qualified for international Energy Star V5.0.

### [Usage/field]

Toshiba Note PC Lineup covers from home to office use.

### [Use conditions]

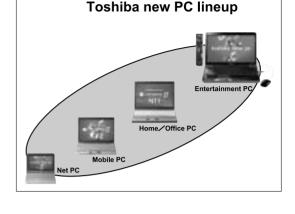
AC100V~240V (50Hz/60Hz)

### [Features]

In an effort to prevent global warming, Toshiba has been exerting maximum efforts to seek further energy saving for our products.

We are proud to announce that all Toshiba 2009 New PC Lineups are ENERGY STAR® V5.0 qualified and most of them feature Toshiba Eco-

And wide range of lineup is designed ready to incorporate SSD (Solid State Drive) which has excellent environmental efficiency through product life cycle.



#### Contact

### **Toshiba Corporation** Toshiba PC support center

1-1, shibaura 1-Chome, Minato-ku, Tokyo TEL 0120-97-1048 (9:00~19:00) URL http://dynabook.com/pc/index\_j.htm

The ratio of Product Life Cycle CO<sub>2</sub> emission between Desktop and Note PC is 2:1. and it is 5:2 between Desk Top and Mobile Note PC. (Product Life Cycle: from procurement, manufacuturing, usage and end-of-life. Life Cycle CO2 emission is calculated by Toshiba LCA sys-

### IT equipment

### **iDC Environmental Monitoring Server**

Anywire Corporation Rack Management Unit

Embedded Linux Server to manage environmental data of the entire floor in data center and sever rack. Logger function and a high-level data communication are possible. Anywire sensor network implemented.

### [Usage/field]

Management of Environmental data in Data Center Communication the Environmental data to connect Concent Server

### [Use conditions]

19-inch rackmounting 1U half size, unit voltage: AC100-240V, 50/60Hz, temperature range: 0-50°C, connection up to 64 Concent Servers

### [Features]

Embedded Linux Server manages the entire environmental information of the machine room. Anywire sensor network 2 system and 2 redundant Ethernet port installed. Anywire is a Topology-free sensor network using Multidrop, T-branch, Tree, and Star wiring method. Hot swap node connection also possible. Fast communication and realtime monitoring to all Concent Server environmental data in 1 sec. unit. Time deterministic system possible to check live nodes, TCP/IP standard communications.

- Power measurement as a first step to energy saving
- Controlling load balance of each transformer according to electric power measurement data performed every second.

· Most optimal power supply distribution possible, contributing to

 energy saving.
 Ecologically, Anywire sensor network meets requirements of reduction and recycling of cable.



**Anywire Corporation IDC/ICT Monitoring Team** 

8-1 Shimoinden, Inouchi, Nagaokakyo-city, Kyoto 617-0813

TEL +81-75-956-1611 FAX +81-75-956-1613 E-mail idcict@anywire.jp URL http://www.anywire.jp

# 1 Way compact server, achieved energy saving and silent mechanism

FUJITSU LIMITED PRIMERGY TX120 S2

TX120 is a industrial top level compact server, enabling to reduce installation space and to lower the power consumption

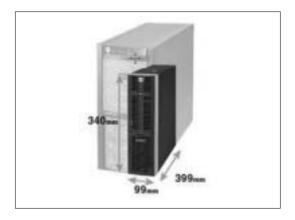
### [Usage/field]

Enabling efficient data management and business management for various customers

#### [Use conditions]

Power supply: AC100V 50 /60Hz / with parallel 2P earth (Conforming to NEMA 5-15)1 Maximum power consumption /calorific value: 120W / 432kJ/h

- Low power consumption CPU, Intel<sup>®</sup> Core<sup>™</sup> 2 Duo processor T9400(2.53GHz)/P8600(2.40GHz), Intel® Celeron® processor 575(2GHz)
- Achieve the high power supply conversion efficiency of 80% or more by improving power supply unit.
- Reduce the number of CPU cooler fan due to the improvement of cooling efficiency in main bodies
- · Reduce noise; the highest level silence in the world (standing:27dB, operating:32dB)
- Equip high reliability four SAS disks at the most.
- Replace system components without shutting down the system due to hot pluggiung, and endures operation for 24 hours and 365 days without halt.
- · Continuously monitored the status of server operation, the interior temperature, and the voltage displacement etc by standard attachment "ServerView". In addition, it informs system administrators of trouble occurrence.



### Contact

### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-200

URL http://primeserver.fujitsu.com/primergy/

Power saving server that reduces maximum electric power consumption up to 120 watts which becomes 31% decrease compared with previous model, due to improvement of power supply conversion efficiency and , cooler fan reduction and low power consumption CPU.

### IT equipment

# Blade Server for Large-scale Systems that Enables High Density and Energy-saving

FUJITSU LIMITED PRIMERGY BX900

BX900 realizes saving in space and energy with its leading-edge technologies such as high density and cooling-efficiency

This server is suitable for large-scale mission-critical systems such as HR, payroll processing and production management for customers from various industries such as manufacturers and distributors.

### [Use conditions]

Related voltage: AC100V 50/60Hz / with parallel 2P earth (Conforming to NEMA 5-15) AC200V 50/60Hz / Conforming to NEMA L6-30 Power Consumption / heating value: 6600W / 23760kJ/h (100W)

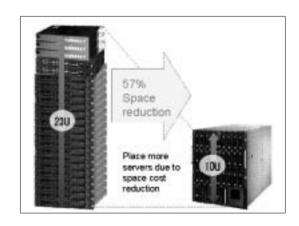
8460W / 30456kJ/h (200W)

### [Features]

- Space-saving by industry's best high density mounting: 18 pieces of blade units mounted on the chassis of 10U in height
- · Energy saving through efficient fan rotation and improved air flow
- Mass chassis for the next generation (Total throughput of the transmission line: 6.4Tbps).
- · Specs corresponding to accomodating a lot of virtual servers and virtual integration (Processor: Intel Xeon5500, Memory: 72GB or less/server, LAN port: 12 ports or less/server)
- The main specs that one blade server system can install: CPU
- core number: 144, memory 1296GB (9GB/core), and 216 ports in LAN port (1.5 ports/core)

   Winner of the grand prix in "Best of Show Award" of Interop Tokyo 2009.

- About 40% of power consumption/CO2 emission reduction.
- Additionally, it reduces power consumption by the combination with the middleware(30%), As for generation control of waste/resource saving (reduction), it reduces number of cable (from 100 to 10, 90% reduction).



### Contact

### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-200 URL

http://ts.fujitsu.com/rl/products/flash/dynamiccube/

### High-performance, High-Reliable, Ecologically Sustainable 2U Rack Server

FUJITSU LIMITED SPARC Enterprise M3000

SPARC Enterprise M3000 is the newest UNIX server adopted mainframe technology. M3000, achieving energy-saving and space-saving, helps reduce customers' environmental load with higher performance and reliance.

### [Usage/field]

Suitable for broad application and database use, including small-scale mission-critical system

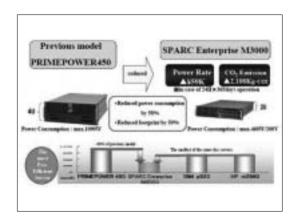
#### [Use conditions]

Rated Voltage: 100-240VAC, Frequency: 50/60 Hz

Maximum power consumption: 470W (100-120 VAC) 460W (200-240 VAC)

#### [Features]

- 2 rack mount, 470W, space-saving, energy-saving, noise reduction (47dB)
- The quad core SPARC64, VII processor
- · A maximum of 17GB/s data bandwidth
- · Hardware availability fully assured by data protection and component redun-
- · Remote internet-based monitoring and control



### Contact

### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan

TEL +81-120-933-200

URL http://www.fujitsu.com/global/services/computing/ server/sparcenterprise/products/m3000/

 Since Solaris Container supports flexible server integration, M3000 can achieve energy saving as a whole system
 Due to schedule management and power control, further energy saving is achieved

- Reduced the power consumption by 58% compared with our previous server model of the same class(PRIMEPOWER 450) (1090W → 460W)
- Energy efficiency is 0.0067 (category e), which is more than 790% of the requirement by the Energy Conservation Law

### IT equipment

### Blade server with reduced power consumption by efficient power control Hitachi, Ltd. Blade Symphony® 2000

A high-performance, highly reliable blade server inheriting mainframe technologies. Optimizing control of power efficiency suppresses excessive heat generation and power consumption, which contributes our customers' reduction in CO2 emission

For mid-range and high-end servers requiring IO performance, expandability, high reliability , and high availability: Web 3-tier system, ERP system, large data base system, mission-critical system, and so on.

### [Use conditions]

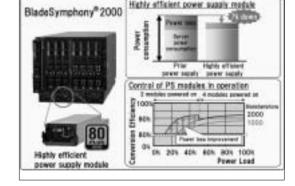
Four power supply modules(maximum), AC200-240V single-phase power input

Provided with a highly-efficient power supply module with conversion efficiency of over 92% (compliant with 80 PLUS® Gold).

Maintain high conversion efficiency by turning on and off power supply modules according to the power load on server blades in operation.

Control the operation frequency and voltage of processors according to the power load on server blades, thereby reducing power consumption of the server blades. Reduce the power consumption of server blades by setting a ceiling on their maximum power consumption.

Automatically optimize the rotation speed of cooling fans according to the thermal distribution inside a chassis, thereby reducing the power consumption of the fans while maintaining their cooling performance



By using our highly-efficient power supply modules and controlling the number of power modules in operation according to a power load, power loss of power supply modules can be reduced. Power consumption is down by max 7% compared with the power supply modules used in our prior model \*(BladeSymphony® 1000).

- \*Release in September, 2004
- ·BladeSymphony is a registered trademark of Hitachi, Ltd. in Japan and other countries.

### Contact

### Hitachi, Ltd.

Omori Bellport B Bldg.26-3, Minami Oi 6chome, Shinagawa-ku, Tokyo, 140-0013 Japan

### **Power Saving by Server Virtualization**

Hitachi, Ltd. Hitachi Server Virtualization Technology

Hitachi Virtualization Manager(HVM), Hitachi Server Virtualization Technology, enables server consolidation and powersaving operation, contributing to reduced electricity consumption.

### [Usage/field]

Field: Server Virtualization

By applying virtualization technology on blade servers, it is possible to consolidate IT systems, reducing the total energy consumption. This system is applicable to data centers.

### [Use conditions]

Operates on BladeSymphony® 2000/1000(HVM)/320(model P4B) server blades

### [Features]

HVM is the only IA server virtualization technology developed within Japan. It inherits mainframe logical partioning technology and adopts I/O passthrough. On HVM, the guest operating system can access I/O in a similar manner as physical environments. This hardware transparency feature distinguishes HVM from other virtualization softwares. An operation system installed in a logical unit of disk array system can be booted from both physical and logical servers, providing flexibility to the operation of IT system.

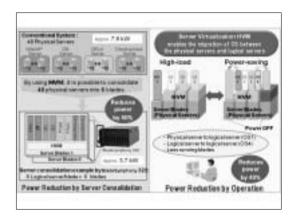
HVM was rewarded the Green IT Award 2009.

Case1: Reducing Total Power Consumption by Server Consolidation
Before: Running 48 HA8000st/130 2005.7 model)(\*1) consumes approx. 7.6kW.
After: By running 8 logical servers on 6 BladeSymphony® 320 (model P4B) blades, power consumption can be cut to half, to approximately 3.7kW.

(\*1)name of Japan domestic Hitachi PC servers

Case2: Reducing Total Power Consumption by Operation
Instead of running 4 physical blades constantly to fulfill the demanding month-end work-loads, it is possible to run only 2 blades instead except for the busiest month-end 6 days by using HVM. Reducing the number of running physical servers cuts electricity consumption by 40%.

·BladeSymphony is a registered trademark of Hitachi, Ltd. in Japan and other countries.



### Hitachi, Ltd.

Omori Bellport B Bldg.26-3, Minami Oi 6chome, Shinagawa-ku, Tokyo, 140-0013 Japan

### IT equipment

# **Energy Efficient Microprocessor**

Intel K.K. Intel® Xeon® Processor 5500 Series

The newest Intel® Xeon®Processor 5500 Series based server reduces power consumption by 90% comparing to mainstream servers in 2005.

### [Usage/field]

Microprocessor for enhanced performance and energy efficient server product

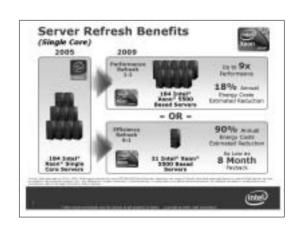
### [Use conditions]

Server based on Intel® Xeon®Processor 5500 Series

- · Major architecture enhancement enabled energy efficient server design
- · Performance per power ratio improved 3x compared to with previous generation microprocessor products
- · Power consumption reduction by automated enegy management feature according to workload
- · More than 50% power consumption reduction at idle time, compared to the previous generation products
- · Flexible virtualization technology supporting system level utilization improvement which enables optimization of total system power consumption

By replacing existing 4-year-old server systems with the same number of this new microprocessor based systems, the overall performance will incrense by 9ford, while the system power consumption will be reduced by 18%.

By replacing 4-year-old servers with this microprocessor based ones number of servers can be reduced  $\frac{1}{9}$  while and the total power consumption can be reduced by 90% while maintaining same overall performance



### Intel K.K.

5th Floor, Kokusai Building, 3-1-1, Marunouchi, Chiyoda-ku, Tokyo

TEL 81-3-5223-9100 FAX 81-29-847-8450 URL http://www.intel.com/xeon/

# IA server which realizes zero discharge of the CO<sub>2</sub> IP-CORE Lab Inc. NX51

We developed the new server which could work with a solar battery. We realized zero discharge of the CO2 in the field of server for the first time in the world.

### [Usage/field]

Desktop noiseless server operation.

The 19 inches rack deployment server of the data center.

The server which I loaded onto a car.

The server systems construction at the place that supply of the commercial electricity has difficulty. Etc.

### [Use conditions]

A power supply: DC12V, Electric Power: Less than 10W, Temperature: Less than 40 degrees Celsius

With technology of embedded computer, power consumption realized an IA(Intel Architecture) server of 10W. By putting the part which is low power consumption together in a CPU(Intel Atom Z530) of the low power consumption and neighboring Chip set(Intel US15W). And we enable the operation that we continued by the feeding from a second battery when we perform server operation by the feeding from a solar battery and the charge to a second battery in the daytime and lack electricity by cloudiness and rain by a solar battery and a second battery and a combination with the charge control unit in the night.

According to "the report document of the investigation analysis committee" of the Green IT promotion council, the server (volume range) of the datacenter in Japan in 2005 becomes 2.36 million equipment.

In addition, the annual power consumption per one server is 1,918KWh, and 7,700 million KWh of the IT equipment is included in 14,600 million KWh of the power consumption of IDC. Then, the energy-saving effect when 10% of the server is replaced with NX51 (power consumption is 10W) is provisionally calculated.  $(1,918KWh-(0.01KW\times24h\times365days))\times2,360,000\times10\%=432$  million KWh As for 432 million KWh, it is reduced electricity equivalent to 5.6% of the IT equip-

### Contact

IP-CORE Lab Inc. Market Promotion Division GRAND VAN OGIKUBO II 15-16, Ogikubo-5, Suginami-Ku, Tokyo, Japan ZIP 167-0051 TEL +81 3-6768-8405 FAX +81 3-5347-2835 E-mail contact@ip-core.jp URL http://www.ip-core.jp

### IT equipment

ment and 10% of the server.

# The server that the loading rate to a rack is possible 100% IP-CORE Lab Inc. NX120

The power consumption of the IT equipment increases by a high performance, increase of the information. Therefore the situation that is non-efficiency has it not to be able to put a server on the space of all the 19 inches racks.

A large quantity of hosting servers to install in IDC, Application server, and server for SaaS

### [Use conditions]

A power supply: AC100V, Electric Power: Less than 100W, Temperature: Less than 40 degrees Celsius

We set consumption electricity and shape and weight per 1U so that the loading rate to a 19 inches rack became 100%\*1. We realized that we maximized the server placement rate to a 19 inches rack by performing the product design and development that made the set point have top priority.

\*1: When administer IDC in an office building

A 19 inches rack is 40U, The electricity is 3KVA, When floor load-resistant assumed it 350kg/square meter (but, the self-weight of the 19 inches rack, 120kg), the loading of the server is possible in all space.



In comparison with the server of the equal performance, We can reduce power consumption about 160W per one equipment. From the following calculation, reduction of 1,402KWh is possible in one year.  $160Watt \times 24Hour \times 365 Days = 14,02KWh$  From a formal coefficient by the anti-warming measure law of Ministry of the Equipment We can expect appear the power consumption into a

try of the Environment, We can convert power consumption into a discharge of the CO<sub>2</sub> next. 1402KWh  $\times$  0.000555tCO<sub>2</sub> /KWh  $\rightleftharpoons$  778KgCO<sub>2</sub> We can reduce CO<sub>2</sub> of 778kg in one year. This can expect a reduction effect of the CO<sub>2</sub> of a scale equivalent to 14.5% of annual CO<sub>2</sub> discharge 5350KgCO<sub>2</sub> per one household in Japan of 2007.



### Contact

IP-CORE Lab Inc. Market Promotion Division GRAND VAN OGIKUBO II 15-16,Ogikubo-5, Suginami-Ku, Tokyo, Japan ZIP 167-0051 TEL +81 3-6768-8405 FAX +81 3-5347-2835 E-mail contact@ip-core.ip URL http://www.ip-core.jp

### **Server Virtualization Solution**

Microsoft Co., Ltd. Microsoft Windows Server 2008 R2 Hyper-V

New features of Windows Server 2008 R2 such as Hyper-V and Core parking can realize Green IT. They drastically reduce power consumption of IT in enterprises and therefore reduce carbon emission. Windows Server 2008 R2 is environment-friendly technology.

### [Usage/field]

Server Virtualization: solution to dramatically reduce the number of servers in enterprises and data centers through the consolidation of low-utilized servers

### [Use conditions]

x64 Windows Server 2008 R2, Intel-VT/AMD-V supported CPU, DEP enabled

#### [Features]

Windows Server 2008 R2 is the virtualization software with cutting-edge technology. It inherits high performance, robustness and flexibility of Windows Server. High scalability, simplified provisioning and enhancement of high availability can be realized through the combination with System Center family. Dynamic IT, the next generation IT architecture proposed by Microsoft can be achieved by leveraging Live migration, the technology that migrate VM to another Hyper-V host without interrupting services in the VM, and PRO, the technology that runs Live Migration dynamically without administrator's involvement, offered by Hyper-V and System Center.



Hyper-V is the virtualization software embedded in Windows Server 2008 R2 as a standard feature. It runs as fast as native OS on hardware, which leads to high server consolidation ratio and to low power consumption. Core Parking, a standard feature of Windows Server 2008 R2 like Hyper-V, can reduce power consumption efficiently. Core parking can work together with Hyper-V, which creates synergy effects and more reduction of power can be expected.



### Contact

### Microsoft Co., Ltd.

**Microsoft Customer Information Center** 

Odakyu Southern Tower 2-2-1, Yoyogi, Shibuya-ku, Tokyo 151-8583

TEL 0120-41-6755

URL http://www.microsoft.com/japan/windowsserver2008/ r2/default.mspx

### IT equipment

# **Energy Saving IT Platforms**

NEC Corporation NEC Express5800 series and NEC Storage series

As an effect of NEC's approach for energy saving platform "REAL IT COOL PROJECT", NEC devoloped the energy saving server system and contributes the reduction of the environmental impact, realizing 54% reduction for servers and 93% for storage in power consumption.

### [Usage/field]

Cloud computiong platform at Data Centers by government or large enterprise

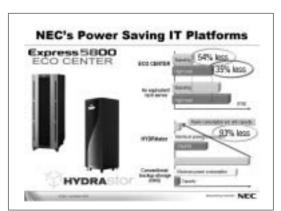
### [Use conditions]

Power consumption: Server: Max. 350W per server

Storage: Max. 2,280W per 7.1TB

### [Features]

- Adopt NEC Express5800/ECOCENTER as servers reducing max. 54% in power consumption by using 80PLUS Gold power supply with a power coversion rate of 92% and the highly improvement of colling efficiency.
- Adopt NEC HYDRAstor as the external storage reducing max. 93% in power consumption with implementation of 1/20 data compression by eliminating overlapped portion of backup data.
- Support virtualizaton platform like VMware and Citrix XenServer and realize evergy saving operation by optimizing the configuration of virtual machines by NEC's integrated software "Web Master".



Server : Max. 54% reduction in power consumption comparing to an equivalent server

Storag: Max. 93% reduction in power consumption in comparison with the case of storing identical logical capacity to normal backup storage

### Contact

### **NEC Corporation**

IT Platform Marketing Promotion Division REAL IT COOL Promotion Center 33-1 Shiba 5 Chome Minato-ku Tokyo, Japan TEL +81-3-3798-6998 FAX +81-3-3798-9726 E-mail realitcool@itpf.jp.nec.com
URL http://www.nec.co.jp/realit/ecology.html

### **IT Infrastructure Development Services**

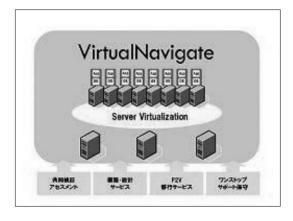
'VirtualNavigate' is services of Nissho Electronics to develop virtual IT infrastructure.

### [Usage/field]

We navigate our customers through complex server consolidation and virtualization process, to cut costs and secure the business continuity.

#### [Features]

- One-stop Service We provide one-stop service and support to customers introducing virtualized IT infrastructure. Starting from investigation of existing system, we plan, design, deploy, and manage.
- 2. Multivendor Service We have well trained engineer resource to provide service for major server virtualization products.
- Full-line Service Menu We provide organized service menu for our customers to choose from.



Contact

# NISSHO ELECTRONICS CORPORATION Marketing Division, Enterprise Business Unit

7-3-1, Tsukiji, Chuo-ku, Tokyo, Japan TEL 81-3-3544-8353 FAX 81-3-3544-8489 E-mail vnsales@nissho-ele.co.jp URL http://www.nissho-ele.co.jp/product/vn/index.html

Energy-saving effe

By reducing the number of servers through virtualization, the total energy usage of the servers and air-conditioning devices can be reduced. Consequently, it leads to reduction of greenhouse gases and electricity costs. It will also restrain the increase of server number in the future, achieving a much efficient IT infrastructure for the whole enterprise.

### IT equipment

# Unified Physical Infrastructure Thermal Management

Panduit Corporation NET-ACCESS™ Cabinet

NET-ACCESS™Cabinets will optimize air flow and heat exhaust within the data center, and will reduce operational cost.

### [Usage/field]

Cabinet for server and network equipment, with option of air duct, vertical patch panel and blanking panel.

### [Use conditions]

For mounting network equipment, server, and for cabling.

### [Features]

- The size is W800 x D1044 x H2134(mm)
- Superior cable management to facilitate moves, adds, and changes.
- Able to install patch panels and PDU vertically by using the bracket.
- Blanking panel will optimize air flow between front and rear of cabinet.
- Side and vertical air duct will exhaust the heat from the equipment properly.
- Integrated grounding system to protect equipment and personnel



Contact

**Panduit Corporation Customer Service** 

Shinagawa NSS Bldg. 2 chome 13-31, Konan Minato-ku, Tokyo 108-0075 TEL 03-6863-6050 FAX 03-6863-6100 E-mail jpn-info-e@panduit.com URL http://www.panduit.com

Energy-saving erre

Inset cabinet frame posts and superior cable management ensure clear pathways and create a large area for airflow to provide proper heat dissipation. In addition, vertically installed patch panel allows standardization of patch cord lengths to reduce cable slack. As a sult, air exhaust pathways behind servers are kept clear to provide maximum airflow enhancing equipment cooling. This will optimize airflow in datacenter area and cooling efficiency will improve, and this will save the number of cooling unit installation and power consumption.

### Veritas Cluster Server for VMware ESX

Symantec Japan, Inc. version 5.1

Veritas Cluster Server for VMware offers higher level of availability to the VMware ESX environment.

### [Features]

- \* Manages multiple local and remote clusters in physical and virtual environments across any distance from a single console, regardless of operating system.
- \* Monitors the server, application and virtual machine.
- \* Automates disaster recovery testing without affecting the production environment.
- \* Enables multi-cluster management and reporting.

nergy-saving еттес

Virtualization technology delivers server consolidation effectively. Veritas Cluster Server for VMware offers higher level of availability at server virtualization environment. That enables no need to prepare stand-by servers.

### Contact

Symantec Japan, Inc. Product Markeing Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052 TEL 03-5114-4340 FAX 03-5114-4040 URL http://www.symantec.com/jp/vmware

### IT equipment

# **Altiris Client Management Suite**

Symantec Japan, Inc. version 7.0

Altiris Client Management Suite controls all desktop PC electricity management in the organizations based on the policy. That enables to reduce electricity cost dramatically.

### [Features]

- \* Reduce energy and costs associated with client PCs by using intuitive power management policies throughout the organization without losing manageability.
- \* Increase visibility with a comprehensive inventory of all hardware and software for each client system.
- \* Deploy Windows, Mac, and Linux with a complete touch-free imaging and provisioning. Migrate to the latest version of Windows with less interruption to end-users.
- \* Provision applications and software with fewer errors using intelligent, policy-based software deployment.
- \* Troubleshoot and fix client PCs with flexible remote management capabilities.

Energy-saving e

The annual cost of saving energy using PC electricity management at night is estimated as 35 million Yen with one thousands PCs.

### Contac

Symantec Japan, Inc. Product Markeing Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052 TEL 03-5114-4340 FAX 03-5114-4040 URL http://www.symantec.com/ja/jp/business/ client-management-suite

### **Environment-conscious Storage**

Hitachi, Ltd. Hitachi Adaptable Modular Storage 2500

AMS2500, the highest model of "Hitachi Adaptable Modular Storage 2000 series" is environment-conscious midrange disk array system with high performance and reliability, that realizes about 75% power saving at max. configuration by expansion power saving function.

### [Usage/field]

Environment-conscious external disk array system to store computer data, which consists of Hard Disk Drives (HDD).

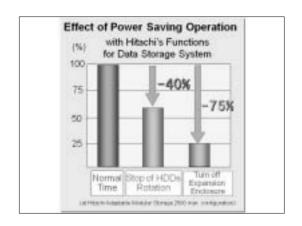
### [Use conditions]

Host interface is Fibre Channel or iSCSI.

#### [Features]

In addition to the power saving by MAID (Massive Array of Idle Disks) function, which stops rotation of HDDs that are not accessed by Computer for long time, our original function(\*) can save more power by turning off power of expansion disk array enclosures. Moreover, AMS2500 is environment-conscious product by following efforts. a) Resource saving by virtualization, b) Collected used products can be utilized as new resources. c) Comply with EU RoHS Directives to totally avoid the use of the following six chemicals: lead, hexavalent chromium, cadmium, mercury, PBB and PBDE.. (\*) available only in Japan

By combining our function of turning off power of expansion disk array enclosures with MAID function, power consumption of disk array system can be reduced by about 75% at max. configuration compared to that without these functions. Hitachi developed this function based on the close collaboration with Tokyo University, Institute of Industrial Science, Center for Information Fusion. And they use these functions and they have achieved about average 72% (\*) power saving compared to that without these functions based on the university's data. It means saving of 41 tons of carbon dioxide per year. (\*this is not at max. configuration).



#### Contact

### Hitachi, Ltd.

Disk Array Systems Division, Sales Service, Sales & Marketing Dept. Omori Bell Port B, 6-26-2 Minami-Oi, Shinagawa-ku, Tokyo,140-8573, Japan

TEL 1-888-234-5601 (Hitachi Data Systems) E-mail www.hds.com/info@hds.com URL http://www.hds.com

### IT equipment

# Ultra high performance RAID storage subsytem MIC Associates, Inc. XRS F6412 RAID subsystem

F6412E delivers 1.6GB/Sec transfer rate and 125k IO/Sec data IOs, Thereby providing faster, more responsive applications. F6412E offers advanced performance with the scalability to the today's data-rich business environment.

[Usage/field]

High bandwidth applications ranging from video editing and high performance computing to databaseintensive online transaction processing.

### [Use conditions]

Voltage 100-240 V AC @ 50/60 Hz Single Phase

Input Power 300W Typical

### [Features]

- 1.6GB/Sec transfer rate and 125,000 IO/Sec access performance
- Up to 96 SATA or SAS drives with 2U rackmount 6 expansion chassis
- On-the-fly expansion, add capacity without interruption
- MPIO (Round-Robin) support
- 2GB Cache per controller Storview M controller or host-based management software
- \* Snapshot support for up to 512 snaps \* RAID 0,10,5,50,6 support
- \* Online capacity growth through dynamic array and LUN expansion \* RAID Advanced Power Management

F6412E RAID storage subsystem is RoHS compliant and mounts redundant power supply units with more than 80% power efficiency. Also, it's equipped with the advanced power management feature, which enable drives spin-off while the storage keep idle for data access or hot-spare. This feature reduce up to 40% power consumption in spun-off mode, comparing with regular active condition.



### Contact

MIC Associates, Inc. Sales Engineering Div.

Sakuramasamune Higashinihonbashi bldg., 3-12-12 Higashinihonbashi, Chuo-ku, Tokyo 103-0004, Japan TEL 03-5614-3757 FAX 03-5614-3752

E-mail info@micassoc.co.jp

URL http://www.micassoc.co.jp/

# **Monster capacity Storage**

MIC Associates, Inc. XRS F5404E RAID Storage subsystem

Up to 48drives of storage capacity in single 4u storage system, F5404E offers a combination of performance, energy efficiency, reliability and drive high-density and is optimized for use in a variety of nearline storage and rich media applications.

### [Usage/field]

Data Archiving

### [Use conditions]

Height 175mm, Width 443.7mm, Depth 910mm

Weight 74.8Kg with drives

- · Lowest power consumption (50 percent more TB/KW)
- · Up to 48 SATA drives in one system
- · RAID 1, 5, 6, 10 & 50 support
- · Up to 512 Snapshot support
- · Four (4) 4Gb/s high speed Fibre Channel host connections per system
- · StorView controller based or host based management software
- · Online capacity growth through dynamic array and LUN expansion
- · Cableless, modular design and redundant, hot- swappable components for fault tolerance
- · RAID Advanced Power Management



### Contact

### MIC Associates, Inc. Sales Engineering Div.

Sakuramasamune Higashinihonbashi bldg., 3-12-12 Higashinihonbashi, Chuo-ku, Tokyo 103-0004, Japan TEL 03-5614-3757 FAX 03-5614-3752 E-mail info@micassoc.co.jp URL http://www.micassoc.co.jp

power conversion efficiency. Also, it's equipped with the advanced power management feature, which enable drives spin-off while the storage keep idle for data access or hot-spare. This feature reduce up to 40% power consumption in spun-off mode, comparing with regular active condition.

The F5404E RAID storage is RoHS compliant and more than 80%

### IT equipment

### **Disk Array Unit**

NEC Corporation NEC Storage HS8-20

NEC iStorage HS8-20 is an advanced backup storage system that harnesses the innovative grid storage technology

[Usage/field]
This is a storage ideally suited for the ever increasing data backup, and for archives of less accessed data and critical data.

### [Use conditions]

Connecting to computer through 1G or 10G ethernet

### [Features]

With NEC's unique Grid Storage Technology\*, the energy and space reductions

were achieved.
With the introduction of 1 TB disk drive and the hich density mountain technology, more than 60% energy reduction compared with the existing products were achieved.
The products with these technologies can provide our customers the ideally

requires the energy saving and space saving of IT equipments.

\*The technology that by eliminating the duplicated data block, only the difference in data is stored which enables the increase in data compress by 20~50 folds more than the conventional quantity (measured by NEC) and the distributed accelerator node and storage node, that stores the data, are connected as a mesh.

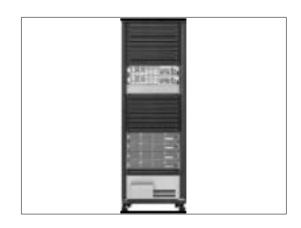


Reduction rate of power consumption: approx. 63%, reduction rate

of CO<sub>2</sub> emission: approx. 27 ton/year (\*1) :Ground for calculation \*1 (all the comparison is made with our

existing products' similar capacity) ;Power consumption of minimum configuration / sotrage capacity Existing product (HS8-10): 2920W/6.8TB, This product (HS8-20): 4501W/28.4TB ;Yearly usage hours: 365 days/year x 24hrs/day, CO2 emission

coefficient: 0.41kg-CO<sub>2</sub>/kWh



### Contact

**NEC Corporation** IT Platform Marketing Unit

5-33-1 Shiba, Minato-ku, Tokyo, Japan TEL +81-3-3798-9740

E-mail Inquiry URL:http://www.nec.co.jp/contact (mail address is not disclosed)

URL http://www.necstorage.com/

### **Disk Array Unit**

The D8-30 adopts MAID technology aiming at saving energy.

### [Usage/field]

SAN system for midrange to High-end, which required flexible scalability, comfortable manageability and secure availability.

#### [Use conditions]

Connecting to host computer with 8Gbps fibre channel

#### [Features]

- D8-30 employs the eco-friendly and energy-saving technology as well as reduces the cost of power consumption.
- By dedicated software control, the MAID\* system turns off the motor power of unused disk drives. \*MAID: Massive Array of Inactive Disks
- The resources of the storage system can be virtualized and distributed dynamically within the business.
- The D8-30 uses enhanced virtualization technology to create virtualized resource pools, optimizing the access to the disks.



### Contact

### NEC Corporation IT Platform Marketing Unit

5-33-1 Shiba, Minato-ku, Tokyo, Japan TEL +81-3-3798-9740 URL http://www.necstorage.com/

nergy-saving effec

;Power consumption of minimum configuration / sotrage capacity Existing product (S2500): 4285W/37.4TB, This product (D8-30): 13260W/302.2TB ;Yearly usage hours: 365 days/year x 24hrs/day, CO<sub>2</sub> emission coefficient: 0.41kg-CO<sub>2</sub>/kWh

Reduction rate of power consumption: approx. 61%, reduction rate of CO<sub>2</sub> emission: approx. 75 ton/year:Ground for calculation (all the comparison is made with our existing

### IT equipment

products' similar capacity)

# **Veritas Storage Foundation**

Symantec Japan, Inc. version 5.0

Veritas Storage Foundation offers storage tiering and accelerates the profit of thin provisioning to build the foundation of green IT.

### [Features]

- \* Online storage management with heterogeneous operating system (AIX, HP-UX, Linux, Solaris and Windows) support and broad set of qualified storage devices and arrays.
- \* Storage Foundation Manager allows centralized management of diverse applications, servers and storage.
- \* Dynamic multi-pathing enables I/O to be efficiently spread across multiple paths for path failure protection and fast failover.
- \* Dynamic Storage Tiering enables data to be dynamically moved to different storage tiers to rapidly respond to changing business needs.

Energy-saving effort

Veritas Storage Foundation offers several functions such as tiered storage, thin provisioning, and reclaiming unused storage capacity. These functions boosts to deploy storage consolidation then enables higher storage usage and avoid to purchase new storage. As a result, storage consolidation with Storage Foundation reduces electricity consumption, cooling cost, and CO<sub>2</sub>.

### Contact

Symantec Japan, Inc. Product Markeing Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052 TEL 03-5114-4340, EAX 03-5114-4040

TEL 03-5114-4340 FAX 03-5114-4040 URL http://www.symantec.com/jp/sbs

### Veritas NetBackup PureDisk

Symantec Japan, Inc. version 6.5

Veritas NetBackup PureDisk offers deduplication technology to reduce the quantity of the data cener data into one fiftyth to one five hundredths.

### [Features]

- \* Integration into NetBackup server allows deduplication and replication of data from NetBackup clients to be performed on the NetBackup server.
- \* Global data deduplication at the source, on target servers using Pure-Disk clients, significantly reduces network requirements for backup of distributed servers and applications.
- \* Broad server and storage support and a scalable architecture provides load-balancing of all backup related data and automated failover capabilities.
- \* Bandwidth and storage efficient backup of VMware or other virtualized servers.

nergy-saving effect

Deduplication technology of Veritas NetBackup PureDisk increases efficiency of backup dramatically. Comparing with the traditional backup method without deduplication technology, that reduces CPU load into one tenth, network bandwidth into one five hundredths, and backup data storage into one fiftieth and that also avoids to purchase new storage. As a result, data deduplication technology with Veritas NetBackup PureDisk contributes to save energy in the data center.

### Contact

Symantec Japan, Inc. Product Markeing Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052 TEL 03-5114-4340 FAX 03-5114-4040 URL http://www.symantec.com/jp/sbs

### IT equipment

# **Symantec Enterprise Vault**

Symantec Japan, Inc. version 8.0

The industry leader in email and content archiving, Enterprise Vault 8.0 enables users to store, manage, and discover unstructured information across the organization.

### [Features]

- \* Policy-based archiving: Move less-frequently used unstructured information from high-cost disk and archive to lower cost storage while maintaining accessibility.
- \* PST/NSF Migration: PST/NSF migration archives unmanaged personal email messages and attachments.
- \* Electronic Discovery and Search with Guided Review: Through roles-based access searches can be conducted and results reviewed and navigated based on clustering of data retained within the archive.
- \* Granular Legal Hold: Automatically suspend the deletion of archived data in response to internal investigation, litigation or regulatory request.

Energy-saving effe

Archiving technology and data deduplication and compression technology called Single-Instance Store with Symantec Enterprise Vault offer storage optimization. Comprehensive support such as email, file server, and contents management, etc. enables to reduce storage cost into 40% to 80%. As a result, Symantec Enterprise Vault contributes to save energy in the data center.

### Contact

Symantec Japan, Inc. Product Markeing Akasaka Intercity 1-11-44 Akasaka, Minato-ku, Tokyo 107-0052 TEL 03-5114-4340 FAX 03-5114-4040 URL http://www.symantec.com/ip/sbs

### **Dynamic Energy Saving Network System**

ALAXALA Networks Corporation AX6700S/6600S/1240S series

Dynamic Energy Saving Network System can substantially reduce its power consumption, by decreasing its processing capacity without disturbing communication while its communication traffic is low.

### [Usage/field]

Network Infrastructure for enterprises, governments, service providers and telecom carriers.

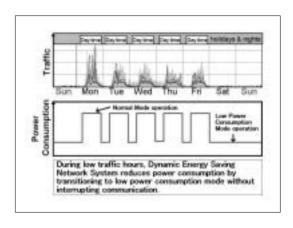
### [Use conditions]

Communication networks which traffic changes over time.

#### [Features]

Dynamic Energy Saving Network System can reduce its power consumption while its traffic is low by changing operating mode of its subsystems without disturbing its communication;

- Decreasing processing capacity of core switches.
- Cutting off the power supply to redundant supervisor module.
- Turning unused floor switches into sleep mode.
- Cutting power feeding to unused line circuits and status display LEDs.



nergy-saving e

With typical network configuration which is composed with core switches and floor switches, it can reduce the network system power consumption by 40% to 50%, if the network is operated through low traffic hours such as nights or holidays.

### Contact

### ALAXALA Networks Corporation Business and Sales Division

Shinkawasaki Mitsui Bldg. West Tower, 890 Kashimada, Saiwai-ku, Kawasaki, Kanagawa, 212-0058, Japan

URL http://www.alaxala.com/en/

### IT equipment

### **Power-saving Bandwidth Controller**

Anritsu Networks Co., Ltd. PureFlow GS1

Network facilities are often enlarged in an integrated network embracing voice, video and data traffic. Anritsu's bandwidth control equipments enable efficient use of channels and miniaturization of hardware including routers.

### [Usage/field]

Equipment for improvement of channel-use efficiency and network power saving through integration into an integrated network

### [Use conditions]

100 VAC, Temp. range: 0°C to 40°C, Humidity range: 20% to 80%

### [Features]

- High-precision bandwidth control in units of microseconds with error rate within 1 percent
- Bandwidth control for respective access lines, bases or applications
- IPv6 compatibility, capable of auto-bandwidth allocation for video and audio traffic
- Auto-adjustment of packets in bursts for transmission at optimal intervals. Complete with prevention of network congestion, packet delay and packet loss for high-quality communication
- Auto-bypass function for uninterrupted communication even during disruption



Energy-saving e

Precise bandwidth allocation to individual data streams flowing through the network reduces channel bandwidth loss and enables more efficient use of channel bandwidth resources; this realizes downsizing of hardware including routers and power saving.

This product consumes 96 percent less power than its preceding models through the incorporation of a state-of-the-art LSI for functional consolidation, the optimization of the structural design, and the maximization of the performance of each part.

### Contact

# Anritsu Networks Co., Ltd. Solution Marketing Department

5-1-1 Onna, Atsugi, Kanagawa 243-8555, Japan TEL 046-296-6633 FAX 046-225-8378 E-mail AN-Info@anritsu.com URL http://www.anritsu-networks.com/

### D-Link Green unmanaged gigabit switch with internal power supply

It leads to not only the cost reduction but also the load curtailment of the global environment by the green network achieved by the end point of the network

### [Usage/field]

It is a transmission equipment (switch) that controls the electricity of telecommunication in the telecommunication field.

#### [Use conditions]

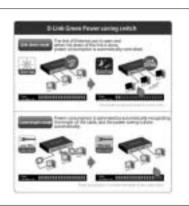
POWER SUPPLY:100-240 VAC Internal Universal Power Supply (50/60Hz), POWER CONSUMPTION:5W OPERATING TEMPERATURE:0~50°C OPERATING HUMIDITY:10~90% RH non-condensing

#### [Features]

The D-Link Green power saving technology for reducing power consumption is installed in proportion to the link status and the length of the cable. The cost reduction in the control of making to the life prolongment at responsible concern for the environment and the product-life cycle and generation of heat, and operation is achieved. When 1000Mbps is communicated by the cable diagnostic function, the troubleshooting of the Ethernet cable can be easily executed with LED. IEEE 802.1p QoS, it controls the IEEE 802.3x flow by the detection of the priority level of other packet, and the prevention of the delivery delay of data with a high priority level, and all port auto negotiation function is installed

Energy-saving effect

It is a mechanism that power consumption is reduced in proportion to the link status and the length of the cable. The cost reduction in the control of making to the life prolongment at responsible concern for the environment and the product-life cycle and generation of heat, and operation is achieved. For example, when it operates for ten hours at the maximum when the connected equipment is a power-off (power-off for 14 hours) and PC is connected with the cable of 3m, the power consumption of maximum about 73.2% can be reduced with the entire system.



### Contact

D-Link Japan K.K. Marketing Communication SOWA Gotanda Building 2F 2-7-18 Higashigotanda SHINAGAWA-ku, Tokyo TEL 03-5792-5103 FAX 03-5792-5105 E-mail djp\_mc@dlink-jp.com URL http://www.dlink-jp.com

### IT equipment

### L2 SWITCHING HUB

HIRAKAWA HEWTECH CORP. HS-1008MA

It is Layer2 managed switch hub of eight ports with the authentication function for the enterprise network.

### [Usage/field]

It is possible to use it for the network system of all the enterprises (LAN in the enterprise, security network system, and VoIP application).

### [Use conditions]

LAN communication network system (100Mbps) and electric power (10VA)

### [Features]

- The basic function as layer2 switches is supported.
- IEEE802.1x authentication function is supported
- VLAN and QoS are supported
- The band control function by Ingress and Egress is supported.
- STP, RSTP are supported, IGMP Snooping, and DHCP Snooping are supported
- WEB, CLI, TELNET, SNMP, RMON, FTP, TFTP, SSH, and NTP are supported.
- Fanless and 50 dgree in operation guarantee temperature
- The power saving according to The ECO mode.



The maximum feature of this product has reduced power consumption by 25% or less compared with the other companies conventional model. The maximum electric power consumption when usually operating it by the efficiency improvement of the power supply and adopting the power saving parts is decreased up to 5.4W/Cleared to the top runner standard 6.4W). In addition, "ECO mode" that can turn off LED that shows operation in front of the device, and stop feeding power to an unused port is installed, too and it becomes possible to suppress the maximum electric power consumption to 5.0W by using here. When all ports are used, power consumption during year can be reduced to about 6780KCal by comparing the other companies conventional model.



### Contact

HIRAKAWA HEWTECH CORP. Device Dept. 1144,Higashi Ushigaya,Koga-shi,Ibaraki-ken,Japan TEL 81-280-98-0025 FAX 81-280-98-4427 E-mail hiroshi.ukaji@hewtech.co.jp URL http://www.hewtech.co.jp

### L2 SWITCHING HUB

It is Layer2 gigabit unmanaged switch hub of eight ports for the enterprise network.

### [Usage/field]

It is possible to use it for the network system of all the enterprises (High speed LAN in the enterprise and VoIP application).

### [Use conditions]

LAN communication network system (1000Mbps) and electric power (10VA)

#### [Features]

- 1) All ports 10BASE-T/100BASE-TX/1000BASE-T are supported.
- 2) All port support Auto Negotiation function
- 3) All port are support MDI-X fixation
- 4) All port jumbo frame is supported (9KB or more).
- 5) IEEE802.3X flow control and Back Pressure function
- 6) Penetration function of EAOP (IEEE80.1X attestation) frame and BPDU frame
- 7) Making to fanless by original heatproof design



- Power consumption has been decreased by using a highly effective DC/DC converter of 80% or more.
   (reduction achievement of electric power of 30% or more from regulator of
- past, linear type)
   Specification of low electric power type of the main chip
  The electric power of CPU and LSI main chip guaranteed enough was able
  to be suppressed to 2.5W or less on the cost and the function side.
- The AC/DC power supply is made of its company, and the electric power reduction of 10% is achieved from this type on the market power supply.



### Contact

### HIRAKAWA HEWTECH CORP. Device Dept.

1144,Higashi Ushigaya,Koga-shi,Ibaraki-ken,Japan TEL 81-280-98-0025 FAX 81-280-98-4427 E-mail hiroshi.ukaji@hewtech.co.jp URL http://www.hewtech.co.jp

### IT equipment

# **Energy-Saving Switch**

NEC Corporation IP8800 Series

IP8800 Series' ability to eliminate excess power consumption makes a societal contribution to minimize environmental impacts by founding an environmentally-friendly network.

### [Usage/field]

IP8800 Series set up the framework of the green network in the fields of Enterprises, Governments, and Municipalities.

### [Use conditions]

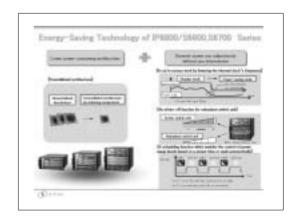
S6708 Consumes 3750 watts maximum with a switching capacity of up to 1.15Tbps.

### [Features]

The adoption of the consolidated architecture makes IP8800/S6000 Series consume lower energy by reducing components.

In addition, IP8800/S6600,S6700 Series can adjust power use without any intermission by virtue of the functions listed below:

- A cut in excess work by lowering the internal clock's frequency.
- · An auto-off function for redundant switch units.
- A scheduling function which enables the control of power usage levels based on a preset time or week automatically.
- Energy-saving effe
- A lower-power consuming architecture makes power reduction by approximately 30% compare to conventional models.
- The combination of excess work mitigation and the auto-off function for redundant switch units can result in up to 50% in power reductions.



### Contact

### **NEC Corporation**

URL

http://www.nec.com/global/solutions/univerge/

Router/Switch

"Cost-Effective Alternative" The EX4200 is truly a unique device, achieving the best performance of chassis-based systems in a compact and efficient package, supported by the Virtual Chassis Technology. Its impact reduces the size to one-sixth, the power usage to one-fifth, and the managing cost to one-third.

### [Usage/field]

EX4200 Series provides secure and high-speed Ethernet structure to service providers, leading enterprises, and public sector organizations around the globe.

#### [Use conditions]

Companies using a variety of high-performing applications.

#### [Features]

Juniper's EX4200 deliver a cost-effective alternative to traditional chassis-based system truly advancing the economics of networking. In fact, for typical aggregation environments requiring 48 GbE SFP fiber ports and four 10 GbE uplinks, two 24-port EX4200 switches deliver the same wire-speed port densities and functionality as the most popular chassis-based solution.



The EX4200 Switches are a single rack-unit devices that can be interconnected to create a single logical device (One OS(JUNOS), One Configuration). By spanning multiple wiring closets, it can greatly improve the productivity of network maintenance and economics. Still sustaining the performance and availability, compared to traditional chassis-based platform, it reduced the size to one-sixth, the power usage to one-fifth, and the managing cost to one-third.



### Contact

NISSHO ELECTRONICS CORPORATION Product Management Group 2, Marketing **Division, Service Provider Business Unit** 7-3-1, Tsukiji, Chuo-ku, Tokyo, Japan TEL 81-3-3544-8290 FAX 81-3-3544-8260

E-mail jg@nissho-ele.co.jp URL http://www.nissho-ele.co.jp/product/juniper/ex4200/

### IT equipment

# ECO plus monitor which turns off liquid crystal screen when user leaves the seat

FUJITSU LIMITED VL-176SR

This is the ECO plus model which improves the "Energy-saving" and "Security" at the same time. This is the most advanced monitor.

This is the ECO plus model which improves the "Energy-saving" and "Security" at the same time, turns off liquid crystal screen by perceiving the user's leaving seat with sensor for person

### [Use conditions]

Power supply:AC100V 50/60Hz

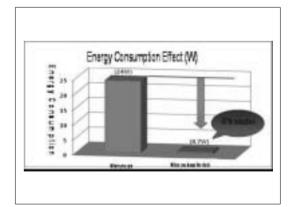
Connection method: Analog RGB (mini D-Sub15 pin)

### [Features]

- Display is turned off in 4 seconds at the shortest when person leaves and is turned on in 2 seconds when per-
- The power of the display synchronizes with the power of main body of personal computer. It corresponds to energy-saving mode of PC's.
- · It enhances security by password lock
- The monitor corresponds to the color reproduction standard "sRGB" and display modes of various images
- It can be used in various scenes with the tilt function and the swivel function that enable to adjust monitors
- The monitor confroms to the J-Moss green mark and RoHS Directive.
- It complys with International Energy Štar Program and the Law on Promoting Green Purchasing.

Energy-saving

Reduces electricity consumption by approx. 97 % (From 24W at usual power consumption to 0.7W at leaving seat)



### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-200 URI

http://www.fmworld.net/biz/fmv/product/hard/display/vl\_176sr/

# **LED Backlight Monitor**

The world top quality Monitor which was installed LED Backlight Unit.

### [Usage/field]

Monitor for Personal Computer

#### [Use conditions]

Power(AC100V~240V), High Frequency(50/60Hz)

PC input : Input Signal(Analog RGB, Digital, HDMI), Signal Input Connector (DVD, HDMI, D-Sub 15pins), Syncronism Signal(Separate / Component / SOG)

#### [Features]

W2486L has already adopted the White LED BLU. Therefore, we can actualize Saving Energy by 40%down, comparing with the same sized model in the past. That method is called "Edge Light type"which W-LED BLU is installed in bezel areas. Additionally, by adopting high quality LCD panel which is high contrast(2,000,000: 1), and no defect on brightness spots by making use of specific sheet, we can develop ultra thinest model(20.5mm)



- \* Saving Energy Effect by adopting LED BLU(40% down → 28W)
- \* Reducing CO<sub>2</sub> exhaust(118KG per year diminishing)
- \* LED is Hg Free, Pb Free.



### Contact

### LG Electronics Japan Inc. SA Group

Akasaka Twin Tower Honkan 9F, 2-17-22 Akasaka, Minato-ku, Tokyo TEL 03-3588-1224 FAX 03-3584-6855 E-mail misako@lge.com URL http://jp.lge.com/index.do

### IT equipment

# Mitsubishi LCD display

Mitsubishi Electric Corporation RDT202WLM Series

Mitsubishi LCD display that supports energy-saving for the office.

### [Usage/field]

By Low Power Consumption LCD Panel and "ECO Professional", Mitsubishi LCD display supports energy-saving for the office.

### [Use conditions]

The average screen brightness is more than 75% and "3" of ECO SE-LECT is selected. (compare to "OFF") (Based on ours results)

### [Features]

1) Low Power Consumption LCD Panel

Significantly reduces power consumption.

2) "ECO Professional" for energy-saving.

①ECO SELECT: maximum 10W reduction

<sup>2</sup>Energy-Saving Management by OSD (on screen display) ECO TOTAL (kWh) / ECO RATE (%) / ECO CO2 (kg)

3ECO METER (Energy-Saving Values shown in real time)

**4**AUTO POWER OFF / OFF TIMER

**5DISPLAY OFF** 

RDT202WLM and RDT202WM (conventional model) of 100 units in

comparision, annual CO2 reduction is approximately 2880kg. (12 hours/day, 20 days/month)

1) Low Power Consumption Panel
15W reduction per 1set. (RDT202WLM:29W / RDT203WM:44W)
Annual CO2 reduction is 17kg per 1set.
2) "ECO Professional"
Maximum 10W reduction per 1set.

Maximum 10W reduction per 1set.

Annual CO<sub>2</sub> reduction is 12kg per 1set.

Conversion factor from the power Consumption to CO<sub>2</sub> emissions is 0.4kg/kWh.



### Mitsubishi Electric Corporation Display Monitor Business center

2-7-3, Marunouchi Chiyoda-ku Tokyo 100-8310,

TEL 03-3218-6144 FAX 03-3218-6991

URL http://www.MitsubishiElectric.co.jp/display/

# **ECO-conscious LCD Display**

NEC Display Solutions, Ltd. MultiSync LCD-EA222WMe

The ECO-conscious display realizes not only low power consumption, no mercury by white LED back light, but also halogen free to all parts.

### [Usage/field]

Computer LCD Monitor to Enterprises and Personal Users

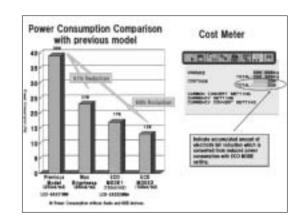
### [Use conditions]

Input Voltage AC 100-240V, 50Hz/60Hz Maximum Power Consumption 39W

#### [Features]

- Reduce environmental imapct at the end of product's life cycle by introducing the mercury-free white LED backlight and making all parts halogen-free in the monitor.
- Introduce "ECO MODE" which has two-stage modes by lowering the brightness.
- Introduce "Cost Meter" to indicate reduced electricity bill by ECO MODE and power management system.
- Adopt the recycled plastic.
- Comply with TCO Displays 5.0 and PC Green Label (2009), as well as qualify for the NEC ECO Symbol Star, which is the self declaration label with top-runner standards in the industry.

This model realizes 44% power reduction comparing with a previous model at the same brightness. Annual reduction of 100 units (for 2400 hours) will be 3,840kWh, which costs JPY 92,658 (Tokyo Power Supply case). - Power reduction with "ECO MODE" on is about 68% comparing with a current model.



### Contact

### **NEC Display Solutions, Ltd. NEC Monitor Information Center**

13-23, Shibaura 4-chome, Minato-ku, Tokyo 108-0023 Japan

TEL +81-3-5446-5300

URL http://www.nec-display.com/

### **Electronics**

### Terrestrial/BS/110 CS Digital Plasma HDTVs

Panasonic Corporation VIERA 2009 Spring Models, V1 Series

Digital HDTVs with energy-saving designs and high-performance picture and sound quality. The newly developed NeoPDP achieves a wide color gamut and high picture quality comparable to digital cinema, plus energy-saving efficiency at the same time. The energy-saving design has achieved standby power consumption of about 0.1 W, and annual power consumption of 200 kWh, which is about half that of our previous models(\*) (about a 48% decrease for the 42-inch model). \*2008 Panasonic models (PZ800/85/80 Series)

### [Usage/field]

Terrestrial/BS/110 CS Digital Broadcast Reception

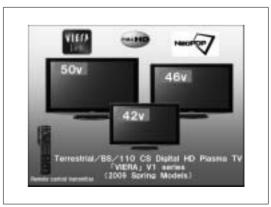
Models featuring 100-VAC power, terrestrial/BS/CS digital broadcast input, and VIERA Link compatibility.

### [Features]

- By incorporating the newly developed NeoPDP, a full 1,080-line moving picture resolution, the world's highest contrast(\*1) of 40,000:1 and Digital Cinema compatibility produce the highest picture quality of the entire VIERA Series to achieve pictures with superb depth and rich texture
- Featuring an integrated tuner, the thinnest portion is about two inches, and wall-mounting capability saves space.
- The energy-saving design has cut annual power consumption by about half compared to previous Panasonic models(\*2) (about a 48% decrease for the 42-inch model).
- · Advanced link functions expand TV enjoyment with Internet services such as Actvila/YouTube, and SD/SDHC cards for easy playback of digital camera photos and full-HD videos.

(\*1) As of February 3, 2009. (\*2) 2008 Panasonic models (PZ800/85/80 Series)

- The energy-saving design of the 42-inch model features standby power consumption of about 0.1 W and annual power consumption of 200 kWh, which is about half (about 48%) of previous Panasonic models(\*).
- In addition to the TV's energy-saving functions, such as the Auto Power Off function that
  operates under no-signal, no-operation conditions, a thorough energy-saving design employs various unique Panasonic link functions to minimize CO2 emissions. For example, the Eco Standby function switches a connected DIGA into energy-saving mode when the TV is turned off to reduce standby power consumption. The Detailed Off function also automatically judges the status of the TV and DIGA, and turns them off when necessary. (\*)2008 Panasonic models (PZ800/85/80 Series)



### Contact

Panasonic Corporation AVC Networks Company Visual Products And Display Devices Business Group, PDP TV Business Unit, Fujita Masaya 1-15 Matsuo-cho, Kadoma City, Osaka 571-8504, Japan TEL 06-6905-5733 FAX 06-6905-5933 E-mail fujita.masaya@jp.panasonic.com URL http://panasonic.jp/viera/

### LCD TV

#### Advanced Eco series

### [Usage/field]

40V LCD TV

#### [Use conditions]

Power Requirement AC100V • 50/60Hz Operating temperature 0°C to + 40°C

#### [Features]

- High Energy Conservation in Industry Measures
- TV CONTRAST 15,000:1;Smooth Image Quality
- Double Frame Rate:Full Spec Hi-Vision Panel
- "FAMILINK" with Easy Operation



High Energy Conservation in Industry Measures

- Yearly Power Comsumption 120kWh/yr
   Energy Conservation Achievement 250%

### Contact

### **Sharp Corporation Customer Response Center**

22-22 Nagaike-cho, Abeno-ku, Osaka-city TEL 0120-001-251 FAX 043-297-2696

E-mail Sharp Home Page "Support and Inquiry" page, "Question through Email"

URL http://www.sharp.co.jp/aquos/index.html

### **Electronics**

### LCD TV with embedded Presence Sensor

Sony Corporation BRAVIA V5 Series

By adopting a highly energy efficient backlight, the V5 series reduces power consumption by almost 40% compared to its predecessor (V1 Series, 2008 Spring model). Additionally, this series features a Presence Sensor that helps customers save energy.

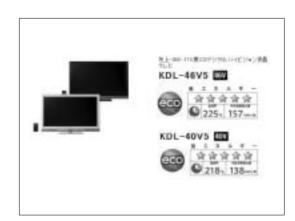
### [Usage/field]

Top-class energy efficient LCD TV with world's first embedded Presence Sensor. (As at February 2009)

### [Use conditions]

Electricity AC100V, 50/60Hz

- By adopting a highly energy efficient backlight, these models have energy-efficiency achievement rates of more than 200% of the standard set forth under Japan's Law Concerning the Rational Use of Energy.
- These models are equipped with the world's first Presence Sensor that automatically switches off the picture when no one is present in the vicinity after a user-set timeframe. They offers an easy way to reduce energy usage.
- These models incorporate an Energy Saving Switch that reduces power consumption to nealy zero without unplugging the AC cord from the outlet.



- By adopting a highly energy efficient backlight, V5 series reduces power consumption by almost 40% compared its predecessor (V1 Series, 2008 Spring model).
- The embedded Presence Sensor switches automatically to 'pictureon mode', 'picture-off mode' and 'standby mode'
- · Other televisions consume dozens of mW even when they are switched off. Energy Saving Switch reduces power consumption to nealy zero without unplugging the AC cord from the outlet.

### Contact

### **Sony Corporation** Environmental Affairs Department

1-7-1, Konan, Minato-ku, Tokyo, 108-0075 TEL 81-3-5448-4985 FAX 81-3-5448-4996 E-mail ead-com@jp.sony.com URL http://www.sony.co.jp/

### **LCD Television**

The latest line-up of " REGZA C8000" series LCD TVs mesh smooth, beautiful image quality with advanced eco features. New Panel technology achieves world-class low power consumption.

### [Usage/field]

Launched in 2009 and based on Toshiba's proprietary technology, RE-GZA LCD TVs infuse every scene with stunning high quality images while winning big savings in power consumption.

#### [Use conditions]

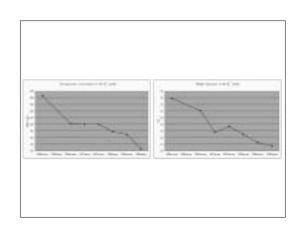
AC 100V 50/60Hz

#### [Features]

The 42C8000 model in the "REGZA C8000 (Japan) series" has been taken the No.1 position in the "Japanese Energy saving Equipment Catalogue" since the winter 2006 edition. Its secrets are a fluorescent tube backlight offering high luminescent efficiency, and a new screen film with high light transmittance. Both add to picture equality while cutting power consumption. The use of 120Hz technology eliminates all flicker, while automatic adjustment of image quality to suit the viewing environment assures delivery of outstanding HD images at all times.

Energy-saving effect

Global warming: Using 120Hz technology secures superb image quality and cuts power consumption. The graph below, annual power consumption in 42"series, captures the trend achieved with advanced saving energy technology. Minimal design and new environmental technologies\* helped to cut annual power consumption by approximately 29%\*\* and achieve a world-class low power performance 127kW/year. \*1. Brightness control setting \*2. Auto time-set standby \*3. Auto standby after loss of external signal. Resource-Saving: Weight reduction of 3.5kg\*\*. Materials names on all plastic parts weighting more than 25g facilitate recycling. Management of chemicals: Compliant with EU RoHs and J-Moss \*\*Compared with 2008's 42CV500 model)



#### Contact

### Toshiba Corporation Global Environment Management Div., Digital media Network Company

1-1, Shibaura 1-Chome, Minato-ku, Tokyo TEL 03-3457-2540 FAX 03-5444-9440 E-mail kenji.miura@toshiba.co.jp URL www.toshiba.co.jp/dm\_env/index.htm

### **Electronics**

# **High Difinition Blu-ray Disc Recorder**

Panasonic Corporation Panaconic Blu-ray DIGA in 2009 Autumn

Blu-ray Disc Recorder with high quality picture and sound, with Energy Saving design.

Possible to record Digital broadcasting programs 8 times longer than DR mode by High Definition.

Considering for eco by complete energy saving design, which enables about 0.1W of Power Consumption during standby.

### [Usage/field]

Record and Play for HD broadcasting programs, Play BD and DVD

### [Use conditions]

AC100V, Terrestrial Digital broadcast, Input RF signals of BS/CS Digital broadcast.

### [Features]

- · Possible to record to HDD ,BD and DVD by high quality of High Definition and long time.
- Complete high quality sound which corresponds big power of 7.1ch sound in BD video and equipped 32bit Audio DAC which is excellent BD Recorder in the world.(BW970)
- Possible to play programs of Terrestrial digital broadcast, BS/CS broadcast, "acTVila" pictures, and recorded movies, anywhere with Mobile phone and other equipment by easy transfer using SD card or USB connecting.
- Cut down the troublesomeness of walking to shop, or reduce CO2 which is generated in delivering or tranportating process, by connecting web video rental, and by corresponding to "acTVila" Video Downlord Rental.



- It's complete energy saving and compact design, which enables about 25W of Normal Use Power Consumption and about 0.1W of Power Consumption during standby, about 37.8kWh/year of Annual Power Consumption, about 2.9kg of its weight (BR570)
- 37.8kWh/year of Annual Power Consumption, about 2.9kg of its weight.(BR570)

  Save your time and reduce CO<sub>2</sub> by transferring recorded programs in HDD out to SD cards, which enables you to enjoy them on the way to work and anywhere you like.
- Make Power Consumption minimum by switching DIGA to Energy Saving mode in reacting to TV powered off which is "eco standby" function during connecting to HDMI. And widely contributing to reduce CO<sub>2</sub> by complete and Panasonic original energy saving design which enables to automatic judgement and switching to powered off by "Intelligent Off" function.



### Contact

Panasonic Corporation AVC Networks Company Network Business Group, Video Equipment Business Unit, Shigeru Ogata 1-15 Matsuo-cho, Kadoma City, Osaka 571-8504, Japan TEL 050-3487-3790

E-mail ogata.shigeru@jp.panasonic.com URL http://panasonic.jp/diga/

### **Blu-ray Disc recorder**

Sharp Corporation BD-HDS32

The BD-HDS32 has "7x recording mode" and you can record Digital Broadcasting programs on a 50GB Blu-ray Disc, allowing up to approx. 30 hours of recording time on one disc.

### [Usage/field]

Blu-ray Disc recorder with built-in 320GB HDD. Designed to let you enjoy recording Digital Broadcasting programs and watching Bluray/DVD movie contents - using time shifting.

### [Use conditions]

AC 100V, 50/60Hz

#### [Features]

- "7x recording mode" allows you to record approx. 30-hours full HD contents onto a 50GB Blu-ray Disc and approx. 195-hours onto built-in 320GB HDD.
- "AQUOS Pure mode" optimizes color base output to AQUOS LCD TVs.
- "HD resolution recording" let you record a Digital Broadcasting program in the HD format and you can enjoy Digital Broadcasting's high quality Video and Audio.
- "ECO-mode" allows you to minimize its stand-by power consumption.



- "ECO-mode" provides you 80% reduction in stand-by power consumption, compared with "Standard mode".
  Auto power off function: Automatically power off after approx. 3-
- hours of inactivity.
- Lead-free solder on all the circuit and connections
- · The carton for the product consists of pulp-mold, instead of Styro-



### Contact

### **Sharp Corporation Customer Response Center**

22-22 Nagaike-cho, Abeno-ku, Osaka-city TEL 0120-001-251 FAX 043-297-2696

E-mail Sharp Home Page "Support and Inquiry" page, "Question through Email"

URL http://www.sharp.co.jp/bd/index.html

### **Electronics**

# "Top Compressor" Refrigerator

Panasonic Corporation NR-F601XV

This household refrigerator is designed for environment with high energy performance by developing highly effective compressor and low endothermic cabinet.

Moreover, extra electricity is cut by installing of function to study life pattern and to control driving by automatic operation.

### [Usage/field]

Household refrigerator for domestic market

### [Use conditions]

Power supply: AC100V

### [Features]

- · Energy consumption is reduced by using highly effective compressor and low endothermic cabinet
- · Extra electricity is cut by automatic driving control and learning function of life
- Vegetable room is cleaned by "nano-e" technology.
- Unpleasant smell moving is suppressed by Ag Bio Anti-bacteria and Deodorization technology
- Vegetable room and freezer can be drawn out to interior by 100% pull out rail
- Thanks to LED lighting on ahead, it is easy to see foods inside the compartment.



- The COP reduction is achieved with highly effective compressor by improvement of capacity of cylinder, by improvement of motor efficiency, and by decreasing loss.

  Thanks to U-Vacua function which is efficient vacuum heat insula-
- tor, low endothermic cabinet achieves insulated efficiency improvement from air outside.
- Driving is automatically controlled by studying life pattern. Extra electricity is cut by technology that controls driving refrigerator, at time when opening and shutting of door is a little.



### Contact

Panasonic Corporation, Home Appliances Company Refrigerator Business Unit, Merchandise Planning Grou 2-3-1-1 Noji-higashi ,Kusatsu City ,Shiga, 525-8520, Japan TEL 077-563-1954 FAX 077-565-0891 E-mail mori.take@jp.panasonic.com URL http://panasonic.jp/reizo/

Refrigerator

# Lignting

# Refrigerator with SC Unique Plasmacluster Technology

Sharp Corporation SJ-FS45R and others

This refrigerator gives a consideration to the family health and cleanliness. In addition to the Plasmacluster Technology, which inactivates the adhering germ to the inside of the refrigerator, and with the "Advanced Hybrid Cooling" Technology preserves the food fresh and prevents dryness of the food.

### [Usage/field]

Household Refrigerator

### [Use conditions]

Required Mono Supply, Rated Current 15A • AC100V

#### [Features]

With the SC Unique Plasmacluster Technology which inactivtes the airborne mold and adhering germ in the cool air, thus inactivates germs adhering to the lip for pouring on drinks.

The application of "Advanced Hybrid Cooling" technology which supplies moisture while chilling foods.

Chills food while avoiding airing directly to them, thus supplying cool air with condensed humidity to the inside of the refrigerator through door opening.



### Contact

### Sharp Corporation Customer Response Center

22-22 Nagaike-cho, Abeno-ku, Osaka-city TEL 0120-078-178 FAX 06-6792-5993 E-mail Sharp Home Page "Support and Inquiry" page, "Question through Email"

URL http://www.sharp.co.jp/reizo/index.html

nergy-savin

With the application of small-space VIP (Vacuum Insulation Panel), and with the Eco Construction Technology, have managed Low in Energy, minimal space but large capacity. The current model (SJ-FS45R) in comparison with SC product of 2006 (SJ-HV42M), has approximately 37% lower annual energy consumption rate.

In accordance with the condition and mode of the inner compartment, we adjust and provide fine control of the rotating speed of the compressor and minimize the waste of electricity.

Automatic Closing Door mode which prevents accidental forget-to-close the door, unique door design which does not require a center partition with a heater, are features which give careful attentions to every day usage and realizes further low in energy.

### **Electronics**

# An efficient LED downlight

Panasonic Electric Works Co., Ltd. NNN21950 and 15 other models

A LED downlight which achieves efficient energy-saving (80 lm/W), and which brightness is equivalent to 150W lncandescent Lamp.

### [Usage/field]

Suitable for being used as main lights of lobbies, public space in commercial facilities.

### [Use conditions]

Power source voltage 100V, 200V

### [Features]

- Thanks to high efficiency more than 80 lm/W, drastic reduction of power consumption is achieved.
- Optics design which can reduce number of the lights in the same space compared to HID35-watt, and FHT 32-watt.
- Product price differentials can be redeemed in about 3.3 years, because
  of the difference of running cost, compared to compact type fluorescent
  lamp FHT32-watt apparatus.
- •Longe life of 40,000 hours (26 times longer than an incandescent lamp).



### Contact

Panasonic Electric Works Co., Ltd. Nashop&Lighting Control System Division 1048, Kadoma, Osaka, 571-8686, Japan

TEL 06-6908-7374 FAX 06-6908-2039
URL http://denko.panasonic.biz/Ebox/nashop/



#### Power consumption about one-tenth that of incandescent lamps of equivalent brightness \*1.

- Estimate: about 153kg-CO<sub>2</sub>/year CO<sub>2</sub> reduction, 392kWh/year power reduction (per one light)\*2
  - \*1: Power Consumption 19.5W:compared to 150-watt incandescent lamp \*2: Compared to a downlight of reflector bulb 100-watt .
  - CO<sub>2</sub> emissions factors: 0.39kg-CO<sub>2</sub>/kwh, lighting hours per year: 3000h.

# LED Lamps 600 series, 400 series

Sharp Corporation DL-L601N/L,DL-L401N/L and others

Sharp Corporation introduces into the Japanese market nine models of LED lamps for featuring outstanding environmental performance, including high energy efficiency, long service life, and free of hazardous mercury. Because these lamps have the same standard screw-in base and fit in the same sockets as ordinary incandescent lamps, they are simple and easy to use as replacements for ordinary lamps.

### [Usage/field]

the future of lighting to use as replacements for ordinary lamps.

### [Use conditions]

Rated voltage:100V

Lamp base: E26 standard screw base

#### [Features]

- Adjustable Color Function enables users to change the color of light from the lamp ranging from warm white to daylight white, an industry first\*1, using the remote control (model DL-L60AV).
- Brightness of 560 lumens, among the brightest in the industry\*1 for an LED lamp having nearly the same physical size and shape as a standard incandescent lamp (model DL-L601N).
- Outstanding energy efficiency allows lamp to be used for approximately 11 hours for a cost of one yen\*2 (models DL-L401N/L).
- · Long service life with a design lifetime of 40,000 hours.
- · Bright, even illumination
- \*1 As of June 11, 2009 for LED lamps having nearly the same physical size and shape as a standard incandescent lamp used for general illumination

These lamps offer outstanding energy efficiency and consume only very low amounts of power-4.1 W for the DL-L401N/L models, and 7.5 W for the DL-L601N/L models — enabling them to be used for approximately 11 and 6 hours, respectively, for the cost of just one

\*2 Calculated at rate of 22 yen/kWh.



#### Contact

### **Sharp Corporation**

**Customer consultation service** 

22-22 Nagaike-cho,Abeno-ku,Osaka-city TEL 0120-50-8562 FAX 06-6792-5993 URL http://www.sharp.co.jp/led\_lighting/

nergy-saving effec

### Electronics

### air conditioner

Panasonic Corporation CS-X229A series

This product improves energy saving not only by high-performance hardware components but also by software to give consideration to the users convenience and life scene.

### [Usage/field]

air conditioner

### [Use conditions]

Single-phase 100V/200V

### [Features

This single split air conditioner has the following features

- The APF restriction of 2010 is cleared according to the performance gains of the compressor, heat exchangers, and blowers.
- 2) The position and the amount of the activity of the person are detected by newly installed "Person detection sensor", so the air-conditioning of each area in the room is enabled, and the energy-saving driving is achieved.
- 3) The maintenance-free filter is achieved by "filter automatic cleaning mechanism", and the energy-saving driving is achieved by removing dust on the filer.



- 1) "Person detecting sensor" enables subtle operation of the air conditioning ("area targeting air conditioning"), so this machine is able to consume up to 45% energy saving effect as compared to air conditioning throughout the entire room. (Calculated at one sensory temperature when heating in 14 tatami room)
- 2) Dust- accumulated filter needs unnecessary power consumption. Therefore, with "filter automatic cleaning mechanism", this machine is able to consume 25% energy saving effect about a year as compared to without. (Calculated when heating)



### Contact

Panasonic Corporation , Home Appliances Company Air Conditioner Business Unit

2-3-1-1 Noji-higashi ,Kusatsu City ,Shiga, 525-8520, Japan TEL +81-77-567-9807 FAX +81-77-561-3208 URL http://panasonic.co.jp/ha/HA\_top.php

### Air Conditioner

Air conditioner is one of the household appliances which has the largest electricity consumption at home. Sharp's air conditioner has succeeded in saving the consumption with maintaining high degree of satisfaction at the same time by its original airflow control technology.

### [Usage/field]

Room Air Conditioner

### [Use conditions]

Power supply 200V 15A

### [Features]

- · "Plasmacluster Ion Technology", which is Sharp's proprietary air purification technology, is installed. Positive and negative ions inactivate harmful airborne mold spores, allergens (mite, pollen), and viruses. The effects have been proven at academic institutions around the world.
- Sharp's "Ultra-wide air flow" prevents the air blowing directly to the users. While in cooling, cold air reaches the ceiling and walls to cover the whole room without direct air flow and such air flow prevents users from over cooling. While in heating, warm air travels down the wall and then spred across the whole floor to warm you from the feel up. Sharp's A/C with ultra-wide airflow (for cooling) has achieved the first" Healing and Comfortable Recommendation Mark" by OHS platform.



### Contact

#### Sharp Corporation Customer Response center

22-22 Nagaike-cho, Abeno-ku, Osaka-city TEL 0120-078-178 FAX 06-6792-5993

E-mail Sharp Home Page "Support and Inquiry" page, "Question through Email"

URL http://www.sharp.co.jp/aircon/index.html

Sharp's air conditioner applies" Fluid dynamic" technology, which utilizes the air flow efficiently and is also applied in the field of aircraft and highspeed trains

It brings high-energy saving by suppressing the air resistance of the airflow

as much as possible.

• Approximately 20% of energy saving of the fan.

(Compared to the indoor unit motor power consumption of the conventional model S-SXC(05'))

Sharp's latest model(AY-Y40SX) can save approximately 33% of annual power consumption compared to the model of 11 years ago(AY-J40FX2)

### Data center

### Environmental Monitoring Unit for iDC server rack Anywire Corporation CONCENT SERVER

Easily set it up in server rack. 1U rackmounting type unit to be able to measure environmental information on energy usage condition and temperature, etc.

### [Usage/field]

1U rackmount type unit able to measure environmental information on energy usage condition and temperature, etc. Can be easily setting it up in server rack.

19-inch rackmounting 1U half size, ratings input voltage: AC100-240V, 50/60Hz, up to 30A, temperature range: 0-50°C

Easily set up in a server rack, it can measure power supply status, voltage, current, power, power factor, energy and temperature. In addition, FAN control and door control by the peripherals connection is pos-

- -Measures and monitors power status and temperature
- -Alarm summary displayed based on threshold value
- -Controls electric door lock and monitors door sensor
- -Fan control based on temperature value
- -Remote monitoring by Anywire sensor network

- · Detection and treatment confirmation of power loss by no equilibrium of three-phase circuit power supply
- Power distribution improvement by load balance
- Efficiency improvement of air conditioning energy by monitoring hot spot data
- Energy saving by fan control for server rack air cooling
- Ecologically, Anywire sensor network meets requirements of reduction and recycling of cable.



Anywire Corporation IDC/ICT Monitoring Team

8-1 Shimoinden, Inouchi, Nagaokakyo-city, Kyoto 617-0813

TEL +81-75-956-1611 FAX +81-75-956-1613 E-mail idcict@anvwire.ip

URL http://www.anywire.jp

### **Server Virtualization Solution**

### CAC provides 6 solutions based on virtualization!

### [Usage/field]

- 1 Server Integration
- 2 Keep Legacy Apps Alive
- 3 Quick Responses to Needs
- 4 Virtual Lab.
- 5 Business Continuity
- 6 Virtual Desktop

### [Use conditions]

Not applicable.

#### [Features]

Virtualization technology provides IT resources (servers, storage, networks) in logical accessible units while hiding their physical properties and boundaries. Companies are able to reduce operation costs, improve ROI, rapidly build test environments, and quickly respond to business needs.

CAC's vendor-neutral position allows it to test and evaluate a variety of virtualization products. We support every aspect of your process and provide optimum solutions from pre-installation surveys and planning to operation.

Energy-saving e

### Predictable benefits:

Before virtualization -> After virtualization ··· CO<sub>2</sub> reductions

20 servers -> 1 server ··· 20 to 60 tons/year 40 servers -> 2 servers ··· 40 to 120 tons/year 60 servers -> 4 servers ··· 80 to 240 tons/year

Actual CO<sub>2</sub> reduction levels vary greatly based on the number and specifications of existing servers, and the amount of consolidation achieved. CAC can provide an estimate of the benefits expected based on the cur-

rent system, and propose the optimum configuration for customers.



### Contact

# CAC Corporation Application Management Outsourcing Center, IT Development Group

24-1 Hakozakicho, Nihonbashi, Chuo-ku, Tokyo TEL 81-3-6667-8047 FAX 81-3-5641-3177 E-mail info-lcsi@cac.co.jp URL http://www.cac.co.jp/

### **Data center**

# Green data center adopted by advanced green technology

Fujitsu Limited Fujitsu Tatebayashi System Center

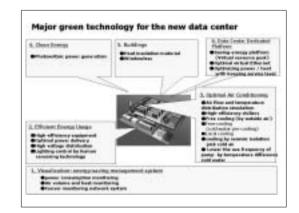
The leading-edge data center can reduce environmental load with achieving high reliability and security

### [Usage/field]

Covers every kinds of IT equipment and various systems as our outcourcing service in one stop operation management

### [Features]

- Due to leading-edge technology (Real-time Temperature Measurement Technology by optical fiber, thermal current simulation...etc) and energy-saving operation management, the new data center can greatly reduce environmental load.
- Introduce renewable energy, high-efficient UPS and cooling machine.



Energy-saving effec

- Potentially reduce 40% energy consumption of facility. (40,000ton / year)
   Green data center can be a significant foundation for various IT services
- Green data center can be a significant foundation for various IT services to contribute to environmental load reduction.

### Contact

### **Fujitsu Limited Fujitsu Customer Center**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-919

URL http://fenics.fujitsu.com/idc/tatebayashi.html

# **GPN(Gomez Performance Networks)**

Gomes Consulting Co.,Ltd. Web site performance measurement

- 1. Provide an ASP tool "GPN" that monitars performance of websites.
- 2.Consulting services for high performance websites by using "GPN". A high performance website uses much less power so it links to reduce pressure on the environment.

### [Usage/field]

- Web performance (speed display, Availability) is bad.
- · Consider to increase the Server by an above factor.
- · Need for monitoring from the outside environment.

#### [Use conditions]

It must be access by the internet browsers.

#### [Features]

- 1."GPN" can monitor websites by using the external measurement base, 100 places in the world, 2 places in Japan, 24 hours a day, every day. In US, 72% of companies that introduced "GPN" succeed in improving their site performance, on the other hand 48% of companies introduced other mesurement tools succeed.
- Based on bottleneck analysis using "GPN", Gomez report ideas for improvement.

Energy-saving effec

It can reduse server load to renovate design and HTML files and tune network, application.

A server is made redundant, it supposed to reduce carbon dioxide

A server is made redundant, it supposed to reduce carbon dioxide emissions by around 12.5t.

Excerpt from "Increase Energy Efficiency with Virtualization" by Vmware.

URL:http://www.vmware.com/jp/company/news/releases/green\_it.ht ml

### Contact

# Gomes Consulting Co.,Ltd. GPN center in advisory division

Izumi garden tower 18F, 1-6-1Roppongi, Minatoku Tokyo JAPAN TEL 03-6229-0813 FAX 03-3589-7965 E-mail gomez-info@gomez.co.jp URL http://www.gomez.co.jp/

### Data center

### **Virtualization Clinic - Server Consolidation Services**

Hitachi Information Systems, Ltd.

Reduces amount of server hardware by virtualization technology after visualization of server operation status; as a result, server consolidation promotes efficient operation and cuts electric power consumption.

### [Usage/field]

Provides and reports assessment data of the current server operation status. According to the provided data, server virtualization actualizes.

### [Use conditions]

Electricity, Network environment

### [Features]

Grasps necessity resources with visualization of server operation status.

Reports effect on the TCO reduction then provides virtualized server consolidation.

Unifies server operations, simplifies server management, improves flexibility, and increase the rate of utilization.

Energy-saving effe

Reduce number of server units and power consumption from virtualized server consolidation.

### Contact

### Hitachi Information Systems, Ltd.

1-2-1 Osaki Shinagawa-ku Tokyo TEL 0120-346-401 FAX 03-5435-2707 E-mail faindesk.p@hitachijoho.com URL http://www.vsolution.jp

### Yokohama Datacenter the 3rd.

Hitachi, Ltd. Green DataCenter

Yokohama Datacenter the 3rd. has been deployed harmonizing with the environment with Hitachi's cutting edge technologies, such as the most efficient air conditioning/power feeding systems, and use of natural energy sources.

### [Usage/field]

The deployment of the datacenter to harmonize with the environment through utilization of components for energy saving and development of cutting edge technologies for energy reduction.

#### [Features]

Yokohama Datacenter the 3rd. is the greenest data center in Hitachi which intends full use of the greenest ITs in Hitachi and also the greenest power feeding and cooling technologies in Hitachi under Hitachi group's total design coordination.

Hitachi Integration Control Center in Yokohama Datacenter the 3rd. is offered to support a prompt trouble shooting. 365days full time support with the single uniform managements copes with various needs in IT administration and contributes enhanced management and operation for datacenter users.



Contact

Hitachi, Ltd.
Cool Center Controlling Department
Outsourcing Data Center
Outsourcing Services Division
Hitachi Street Shipkowaseki 8

Hitachi Systemplaza Shinkawasaki,890 Kashimada,Saiwai,Kawasaki,Kanagawa,212-8567 Japan TEL +81-44-549-1322 FAX +81-44-549-1191 E-mail shu.nakamura.ej@hitachi.com

nergy-saving effe

Air conditioner "FMACS -V\*1" and uninterruptible power supply "UNIPARA" provide lower power consumption than traditional ones. Three-dimensional heat flux body simulator "AirAssist" builds the environment where the most efficient air flow is provided to save energy in cooling system. The sensors installed on the server racks pick up temperature, humidity, and power consumption, etc. periodically and transfer the data to Hitachi Integration Control Center where datacenter operators in Hitachi can monitor various data for server rooms concurrently with Hitachi original visualization system. The visualization achieves coexisting of qualified stable operation and cost reduction in datacenter. Rooftop gardening with water retentively porous concrete panels reduces the thermal loading and improves the air-conditioning efficiency.

\*1 FMACS is a registered trademark of NTT FACILITIES,INC..

### Data center

### **Modular Datacenter**

Hitachi, Ltd. Provides Energy-Saving and Space-Saving Datacenter Environment

"Modular Datacenter" could optimize layout of server racks and air conditioners in small "Module". This "Modular Datacenter" could reduce datacenter total power consumption by 27% and floor space by 75% over traditional datacenter.

[Usage/field]

Provides Power saving data center environments from the small-scale "Server Room" in the office area to the large-scale data center to a lot of customers.

### [Use conditions]

A datacenter mainly consisting of open server rack with "Under Floor Air-Conditioner".

### [Features]

"Modular Datacenter", Hitachi will carry out in advance a consultation on new construction or improvement of a data center, including running simulations of installation environments and so forth, via the "Air conditioning environment consulting service" utilizing Hitachi's proprietary cooling optimization technology. Based on the results, Hitachi will construct a "Modular Datacenter" where the racks carrying the servers, storage devices and other IT equipment, and the cooling systems, etc., are laid out in single small-sized "Modules" so as to maximize equipment operation efficiency.

Furthermore, being constructed from modular units sized as small as roughly 22m<sup>2</sup>(\*1) , these data centers can be flexibly enlarged according to users' requirements.

\*1 Size of modules is  $6.3 \times 3.6$  m (approximately  $22m^2$ )

### Hitachi,Ltd.

Omori Bellport B Bldg.26-3,Minami Oi 6-chome,Shinagawa-ku,Tokyo,140-0013 Japan

Contact

Energy-saving effe

- · Reducing Air-Conditioner power consumption by 70% over traditional(\*2) Under Floor Air-Conditioner.
- Reducing datacenter total power (IT Devices, Air-Conditioner, Loss in Power Feeding., etc.) consumption by 27% over traditional(\*2) datacenter.
- \*2 Source to June.2008 JEITA(Japan Electronics and Information Technology Industries Association)

# General-Purpose Heat and Fluid Analysis Package Mitsubishi Electric Information Network Corporation FlowDesigner

This tool enables the user to study energy savings by calculating airflow, temperature, humidity, and contamination level through airflow analysis; by improving the warm environments of office, plant, store, atrium, electric room, server room, and data center; and by finding out the optimal value of the air conditioning set temperature.

### [Usage/field]

A tool that adapts to the following

- Studying warm environments, air conditioning and ventilation of general houses, condos, stores, plants, etc.
- · Dust analysis at time of clean room designing and ventilation/thermal design inside machinery/equipment
- · Studying energy savings of server rooms, data centers, and electric rooms and studying improvement of warm
- · Studying problems of outdoor wind and exhaust heat from outdoor units

### [Use conditions]

Used with a PC running on Windows XP or VISTA (CPU: 2GHz or more and RAM: 2GB or more recommended)

### [Features]

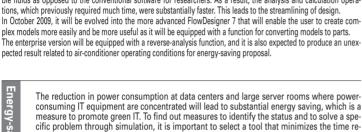
The major features of FlowDesigner are that its basic functions, which are in high demand, are easy to use, and it is capable of performing high-speed stable calculations by adding a few limits such as calculating only for incompressible fluids as opposed to the conventional software for researchers. As a result, the analysis and calculation operations, which previously required much time, were substantially faster. This leads to the streamlining of design In October 2009, it will be evolved into the more advanced FlowDesigner 7 that will enable the user to create complex models more easily and be more useful as it will be equipped with a function for converting models to parts.

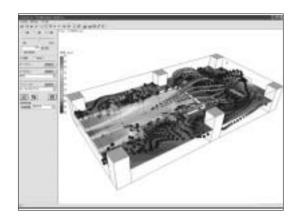
The enterprise version will be equipped with a reverse-analysis function, and it is also expected to produce an unex-

quired for the simulation. FlowDesigner enables the user to find out the optimal improvement measure by shortening the analysis time and analyzing more parameters.

Specifically, FlowDesigner proposes energy saving by performing analysis of a countermeasure to remove the heat pool and demonstrating that raising the set temperature of the air

conditioner will cause no problem on the basis of a basic model that reproduces the exist-





### Contact

### Mitsubishi Electric Information Network Corporation Sales Planning Division

ZENITAKA ANNEX 1-4-4 Kojimachi, Chiyoda-ku, Tokyo 102-8483

TEL +81-3-5276-6821 FAX +81-3-5276-6426 URL http://www.mind.co.jp/service/application/package/fluid.html

### Data center

ing warm environment.

# Environmental monitoring solutions to the data center Netmarks Inc. Environmental monitoring solutions to the data center

This product makes a two-dimensional distribution map made from (temperature/humidity/static pressure)data. The datacenter floor map is drawn in the background.

The administrator can determine the measurement has been achieved.

### [Usage/field]

Environmental monitoring solutions for improve Data Center Power Usage Effectiveness val-

### [Use conditions]

setting & space is required in PDU server is a 2U rack space is required

### [Features]

This product makes a two-dimensional distribution map made from (temperature/humidity/static pressure) data. The datacenter floor map is drawn in the background.

When manager wants to watch a state change of past load, the server displays it by an anima-

It's optimized for the most recent data center rack configuration.

It uses wireless technology, environmental monitoring sensors when installed, there is no

When a problem occurs, server creates a fault report. It sends this report to the administra-



### Contact

Netmarks Inc. Market Development Division

1-1-1 Toyosu, Koutou-ku, Tokyo TEL 81-3-5144-1100 FAX 81-3-6866-4311 E-mail info@netmarks.co.jp

URL http://www.netmarks.co.jp/english/index.html

To measure the amount of data center power and create this report. The administrator can determine the measurement has been ach-

The administrator can know whether there are any problems. These will promote the reduction of greenhouse gas for your compa-

After having changed a layout to improve cooling efficiency, The manager can inspect whether current air conditioning environment improved than before with this measuring instrument.

# Data Center Air Conditioning Air Flow Control Products NITTO KOGYO CORPORATION AISLE CAPPING

It is the system that provides efficient air-conditioning state for data centers. Cold aisle is isolated by door and top panel to retain the cold air from the under-floor inside the space. Consequently, it reduces the cooling energy loss of under-floor airconditioner, and it prevents the exhaust heat of devices from getting into racks.

### [Usage/field]

Promote efficient cooling and electrical power saving for data centers and server rooms.

### [Use conditions]

Using an under-floor air-conditioning equipment, and intake air and exhaust air of racks forms cold aisle and hot aisle respectively.

It shuts the cold aisle to keep out the exhaust heat of devices.

It reduces the cooling energy loss of under-floor air-conditioner.

It is lightweight and is able to be installed easily, as it is made of aluminum. It passed rigorous quake resistant test. It is certified that it is free of untoward effects for racks even if a strong earthquake as Great Hanshin Earthquake occurs.

\*This product is jointly-developed with NTT FACILITIES, INC.

\*Aisle Capping is a patented invention and registered trademark of NTT FACILITIES, INC.



In comparison with conventional air-conditioning system for datacenter, it will save approx. 50% on blower power, according to NTT FACILITIES, INC.



### Contact

### NITTO KOGYO CORPORATION **Technical Support Department**

2201, Kanihara, Nagakute-cho, Aichi County, Aichi Prefecture 480-1189 TEL 0561-64-0152 FAX 0561-62-3911 E-mail support@nito.co.jp URL http://www.nito.co.jp

### Data center

## Green Data Center

NTT DATA CORPORATION Green Data Center(R)

Data centers of the next generation type that attempts the service improvement to the customer while considering the environment by promoting high efficiency and power saving.

### [Usage/field]

Total solution that achieves approach from all angles to conservation of energy as data center

### [Features]

"Green Data Center" is the total solution that achieves the approach from all perspectives to power saving.

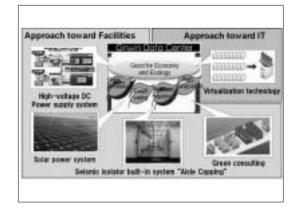
Solar power system, high-voltage DC Power supply system, highly effective air-conditioning, and highly efficient rack design-Seismic isolator built-in system "Aisle capping" and Green consulting as an approach from the facility, and the energy efficiency improvement that uses the virtualization technology as an approach from IT are promo-

This solution aims to correspond to the customer's demand for green IT by combination of these five.

### High-voltage DC Power supply system: Power consumption is reduced by 20% or more through cut of the conversion loss of energy. - Highly effective air-conditioning/highly efficient rack design: Power consumption can be reduced by adopting Aisle-Capping by 30% or

Virtualization technology: The number of servers was able to be reduced from 18 to 3 at our section server integration, for instance, and to reduce operation hours from 408 to 230 per month.

Solar power system: It contributes to the CO2 reduction by using clean energy to be equipped.



### **NTT DATA CORPORATION**

**Data Center Business Unit, Business Solutions Sector** Toyosu Center Building, 3-3, Toyosu 3-chome, Koto-ku, Tokyo 135-6015 TEL +81-50-5546-8348 FAX +81-3-5546-9635 E-mail greendc@am.nttdata.co.jp URL http://bs.nttdata.co.jp/green/

more.

# Data Center Cable Routing System Panduit Corporation FIBERRUNNER™, GRIDRUNNER™, COOL BOOT™

PANDUIT Data Center Cable Routing System can enhance reliability and scalability. The system can also improve air conditioning system and save cooling cost

### [Usage/field]

Communication cable routing pathway and protecting system in data centers

### [Use conditions]

Raised Floor and introducing space to the ceiling

FIBERRUNNER™ is a suspended or overhead routing system for fiber optic cable. This system will properly protect fiber optic cable, which is vulnerable to stress, and improve reliability.

 $\mathsf{GRIDRUNNER}^\mathsf{TM}$  is a cable pathway system with wire basket structure for raised floor. Panduit unique structure will prevent cables from excessive bend, and protect from stress. By stratifying cables, it will ensure reliability and scalability simultaneously.

COOLBOOT™ is a air sealing grommet for aperture for cable routing on data center floor, and will prevent cold air to flow and protect cables.



### Contact

### **Panduit Corporation Customer Service**

Shinagawa NSS Bldg, 2 chome 13-31, Konan Minato-ku, Tokyo 108-0075 TEL 03-6863-6050 FAX 03-6863-6100 E-mail jpn-info-e@panduit.com URL http://www.panduit.com



In data center, cold air provided from air conditioning equipment will reach to the front of cabinet via raised floor. Therefore, obstacle under the floor prevents cold air to flow properly. In addition, unintended aperture on raised floor makes cold air to leak, and could not provide the air

properly.

By introducing FIBERRUNNER™ system, which routes fiber cables overhead, GRIDRUNNER™ system with wire basket structure which makes air flow properly, and COOLBOOT™ which seals cabling aperture on raised floor, enable air conditioning system to operate efficiently. For example, data center with 465m² in size, 150 cabinets deployed, saves cooling cost by 2.3 million(JPY) per year by introducing these systems.

### Data center

# **Refrigiration Rear Door Heat eXchanger**

IBM Japan / Sanyo Electric Co., Ltd. Refrigiration Rear Door Heat eXchanger

This device is an energy saving type task cooling system in a data center which is located on the rear door of server rack, refrigeration type(no risk of leak of water), combined with the base cooling system, and improve efficiency of total air conditioning.

### [Usage/field]

This is an energy saving type task cooling system, which adapts 19 inches' system racks with high heat exhausting servers.

### [Use conditions]

19 inch rackes specified by IBM, An outdoor unit must be installed.

### [Features]

Refrigeration Rear Door Heat eXchanger is the world wide first racks' rear door type air conditioning system utilizing refrigerant (alternate CFCs).

By changing normal rear door to a heat exchanger type rear door unit, and connecting an outdoor unit, it can remove 50%<sup>(1)</sup> of the heat from the rack by means of refrigeration heat pump method.

This is not cycling liquid refrigerant type, but utilizing a compressor type cooling device. As to the configuration, up to 5 indoor devices (rear door) can be connected to one outdoor unit which has an inverter type compressor, using refrigerant pipes. Each door can be controlled independently. The rear door unit does not have blowers, takes advantage of servers' blower that why it achieves energy efficent.



Regarding the characteristic of the power of this air conditioner, COP value of most frequent usage area (45-75% of Max power) is 4.2 5.2.(1) It is 50% energy saving<sup>(2)</sup> compared to the commonly used base air conditioner. In total up to 25% of cooling energy could be saved combined with base cooling system.

- (1) By result of the measurement in IBM/Sanyo
- (2) By result of the investigation in IBM/Sanyo (1) (2) The value could be changed by the condition of environment



### **IBM Japan** Site&Facilities Services SPL Brand ITS-Japan TEL 03-3808-8953 FAX 03-3664-4792

E-mail kazuma@jp.ibm.com URL http://www.ibm.com/jp/

# Server virtualization implement service

UEJIMA KIKAKU inc. Server virtualization implement service

We provide the service that we support server virtualization implements to reduce the carbon dioxide emissions and system costs.

### [Usage/field]

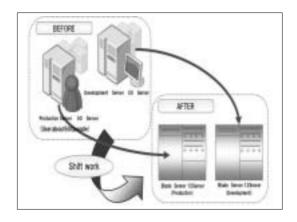
We reduce the number of physical servers in your office by server virtualization.

### [Use conditions]

This service is for any companies who want to reduce the number of physical servers.

### [Features]

The number of physical servers can be reduced by vitalizing and integrating the servers. It makes many effects to reduce the energy consumption, the space for servers, carbon dioxide emissions and system costs. We provide IT services, which are low costs and environment friendly.



### Contact

### **UEJIMA KIKAKU inc. IT service Sales Department**

Twin building tabata A 1-13-10,HigashiTabata Kita-ku Tokyo 114-0013 Japan

TEL 03-5692-5030 FAX 03-5692-5035

E-mail info@uknet.co.jp URL http://www.uknet.co.jp

ergy-saving eff

For our actual example, we integrated 50 product servers and 50 development servers, a total of 100 servers, into a total of 24 servers. Reducing the number of servers makes many effects to reduce carbon dioxide emissions and the space for the servers and so on.

### Data center

# Air flow management system

azbil group Yamatake Corporation AdaptivCOOL

It reduces energy consumption and CO2 emission by contributing to stabilize operation of datacenter and cut excessive energy cosumption due to overcooling, etc. Problems will be discovered by visualizing datacenter structure utilizing air flow simulation. Based on problems found in the process, solution will be discussed for introduction of suitable system.

### [Usage/field]

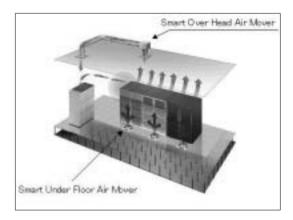
An integral solution that covers assesment to system introduction, providing optimized air conditioning by solving problems such as heat accumulation or overcooling.

### [Use conditions]

A datacenter mainly consisting of open server rack utilizing HVAC system with "Under Floor Air Mover".

### [Features]

By utilizing a simulation software employing numeric fluid mechanic analysis, invisible air flow will be visualized to discover problems in a datacenter. Then, the best strategy will be formed to introduce an optimal system. The system includes "Under Floor Air Movers" connected to openings on front panels of server racks to supply proper amount of cooled air, and "Smart Over Head Air Movers" that return accumulated hot air to air inlets of HVAC equipments. Both products have thermal sensors for varyable air speed control.



# Energy-saving em

By utilizing "Smart Under Floor Air Mover" and "Smart Over Head Air mover, air flow in datacenter will be optimized, eliminating HVAC loss. With this, temperature may be set higher, or a number of HVAC equipments running at any given time may be reduced. In the US, 30% reduction of HVAC energy demand was achieved in 2,000 square meter class datacenter. In Japan, HVAC equipments could be reduced from 30 to 20 in 1,000 square meter class datacenter, but kept optimal air conditioning environment for datacenter on air flow simulation.

### Contact

azbil group Yamatake Corporation Global Sales Department, Building Systems Company Shinagawa Seaside South Tower, 4-12-1Higashi-Shinagawa, Shinagawa-ku, TOKYO TEL 81-3-6810-1107 URL http://www.azbil.com/

## **IGBT Module**

Mitsubishi Electric Corporation Mega Power Dual

This module is used for switching electricity to and from AC/DC current, mainly incorporated in products for renewable energy such as wind and solar power generation.

By improving its electricity conversion efficiency, it contributes to the reduction of product energy consumption.

### [Usage/field]

- · For wind power generation
- For solar power generation
- For AC power equipment

### [Use conditions]

Level of general industry

### [Features]

- 1. Large current and high voltage
- Low saturation voltage, contributing to improvement of power converter efficiency
- Enables size reduction of heat radiation components in inverter systems
- 4. Internal design that realizes low inductance
- Optimized shape fit for mounting driving circuit substrates improves convenience for users

Energy-saving effect

Recently, inverters are widely used in wind and solar power generation equipment as well as to drive and control industrial machinery. By tuning power frequency in inverters according to the electricity load, energy consumption in these products becomes highly efficient.

cient.
Given their high efficiency, there is a growing demand for IGBT modules that incorporate IGBT chips and diodes used for driving these inverters. IGBT modules play an important part in reducing switching loss in inverters, which therefore contributes greatly to energy efficiency in products.



### Contact

### Mitsubishi Electric Corporation Semiconductor & Device Group

Tokyo Building,2-7-3, Marunouchi, Chiyoda-ku, Tokyo 100-8310, Japan

TEL +81-3-3218-3198 FAX +81-3-3218-4862 E-mail hanjij.document@rb.MitsubishiElectric.co.jp URL http://www.mitsubishielectric.com/Global/

### **Parts**

# Low power 8-bit, 16-bit, and 32-bit MCUs NEC Electronics Corporation V850 78K

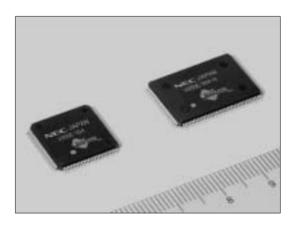
All Flash MCUs will enable appliance manufacturers to reduce costs, and be faster to market with the development of ecofriendly household appliances and compact, low-cost factory automation equipment.

### [Usage/field]

General Purpose, LCD Control, CAN Interface, Remote Control, USB Interface, ASSP, Digital AV, Motor Control/Lighting Control, IO-Link, Car Body Control, Ethernet

### [Features]

NEC Electronics' low power, 8-bit, 16-bit, and 32-bit MCUs are flash microprocessors that have achieved even higher performances and lower power consumption.



Energy-saving effo

NEC Electronics believes our MCUs will enable appliance manufacturers to reduce costs, and be faster to market with the development of eco-friendly household appliances and compact, low-cost factory automation equipment.

The company plans to market them aggressively and continue to ex-

The company plans to market them aggressively and continue to expand its lineup of low-power microcontrollers.

### Contact

# **NEC Electronics Corporation Corporate Communication Department**

1753 Simonumabe, Nakahara-Ku, Kawasaki, Kanagawa 211-8668 Japan

TEL +81 44 435 5111

URL http://www.necel.com/micro/en/index.html

# Ultra-Low power LSI for portable multimedia devices

**NEC Electronics Corporation EMMA Mobile** 

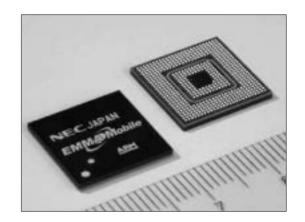
EMMA Mobile offers various functions of mobile multimedia devices at lower power consumption

### [Usage/field]

Portable Audio-Visual Devices

### [Features]

EMMA Mobile is the next generation multimedia processor that has achieved even greater functionality and lower power consumption.



nergy-saving eff

With advanced low-power technologies from NEC Electronics, EMMA Mobile offers various functions required by rapidly evolving mobile multimedia devices, such as playback of multimedia contents and support for large LCD displays.

### Contact

# NEC Electronics Corporation Corporate Communication Department

1753 Simonumabe, Nakahara-Ku, Kawasaki,

Kanagawa 211-8668 Japan

TEL +81 44 435 5111

URL http://www.necel.com/mobile/en/emma\_mobile/index.html

### **Parts**

# **Low-power 16-bit microcontrollers**

SEIKO EPSON CORPORATION S1C17 Family

Epson's low-power 16-bit microcontrollers are used in a variety of products including healthcare equipment, portable computing devices, and home appliances. Epson is working to reduce our environmental impact by providing microcontrollers that are high-performance, compact, and low power.

### [Usage/field]

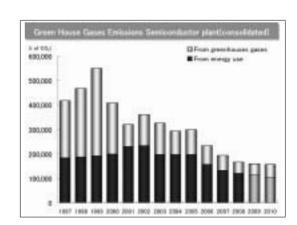
Low-power 16-bit microcontrollers best suited for controlling LCD displays and other functions of healthcare equipment, mobile information equipment, and electric home appliances.

### [Use conditions]

Embedded into IT equipment and consumer electronics

### [Features]

The S1C17 is a family of 16-bit RISC microcontrollers that integrate a wide array of peripheral circuits such as interfaces supporting a variety of sensors, LCD drivers and controllers covering a wide range of displays. The product lineup includes a number of flash ROM built-in microcontrollers that operate at high speed and with low power. Handy evaluation boards and highly-functional on-chip in-circuit emulators contribute to shorten design turnaround time.



Energy-saving et

To leave a lighter environmental footprint, Epson developed highly functional 16-bit flash microcontrollers that operate with low power enough for 8-bit flash microcontrollers. e.g., Power consumption comparison between Epson 8-bit and 16-microcontrollers bit STC17701 (16-bit) 1,800uA (at 8MHz), 2.6uA (in 32kHz Halt Mode) S1C8F626 (8-bit) 1,800uA (at 8MHz), 2.5uA (in 32kHz Halt Mode)

At Epson manufacturing plants, various activities to minimize environmental burden are conducted. We promote the reduction of greenhouse gas emissions causing global warming, pursue maximization of resource efficiency considering overall product lifecycles, and eliminate hazardous substances from our products and services. AS of 2008, Epson reduced CO2 emission to a level 60% lower than in 1997.

### Contact

### **SEIKO EPSON CORPORATION**

IC Business Promotion Dept. Semiconductor Operations Division 421-8 Hino, Hino-shi, Tokyo TEL 81-42-587-5816 FAX 81-42-587-5117 E-mail IC.device@exc.epson.co.jp URL http://www.epson.jp/device/semicon\_e/

# **Solar Energy Harvest Kit**

Texas Instruments Japan limited eZ430-RF2500-SEH

Solar energy harvesting kit from TI enables permanently-powered wireless sensor network

### [Usage/field]

Solar enegy harvesting development kit converts ambient light into power for industrial, transportation, agricultural and commercial applications

### [Features]

a solar energy harvesting (SEH) development kit that converts ambient light into power for industrial, transportation, agricultural and commercial applications. The credit card-sized eZ430-RF2500-SEH kit combines Cymbet Corporation's EnerChip&#8482 thin-film battery technology with TI's MSP430 microcontrollers (MCU), CC2500 radio frequency (RF) transceivers and the eZ430-RF2500 development tool. Developers can now build self powered solar-based wireless sensor networks, eliminating system batteries, which cost time and money to periodically replace, especially in remote locations.



### Contact

### Texas Instruments Japan limited Product Information Center

Nishi-Shinjuku Mitsi Bldg, 6-24-1,Nishi-Shinjuku, Shinjuku-ku, Tokyo TEL 813-4331-2000 URL http://www.ti.com

# by IT(Energy-saving by IT)

Production · · · · · · · · · · · · · · · · · · ·	
FEMS ·····	79
Improvement in efficiency of lighting/air-conditioning/power generation	80
Improving efficiency of a production process	81
Service ·····	
BEMS ·····	85
Electronic tag/Total supply-chain management (TSCM) · · · · · · · · ·	91
Paperless office · · · · · · · · · · · · · · · · · · ·	
Improving efficiency with IT	
Telework · · · · · · · · · · · · · · · · · · ·	
TV/web meeting ······	110
Remote medical care/Electronic karte · · · · · · · · · · · · · · · · · · ·	
Electronic bidding/Electronic application · · · · · · · · · · · · · · · · · · ·	115
e-learning···································	116
Remote control · · · · · · · · · · · · · · · · · · ·	
Others ······	
Home	121
HEMS ····································	
Electronic publishing/Electronic paper · · · · · · · · · · · · · · · · · · ·	122
On-line shopping · · · · · · · · · · · · · · · · · · ·	
Others · · · · · · · · · · · · · · · · · · ·	
Transportation · · · · · · · · · · · · · · · · · · ·	
Fuel consumption improvement of a car ··················	
Efficiency improvement of transport · · · · · · · · · · · · · · · · · · ·	
ITS	
Energy conversion · · · · · · · · · · · · · · · · · · ·	
Others ······	127

# Energy management & analysis package azbil group Yamatake Corporation EneSCOPE R120

EneSCOPE collects and stores the energy consumption and related data those are snapshot and accumulated values. It provides tools to analyze and check these data for energy-saving action. In addition, it publishes the data charts by browser.

### [Usage/field]

Package for energy management & analyzing to collect, store, calculate, analyze and publish the energy consumption data of single/multiple office/factory.

### [Use conditions]

Max # of data collection pts:38400 pts Max # of data management pts:4000 pts

### [Features]

EneSCOPE is a energy management package covered from a factory to whole company.

It can handle electric energy and flow quantity of various fuel, related data (temperature, pressure, Ph, conductivity, production volume etc).

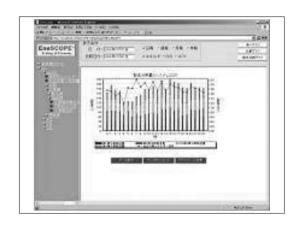
Also it can handle long-term snapshot data that make you recognize the detailed energy usage.

Its tools show you trend charts, correlative graphs, the histograms easily. It publishes data charts by browser.s

Energy-saving effect

You can save energy by

- Discover the cause of useless energy at the non-operating time for energy saving action
- 2) Energy basic unit management
- 3) Energy consumption management
- 4) Preventive maintenance by the facilities efficiency monitor



### Contact

azbil group Yamatake Corporation
Global Sales Department, Advanced Automation Company

1-12-2 Kawana, Fujisawa-shi, Kanagawa, 251-8522, JAPAN

TEL 81-466-52-7024

URL http://www.azbil.com/

### **Production**

# Optimization System for Facilities Energy Yokogawa Electric Corporation Enerize E3

From [Visualization] to [Optimized energy operation]. Achieve energy-saving operation by Energy KPI (Key Performance Indicater).

### [Usage/field]

In plants, facilities

- · Support optimized operation
- · Find Energy KPI
- · Establish continual improving activities

### [Use conditions]

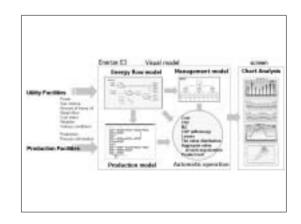
Server/MS2008, CPU/Quad-Core Xeon, Memory/4GB and more, HDD/500G and more

### [Features]

- · Find many Energy KPI by combine energy and production information
- · Visualization of control status by modeling is very useful for all related people continually
- Automatic calculation of enrgy consumption are based on energy flow model, control model and production model
- The calculation system is flexible for production line and apparatus modification

Energy-saving eff

Beyond simple visualization, by automatic calculation supported by visual-builder, customers can find many Energy KPl. By the Energy KPl control, find abnormal condition and select items for improvement rapidly. The system can continue energy-saving activities by strengthen performance.



### Contact

### Yokogawa Electric Corporation

Global Business Headquarters Environment Conservation Center 2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5951 FAX 0422-52-8054 URL http://www.yokogawa.co.jp/eco/

# Distributed Control System (DCS) solution Yokogawa Electric Corporation CENTUM VP

In response to economic and market changes, it is always necessary to take in cost, efficiency, and quality of the entire factory in real-time as well as to optimize the entire plant along with the changes. For that purpose, it is necessary to have control systems with agility and higher reliability which monitor production status carefully and predict changes in the future.

### [Usage/field]

It is a solution of distributed control system which controls and monitors plants with high reliability for the industries such as oil, petrochemical, chemical, power, iron and steel, etc.

### [Use conditions]

Installed in a control room

- 1) CENTUM VP provides the necessary data for plant operation in a real-time and precise manner giving the condition to monitor the plant comprehensively. 2) CENTUM VP offers control applications to realize efficient and safe plant op-
- 3) CENTUM VP always delivers the right information to operators for optimum plant operation
- 4) CENTUM VP provides a platform which makes it possible to create advanced solutions such as advanced control package, plant information management, and asset management.
- 5) CENTUM VP secures highly-reliable product design and support system, which ensures safe and continuous operation 24 hours a day, 365 days a year.

CENTUM VP contributes to plants' energy saving by providing optimum control applications for those plants with the distributed control system as a platform as follows:

- 1) Oil: Applications such as atmospheric distillation and reboiler control, etc.
  2) Chemical: Applications such as electrolysis tank control, etc.
- 3) Iron & steel: Applications such as sintered waste heat recovery and air-heating exhaust heat recovery control, etc.
- 4) Pulp & paper: Applications such as recovery boiler, paper machine heat recovery, and output change control, etc.



### Contact

### **Yokogawa Electric Corporation IA System Business Center**

2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5634 FAX 0422-52-9802 URL http://www.yokogawa.com/

### **Production**

### **Air Compressor Energy-saving System** Yokogawa Electric Corporation Econo-Pilot-Comp

Original control technology enable to reduce energy of plural compressors operation. Annual power reduction ratio is up to 35%

### [Usage/field]

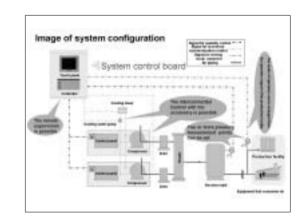
Energy-saving system to control plural air compressors

### [Use conditions]

In case of switching operation of plural air compressors

- Control by pressure drop level. It can stop compressor without pres-
- · It can change number of working compressors by fine control. It is based on combination of different volume.
- · The combined control is not affected by type of compressor manufacturers.
- · The system can show power consumption, flowing rate and reserve data.
- · The interconnected Control with the accessory is possible.
- · The fluctuated pressure range is controlled to minimum level.
- · Gradual energy-saving is possible because change of setting pressure is easy.

- Maximum energy-saving ratio is 35%. Reduce air leak caused by low blowing pressure.
- · Improved air pressure fluctuated range



### Yokogawa Electric Corporation

Global Business Headquarters Environment Conservation Center 2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5951 FAX 0422-52-8054 URL http://www.yokogawa.co.jp/eco/

Energy-saving by optimizing BTG operation Yokogawa Electric Corporation Energy-saving solution by optimizing BTG operation

It is important to keep constant pressure and temperature of boiler at production line. However it is difficult to keep it because of sudden work load change etc. By the energy-saving solution by optimizing BTG operation, customers can save energy and stabilize power which enable to reduce cost and operator's work load.

### [Usage/field]

BTG(Boiler Turbine Generator): Power or production facilities which use Boiler, Turbine or Generator.

### [Use conditions]

The system works on DCS(Yokogawa's process automation system)

### [Features]

The system achieves energy-saving and cost reduction by optimum plant control and optimization of the work load.

- · Fun. Calculation Control: By using process response model, predicts future variation. It realize very stable operation.
- · PID Re-tuning: By improving re-tuning and control logic, fulfill better basic controllability.
- · Fun. Planning Operation: Prepare operating schedule to minimize total cost of the energy.
- Evaluation of Energy and Cost Saving: Real time evaluation of CO2 and cost of whole BTG plant

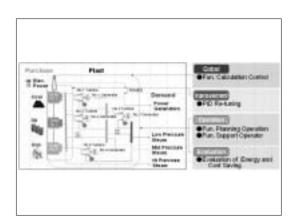
**Energy-saving effe** 

[Application at chemical plant]

- Manual intruding operation: Before: around 5,800 event/day
   After: around 3,000 event/day
- Energy-saving effect: Around 45% improvement of whole DCS event in 10 days analysis.

[Other application]

Energy-saving effect: 1 to 5 % of Energy and cost savings by the energy-saving control technology



### Contact

### **Yokogawa Electric Corporation**

Global Business Headquarters Environment Conservation Center 2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5951 FAX 0422-52-8054 URL http://www.yokogawa.co.jp/eco/

### **Production**

# Advanced High-frequency Analyzer Anritsu Corporation MS269xA Signal Analyzers

The MS269xA Series Signal Analyzers are general purpose measuring instruments with superb total level accuracy, modulation accuracy and broadband analysis ensuring efficiency in R&D of radio communication systems or digital equipment testing.

### [Usage/field]

Promote efficiency of performance tests (for R&D/production of communication systems/digital equipment) using broadband modulation and high-frequency bands

### [Use conditions]

Power supply: 100 to 120 VAC, 200 to 240V, Temp. range: 5°C to 45°C

### [Features]

- Three capabilities including spectrum analysis, vector signal analysis and digitization are all built into one unit
- Advanced architecture provides top-of-the-line RF performance
- State-of-the-art vector signal analysis function with speed and reliable RF performance
- High-resolution digitizing captures RF signals without loss
- · Highly scalable platform for a wide range of applications



The key concepts of Anritsu's eco-conscious products are "quick measurement," "compact body" and "one unit with multiple functions." Besides the 27 percent less power consumption, the MS269xA series execute measurements in one minute (formerly took 30 minutes) reducing power consumption in applicable sites to one-fiftieth compared with the preceding models. These analyzers weigh 18 percent less; with optional built-in vector signal generator, users can facilitate a test environment without any accessories.



### Contact

### **Anritsu Corporation**

**Business Promotion Department, Measurement Solution Sales Division** 

8-5 Tamuracho, Atsugi, Kanagawa, 243-0016 Japan TEL 046-296-1208 FAX 046-296-1248 E-mail SJPost@zy.anritsu.co.jp URL http://www.anritsu.com/

# **Material Flow Cost Accounting**

Canon IT Solutions Inc. Ecovation MFCA & Consulting Services

MFCA is an method how the material flows by the manufacturing process, and the evaluation and analyzing the loss (waste) in the manufacturing process. New reducing costs are achieved, and the negative environmental impact are decreased.

### [Usage/field]

It is an environmental accounting method for making visible the uselessness hidden in the manufacturing process by aiming at the material and the loss

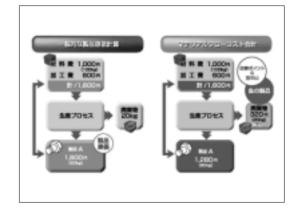
### [Use conditions]

**Ecovation MFCA** 

OS:Windows Server 2003, CPU:3.0GHz

### [Features]

- By the thing to pursue the flow of the material in the manufacturing process, a new improvement point is discovered.
- It comes to see all elements that compose the cost such as the material, energy, the system, and waste management, and the overall judgment for the cost reduction becomes possible.
- Consideration to the loss on the production site is revolutionized, and the improvement consideration is urged.



### Contact

# Canon IT Solutions Inc. Environmental Solution Sales Department

11-28, 3-chome, Mita, Minato-ku, Tokyo TEL +81-3-5730-7064 FAX +81-3-5730-7096 E-mail ecovation@canon-its.co.jp

URL http://www.canon-its.co.jp/environment/mfca/index.html

# nergy-saving ef

The reduction of vast waste is achieved from the analysis and the improvement of the manufacturing process by introducing MFCA.
The environmental indicator for the saving resource is offered by

- The environmental indicator for the saving resource is offered by understanding vague waste quantitatively in each product and each process.
- The uselessness of energy in the manufacturing process is made to visible, and reduced.

### **Production**

# **Core Application for MES**

Mitsubishi Electric Information Systems Corporation MELNAVI-AP

- MELNAVI-AP is a generic packaged software for MES to visualize results and quality at a production line and to improve
  efficiency and quality.
- · Monitoring operation and facility will improve efficiency and energy loss.

### [Usage/field]

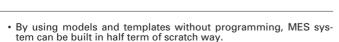
Packaged manufacturing instructions and performance management, and templates available for discrete/process manufacturers

### [Use conditions]

Application servers, database servers and client PCs

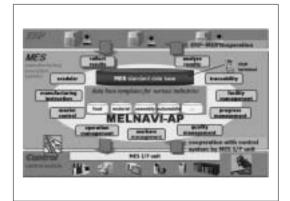
### [Features]

- By using models and templates without programming, the system can be built in a short term at various business and industries.
- Web-based applications make it easy to facilitate the system to any departments and maintenance. Anywhere instant check progress of manufacturing.
- Interface with both FA and SAP ERP etc. regularly contained, and enables consistent system construction.
- Only customizing programs in servers, user can input data from major manufacturers' wireless handy terminal. Reduce the system operation load.



- Setting parameters and utilizing model systems will reduce development volume by 70 %.
  Monitoring operation and facility will improve the efficiency, quali-
- ty, energy loss, and avoid downtime.

  Cooperation between ERP/FA/scheduler enable real-time measures
- Cooperation between ERP/FA/scheduler enable real-time measures and decisions at every layer. Significantly improve the efficiency of manufacturing management



### Contact

# Mitsubishi Electric Information Systems Corporation ERP marketing Department

MS Shibaura Bldg, 4-13-23 Shibaura Minato-ku Tokyo TEL 03-5445-7458 FAX 03-5445-7791 E-mail diamxm melnavi@mdis.co.ip

URL http://www.mdis.co.jp/products/melnavi-ap/index.html

mproving efficiency of a production process

# **EMI Suppression Support Tool**

This tool uses cad data and enables to run EMI check rapidly with ease at initial design phase.

Threshold value calculated by NEC laboratory is set as a default.

It does not only allow you to streamline design process to reduce the number of components, site test and work hours for noise suppression, but also it helps CO2 reduction.

### [Usage/field]

To check EMI (undesirable electromagnetic radiation) and power and ground plane resonance analysis for PCB level.

### [Use conditions]

OS: Windows XP Professional CPU: Celeron/Pentium4 1GHz or more Memory: 1GB or more Disk: System 20MB + Data range

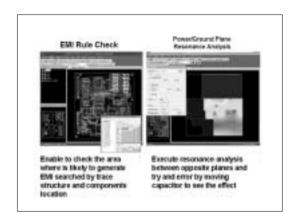
Must: S/W: Microsoft Excel

Verified rules and threshold values by NEC laboratory No library is required (Simple operation) Compatible with variety of CAD layout tool Enable speedy response and quick EMI check

rgy-saving eff

50% reduction of design data verification work 40% reduction of site test cost (inc. the number of test, transportation expenses, work hours) Reduction of scrap cost for unnecessary prototype boards 74% reduction of CO2 generation

\*This is a case study from existing EMIStream user.



### Contact

# **NEC Informatec Systems, Ltd.**

**Solution Sales Division** 

3-8-2 Shiba Minatoku Tokyo TEL +81-3-5440-1342 FAX +81-3-5440-1061 E-mail sales@emistream.jp.nec.com URL http://www.emistream.com

### **Production**

# **Dry Washing Technology for Adhered Residue**

RICOH COMPANY, LTD. Dry Washing Technology for Adhered Residue

This technology removes residue by using airflow to blast thin and small resin films onto the object to be cleaned with their impact. Ricoh has applied this to the washing of jigs (pallets) repeatedly used in the automated soldering process of PCBs.

### [Usage/field]

This technology can be applied to washing parts in manufacturing or recycling processes.

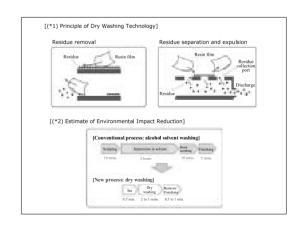
### [Features]

This new technology is based on Ricoh's dry washing technology introduced in 2006 to remove toner from parts during the recycling of products. Further developments have made it possible to remove adhered residue. This is based on the principle of using airflow to blast thin resin films-each a few millimeters square-onto the object to be cleaned and removing the residue with their impact.

Pallets are generally cleaned with solvents or cleaning solutions. Ricoh succeeded in applying this dry washing technology to a machine to remove even adhered residue, which results in a drastic reduction in environmental impact and disposal cost caused by the waste liquid.

The cleaning time, which had previously taken more than two hours. has been reduced to less than five minutes in a Ricoh plant in Japan where the company is conducting trials. Compared with the existing method, this technology reduces the environmental impact by up to about one tenth.

The new washing equipment has been introduced at a Ricoh group company in China in October 2009. We expect to reduce the amount of waste liquid by 1600kg a month.



### RICOH COMPANY, LTD.

### **Public Relations Department**

8-13-1 Ginza, Chuo-ku, Tokyo 104-8222, Japan TEL +81-3-6278-5228 FAX +81-3-3543-8126 E-mail koho@ricoh.co.ip

URL http://www.ricoh.com/technology/tech/006.html

# Instrumentation network modules azbil group Yamatake Corporation NX series

The NX series is a series of instrumentation network modules including energy saving modules. Each module has Ethernet communication function and can be set on a network remotely. And supervisory modules, one of the series, control multiple controllers.

### [Usage/field]

The NX series controls temperature, pressure or flow etc. It reduces energy consumption by optimum control for machines or facilities.

### [Use conditions]

Power supply DC24V $\pm$ 10%, ambient temperature 0~50°C, relative humidity 10~90%RH

### [Features]

Each module has Ethernet communication function to realize highspeed communication and set on a network remotely.

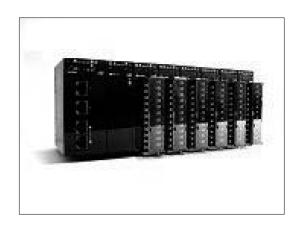
It communicates its parameters process values etc with PC.

Supervisory module controls some controllers for cooperation control. Supervisory module with energy saving algorithm can control setup behavior machines or facilities to save energy. (Optimum start-up control and peak-power limiting control)



Optimum start-up control reduces the start-up energy by optimizing the time differences between machines or facilities. (patented control)

Peak-power limiting control restrains peak-power 50% at the maximum by sharing the start-up power between machines when they start at the same time. (patented control)



### Contact

# azbil group Yamatake Corporation Global Sales Department, Advanced Automation Company

1-12-2 Kawana, Fujisawa-shi, Kanagawa, 251-8522, JAPAN

TEL 81-466-52-7024

URL http://www.azbil.com/

### **Production**

# Laser gas analyzer measurement control solution Yokogawa Electric Corporation TDLS200

For the industries which use combustion furnaces, it is essential to save energy by optimizing the air and fuel mix used in combustion systems, to reduce CO<sub>2</sub> emissions, and to stabilize operations. To achieve optimum combustion, it is required to have the gas analyzers which constantly measure Ox and CO concentration with maximum accuracy and optimal combustion control.

### [Usage/field]

It is a solution to optimize the operation of furnaces by controlling combustion with measurement signals of the laser gas analyzer directly attached to the furnace.

### [Use conditions]

Process pressure up to 1 Mpa

Process temperature up to 1500° Celsius

### [Features]

1) The laser gas analyzer attached to the furnace directly measures concentration of Ox, CO, moisture, and NH3 with high accuracy even under severe environmental condition such as high temperature, high pressure, corrosive gas, irritant gas, or high dust concentration.

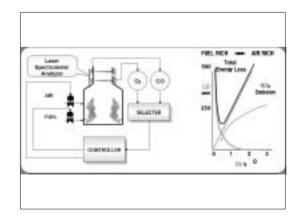
2) With the unique true spectra area method, the laser gas analyzer enables peak area unchanged regardless of the background gas composition and measures at high speed of less than six seconds with high accuracy despite the change of pressure and temperature.

3) The control system on which the software package for optimum combustion control was installed offers optimum combustion operation by leveraging measurements of the laser gas analyzer.

Energy-saving effect
 Energy-saving effet
 Energy-saving effet

1) The laser gas analyzer dramatically improves combustion efficiency by controlling combustion utilizing simultaneous measurement of  $O_2$  and CO in furnaces or boilers used in the industries of oil, chemical, and petrochemical. It also achieves energy-saving operation by reducing feed fuel.

2) This combustion control solution contributes to energy conservation and NOx emission reduction, which leads to preventing global warming and environmental pollution.



### Contact

### Yokogawa Electric Corporation Analytical Business Center

2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5617 FAX 0422-52-6792 URL http://www.yokogawa.com/

# **Advanced process control solution**

Yokogawa Electric Corporation Exasmoc

In the plants with continuous process, it is essential to maximize operational efficiency and ensure safety. Since those plants are consisted of over thousands of control loops, it is difficult to accomplish such conditions when depending entirely on operators due to complicated interference and limitation between the loops.

### [Usage/field]

It is a multi-variable control suite that is able to compute sequences of manipulated variable adjustments for the purpose of maximizing operational efficiency and ensuring safety at the same time in the continuous process of a plant.

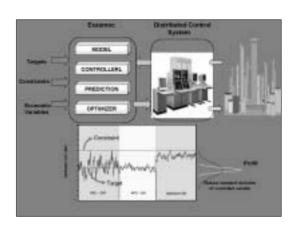
### [Use conditions]

Connected to distributed control systems (DCS) and OPC interface

- 1) Adopting visualized model, Exasmoc always provides optimum model which is easier to build or to revise.
- 2) Exasmoc allows feedforward control of intermediate variables gathered from operation and control.
- 3) Exasmoc minimizes the effect of unmeasurable disturbance occurred by fluctuation in feedstock composition and external temperature. estimating from predicted value of the model and actual process data.
- 4) Exasmoc possess a man-machine interface most suitable for tuning and process monitoring.

This solution minimize energy consumption by optimizing control of plant operation with keeping the lowest level of constrained conditions as follows:

- 1) Reduces specific energy consumption by maintaining production with less energy
  2) Reduces specific energy consumption by minimizing the effect of
- unmeasurable disturbance causing an increase in product yield We have a report that Exasmoc control system achieved energy conservation of over 500 kiloliters per year calculated in crude oil equivalent at a distillation tower in a oil refinery.



### Contact

### Yokogawa Electric Corporation **IA System Business Center**

2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5634 FAX 0422-52-9802 URL http://www.yokogawa.com/

### Service

# **Environmental Monitoring Unit for the power measurement panel PDU**

Anywire Corporation Multi-channel power measurement terminal

Energy measurement of the entire building, such as air-conditioning, lightings, and server equipment. Possible to set up in the DIN rail due to its compact shape.

### [Usage/field]

Power measurement uint for Power distribution panel in building and data

Possible to measure AC or DC input. Monitoring via Rack Management Unit.

### [Use conditions]

DIN rail mount type, Unit power: DC24V, Measurement Power: 2/3 phase [AC]0-1000A, [DC]0-500A

### [Features]

Set up in a power distribution panel, measures the power of each server rack. Anywire sensor network implemented. Possible to set up using the division type current sensor without stopping the server power supply.

- -Selection of AC or DC 28/32ch type
- -Compact housing
- -Current range setting for each channel
- -Sampling data obtained every 1second
- -Hot swap connection for sensor network

- Energy saving thanks to the clamping measurement method with-out heat loss, compared to the shunt resistance measurement method
- Detection and treatment confirmation of power loss by no equilibrium of three-phase circuit power supply
- Power distribution improvement by load balance
- Power supply improvement by accessing power factor data
   Ecologically, Anywire sensor network meets requirements of reduction and recycling of cable.



Anywire Corporation IDC/ICT Monitoring Team 8-1 Shimoinden, Inouchi, Nagaokakyo-city,

Kyoto 617-0813 TEL +81-75-956-1611 FAX +81-75-956-1613

E-mail idcict@anvwire.ip

URL http://www.anywire.jp

# **Supporting the Construction of Environmentally Conscious Data Center**

FUJITSU LIMITED Green Infrastructure Solution

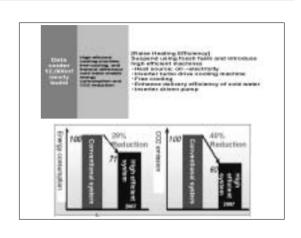
Green Infrastructure Solution greatly improves energy efficiency through visualization and optimisation of electric power and air-conditioning system of server room

### [Usage/field]

Support the construction of environmentally conscious data center through optimization of cooling system and continuous reduction of facility's energy consumption.

### [Features]

- Propose the best power saving facility by making good use of the technical know-how from the first class architect office of Fujitsu.
- Optimize facility's environment by adopting know-how which is practiced and accumulated in Fujitsu data centers.
- Greatly reduce energy consumption through visualization and optimization of electric power and air-conditioning system by adopting cutting-edge technology, such a super-multipoint temperature measurement.
- Visualize energy efficiency by PUE\* calculation and emission amount by CO<sub>2</sub> conversion. \*PUE:Power Usage Effectiveness (Energy efficiency index of data center)
- Improve problem analysis based on management data and support regular report operation



### Contact

### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan

TEL +81-120-933-200

URL http://fenics.fujitsu.com/outsourcingservice/infrastructure-solution/

nergy-saving ene

Reduce 29% energy consumption and 40% CO<sub>2</sub> emission, compared with the same scale conventional data center. (Please refer to the figure.)

### Service

# **Tenant Service System**

Mitsubishi Electric Information Systems Corporation Tenant Service System

The system not only streamlines operations by providing functions such as a service function for daily operations for building tenants and a function for communicating with the building administrator, but also promotes energy-saving through the use of an air conditioning reservation function which visualized.

### [Usage/field]

It powerfully provides support for building-management operations such as air conditioning reservation and conference room reservation for building tenants.

### [Use conditions]

Internet line

### [Features]

- Since the system uses a PC connected to the Internet, each tenant can use the functions without having to install a new facility.
- The user can make various air conditioning settings such as setting/changing
  the reservation time for air conditioner operation, changing the temperature,
  and stopping the equipment in operation. In addition, the system enables linkage with billing based on the reservation record.
- Using an information service function, the building administrator can make notifications for tenants by posting files of various application forms.
- The user can reserve a conference room, cancel the reservation, and make queries via the Internet. In addition, the system enables linkage with billing based on the reservation record.

(4) Educating the user about energy-saving activity through visualiza-

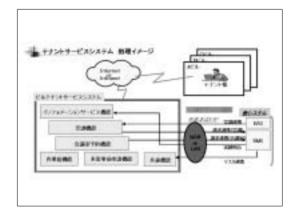
The following energy-saving effects are expected owing to an air conditioning reservation function.

(1) Suppressing the use of the air conditioning system after office hours through use of the core time

(2) Suppressing the use of unnecessary air conditioning with a reservation function for overtime air conditioning and area air conditioning

(3) Preventing forgetting to turn off the air conditioning system by setting the ending time of air conditioning

tion of environmental information



### Contact

Mitsubishi Electric Information Systems Corporation Manufacturing/Service Sales Dept., Manufacturing/Service Sub-Division, 4th Division MS Shibaura Bldg., 4-13-23, Shibaura, Minato-ku, Tokyo, Japan

TEL 03-5445-7445 FAX 03-5445-7794

URL http://www.mdis.co.jp/products/tenant-service/index.html

# **Energy consolidating management solution**

NTT DATA CUSTOMER SERVICE CORPORATION REMOTE ONE

REMOTE ONE is a energy saving solution by remote energy consolidation management.

### [Usage/field]

REMOTE ONE measures the amount of the energy use of facilities and equipment, and support making regular reports.

### [Use conditions]

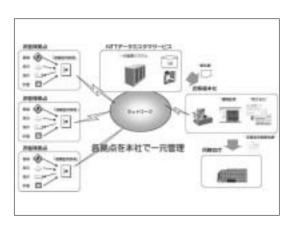
You need to connect to Internet.

### [Features]

- It is not necessary to remember a difficult manner of operation by an easy operation with the touch panel.
- The equipment is driven in the schedule automatically, and manager's business is reduced.
- It measures the amount of the energy use.
- The temperature and the current of the equipment are observed, and the trouble can be prevented beforehand.



- A real-time energy usage can be checked by remote management.
- It enables Planning/review of conservation of energy plan
  The energy management business is reduced according to remote management.



### Contact

### NTT DATA CUSTOMER SERVICE CORPORATION **Pro-Engineering Division**

KR-Toyosu Building, 4-9, Toyosu 5-chome, Kotoku, Tokyo 135-0061

TEL +81-3-3534-6105 FAX +81-3-3534-7821 URL http://www.nttdatacs.co.jp/

### Service

# **Energy Management System for IT Equipment**

Oki Network Integration Co., Ltd. CoolClover

Energy saving for IT equipment, such as PCs, in office via IP network. Visualize power usage, reducible power, and effect of energy conservations activities.

### [Usage/field]

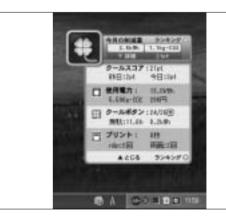
CoolClover solves IT equipment's energy issues in office.

### [Use conditions]

Windows 2000, XP, Vista

### [Features]

Maximize energy saving effect by providing end user friendly visualization of energy management and automated context-aware based energy control according end user's working style. The system manages not only PCs but also printers which equipped SNMP. It monitors printers status and controls energy saving mode, also detects unused printers in the night.



CoolClover saves more than 20 % of energy of PCs in office. The system let people to enhance energy conservation mind by visualization human energy-saving activity and competition of energy conservation. It also saves HVC energy because saving IT equipment energy is equivalent to minimizing heat emission.

### Contact

### Oki Network Integration Co., Ltd. **Business Development Division**

1-2-21, Etchujima, Koto-ku, Tokyo, Japan TEL 03-5621-6601 FAX 03-5621-6670 E-mail okinw-info@oki.com URL http://www.okinw.co.jp/

# **Environmental information gathering service**

Oki Network Integration Co., Ltd. Websensing

Did you take measures of new Energy Conservation Law? It is one of the important management strategy problems including the approach on green IT.

### [Usage/field]

It is environmental information gathering service that uses the network. By collecting and measuring the energy use of office or store, you can determine the current usage.

### [Use conditions]

Windows XP, Vista

Since Internet Explorer 6.0 SP2

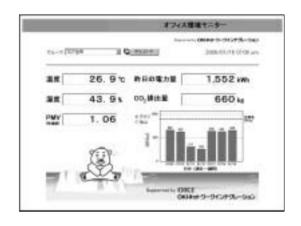
### [Features]

- Central energy management for the electric power and the gas on each branch.
- 2.In the optimization of the standby power requirement, it is reduction in costs as for the electric rate.
- 3.To feel the environment to be familiar, the approach of all company environmental measures

is given to achievement.

**Energy-saving effec** 

It is useful for the consideration putting on conservation of energy for user by seeing the conservation of energy activity. Even only the user's effort can reduce about 6% of the amount of power consumption in the office by introducing this service.



### Contact

# Oki Network Integration Co., Ltd. Business Development Division

1-2-21,Etchujima,Koto-ku,Tokyo,Japan TEL 03-5621-6601 FAX 03-5621-6670 E-mail okinw-info@oki.com URL http://www.okinw.co.jp/

### Service

# **Energy-saving air-conditioning**

Osaki computer engineering CO.,LTD. office air-conditioning

Only by connecting an exclusive controller to an air-conditioning machine, energy is saved automatically, maintaining the degree of pleasure. Energy can also be saved at the sacrifice of the degree of pleasure.

### [Usage/field]

The energy-saving regulating system of the air conditioner for the offices using the management network (LONWORKSR) for buildings

### [Use conditions]

It is an air conditioner corresponding to a LONWORKS® network.

### [Features]

Since energy-saving control can be automatically performed only by connecting an exclusive controller to the remote control line of an air-conditioning machine, correspondence also in the existing air conditioner is possible.

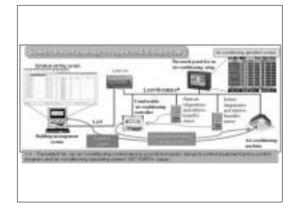
Since the LONWORKS® network is used, linkage with the existing building management system is also possible.

The degree of pleasure is adjusted, an energy-saving degree can be changed, and adjustment is possible at air-conditioning machine each.(patent acquisition)

Energy-saving effer

In the room where the degree of pleasure is called for like air-conditioning of a hospital, there is about (air-conditioning power consumption conversion) 7% of energy-saving track record, and 10% or more of energy-saving effect can be expected by adjustment in the office which can ask for energy saving.

Correspondence of the indoor air-conditioning machine to 64 sets is possible by one exclusive controller corresponding to LONWORKS® network, and introductory cost is also cheap.



### Contact

Osaki computer engineering CO.,LTD.
Infrastructure business generalization part control technical group
1-11-2, Osaki, Shinagawa-ku, Tokyo Japan
TEL +81-0436-76-9126 FAX +81-0436-76-9132
E-mail motomiya@oce.co.jp
URL http://www.oce.co.jp/

# Server room air-conditioning

Osaki computer engineering CO.,LTD. Energy-saving serverroom

while carrying out energy-saving control of the air-conditioning machine of a server room, it is based on the open air - free cooling is carried out and air-conditioning energies are reduced

### [Usage/field]

The regulating system of the package air conditioner of server room, the air-conditioning regulating system by open air introduction

### [Use conditions]

Air conditioner: A package air conditioner, an open air fan

### [Features]

Energy can be saved for the control to a package air-conditioning machine, without seldom affecting the employment temperature and relative humidity of a server room.

Open air air-conditioning control has the cheap initial cost of equipment in order to carry out the direct inlet of the open air by a fan.

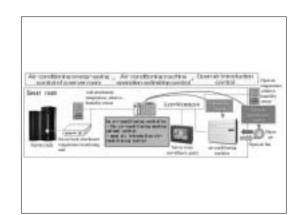
Since the LONWORKS® network is used, the surveillance and linkage of the existing building management system and an air conditioner are also possible.

Energy-saving effect

The effect of energy-saving control over a package air conditioner was able to do 20% (power consumption of an air-conditioning machine) of energy saving in the investment return of a its company data center.

If employment temperature and relative humidity is raised, energy saving beyond it is possible.

Although open air air-conditioning by an open air fan is influenced by climate, it can expect employment of about 10% of period through every year.



### Contact

Osaki computer engineering CO.,LTD.
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E-mail motomiya@oce.co.jp
URL http://www.oce.co.jp/

### Service

# SEM Energy Saving Management System Sumi

Sumitomo Densetsu Co., Ltd. eBMS(e-Building Management System)

To quantify requirement, find tendency and indentify vain energy consumption, we will support to improve operation through energy saving IT technology.

### [Usage/field]

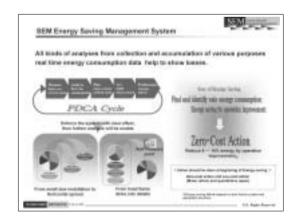
Benefit commercial facilities such as office buildings, data-centers, industries, shopping centers, and franchises like convenience store and also be useful to public institution as schools, hospitals or laboratories.

### [Features]

SUMITOMO DENSETSU co; Itd actively undertake building energy saving support business such as the energy management system or monitoring system with IT technology. the monitoring system helps you to find potential losses by showing your temporal sequence consumption and quantifying requirement. The energy management system provides you analyses, plans and evaluations. Furthermore, it is able to be utilized to share information or energy saving enlightenment. Our manufacture-independent solutions offer cost effective network designs and compatibility with existing systems.



According to facility systems or equipment structures, an energy reduction effect would vary. However, through our analysis, plan and evaluation with the energy management system, we expect from 5 to 8 % reduction by changing inefficient instrument or improving operation.



### Contact

# Sumitomo Densetsu Co., Ltd. eBMS Department

3-12-15 Mita,Minato-ku, Tokyo 108-8303 TEL +81-3-3454-7040 FAX +81-3-3454-7041 URL http://www.sem.co.jp/english/

# **Energy saving by BEMS (visualization of environment)**

azbil group Yamatake Corporation savic-net FX and FXBMS

Building Management System (savic-net FX) utilizes wide variety of energy application to put energy saving into practice. In addition to energy saving, BEMS function built into savic-net FX (FXBMS) supports evaluation of building mamagement by visualizing data such as energy consumption.

### [Usage/field]

It helps to optimize working and living environment, and save energy consumption of whole building, in every types of building including offices, hospitals, shops, factories, and laboratories.

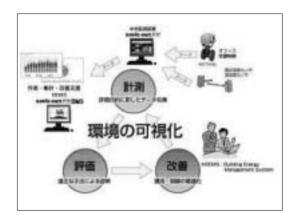
Regularly scheduled maintenance is required to keep optimal operation of this system.

### [Features]

Building Management System (savic-net FX) links a number of energy saving functions closely in HVAC systems to enable optimization of living environment and energy saving of the entire building at the same time; thus contributes to heighten environmental property of a building. In addition to energy saving, BEMS function built into savic-net FX (FXBMS) supports evaluation of building mamagement by visualizing data such as energy consumption, equipments' operation status, etc. Energy saving models like "measurement - evaluation - improvement" cycle can benefit from the visualzation function provided by BEMS.

The foundation of energy saving is formed by understanding energy consump-

The foundation of energy saving is formed by understanding energy consumption of each equipment. From every energy consumption data such as electricity, gas, and water to environment data such as ambient temperature or relative humidity, add collected data will be managed centrally with savic-net FXBMS. In Yamatake's own Fujisawa tech-center, energy consumption was redused significantly by optimizing operation of heat source system and fume hood exhaust based on analisis of collected data. Optimal living environment and energy saving (15% less than the previous fiscal year \*1) can be attained simultaneously by applying "measurement - evaluation - improvement" cycle continuousely. (\*1 Actual environmental performance of the building No. 100 in Yamatake's Fujisawa tech-center recorded in 2008)



### Contact

### azbil group Yamatake Corporation Global Sales Department, Building Systems Company

Shinagawa Seaside South Tower, 4-12-1Higashi-Shinagawa, Shinagawa-ku, TOKYO TEL 81-3-6810-1107 URL http://www.yamatake.com/products/bi/ba/fx/

index.html

### Service

# **Energy-saving System for Circulation Pumps**

Yokogawa Electric Corporation Econo-Pilot

The control system contributes amazing energy-saving for secondary circulation pumps of air-conditioning unit.

### [Usage/field]

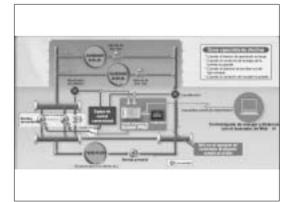
Energy-saving system to control secondary circulation pump of air-conditioning unit in optimum condition.

### [Use conditions]

Supplying cold/hot water by secondary pump in central air-conditioning system

### [Features]

- · Received Energy Conservation Award 2002
- · Reduce annual pump power consumption by up to 90%
- · Easy to introduce into existing systems, just add a compact control-
- · Operation control window provides visible real time power reduction data



- Develop control method whichi enable to supply stable flow volume annually. The big reduced volume is closed to theoritical val-
- ue. (power consumption varies as the cube of pump revolution)
  In case of air-conditioned secondary pump of closed water line, reduce up to 90% of annual electric power.

### Contact

# Yokogawa Electric Corporation

Global Business Headquarters Environment Conservation Center 2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5951 FAX 0422-52-8054 URL http://www.yokogawa.co.jp/eco/

# **Logistics & inventory control system**

Logizard co,.Ltd. LOGIZARD-PLUS

We contribute to green by promoting the common joint usage with using SaaS/ASP for a logistics system.

### [Usage/field]

We provide high quality and low cost "logistics IT" by using SaaS/ASP for the inventory control system of article center and the warehouse. As a result, we can contribute to green by the reduction of the servers and the reduction of useless transportation and stock to green.

### [Use conditions]

windows 2000/xp/vista/7 and Internet explorer 6.0- (Japan)

### [Features]

- 1) The use efficiency of the database server and other machinery improve by virtualization markedly.
- ② The computer hardware resources are consist of high reliability cluster constitution and duplicated.
- 3 The system has the high performance that a reply is early even if many users access it concurrently
- 4 We use the IDC that has Japanese best power supply facilities and earthquake proofing/quake-absorbing
- (5) We are fully equipped with the advanced security facilities such as biometrics authentication and the surveillance camera.
- (6) The handy terminal for a physical distribution system has an advanced feature that can realize the Web correspondence completely.

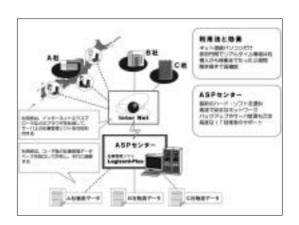
With 300 places of distribution center using our system, there are the CO2 reduction results of 300t now.

The Japanese manufacturing industry and wholesale trade have a physical distribution base and perform operating management by all means. In addition, the number of the business establishments are more than 1,000,000. When we apply the present aim to 3000 companies, CO<sub>2</sub> reduction of 3,000t will be achieved.

As for current LOGIZARD-PLUS, an object is sale distribution of the wholesale /

retail of the apparel. However, most business establishments become the object if we widen a type of

industry and the duties of the object in the future.



### Contact

### Logizard co,.Ltd. sales div.

3-6-23, Shibakoen, Minato-ku, Tokyo, Japan TEL 03-3432-2571 FAX 03-3432-2797 E-mail info@logizard.co.jp URL http://www.logizard.co.jp

### Service

# **RFID Tag for UHF band**

Murata Manufacturing Co., Ltd. MAGICSTRAP®

Murata Manufacturing Co., Ltd. commercialize new RFID tag component, "MAGICSTRAP®", which has very unique function to use inductive coupling for RFID tag function.

### [Usage/field]

- Electronic equipment lifecycle and process history control.
- Distribution management.

### [Use conditions]

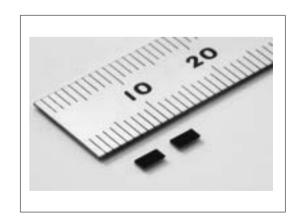
- Operating Temperature Range: -40 to 85°C

### [Features]

- No electrical contact necessary. Just adhesive glue attachment requires the function.
- Reflow solderable on PWB for electrical equipment application.
- Provides impedance matching function and frequency extension circuitry accommodating worldwide UHF bands (860MHz to 965MHz) in a single piece that comply with the EPCGlobal C1 G2 standard using a single RFID tag design.
- Eliminates the need to design the antenna itself by utilizing reference design provided by Murata.



- Increased productivity by easing of mounting accuracy and short-ening of mounting time, because it has the functions of filter and antenna connecting.
- Precise and efficient management of product lifecycle, such as production, distribution, consumption and disposal.
- Using of the management of maintenance and after-sales service.



### Murata Manufacturing Co., Ltd. Corporate Communication Department

10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto 617-8555 TEL 81-75-955-6786 FAX 075-955-6526 E-mail publicity\_mmc@murata.co.jp URL http://www.murata.com/

# **Paperless Office Consulting**

We help customers implement a paperless office with business and office innovations designed to increase the productivity of white-collar workers.

### [Usage/field]

- Making offices paperless, paper stockless, and energy-saving
- \* Making white-collar jobs laborsaving, more efficient, and faster

### [Use conditions]

Not applicable.

### [Features]

Reducing stocked paper is only a start toward implementing a paperless office. Systems that don't produce paper and operations that work without paper must also be established. This requires innovation that encompasses business processes, facilities, employee activities, rules, and operations.

Our solutions not only create a paperless office, they also conserve energy and reduce CO2 emissions by supporting clients in their efforts to increase operational speed and efficiency and develop businesses that run without paper.

Example:Service provider (250 employees)
Improved business processes, offices and work rules; implemented systems and software tools to support communication; and achieved computerization of office paperwork.

-> Paper produced: 49% down after 4 months, still declining
-> Paper stocks: 32% down after 4 months, still declining
-> CO2 reduction: 363 kg/month

Example:Manufacturer (6000 employees)
Annual paper consumption 46M sheets -> 33M sheets (after) -> CO2 reduced by 350 tons.



### Contact

### **CAC Corporation Low Carbon System Initiative.**

24-1 Hakozakicho, Nihonbashi, Chuo-ku, Tokvo TEL 81-3-6667-8047 FAX 81-3-5641-3177

E-mail info-lcsi@cac.co.ip URL http://www.cac.co.jp/

### Service

# **Proposal System**

CONEXTIVO Inc. Proposal System

SaaS for centrally managing proposal flow, from form creation to application approval. Not only does this reduce workload, but it also reduces paper costs by converting proposal creation from a paper-based procedure to a web-based one.

### [Usage/field]

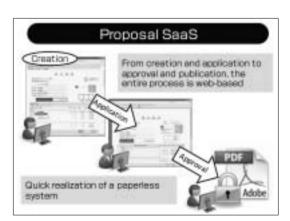
SaaS for central management of proposal creation/approval/output

### [Use conditions]

Internet Connection

### [Features]

- · As long as there is a connection to the internet, proposals can be drafted using a standard web browser.
- Centralized management from creation to approval.
- · Allows for searching and appropriation of existing proposals.
- Offers both printing of proposals and email distribution, through PDF output functionality.



Paper output can be reduced to a minimum through conversion of former paper-based approval process into a web-based procedure.

- No need for duplicates during approval process.
- Previously drafted proposals can be viewed over the web, so there is no need to maintain a hardcopy.
- · Thanks to the direct PDF output functionality, customer correspondence can be kept data-only as much as possible.

### Contact

### **CONEXTIVO Inc.**

### Planning and Marketing Dept.

1-13-35, Izumi, higashi-ku, Nagoya-City, Aichi, Japan TEL 052-950-1060 FAX 052-950-1061 E-mail info@conextivo.co.jp URL http://www.conextivo.com/

### Paperless and business improvement of efficiency is actualized by ExchangeUSE Workflow.

### [Usage/field]

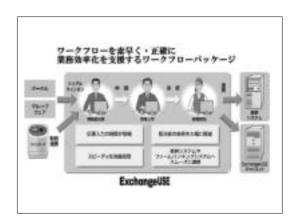
Corporate Work Flow system intended for request for managerial decision, work management, traveling expenses adjustment, expenditure adjustment, and purchase application, etc.

### [Use conditions]

Network environment, Web browser

### [Features]

- It is possible easily to apply and to approve under Intranet and the Internet environment through the Web browser screen.
- An existing application is systematized, and paperless is easily possible.



# Energy-saving eff

- The application documents which is the information medium are replaced according to the information technology.
   When application documents of 300 a day are submitted in the enterprise of 1000 employees, CO<sub>2</sub> of about 369Kg can be reduced during year.
- Efficiency improvement of movement of person by information technology.
   Energy conservation is advanced by doing the application business without receiving the restriction of the place.

### Contact

### Fuji Electric Systems Co.,Ltd.

Solution Engineering Dept. Society&Enviroment Automation Div. 1,Fuji-machi,Hino-city,Tokyo
TEL +81-42-585-6267 FAX +81-042-585-6267
E-mail useinfo@fesys.co.jp

### Service

# Lysithea

Hitachi Systems & Services, Ltd.

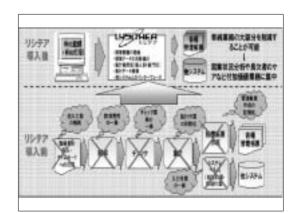
### [Usage/field]

Working Management System

### [Features]

It becomes possible to sweep away and to reduce the following business by unitary management of starting work information.

- · Filling in of work vote
- Collection of work vote and time card
- · Content of description of work vote and time card and check of filling in come off or another.
- · Total at working hours
- · Management slip making
- Reading of data input/OCR data or another, to system



# Energy-saving effe

Lysithea Job is an ecologically friendly product. CO2 can reduce in about 94%(\*1) by using this system compared with the starting work management of the past (For our model case).

### Contact

# Hitachi Systems & Services, Ltd. Open Solution Sales Department Sales Management Division JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo, 108-8350, Japan TEL +81-3-6718-5819 FAX +81-3-6718-5843 E-mail lysithea-project@hitachi-system.co.jp URL http://lysithea.hitachi-system.co.jp/

## **Document Solution**

'Libinity' provides the best solution various document management. Its paperless and efficiency control function contributes to reduce energy consumption and save the resource.

[Usage/field]

Total document solution: supporting from document preparation to management, and providing comfortable office working condition.

### [Use conditions]

Please refer to: http://www.hitachi-system.co.jp/libinity/

### [Features]

Libinity' have 3 main functions for total support of document management; 1.User interface;

You can register electronic documents by drag and drop, and use helpful features such as document searching.

Provide access control on folders/documents by encryption, user authentication, and prevention of document leaking or tampering.

3.Compliance:

Control your document as the evidence, the business log or the audit trail, registering all document operation.

Drastic reduction of working man-hour and CO2 with electronic docu-

- ment forms and www information sharing.

  1.80.8% man-hour reduction: no need document management process (ex. xeroxing, delivery, selection, storage).
- 2.46.8% CO<sub>2</sub> reduction: no need xeroxing.
  3. You can stop CO<sub>2</sub> emission from delivery vans, eliminationg paper dictribution process.

And you can save your office space by reducing paper document. (For our model case)



### Contact

Hitachi Systems & Services, Ltd. Product Solution Sales Department Sales Management Division JR Shinagawa East Building, 2-18-1 Konan,

Minato-ku, Tokyo, 108-8350, Japan TEL +81-3-3763-3264 FAX +81-3-3763-3291 E-mail libinity@hitachi-system.co.jp URL http://www.hitachi-system.co.jp/libinity/

### Service

# **Printing management application software**

Infinitec Co.,Ltd. PrintOne

PrintOne--Saving your printout paper and ink/toner more than 25%. Saveing printer's electric power consumption too.

### [Use/Field]

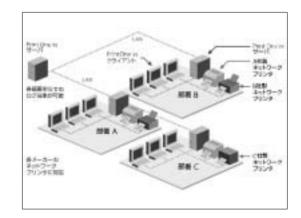
All fields where printers (especially Color one) are used every business

### [Use condition]

Windows PCs (Windows 2000, XP, Vista)

### [Characteristics]

- \* Support multi-vendor and varied type of printers.
- \* Support policy management with client-server platform.
- \* Visual printing cost graphical report.



- Cut off printout paper 20-50%
- \* Save ink/tonar consumption 10-20%
- \* Lower electric power consumption. (up to printers)

### Contact

### Infinitec Co., Ltd. Sales Dept.

6F, 5-25-16 Higashi-gotanda, Shinagawa, Tokyo, Japan

TEL 81-3-5739-0150 FAX 81-3-5739-0151 E-mail kuremoto@infinitec.co.jp

URL http://w3.infinitec.co.jp/english/software.html

## Dematerialization of business transactions.

Intel Corporation(by collaboration from DESC)
Reduction of paper across supply chain & associated transport.

It is possible to save CO<sub>2</sub> emissions associated with paper based business transactions across the enterprise by utilising IT enterprise resource planning solutions.

### [Usage/field]

By enabling 100% E-business transactions with all Intel suppliers, Intel has received significant productivity benefits but also through the concept of Dematerialization; developed a paperless office environment for Biz-Biz transactions.

### [Use conditions]

Nothing especially

### [Features]

- All business transactions completed online through supplier management portal.
- Elimination of paper based transactions across the supply chain.

Energy-saving effe

- · Elimination of paper based transactions
- · Elimination of transport across supply chain of paper.

Contact

### Intel Corporation

2200 Mission College Blvd. Santa Clara, CA 95054-1549 USA TEL 408-765-8080 (US) URL http://www.intel.com

### Service

# **Electronic List Filing System**

JFE Systems, Inc. FiBridge II

" FiBridge II " is the system which enables users to storage various documents output by host computers in the form of electronic data on the server computer instead of the large volume of paper documentations and to view and search them easily from PC clients.

### [Usage/field]

Many enterprises are using Fibridge II in the field of Accounting, Sales, Purchasing and Inventory management, Human Resources and others for eliminating paper documents.

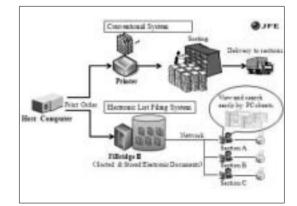
### [Use conditions]

ServerOS:Unix or Linux

### [Features]

FiBridge II is designed for integrated management of business documents. For achieving these purposes, FiBridge II has three advantages as follows;

- 1. High speed of the processing to convert printed data into electronic data and High speed of searching to find out the necessary information.
- Strict security control and forensic functions are installed throughout the systems such as authorization of reference and storage of operational logs.
- For saving the networking and hard disc capacity, minimizing storage data size and special contrivance of network communication are implemented.



Energy-saving e

FiBridge II is adopted by 1500 companies in Japan.

The heaviest user is eliminating 40 million pieces of paper per annum, which is equivalent to 54.4 ton of CO<sub>2</sub> emission per annum. The average CO<sub>2</sub> emission saving of typical FiBridge II users is 23.42 ton per annum.

FiBridge II also function as the long term storage of documents. The results of 10 year usage of FiBridge II by 1500 companies is accumulated equivalent to the reduction of 351,270 ton of greenhouse effect gas.

### Contact

### JFE Systems,Inc.

e-Document Solutions Sales Dept. System Products Div. 1-3,Taihei 4-chome Sumida-ku,Tokyo 130-0012,Japan TEL 81-3-5637-2207 FAX 81-3-5637-2722 E-mail iwase@jfe-systems.com URL http://www.jfe-systems.com/

# **Eco-conscious Forms solution**

The eco-conscious electronic-form software providing the infrastructure to develop and manage the forms. It enables creating and managing the forms and printings, and reduces the environment load which arises during the form-printing.

### [Usage/field]

Reduce the use of paper and logistics by using electronic-forms in the legacy-migration of the form-printing system.

### [Use conditions]

Electricity (165W), Network access (1.5Mbps)

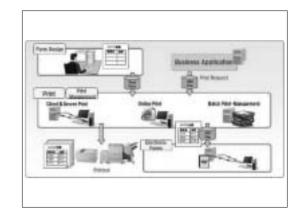
### [Features]

[Distributed printing function]

- \*Reduce the electricity costs by using multiple office-printers instead of the existing high-speed forms printer
- \*Reduce the logistics costs as it is directly printable from the printer of the remote office
- \*Reduce unnecessary printing by viewing the form-image before printing [Electronic-forms function]
- \*Reduce the amount of printed forms and the storage space of them
- \*Improve the business efficiency through the form management function which enables users search and browse forms on the internet

inergy-saving effec

WebSAM Rakuform emits 8.9t in contrast with that the existing printing system emits 19.8t CO<sub>2</sub>, according to the annual CO<sub>2</sub> emissions calculation from the six environmental loads arises from the printing operation (using devices, using papers, logistics, using objects, storing objects, and using network). Introducing WebSAM Rakuform reduces 10.9t of CO<sub>2</sub>, that is, 55% of CO<sub>2</sub> can be reduced annually. Especially WebSAM Rakuform is highly effective on reducing the usage of paper (4.4t reduced) and logistics (8.9t reduced).



### Contact

### NEC Soft, Ltd. IT Systems Division

1-18-7, Shinkiba, Koto-ku, Tokyo TEL +81-3-5534-2211 FAX +81-3-5534-2283 E-mail info@necsoft.com

URL http://www.nec.co.jp/middle/WebSAM/products/Rakuform/

### Service

# **Enterprise web-based e-mail software**

NEC Soft, Ltd. WitchyMail

Via the web-based mail, users check business emails securely from the outside of the office. Users do not have to return to the office to check emails, therefore CO<sub>2</sub> emission from transportation could be reduced.

### [Usage/field]

WitchyMail is the Web-based email software, which enables web browser based email exchange. User can access the mailbox from outside, home, etc without installing the mail client. WitchyMail also enhances security aspect since it does not leave mail data on the computer.

### [Use conditions]

Network 512kbps or faster is recommended

### [Features]

- Deliver the equal usablity of a desktop email application
- Prevent the confidential information leakage since the data does not remain on the client
- Reduce TCO by easy installation and consolidated management of users
- Applicable in various working styles: overseas business trip, working at home, and from mobiles

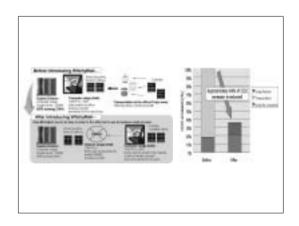
Energy-saving effe

Using the web-based mail, users can access business emails securely from the outside of the office. Users do not have to return to the office to check emails, therefore, CO<sub>2</sub> emission from transportation can be reduced largely. In the model case shown below, WitchyMail can reduce 64% of CO<sub>2</sub> emission.

<Before introducing WitchyMail>

Usage of the system:2.9, Transportation of people:13.2 -> Total:16.2(t-CO<sub>2</sub>) <After introducing WitchyMail>

Usage of the system:3.4, Usage of the network:2.4 -> Total:5.8(t-CO<sub>2</sub>) CO<sub>2</sub> reduction rate:64%



### Contact

NEC Soft, Ltd. IT Systems Division

1-18-7, Shinkiba, Koto-Ku, Tokyo

TEL +81-3-5534-2211

E-mail info@necsoft.com

URL http://www.necsoft.com/soft/witchymail/index.html

Web Browser Protector and Web Contents Protector can prevent Web Browser users from printing out. Therefore, this solution reduces CO<sub>2</sub> emissions from using resourses.

### [Usage/field]

Just like company portal sites, this system presents information and documents to many Web Broswer users.

### [Use conditions]

OS: Windows, Linux, Solaris

Web Server: Internet Information Service 5/6, Apache 1.3.x/2.x, Perl 5.8 or later

### [Features]

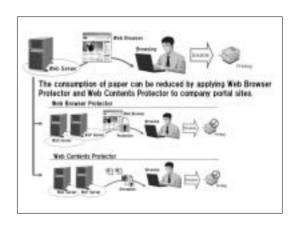
Web Browser Protector can invalidate print menus on Web Broswers. Also, Web Contents Protector can invalidate print menus on Office and PDF document files downloaded from a Web Browser.

The consumption of paper can be largely reduced by applying Web Browser Protector and Web Contents Protector to company portal sites.

Energy-saving effect

On the portal site of a 5000-employee company, 4.5tons-CO<sub>2</sub> (71%-CO<sub>2</sub>) per year can be reduced by disabling printing.

- About 10 % of 5000 employees used to print out 5 sheets (A4) per day from the company portal site.
- By applying Web Browser Protector and Web Contents Protector which prevent users from printing out, 2500 sheets per day are reduced.



### Contact

### NEC Soft, Ltd. Security Systems Division

1-18-6 Shinkiba, Koto-ku, Tokyo, Japan TEL +81-3-5534-2211 FAX +81-3-5569-3212 E-mail info@necsoft.com

URL http://www.necsoft.com/soft/wcp/

### **Service**

# **Computer Output to Laser Disk for Web**

NISSHO ELECTRONICS CORPORATION e-COOD

Paperless office

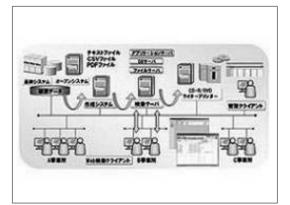
"Paperless Solution" By converting the data all over the enterprise into electronic forms, we can not only cut the usage of paper, but reduce environmental loads and costs.

### [Usage/field]

e-COOD converts information to an electronic forms, which traditionally had to be printed out on paper.

### [Features]

- Through the intranet and internet, users can access the needed image on their web browser.
- 2. Not only accessible, e-COOD is equipped with business supporting function to boost everyday operation.
- Electronic workflow function of e-COOD can handle documents requiring sign of approval, enabling paperless environment in the office.
- Text, CSV, PDF and other wide variety of data can be loaded in to e-COOD, providing great chance for the whole enterprise to become paperless.



Energy-saving et

A customer of ours successfully reduced 10 million pages of printing after introduction of e-COOD. Not only they saved the costs concerning these papers (sorting, storing, delivering, maintaining printers, buying supplies, and energy usage), the annual positive impact equivalents to reduction of 50 tons of carbon-dioxide. Also their everyday operation was revised to be much effective and under control.

### Contact

# NISSHO ELECTRONICS CORPORATION Sales Division 1,Enterprise Business Unit

7-3-1, Tsukiji, Chuo-ku, Tokyo, Japan TEL 81-3-3544-1230 FAX 81-3-3544-8489 E-mail kurosawa@nissho-ele.co.jp URL http://www.nissho-ele.co.jp/product/ecood/index.html

# **Report Superintendence System**

NTT DATA BUSINESS BRAINS CORPORATION Pandora-AX

It is a paperless system that generates the slip output digitally, and reads, refers, and prints on personal computers. It supports effective development of the enterprise by reducing the cost for printing and storage, achieving the efficient job and promoting BPR.

### [Usage/field]

System that digitalizes slips output by computer without printing, and refers and retrieves on personal computers.

### [Use conditions]

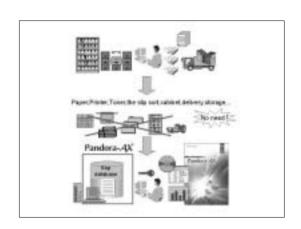
OS:Windows2000 Server/2003 Server

### [Features]

- Achieves a great cost reduction by paperless.
- Automates the slip sort with no need of delivery.
- Extracts the slip data to Excel.
- Achieves the speedup of the inquiry answer.
- Keeps security of the slip.
- Raises the operating effectiveness by an advanced retrieval and the work flow.
- Achieves the automatic fax delivery.
- Manages collectively all the data in various fomats such as PDF and CSV.

inergy-saving effe

- Reduces the consumption of the output paper.
- Reduces the consumption of the toner, and reduces the number of the printer by decreasing the amount of the output.
- Ablishes labor/transporting operation by substituting for the automation and the network transmission of the slip sort.
   Clears up the storage and reduces/abolishes the slip disposal oper-
- Clears up the storage and reduces/abolishes the slip disposal operation, with reduction of environmental impact of about 48% in total.



### Contact

# NTT DATA BUSINESS BRAINS CORPORATION

Package Business Group of Sales Division

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### Service

# Green procurement survey support system

Canon IT Solutions Inc. Ecovation GreeN

Total management system of chemical information that product contains, corresponding to RoHS/REACH. This solution rapidly efficiently improves the management accuracy of the chemical, and raises the corporate value further more.

### [Usage/field]

A management system of chemical information that product contains, which supports acceptance of information on parts and materials - judgment - total - giving information of product.

### [Use conditions]

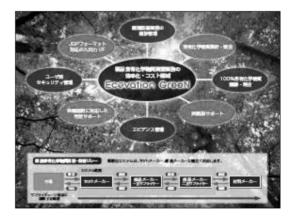
Server Edition: Windows Server 2003 Standalone Edition: Windows XP Professional

### [Features]

- Corresponding to format of JGP Ver.4.
- The progress management of the investigation and the answer is comprehensible.
- The kind of the chemical that can be managed is unrestricted.
- The judgment support function corresponding to various restrictions
- The evidence management function according to variegated specification



Ecovation GreeN stops the circulation of hazardous chemicals by corresponding the chemical management restriction promptness and highly accurate.



### Contact

# Canon IT Solutions Inc. Environment Solution Sales Dept.

11-28, 3-chome, Mita, Minato-ku, Tokyo TEL 03-5730-7064 FAX 03-5730-7096 E-mail ecovation@canon-its.co.jp URL http://www.canon-its.co.jp/environment/gpss/index.html

# Improving efficiency with IT

## **Unified Communications**

Through the development of business applications for IP Phones, we support the streamlining of business. We develop information transmission and work assignment/completion reporting applications for display-enabled IP Phones.

### [Usage/field]

Workload reduction through the development of IP phone business applications

### [Use conditions]

Cisco Systems Unified Communications and IP Phones are required

### [Features]

We develop business applications that are able to interact with IP phones.

- Remote office work assignment/completion reporting and verification can be controlled through the IP Phone display.
- Using a connected scanner, employee/student ID cards can be scanned, and simple processes can be taken care of by the IP Phone.



Contact

### **CONEXTIVO Inc.**

### Planning and Marketing Dept.

1-13-35, Izumi, higashi-ku, Nagoya-City, Aichi, Japan TEL 052-950-1060 FAX 052-950-1061 E-mail info@conextivo.co.jp

URL http://www.conextivo.com/

nergy-saving eff

We can help in the reduction of paper use through business applica-

- Simple procedures can be handled by business applications, reducing use of paper.
- Through use of applications for routine phone calls, natural resource consumption can be controlled.

### Service

# Page only for customer

Eco Concierge Co., Ltd. Premie screen

It corresponds by using the WEB technology by using the fax etc. so far the waste recovery, the recovery of resources of the customer and the cooperation company, disseminations, and communications of the inquiry etc.

### [Usage/field]

collection request for customer→

trader from the customer to request  $\rightarrow$  collection situation  $\rightarrow$  processing management  $\rightarrow$  an uniform management as for the report to the customer

### [Use conditions]

Environment that can use the Internet

### [Features]

It is possible to request on the web browser screen of the Internet etc. anytime and anywhere and the uniform management is made.



Energy-saving en

Because everything is made electronic, 1.78 kg-CO<sub>2</sub> (Ten sheets of paper are used by assumption) is reduced from one ..one sheet of paper. generation of CO<sub>2</sub> of 178g by 68g weight by using paper because of the fax and calling, etc. when past by one collection on the average by the collection request and the situation report, etc. ..the collection confirmation etc....

### Contac

### Eco Concierge Co.,Ltd.

The planning departmet of environment tecnology

801 Fujimorinishi-machi,Meitou-ku,Nagoya city, Aichi-pre,Japan Zip 465-0022 TEL 052-777-2701 FAX 052-777-2702 E-mail eco@530.jp

URL http://530.jp

# **Chemical Management Solution**

### FUJITSU LIMITED PLEMIA/ECODUCE

The system manages materials that products contain and supports production complying with environmental regulations (RoHS, ELV, REACH, and etc). It realizes not only environmentally conscious production but also cost reduction and operational efficiency improvement.

### [Usage/field]

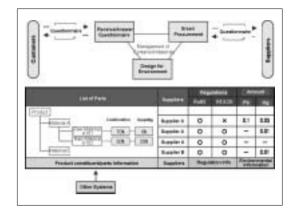
This solution improves efficiency in managing chemicals contained in products for manufacturing industry customers (electric machine, precision, automobile, and material, etc.)

### [Use conditions]

Server: Windows server 2003, 2008 Client: WindowsXP Pro, Vista(Scheduled)

### [Features]

- It realizes efficient development of products that do not contain restricted materials through managing the database of hazardous chemical substances restricted by related environmental regulations (REACH, RoHS, and ELV)
- It enables customers to search the list of products and parts that contain specific materials and to improve efficiency of green procurement since it can shorten the time of response



### Contact

### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan

TEL +81-120-933-200

URL http://jp.fujitsu.com/solutions/plm/pdm/plemia/ option-04.html

nergy-saving effe

For an enterprise with around 2000 employees, it is possible to reduce  $\text{CO}_2$  emission by 85.5%.

### Service

# **Integrated Internal Information Solution**

Fujitsu Limited IPKNOWLEDGE

IPKnowledge reduces customers' environmental load with integrating various systems and operation in municipal offices

### [Usage/field]

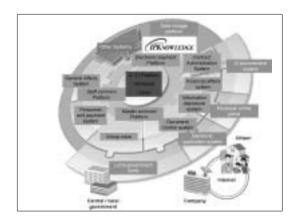
Integrate various kinds of office systems in municipal governments

### [Use conditions]

Server : Windows server 2000, 2003 Client PC : Windows2000, XP, Vista

### [Features]

- Integrate various kinds of systems on a platform to optimize business operation
- Create a seamless network environment "in" and "out" of municipal government
- Analyze the accumulated data to support strategic administration
- Enable to adopt a large scale local government (more than thousands client PCs) and support Windows platform and Linux platform.



# Energy-saving effe

- About 45% CO<sub>2</sub> emission reduction by optimization and integration after introduction
- Achieved 1 million paper reduction / year

### Contact

### **Fujitsu Limited Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-200 URI

http://jp.fujitsu.com/solutions/localgovernment/

# Thin client service for virtualized computers.

Hitachi Information Systems, Ltd. IVMSiCS

Virtualized computers from server are consolidated to data centers, then able to access users' own virtualized computer by inserting the PocketClient® into the USB slot on the existing PC.

### [Usage/field]

Accessible to the intra server from outside such as home, client, etc. and able to use users' own desktop environment

### [Use conditions]

Electricity, Internet connection

### [Features]

By inserting the PocketClient® into the USB slot on any existing PC, users can access own virtualized computer via internet from anywhere. These users may also install application software based on a person's individual needs.

By working at home, users are able to reduce energy because of no need to commute. Thus virtualization technology helps to cut  $\text{CO}_2$ generation.

### Contact

### Hitachi Information Systems, Ltd.

1-2-1 Osaki Shinagawa-ku Tokyo TEL 0120-346-401 FAX 03-5435-2707 E-mail faindesk.p@hitachijoho.com URL http://www.vsolution.jp

### Service

### REACH regulation compatible chemical material management ASP service. Hitachi Information Systems, Ltd. Chemical Mate

By managing products' chemical content, this product supports many chemical regulations such as REACH regulation and RoHS regulation. Realize a natural resources saving from linkage with a DfE (Design for Environment), and documentation management system.

JAMP AIS standard supported ASP service for the supply chain manages chemical content in products.

### [Use conditions]

Windows XP,Vista; Internet®Explorer®6 (SP2 or later)

### [Features]

- (1)Simple and reasonable (¥9,450 tax inc.) ASP service installation in a short term
- (2) Products' chemical content information from the components chemical material list is summed up in accordance with a part configura-
- (3) Supports JAMP-AIS input/output standards. (JAMP approved).
- (4)In addition to input/output data, related documents such as drawings and measurement data are also managed by parts/products.
- (5)Service progress of survey responses is manageable. (Optional) (6) JGPPSI sheet and JAMA sheet are able to input/output. (Optional)
  - (1)Compared with individual installations, our data centers with the use of virtualized environment conserve energy and save resour-
    - (2)Promotes paperless environment by sending and restoring documents in data format, instead of traditional paper based storing.

(3)Links to a DfE (Design for Environment) products by using its chemical content information.



### Contact

### Hitachi Information Systems, Ltd.

1-2-1 Osaki Shinagawa-ku Tokyo TEL 0120-346-401 FAX 03-5435-2707 E-mail faindesk.p@hitachijoho.com URL http://www.hitachijoho.com/solution/pai\_s/ chemicalmate/index.html

# **Agriculture Information Management System**

Hitachi Software Engineering Co., Ltd. (Hitachi Software) GeoMation Farm

Manages various information related agriculture in integral manner using GIS (Geographic Information System) technology. Applications such as growth forecast system using satellite image or fertilizer planning system support cost reduction and high quality cultivation.

### [Usage/field]

Supports information utilization of agriculture, from planting planning stage, through management of cultivation records, to harvest planning stage.

### [Use conditions]

LAN environment (Internet access)

### [Features]

- Manages field and soil information visually. It can be used for various purposes, such as keeping crop rotation system, checking crop change, or improving quality and quantity by seeing the variation of the area.
- Offers applications for making use of the managed data, such as checking agro-chemical usage function or fertilization planning function.
- Offers function of growth forecast of crops by satellite image. It leads effective fertilization or harvesting scheduling.



By using satellite imagery, GeoMation Farm can classify each wheat field in terms of the growth status. From this information, farmers can harvest at the appropriate timing and reduce 33%1) CO2 emission for drying. This application is used by many agricultural cooperatives in Hokkaido, and awarded 3 major environmental Grand Prize.

environmental Grand Prize.

•u-JAPAN Grand Prize 2008, Environmental Category Award

•Green IT Promotion Council, Chairman Award 2008

•ECO Products Grand Prize, Chairman Award

1) The evaluation results are found using SI-LCA. SI-LCA:System Integration-Life Cycle Assessment is the registered trademark of Hitachi, Ltd.



### Contact

Hitachi Software Engineering Co.,Ltd. (HitachiSoftware) @Sales24

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### Service

# **Multi-Biz Media Service TWX-21**

Hitachi, Ltd. SaaS Multi-Enterprise EC

TWX-21 is a SaaS type of Business Media Services for the Enterprises and Trading Partners. Its services of Web-EDI(JEITA), Environment(JAMP), and Central Purchasing Management for MRO are used by 40,000 companies over 20 countries.

### [Usage/field]

Supporting the Enterprise data exchange processes in design, purchase, manufacture, sales and environment for global deployment.

### [Use conditions]

Internet, Internet Explorer 6.0 SP2, or newer release

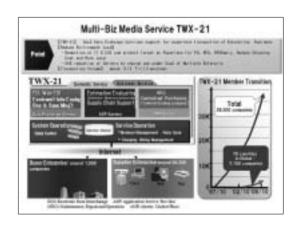
### [Features]

One-Stop Service for Multi-Enterprises in their design, purchase, manufacture, sales and environment business transactions under the Internet with low cost and short-time to deploy. High security management with the business SaaS technologies of access control by rights and roles of enterprise, division and individual task level. Increase process accuracy by sharing most current information and visibility on process status. Multi-language supports of screen (Chinese, English and Japanese) and Help Desk for globalization



Annual CO<sub>2</sub> reduction of 71% by TWX-21 Web-EDI services, used by 7,000 companies in data exchange for RFQ, RFQ Reply, PO, Delivery Reply, and Invoice, generating over 120,000 forms per year, in reducing of FAX, forms and paper, and up efficiency (assessed by the Hitachi Group methodology SI-LCA). The SaaS technologies has reduced 75% of servers, facility space and development resource, and eliminate individual development and operation task by deploying the JEITA standard.

Protect forest by paperless process



### Contact

### Hitachi, Ltd.

Industrial Manufacturing & Services Sysytems Division
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E-mail help@twx-21.hitachi.ne.jp
URL http://www.twx-21.hitachi.ne.jp/

It is possible to save paper and reduce CO<sub>2</sub> emissions associated with printing in the office environment, by enabling technologies which prevent wasteful printing techniques.

### [Usage/field]

In today's busy office environments how many times have you printed out a documented and forgot to retrieve it? Beside any printer in today's office environment you shall see stacks of paper piling up at the printer. To address this in Intel we enabled sustainable printing technologies and achieved 2 major benefits:-

- 1) Protection of Intel confidential data,
- 2) Elimination of wasteful printing and accumulation of paper.

### [Use conditions]

Secure Printing driver installation

### [Features]

- Awareness of sustainability principles and printing
- · Pin enabled printing.
- Centralized printing model
- · Tracking paper saved on monthly basis.
- · Elimination of printing out papers.



- Each year Intel churns out more than 100 million copies and spends millions \$\$'s on printing. Yet about 40 percent of those printouts are discarded within 24 hours, according to a major industry study.
- Sustainable printing solutions gives us an opportunity to reduce printing costs by 20 percent, save about 2,500 trees, and enhance the protection of Intel's Intellectual Property and confidential information.



### Contact

### **Intel Corporation**

2200 Mission College Blvd. Santa Clara, CA 95054-1549 USA TEL 408-765-8080 (US)

URL http://www.intel.com

### Service

# **Office Energy Use**

Intel Corporation(by collaboration from DESC)
Reduction of energy use in the office through Awareness and Management

It is possible to save energy in the office environment at material levels, by providing end users with Awareness of how much energy is being used and at what cost as well as the management of client power management profiles.

### [Usage/field]

By providing end users with information, Awareness, of how much energy is being used and at what cost, as well as with some energy savings tips and tricks, we found they voluntarily reduced their energy consumption by as much as 20%. Additionally, managed (enforced) client power profiles reduced client energy consumption by as much as 10% (not additive to above example).

### [Use conditions]

Nothing especially

### [Features]

- Real time user interface of energy consumption, cost, and other meaningful indicators
- Friendly competition of energy savings between groups.
- · Centrally management of client energy profile settings
- Client side agent tracks usage and provides "soft" metering capabilities

Energy-saving effe

- Awareness = knowledge of "current" energy use updated "real time" with associated cost or other meaningful indicator results on voluntary reduction of energy usage. Traditionally this in the 10%-15% range (studies in the home) but in our Enterprise PoC we saw an average reduction of 22%.
- Power Management = 3rd party central management of client side power profile settings from usually always on to enforced standby after 30 minutes of inactivity resulted in an average 10% reduction of client energy consumption.



Improving efficiency with IT

### Contact

### **Intel Corporation**

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## **Microsoft Unified Communications**

Microsoft Co., Ltd. (by collaboration from DESC) Microsoft Unified Communications

Microsoft's Unified Communications (UC) solutions harness the power of software to streamline how people communicate, enable new work style like Telework while improving their business outcomes in a more environmentally sustainable way.

### [Usage/field]

Microsoft Unified Communication is a software solution that integrates with your existing Telephony, mail, instantmessaging, Video conference. Webconference.

### [Use conditions]

Software licence, Hardware, Client access License

### [Features]

The two product cornerstones of Microsoft UC are Exchange Server powering secure email, calendaring and voice mail - and Office Communications Server -- the platform for presence, instant messaging, conferencing, and enterprise voice for businesses around the world. Together Exchange and OCS give IT organizations the flexibility and control they need to better manage their communications infrastructure, and provide an extensible platform for communications-enabled business processes.



- The World Wildlife Fund estimates that increasing telecommuting and virtual meetings by UC "could, without any dramatic measures, help to save more than 3 billion metric tons of CO<sub>2</sub> emissions in a few decades; this is the equivalent to approximately half the current U.S. CO<sub>2</sub> emissions."
- ourrent U.S. CO<sub>2</sub> emissions."

  In the US, reduced commuting accounts for 75% of the potential savings, with the other 25% coming from reduced air travel. Savings on this level are possible when flexwork is embraced at scale with 30-45% of workers are flexworking 2-4 days a week and 1/3 to 2/3 of business trips are replaced with virtual meetings.



### Contact

### Microsoft Co., Ltd. Corporate Affairs

Odakyu Southern Tower2-2-1, Yoyogi, Shibuyaku, Tokyo

TEL 81-3-4413-5134 FAX 81-3-4413-8070 E-mail mtakeha@microsoft.com

URL http://www.microsoft.com/en/us/default.aspx

### Service

# **Demand Monitoring System**

Mitsubishi Electric Business Systems CO., LTD. The Denryokuban for Web

It achieves "visual demand control" on the Web. It is capable of providing a diagrammed display of the measured data and the estimated value of the target demand value for each department and can be used as an energy-saving promoting tool because it enables the user to monitor status in real time from anywhere as long as the terminal is connected to the Internet.

### [Usage/field]

A Web system that enables real-time monitoring of the electricity demand of the customer who signs the electricity contract for a high receiving voltage (6.6 kV), and allows setting of target demand, demand estimate, and analysis for each transformer and department.

### [Use conditions]

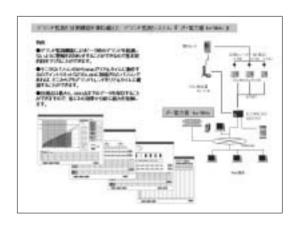
Client (Web terminal): Microsoft Windows 2000 Pro, XP Pro or Vista Line: LAN

### [Features]

- (1) It is not necessary to set up the software in each terminal since the system can operate on an existing PC without using special equipment, and the monitor screen is operable on the Web.
- (2) The user can easily build a system by simply importing various measurement data to PLC.
- (3) Capable of supporting even a large system at a low cost (capable of controlling up to 5,000 measurement points).
- (4) Allows estimate/analysis control for each transformer, office, and feeder.
- (5) Enables the user to freely output data through general-purpose search and analyze it with Excel or similar software.
- (6) Allows a system to be built by using wireless LAN.



The system encourages the user to reduce power consumption of production equipment, air conditioners, and lightings under measurement and prevents demand surplus by estimating the demand value at the measurement point by using the demand-monitoring function. In addition, it is capable of easily extracting data by using the general-purpose search function and performing analysis for promoting energy-saving since it can store measurement data (up to 5,000 points) of each feeder for a long period (5 years).



### Contact

# Mitsubishi Electric Business Systems CO., LTD. SALES PLANNING DEPARTMENT

1-32-2, Honcho, Nakano-ku, Tokyo, Japan TEL 03-5309-0662 FAX 03-5309-1489 E-mail MBinfo\_hansui@melb.co.jp URL http://www.melb.co.jp

# **Green Management Solution**

Mitsubishi Electric Information Technology Corporation MELGREEN

A solution that accurately supports PDCAs for reducing the environmental impacts by figuring out and analyzing the status, drawing up measures, and checking the effect through unified control of enormous volumes of various environment-related data throughout the company.

### [Usage/field]

A solution designed for companies/organizations in which large amounts of environment-related data are generated (with respect to volumes, types), including large companies, financial/distribution services with many bases, and building administering firms.

### [Use conditions]

Operating environment of the server:

-Microsoft Windows Server 2003 R2, Standard Edition SP2, or

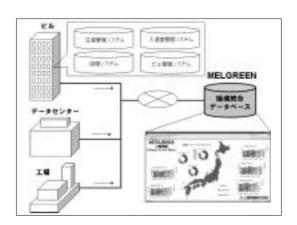
Microsoft Windows Server 2003 R2, Enterprise Edition SP2

- · High-performance ETL and templates that enable flexible and easy import of various data such as environmental data (e.g., electricity/gas consumption, air conditioning temperature, room temperature, waste emission), security data, management data, and meteorological information that spread across companies and corporate groups.
- Mitsubishi Electric's unique high-speed database technology that enables unified control of enormous volumes of environment-related data, ultra-fast aggregation/search against 100 million records within 3 seconds and various analysis.
- An environmental information cockpit that enables the user to identify necessary information at a glance according to the standpoint of the analyzer.

Introduction of MELGREEN to office buildings (3 buildings, 33,000

- square meters, 2,400 employees) resulted in the following.

   The man-days for preparing monthly reports intended to promote energy-saving were shortened (10 man-days → automated).
- Provision of information became timely (information printed on paper posted at end of next month → published on the web at beginning of next month).
- These promotion efforts resulted in thorough implementation of light-off during lunch time and absence, compliance with air condi-tioning preset temperature, etc., thus leading to energy-saving.



### Contact

Mitsubishi Electric Information Technology Corporation **Ecosolution Business Promotion Project Group** Shibaura-shimizu Bldg., 4-15-33, Shibaura,

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E-mail green@mdit.co.jp

URL http://www.mdit.co.jp/melgreen

### Service

# **The Server Virtualization Solutions**

Mitsubishi Electric Information Technology Corporation VMINTEGRA

This set of solutions help reduce electricity consumption and CO<sub>2</sub> emissions by efficiently integrating multiple servers that operate in a distributed manner within the company by using a virtualization technology. It also achieves cost and workload reduction by efficiently operating the integrated system, whth operation management software.

### [Usage/field]

A software-and-service product that provides comprehensive support by the integration of servers to the operation and management of the integrated system.

### [Use conditions]

VMware-certified server

### [Features]

VMINTEGRA is a software-and-service product that efficiently achieves server integration through virtualization and integrally manages the operation after in-

It has the following features:

- · It provides the visualization templates (previous designed information of virtual machine) that facilitate server integration using VMware (a virtualization
- It provides an operation management portal that integrally manages the hardwares including virtual servers, OSes, and applications. In particular, a function for batch power-off of virtual servers and physical servers helps make daily operation easier and contributes to reducing the electricity consumption.



- In a case where eight servers used in a company are integrated into one server, an electricity cost reduction of 500,000-700,000 yen/year is expected, resulting in the reduction of CO2 emission.
- Previously, server integration required an expensive and complex system. VMINTEGRA made it possible to introduce it efficiently in short time because of the introduction templates, etc.
- In addition, it achieves improvement in work efficiency of the information system department and efficient server operation by using an operation management portal that unifies the operation after the introduction.



### Contact

Mitsubishi Electric Information Technology Corporation Platform Solution Sales and Marketing Department A Shibaura-shimizu Bldg., 4-15-33, Shibaura, Minatoku, Tokyo, Japan

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# ASP Type Shared online service system for retail securities Brokerage firms

Nomura Research Institute, Ltd. STAR-IV

ASP Type Shared online service system which used by many securities brokerage firms could make a drastic reduction in Carbon Dioxide (CO<sub>2</sub>) emissions problem.

### [Usage/field]

Comprehensive back-office system for retail securities brokerage companies, including an account management, trading and settlement service.

### [Use conditions]

Dedicated Non-Switched Data Communication line access

### [Features]

Retail securities brokerage firms do not need to develop their own back-office systems and can use NRI's ASP Type shared service systems with a dedicated data communication network.

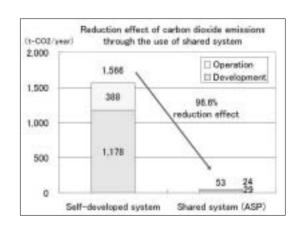
NRI's shared system has been maintained and updated regularly to remain as the latest and at most reliable system service including regulatory changes. As of the summer of 2009, there are dozens of securities firms, especially those mid-size securities brokerage firms use NRI's shared system service.

Energy-saving effec

1,533 tons of CO2 per each securities firm can be reduced annually by utilizing NRI's shared system service instead of each developing their own system (based on NRI's study).

Because the system service platform is shared, these dozens of firms combined could reduce the CO2 emissions by more than 96.6% in average by comparing with if they all had their own computing system each.

As this System Service is shared among many users, if more securities firm will join to use this service, total reduction in CO2 will increase, and also each company's own reduction will increase as well.



### Contact

## Nomura Research Institute, Ltd.

**Corporate Communications Department** 

Tower N, 1-5-15 Kiba, Koto-ku, Tokyo 135-0042, Japan TEL +81-3-6660-8400 FAX +81-3-6660-8401 E-mail nri-csr@nri.co.jp

URL http://www.nri.co.jp/english/

### Service

# **Authentication Printing System**

NTT DATA CORPORATION Authentication Printing System with [u:ma]-G card reader

"Authentication Printing" reduces paper use in your office by preventing misprinting. IC Cards such as user's current employee ID can be used for its authentication realizing "no waste of resource" simply and effectively.

### [Usage/field]

Reduction of unnecessary printing by compulsory authentication through IC cards.

### [Use conditions]

Windows2000:SP4, XP:32bitSP2, Vista32Bit or later versions

### [Features]

- Prevents documents from being left uncontrolled or mixed into others, as files of the user holding IC card over the reader are printed out.
- Compatible with printers (incl. multifunction printers) from various manufacturers.
- IC cards such as currently used employee ID can be used for authentication.
- Jobs can be cancelled from client PCs or automatically after certain period enabling reduction of misprinting.
- Selecting printers reduces waiting time and makes their utilization more effective.
- Printing records are archived for later analysis.

Energy-saving effe

Case Study (NTT DATA Corporation)

32% cut in printing paper use leading reduction of toner for printers and energy for disposal.

Little initial impact on environment

 No need to replace printers and IC cards currently in use or to install new servers. Constructing very little also means remarkable saving in resourde consumption and cost.



### Contact

### **NTT DATA CORPORATION**

IC Media & Web Service Business Unit, Business Solution Sector Toyosu Center Building, 3-3, Toyosu 3-chome, Koto-ku, Tokyo 135-6014 TEL +81-50-5546-8337 FAX +81-3-5546-8341

E-mail uma@kits.nttdata.co.jp

URL http://www.nttdata.co.jp/release/2009/051300.html

## **Print cost reduction system**

Oki Network Integration Co., Ltd. PretonSaver

You are not only able to start the eco-activity easily, but also the cost reduction activity.

#### [Usage/field]

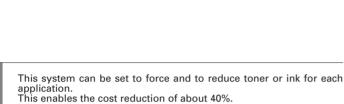
Continuous environmental compliance can act in the enterprise and the organization because the operation realities of the printer in the organization are analyzed in detail reducing the articles of consumption cost of the printer, and it can execute the print policy by the top down.

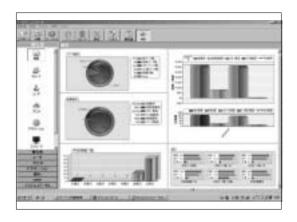
#### [Use conditions]

Windows 2000, XP SP1/SP2, Vista

#### [Features]

- 1. Reduce the total cost of the print.
- 2. Easy system introduction.
- 3. Complete management of rule-based printing.





#### Contact

#### Oki Network Integration Co., Ltd. **Business Development Division**

1-2-21, Etchujima, Koto-ku, Tokyo, Japan TEL 03-5621-6601 FAX 03-5621-6670 E-mail okinw-info@oki.com URL http://www.okinw.co.jp/

#### Service

## Large scale document distribution system

RICOH COMPANY,LTD. Ridoc GlobalScan

With its high-level paperless fax reception and scanned documents distribution functions, Ridoc GlobalScan strongly supports a company's information utilization.

To decrease the number of paper documents in the business workflow such as when taking orders with facsimiles.

#### [Use conditions]

Windows 2000 Server/Advanced Server(Japanese ver. SP4)

Windows Server 2003, Standard/Enterprise Edition (Japanese ver. SP1/SP2)

Windows Server 2003 R2, Standard/Enterprise Edition (Japanese ver. SP1/SP2)

Windows Server 2008, Standard/Enterprise (Japanese ver. SP2)

Internet Information Service 5.0(Windows 2000 Server)
Internet Information Service 6.0(Windows Server 2003)
Internet Information Service 7.0(Windows Server 2008)

[Features]

Ricoc GlobalScan realizes rationalization of document control and high-level document utilization. It can distribute fax document as an attachment to E-mail and can store in an existing document control system. And these processes will yied no printout. As a result, users can decrease paper.

- 1. Effect of paperless fax receiving system.

  Example: can reduce up to 200 sheets of fax documents equivalent to 197 kg of CO2
- 2. Effect of rationalization of business process Example: can reduce human movement if data is exchanged through the intranet instead of the internal corporate mailing sys-

#### RICOH COMPANY, LTD.

#### Public Relations Department

8-13-1 Ginza, Chuo-ku, Tokyo 104-8222, Japan TEL +81-3-6278-5228 FAX +81-3-3543-8126 E-mail koho@ricoh.co.jp

## Software that reduces print cost of laser printer

Spline Network Inc. TonerSaver

It is an innovative software solution that reduces the printer toner cost up to 50%, decreases the abandonment of the toner cartridge, and achieves the cost reduction and ecology at the same time.

#### [Usage/field]

Software solution that reduces cost of printer of all enterprises

#### [Use conditions]

- Processor: Pentium 550 MHz or higher Memory: 256 MB or higher
- Free hard disk space: 10 MB or higher
   OS:Windows 2000 Professional SP4 and later versions Windows XP, Windows Vista

Windows Server 2000 Windows Server 2003 Windows Server 2008

#### [Features]

TonerSaver controls the consumption of the toner of the laser printer by using the original algorithm developed by applying printer driver's technology (50% or less reduction). The user can achieve reduce of the print cost and high-quality print by simple operation. It is a reformative software solution that achieves the cost reduction and the environmental protection at the same time at the same time because it controls the amount of the abandonment toner cartridge. In addition, TonerSaver Enterprise Server (option) can intensively control the license key and the setting of each client. The print situation and the print history of all companies can be statistically displayed by a graphical interface.



There is statistics of 5,000 employees' being print page 62 million in year in the enterprise with comparatively large amount of the print, and having spent 1.5 million dollars for toner cost. The effect of the reduction can expect the toner cost of 75 million dollars a year (At 50% reduction) in the maximum for 45 million dollars (At 30% reduction) on the average in this case.6,200/year toner cartridges are abandoned in the above-mentioned example. In this case, when the weight of one toner cartridge is assumed to be 3kg, CO<sub>2</sub> of 50,034kg a year has been exhausted. When the toner is reduced with TonerSaver by 30%, CO<sub>2</sub> of 15,010kg can be reduced. When the toner is reduced by 50%, CO<sub>2</sub> of 25,017kg can be reduced.



#### Contact

### Spline Network Inc. Marketing Div.

Kamon Bldg.2F, 2-6-11 Shibuya, Shibuya-ku, Tokyo, Japan 150-0002

TEL +81-3-5464-5468 FAX +81-3-5464-5458 E-mail sales@spline-network.co.jp URL http://www.spline-network.co.jp/

#### Service

## **Carbon Management System**

azbil group Yamatake Corporation CO2 Management System

CO2 emission of the entire company can be managed centrally. In addition to optimization of management, CO2 Management System can improve emploees' awareness of energy saving and CO2 emission reduction.

#### [Usage/field]

A total energy and CO<sub>2</sub> management system covering from CO<sub>2</sub> resulting from energy generation to GHG 5.5 gas in ASP and SaaS format.

#### [Use conditions]

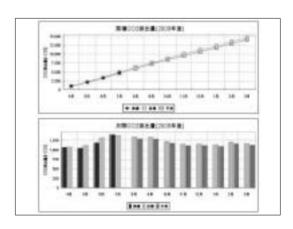
Internet Environment

#### [Features]

- By utilizing ASP and SaaS, the system can flexibly adapt to future regulation changes, etc.
- · Low introduction cost.
- · Data required by number of laws and regulations can be calcurated.
- · Margin of improvement can be calcurated by utilizing BAS data.
- · A target value can be set to evaluate monthly progress.
- Useful function including comparison function based on total floor size or user types, ranking function, etc.



By letting each office enter current data for analysis, difference between target value and actual value can be visualized. This practice has increased emploees' awareness of energy reduction and  $CO_2$  emission reduction. The result was 926 ton reduction of  $CO_2$  in FY 2008 in comparison to FY 2006.



#### Contact

azbil group Yamatake Corporation Global Sales Department, Building Systems Company Shinagawa Seaside South Tower, 4-12-1Higashi-

Shinagawa, Shinagawa-ku, TOKYO TEL 81-3-6810-1107

URL http://www.azbil.com/

## **Optical Fiber Distributed Tempearature Measurement System**

Yokogawa Electric Corporation AQ8920

AQ8920 measures temperature along with an optical fiber sensor. It contribute to reduce minimize the power consumption of air conditioning and cooling system for rooms, buildings, equipment and also facilities.

#### [Usage/field]

AQ8920 is a temperature measurement system which uses an optical fiber as a sensor. It measures temperature along with a fiber.

#### [Use conditions]

Operating Temp.(main unit): 5 to 35C deg,

Humidity: less than 85%(RH) Power: AC100/200V, 50/60Hz, 60VA

An optical fiber, used as a sensor of the AQ8920, has unique features such as thin, flexible and electrically isolated. And also, temperature is measured optically, so it can measure stably under electrically noisy

By utilizing above features, AQ8920 can measure temperature distribution very accurately and safely such as facilities that handle high power and high voltage.

Energy consumption at the data center can be reduced by contorling the air flow of cooled air at each nozzle by monitoring temperature of every euipment or cubicle of servers with AQ8920.



#### Contact

#### Yokogawa Electric Corporation **T&M Customer Support Center**

2-9-32, Nakacho, Musashino city, Tokyo, Japan TEL 0120-137046 FAX 0422-52-6624 URL http://tmi.yokogawa.com

#### Service

## **SASTIK Service**

Nihon Unisys, Ltd. SASTIK Service

This is a SaaS-type remote access service which enables users to have an access to private Web applications 'anytime', 'anywhere' and 'securely'. All you need to do is to insert a dedicated USB-type authentification key (SASTIK 0MB key) to a Windows® PC connected to the internet.

SaaS-type remote access service which realizes remote office environment securely and satisfies user requirements reasonably.

#### [Use conditions]

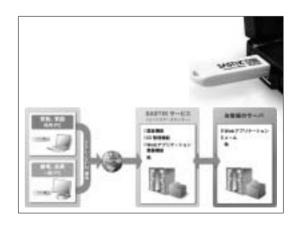
Prerequisites:

Microsoft®2000/XP/Vista

Microsoft®InternetExplorer®6 (SP1 or higher) or Microsoft®InternetExplorer®7

- · You can have an access to registered Web applications automatically after being authentified. All you need to do is insert a dedicated USB-type authentification key (SASTIK key) to a Windows® PC connected to the internet.
- · SSL-VPN is used for communication to maintain high security
- All you need to do for logging off securely is to pull out the SASTIK key from the PC because all the traces and evidences of your usage are automatically erased.
- · SASTIK key has no personal information or data in itself. Even if you misplaced it, it could be disabled immediately by the administrator at the support center.
- Monthly usage fee is 700 yen (tax separate), the price of a SASTIK key 2,000 yen (tax separate), with additional cost for initial installation and connection.

- With a SASTIK service, access from outside is only to corporate Web servers. Your PC in the office can be offline and no servers for thin-client environment are required. What's more, the number of mobile PC's can be cut down. These can bring benefits of environment friendliness, and IT and business cost reduction.
- In Nihon Unisys, each of 10,000 employees has been provided with a SASTIK key since the fiscal year 2008. Renewals of mobile PC's have been stopped because SASTIK services have replaced their roles. This has saved 400 million yen\*1. The potential cost for measures against a pandemic has been saved by 1.2 billion yen\*2 additionally while realizing simplified telework, high usability and security.
- \*1 Five-years running cost for 1,000 Mobile PC's and security softwares.
   \*2 Five-years running cost for 6,000 Mobile PC's and security softwares to be provided to current non-holders



#### Contact

#### Nihon Unisys, Ltd. **SASTIK Service Operations in ICT Services**

1-1-1 Toyosu, Koto-ku Tokyo 135-8560 Japan TEL 03-5546-4111

E-mail sastik-ad@ml.unisys.co.jp

URL http://www.unisys.co.jp/services/ict/sastik.html

## **Visual Communication**

Panasonic Communications Co., Ltd. HD Visual Communication System

Quite different from conventional teleconference systems, communications are achieved as if all attendees would share the same "room".

Better not just for reducing travel-related environmental loads but for improving work and cost efficiencies and keeping on business even in case of disasters and pandemics.

#### [Usage/field]

- · Communication links between offices
- Remote learning and lectures
- · Manufacturing and other sectors

#### [Use conditions]

Supply power (100V), Internet/NGN access

#### [Features]

- · High-quality images and sounds
- Full high-definition images and clear sound create a shared "room" for all attendees
- Advanced technology applicable with enough security even on the Internet Band fluctuations-responsive automatic rate control, among others, ensuring stable quality
- · Easy installation and connections

HDMI cables required to hook up with existing HD-capable TV sets and video cameras

**Energy-saving effect** 

- When shuttling between Osaka and Tokyo by train, for example, about 21 kg of CO<sub>2</sub> is emitted. This amounts to ca. 1050-kg CO<sub>2</sub> emission a year if a business trip is made every week (50 weeks). By using the visual communication system and not traveling, the emission can get down to about 1 ton year after year.
- Labor productivity can also be improved thanks to management's quick decision making, and huge cost and time necessary to send staff and move materials can be cut down. (In the above case, the cost of about 1.4 million yen may be saved.)
- Documentation is computerized to make your offices more paperless, saving natural resources.



#### Contact

#### Panasonic Communications Co., Ltd.

4-1-62, Minoshima, Hakata-ku, Fukuoka, Fukuoka Pref., 812-8531 JAPAN

E-mail https://sec.panasonic.biz/solution/info/ URL http://panasonic.biz/com/visual/hd/

#### Service

## **Video Collaboration Solutions**

Hewlett-Packard Japan, Ltd. (by collaboration from DESC) HP Halo

HP Halo Telepresence Solution is Global and Sustainable Communication Infrastructure ~Not on your LAN/WAN. No NW upgrades required~

#### [Usage/field]

Global and Sustainable Communication Infrastructure. Collaboration with distributed team ans customer.

#### [Use conditions]

No NW upgrades required.HP deliver full managed service with NW.

#### [Features]

HP Halo offers a suite of telepresence and video conferencing solutions and managed services that increase both productivity and your company's ability to reduce its carbon footprint. The only telepresence solution that runs on a private network designed specifically for video collaboration. Delivers fully duplexed audio, company-to-company connections and 24/7 support with Concierge Service. Multiple studios around the world at one time. Halo gateway support H320/H323 VCS connection.



Between April 2007 and March 2009, HP Halo studios at both HP and customer facilities have saved over 66,000 metric tons CO2e. This is equivalent to 880 tanker trucks worth of gasoline or 12,000 US passenger vehicles off the road for one year.



#### Contact

#### Hewlett-Packard Japan, Ltd.

Halo Business Development, ProCurve Networking Business Unit 7, Gobancho, Chiyoda-Ku, Tokyo 102-0076, Japan TEL 050-3158-1712 FAX 03-3512-4695 E-mail yasunori.ishiyama@hp.com URL http:///www.hp.com/jp/halo

## **HITACHI Visual Communication**

Hitachi, Ltd. Wooolive

What we seek to achieve is "High quality video conferencing anywhere at anytime" NetCS-HD clients can join a video conference with Set-top but also computer or even IP telephone and mobile videophone.

#### [Usage/field]

NetCS-HD system allows you to experience the stress less visual communication with high quality images but also a clear and crisp voice.

#### [Use conditions]

IP Network, including Internet

#### [Features]

- High quality video: Supports up to 1280×720 (HD resolution)
- H.264/SVC supported: It is possible to send or receive smooth motion video by adjusting resolutions automatically even if network conditions get worse.
- MIC Array supports an echo cancellation function to optimize echo cancellation in a changing acoustic environment, i.e., it cancels echo caused from opening and closing of doors, people moving in and out of rooms, etc.
- You can have audio conference with participants using IP telephones connected to Hitachi
- NetCS-HD client allows you to share application with other meeting participants during a



Introducing Wooolive system will contribute greatly to the environment preservation by reducing energy use for transportation. For example, if you travel by air from Tokyo to Fukuoka, 208kg of CO2 will be released for round trip. Using NetCS-HD system allows you to not only reduce CO2 but also cut travel time, and thereby you can increase the work efficiency dramatically. Furthermore, application sharing function allows you to save printer costs and to reduce CO2 that will be released when discarding any documents.



#### Hitachi, Itd.

**Telecommunications & Network Systems Division** 216Totsuka-cho, Totsuka-ku, Yokohama-shi 244-8567. Japan

TEL +81-45-881-1221 FAX +81-45-865-7106

#### Service

## **Video Conferencing**

Intel Corporation(by collaboration from DESC) Room based high definition - Tier based

Having communications roadmaps with alternatives that support virtual meetings improves employee and program productivity as well as reducing travel footprints/Employees who used to spend days traveling now get valuable work time back and aren't subjected to travel fatigue.

#### [Usage/field]

By using a multi-tiered video strategy of immersed, standard and basic, we are able to offer a virtual meeting system with integrated audio, video team collaboration and presentation that supports positive meeting behavior changes, quicker decision making and productivity that all supports a reduction in the travel footprint.

#### [Use conditions]

Video conferencing HW/SW, Internet access

#### [Features]

- · Video industry has evolved on price, functionality, quality, and time to deploy.
- Employees can meet "face to face", share presentations and use white board capabilities.
- · High definition resolution with fully immersive room video.
- Effective and efficient communication is achieved by synergetic participation.
- · Web Conferencing w/Video as well as PC to PC Audio/Video.
- · Live Web Casts, Web Cast replay and Corporate Video playback.

- CO2 foot print reduction (~1K metric tons/video conferencing room/year) plus travel cost savings.
- Need to build on the momentum and key learning's on usage models. Use the window of "no travel" to reinforce behavior change and
- productivity, \$\$ benefits to date.
- Accumulated travel avoidance from Q1'08 to Q2'09 is ~\$6.57M
- based on self reported travel savings. Consistent 95% satisfaction reported.
- Utilization high across 14 rooms



#### Contact

#### **Intel Corporation**

2200 Mission College Blvd. Santa Clara, CA 95054-1549 USA TEL 408-765-8080 (US)

URL http://www.intel.com

Video Conference System Mitsubishi Electric Information Network Corporation MIND Video Conference Solution

We provide the newest, good user interface, high quality video conference solution with the concept based upon the idea of "Anytime, Anywhere, and Environment-friendly". We consult customers to deploy the most suitable systems based on the company size, purpose of use, and so on. We also provide a one-stop solution - from planning to maintenance.

#### [Usage/field]

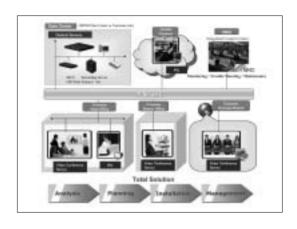
To deploy video conference system, we provide a total solution including planning, installation, management and maintenance.

#### [Use conditions]

Depending on the system specifications.

#### [Features]

- · Propose optimal video conference system based on customer environment and purpose of use.
- Provide multiple vendor options and multiple networking options.
- Provide a one-stop service from planning to management and maintenance.
- Provide a helpdesk service that can reduce administrator workload.



#### Contact

#### Mitsubishi Electric Information Network Corporation Sales Planning Division

ZENITAKA ANNEX 1-4-4 Kojimachi, Chiyoda-ku, Tokyo 102-8483

TEL +81-3-5276-6821 FAX +81-3-5276-6426 URL http://www.mind.co.jp/service/network/communication/video.html

You can reduce a large amount of CO2 emissions by replacing business trips with video conference between distant locations. You can also reduce CO<sub>2</sub> emissions by using presentation functionality which can reduce use of paper.

One of our customer having 2000 employees and 10 locations: reduced 628 tons of CO<sub>2</sub> emissions a year by reducing business

reduced 1 ton of CO<sub>2</sub> emissions a year by reducing use of paper achieved higher work efficiency by reducing travel time

#### Service

## **TANDBERG Video Conference System**

Netmarks Inc. TANDBERG QuickSet C20

Video conference with 1080p high-definition quality will be enable the meeting really open at the same room, and led the CO<sub>2</sub> emission reduction without business trip.

#### [Usage/field]

High quality, 1080p Video Conferenceing System enable to make any space for video communications.

#### [Use conditions]

100-240V,AC 50-60MHz, power consumption Max.75W

- 1) Transforms a flat panel display into a 1080p high-definition meeting space
- 2) Standards-compliant, compatible with standards-definition video systems without loss of features
- 3) H.323/SIP up to 6Mbps
- 4) Netmarks integrated IP unified communication with other communi-
- 5) TANDBERG Total Solution for Management, HD MultiSite including Multiway, recording & streaming and firewall traversal services



Netmarks Inc. Market Development Division 1-1-1 Toyosu, Koutou-ku, Tokyo TEL 81-3-5144-1100 FAX 81-3-6866-4311 E-mail info@netmarks.co.jp

URL http://www.netmarks.co.jp/english/index.html

As some examples, one of TANDBERG customers, Carrier Company As some examples, one of TANDBERG customers, Carrier Company A succeeded to reduce 13,500 flights per year which equals to the reduction of 5,500 tons of CO<sub>2</sub> emissions. They also collected the investment within a year. Also Scott County in Tennessee State provides many opportunities for remote education which resulted in the saving of \$19,000 for gas and reducing the 3,124 tons of CO2 emis-

## **Video Conference System**

Nihon TANDBERG K.K. TANDBERG Quick Set C20

1080p high definition video conferencing system, easy to deploy and manage

#### [Usage/field]

High quality, 1080p Video Conferencing System which enables to make any space for video communication.

#### [Use conditions]

100-240VAC, 50/60Hz, maximum power consumption 75W

#### [Features]

1) Transforms a flat panel display into a 1080p high-definition meeting space 2) Standards-compliant 1080p solution- compatible with standards-based video without loss of features 3) Sleek compact design 4) Full duplex, high-quality audi with high-quality stereo sound 5) H.323/SIP up to 6Mbps 6) TANDBERG Total Solution for Management, HD MultiSite including Multiway, recording & streaming and firewall traversal services



#### Contact

#### Nihon TANDBERG K.K. Marketing

CR Kamiyacho Bldg., 11F, 1-11-9, Azabudai, Minato-ku, Tokyo 106-0041 TEL 03-6230-3519 FAX 03-6230-3511 E-mail info@tandbergjapan.com URL http://www.tandbergjapan.com

Energy-saving effe

As some examples, one of TANDBERG customers, Vodafone succeeded to reduce 13,500 flights per year which equals to the reduction of 5,500 tons of CO $_2$  emissions. They also collected the investment within a year. Also Scott County in Tennessee State provides many opportunities for remote education which resulted in the saving of \$19,000 for gas and reducing the 3,124 tons of CO $_2$  emissions.

#### Service

## PowerWorkPlace Online Unified Communication Service Nihon Unisys, Ltd. Unified Communication Service

It facilitates paperless meetings and improves productivity of meetings by Web meeting features. It also reduces costs and saves time associated with business trips, while realizing home office. It increases productivities and efficiencies of organizations and employees, making advantages over competitors.

#### [Usage/field]

Paperless meetings, remote meetings within or outside companies, and secured communication systems for homeworkers

-For general purposes, no specific industries-

#### [Use conditions]

Windows XP, Windows Vista

#### [Features]

- Realize paperless meeting, sharing and working with the same documents or screens among different locations.
- Presence icons are displayed in Microsoft Office. They can only click the icon of whom they want to contact in order to have a conversation, send an IM, or have a Web meeting.
- For whom drive to commute, they can save gasoline.



Energy-saving ef

PowerWorkPlace Web Meetings eliminates the work of dispatching paper documents, adding memo to them and redispatching updated ones. The Web Meeting can also maintain documents' consistency at each location simultaneously and reduces the number of prints, which leads to save printing energy.

which leads to save printing energy.

Since it frees business workers from time and place restrictions, they can save time for moving. It reduces paper memo by the features of presence and they can contact only when they are available.

#### Contact

#### Nihon Unisys, Ltd. Service Planning ICT Services

1-1-1 Toyosu, Koto-ku Tokyo 135-8560 Japan TEL 03-5546-4111

E-mail pwp-sol@ml.unisys.co.jp URL http://pwp.unisys.co.jp/

Video Conferencing (Connect Meeting) Philips Electronics Japan, Ltd. (By collaboration from DESC) Realistic remote meeting

Improved productivity of business as well as reducing travel costs and time by introducing Video conferencing solution with high-speed and high-quality.

#### [Usage/field]

This is an easy-to-use videoconferencing solution that uses large plasma screen TVs. All of the meeting rooms for this solution have exactly the same look and feel, which means that after a minute or so, people who are participating in the meeting actually forget that their partners can be on the other side of the world.

#### [Use conditions]

Video conferencing HW/SW, Lighting and High-speed internet access

#### [Features]

- Meeting with face to face
- Sharing presentation
- Smooth video function with high quality
- Possible to connect with multiple sites (Multipoint) up to 12 locations
- 21st Connect Meeting rooms available in the world



#### Contact

Philips Electronics Japan, Ltd. Communications Philips Bldg. 13-37 Kohnan 2-chome Minato-ku Tokyo 108-8507 Japan

TEL 03-3740-4561 FAX 03-3740-5011 E-mail corp.comm.japan@philips.com URL www.philips.com



Travel cost savings(target is 20% annually).

Support our sustainability objectives by reducing the carbon footprint associated with frequent air travel.

#### Service

## Receipt examination support system

NTT DATA CORPORATION Dr.Receipt & Dr.Kaikei

Dr.Receipt automates the process of checking the medical bill called "Receipt" and improves efficiency and accuracy of billing process.

#### [Usage/field]

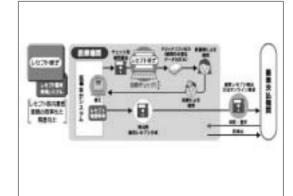
Dr.Receipt automates the process of checking the medical bill called "Receipt" and improve efficiency and accuracy of billing process.

### [Use conditions]

WindowsVista/XP, Office2003,2007

#### [Features]

- Improvement of accuracy of receipt by automatizing the checking process.
- Standardization the business process.
- Reduction of refund, assessment, and mistaken claim.
- Reduction of doctor's overtime work to make the doctors to spend their time on diagnosis and treatment.



- Reduction of overtime work for checking the receipt
- Reduction of paper use
   Decrease of refund and making the "Receipt" assessment by reducing mistakes in

In case of Hospital T which has 359 bed, the average of overtime work was reduced from 27 hours to 13 hours.

#### **NTT DATA CORPORATION**

Medical treatment welfare division, Healthcare Systems Sector Toyosu Center Bldg. Annex, 3-9, Toyosu 3-chome, Koto-ku, Tokyo 135-8671 TEL +81-50-5546-2462 FAX +81-3-3532-0928

URL http://www.drreceipt.jp/

## **Prior Notification Service for Utility Charges**

NTT DATA BILLING SERVICE CORPORATION Koufuri-Kun

This service, provided for various public and private organizations countrywide, achieves rationalization to the complex office work in utility charges payment by notifying accounting data in advance and synchronizing with the organization's financial systems.

#### [Usage/field]

Supporting service to achieve great reduction, and rationalization of the payment work of the utility charges from business partners and public authorities every month.

#### [Use conditions]

Electronic banking services provided by financial institutions

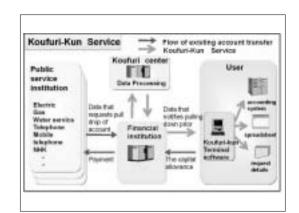
#### [Features]

- (1) Notifies to the user the customer number in the direct debit data of the agency to receive tax beforehand (through electronic banking services provided by financial institutions).
- (2) Enables the user sort out claims according to its content (specifically of the post, the accounting subject, and items of expenses, etc.).
- (3) Distinguishes the individual claims according to its content and automates the input to the accounting system, previously done manually.

**Energy-saving effect** 

It contributes to the negative environmental impact decrease by the reduction of paper through work operation reduction and conversion from utility payment slip to electronic claim. The entire system produces the effect of about 1,455t-CO2 reduction annually and expects cut by 75% compared to before the system was installed. e.g.

- (1) A local authority: The office working hours were shortened from 644 hours to 35.
- (2) B company: JPY 7 million cost reduction in a year.



#### Contact

# NTT DATA BILLING SERVICE CORPORATION Business Planning Department

NTT DATA Tsukiji Building, 11-17, Tsukiji 2-chome, Chuo-ku, Tokyo 104-0045 TEL +81-3-3549-0270 FAX +81-3-3545-4007

E-mail koufurikun\_support@nttdatabs.co.jp URL http://www.nttdatabs.co.jp/

#### Service

## Shared service for the industry of real estate securitization NTT DATA CORPORATION RESPORT

RESPORT is the SaaS service that aims at the improvement of accuracy, efficiency, and compliance in the industry of real estate securitization. It aims to contributes to the development of the industry and the player enterprises, with the first step of instructions sheet service for the bailee.

### [Usage/field]

RESPORT is the SaaS service that aims at the improvement of accuracy, efficiency, and compliance in the industry of real estate securitization by standardizing and digitalizing the process of instructions sheet.

#### [Use conditions]

Environment that can use the Internet (Correspond to WinXP, Vista, IE6, and 7).

#### [Features]

[Improvement of accuracy and efficiency]

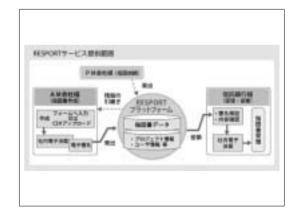
- Efficiency improvement by standardization of business flow and instructions sheet format
- Improvement of data retrieval by automation of ledger making about instructions sheet

[Compliance and strengthening of security]

- Enhancing of control on business by managing with cases and businesses.
- Improvement of security by security wall and secured business flow [Cost reduction]
- Reduction of delivery frequency, use of papers, and storage space

Energy-saving effort

- Reduction in delivery frequency of instructions sheet
- The instructions sheet (paper) is reduced, and reduced in The print.
- Reduction in keeping space by a decrease of instructions sheet
   Shortening of working hours by efficiency improvement of instructions sheet making processing



#### Contact

#### **NTT DATA CORPORATION**

URL http://www.resport.jp/

Retail and Service Business Sector, Global IT Services Company KDX Harumi Building, 12-1, Harumi 3-chome, Chuo-ku, Tokyo 104-0053 TEL +81-50-5546-2016 E-mail resport@am.nttdata.co.jp

## **Green Site License (GSL)**

RAUL Inc.

#### The service offers websites

#### [Usage/field]

"Green Site License" (GSL) offers corporate websites to be running with green electricity or emission.

It is aimed to push enterprises to

reduce the amount of carbon dioxide at work.

#### [Use conditions]

Green Site License (GSL) can only be used for websites

You may apply for "Green Site License" (GSL) on the internet directly.

We will save you all the trouble by handling the long procedures for emission trading or green electricity on our own.

Now we support your website to be running with green electricity.

We will issue you a digital license once the transaction has been completed. The license in which acquired by enterprises will contribute to the society by publishing a digital issue on different websites.



One website contributes in CO2 reduction by 1 ton per year.

"Green Site License" (GSL) is currently serving 800 companies with 1,500 sites in total within the first year since we launched the ser-

It reduces carbon dioxide by 1,500 tons per year based on rough esti-



#### Contact

#### **RAUL Inc. Sales Div**

11-1 Aizumicho, Shiniuku-ku, Tokvo TEL 03-6411-0858 FAX 03-6856-4305 E-mail info@ra-ul.com URL http://www.ra-ul.com

#### Service

## Web ecology education system

ARCHES Co., Ltd. ecomoti

At ecomoti, we bring employees to a high level of consciousness

#### [Usage/field]

A Saas type web point system enabling the numerical visualization of the amount of CO2 and costs reduction generated by the eco-activities of the employees.

#### [Use conditions]

The Internet connection environment and Personal Computer

Achieve the practical introduction of eco-activities with the participation of all members. The amount of CO2 and costs reduction generated by the eco-activities of the employees can be numerically visualized.

In addition, the result of these eco-activities is returned as a contribution or incentive to society.

These lead the employees to an improved consideration of the environment and the CSR, greater CO2 and costs reduction, and a decrease in negative environmental impact.



Realize a usually high motivation in employees putting to practice eco-activities. By making employees' various eco-activities in their daily life visual detailed, we improve CO<sub>2</sub> and costs reduction, and create a continuous eco-activity = energy conservation.

Moreover, the employees environment awareness and CSR consider-

ation can be improved with the contribution of the eco-activities re-

sults to society.

In a major company "S", we've achieved the implementation of 17000 employees which yielded 294t of CO<sub>2</sub> reduction, therefore a costs reduction of about 7.7 million yen in one month.



#### ARCHES Co., Ltd. IT Division

Incubation Facilities Office 4, Nagoya Institute of Technology Gokiso-cho, Showa-ku, Nagoya TEL +81-52-735-5844 FAX +81-52-735-5845 E-mail info@arches.co.jp URL http://arches.co.jp/en/

E-learning can be started without investment in servers, softwares, and full-time staffs. It leads not only to customers cost reduction and operational efficiency improvement but also energy and resource saving.

#### [Usage/field]

The e-learning management system for companies supports in every phase: creation of teaching materials - study - results management

#### [Use conditions]

1.5Mbps network is recommended

#### [Features]

- It is offered on the SaaS platform of Fujitsu data center enabling quick launch and implementation with a minimum investment
- If the internet is available, you can study at your own pace anytime and anywhere.
- Pay-as-you-go system enables customers to begin with a program for a small number of employees. The program can be expanded after judging the effectiveness.
- · Newest courses are available at a metered rate



- An e-learning program for 5,000 employees for a year potentially reduce 50% CO<sub>2</sub> emission
- Reduce the movement of lecturers and students and the cost of preparation of texts and examinations
- Reduction of paper use: 1.25million sheets



#### Contact

#### **FUJITSU LIMITED Fujitsu Contact Line**

Shiodome City Center 1-5-2 Higashi-Shimbashi Minato-ku, Tokyo 105-7123 Japan TEL +81-120-933-200

URL http://jp.fujitsu.com/solutions/elearning/saas/

#### Service

## e-learning Service

**NEC Corporation Cultiva Global** 

Total Human Resourse solution which uses SumTotal, U.S.'s No.1 market share LMS, as an engine and added NEC own value, can support global training on a large scale (scale of several hundred thousand participants) in multiple languages.

#### [Usage/field]

Compliance, Certification Mgmt., Total Human Resourse Development which include Goal Mgmt., Performance Mgmt., Succession Planning, Compensation Mgmt. and Training, in the company.

#### [Client specifications]

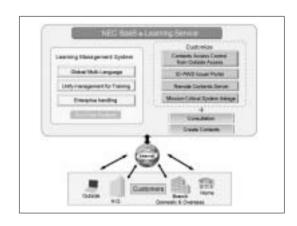
• intel Pentium 333MHz processor • 128MB RAM • Resolution 800X600 and more

#### [Features]

- Digital signature and Auditing based on FDA Part11
- Multi-Language( 11 original and 26 option)
- · Define certificaiton and link to certain courses
- Remote contents server function which allows user contents to be located either in NEC DC or in customer DC
- · Contents access control which restricts access from outside of company
- Various type of courses such as English version, Chinese version, corresponding course and its blended course can be defined as 1 course.



- Reduction in CO<sub>2</sub> emissions by about 95% as a result of a reduction in the physical transfer of users and the promotion of paperless operations.
- Paper documents are not required for learning history management and performance review management.
- The management of compliance agreements for 5,000 users (paper documents, storage space, history management) is not necessary.



#### Contac

#### NEC Corporation

#### Managed Platform Service Division

7-1, Shiba 5-chome Minato-ku, Tokyo 108-8001 Japan TEL +81 3-3456-5598 FAX +81 3-3798-9664 E-mail CultiivaGlobal@ssjh.jp.nec.com URL http://www.nec.co.jp/eco/en/product/soft/2008\_06.html

# SaaS-type e-learning System

Nihon Unisys, Ltd. RENANDI SaaS Edition

It is a CMS (Course Management System) which supports vaious learning styles and has been developped through the experience of industry-government-academia collaboration and cutting-edge technology. It reduces not only the management cost and workload but also the environmental burden.

#### [Usage/field]

It is a SaaS-type Education Platform which totally supports vaious learning styles such as self-learning, learning in classroom and a group learning.

#### [Use conditions]

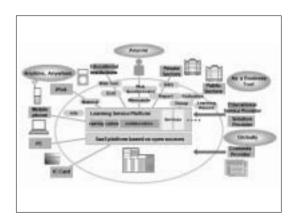
Web browsers connected to the internet

Anytime and anywhere, you can use a lot of functions to widely support teaching or learning activities such as group discussion, examination, report submission, and so on.

Customers' needs can be met well with RENANDI SaaS Edition, because it can be easily used in various learning styles such as self-learning, learning in a classroom and group learning.

This SaaS-type platform, i.e. using our servers set up in our data center, brings you benefits as follows; shorter system implementation time, lower procurement cost, lower initial installation cost and lower operation cost.

- 1. RENANDI-SaaS Edition reduces CO2 emissions because in e-learning, training sites to mange are not necessary and instructors and learners don't need to use transportation.
- 2. RENANDI-SaaS Edition promotes less forest resources consump-
- tion because the training will be much more paperless in e-learning. 3. RENANDI-SaaS Edtion reduces the CO<sub>2</sub> emissions because the servers consolidated in a data center are efficiently operated and the customers need less procurement of new servers and less server management.



#### Contact

#### Nihon Unisys, Ltd.

Section in charge of RENANDI SaaS Edition in ICT Services 1-1-1 Toyosu, Koto-ku Tokyo 135-8560 Japan

TEL 03-5546-4111 E-mail renandi-saas-box@ml.unisys.co.jp URL http://www.unisys.co.jp/renandi/saas/

#### Service

## Database search system via Web-browsers

NEC Software Hokkaido, Ltd. SimpWright

It provides a user-friendly tool to operators with flexiblity of database searching and updating through Web browsers.

#### [Usage/field]

Database search system via Web-browsers

#### [Use conditions]

Server Operating System: Microsoft Windows Server® 2003, Microsoft Windows Server 2008, Red Hat®, Linux, Turbolinux®, MIRACLE LINUX®, HP-UX®, Solaris™

Database System: Oracle® 9i/10g/11g Character encoding: UTF-8, Shift\_JIS

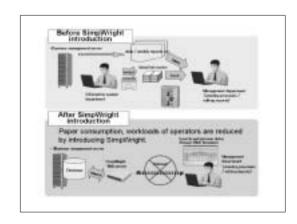
Client Operating System: Microsoft Windows® XP, Microsoft Windows Vista®

Web browser: Microsoft Internet Explorer® 6.0/7.0/8.0

#### [Features]

- A customer-friendly database access system through Web browsers, with flexibilities of searching, summarizing, printing datas and designing its layout.
- · One-click conversion of search results for Excel data.
- No complicated processes at both installing and daily operations.

Paper consumption, workloads of operators, and about 50% of CO2 annual emissions are reduced by introducing SimpWright.



NEC Software Hokkaido, Ltd. 1st Solution Division 3rd Solution Department SAPPORO L-PLAZA, 28 KITA 8 NISHI 3, KITA-KU, SAPPORO-SHI, HOKKAIDO, JAPAN TEL 011-746-6381 FAX 011-746-6389 E-mail simpwright@ml.dnes.nec.co.jp URL http://dnes.jp/ss/simp/index.html

## Remote management service of output devices

RICOH COMPANY, LTD. @Remote (at remote)

A new kind of support service, which achieves greater operating efficiency for output devices.

#### [Usage/field]

@Remote is anew kind of internet-based support for remote management of digital multi-purpose devices and laser printers. The status of devices on the network can be monitored in real time, required services can be delivered rapidly.

#### [Use conditions]

internet

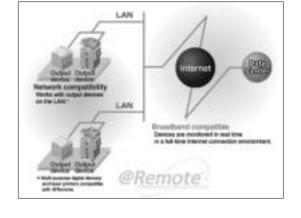
#### [Features]

Periodic monitoring and self-diagnostic system of each device on the network can prevent breakdowns.

In the event of a breakdown, the system of notifying a center, checking situation and delivering service can eliminate downtime to a minimum.

The automatic toner ordering function raise the efficiency of day-to-day device management. The detailed device information will be provided.

Proposals on how to use the devices, based on the environment in which they operate will be provided.



#### Contact

#### RICOH COMPANY, LTD.

#### **Public Relations Department**

8-13-1 Ginza, Chuo-ku, Tokyo 104-8222, Japan TEL +81-3-6278-5228 FAX +81-3-3543-8126 E-mail koho@ricoh.co.jp

URL http://www.ricoh.com/remote

nergy-saving effec

Collecting and analyzing the situation of the devices via network, energy consumption and  $CO_2$  emission can be reported on request of customer. Also the service reports detailed device usage such as double-sided printing rate and usage in each mode, which reduces paper cousumption can be provided. The proposal for efficiency on use of the devices based on suchdata, can be devoted to environmental protection by reducing  $CO_2$  emission.

#### Service

## **Remote Management System**

azbil group Yamatake Corporation BOSS-24

For buildings with floor size of up to 15,000 square meters, BAS can be linked with our BOSS center via network, enabling remote management of the building without administration personnel on site. Upon request from tennants, or in case of equipment failure, equipment can be remotely started / stopped, or configured; thus significant reduction of dispatch to the site.

#### [Usage/field]

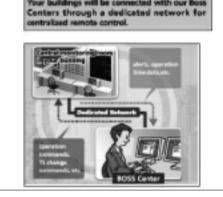
Building management, equipment maintenance, data managemant, etc.

#### [Use conditions]

Building permitted by law to be managed remotely

#### [Features]

- \* Full time remote surveillance and management via dedicated network
- \* Upon request from tennants regarding temperature or humidity settings, real-time detection of equipment failure or equipment operation can be performed remotely; thus, significant reduction of personnel dispatch to the site. This results in reduction of environment load as well.



Energy-saving em

By responding to requests from tennants or equipment failures, personnel dispatch can be reduced to 1/3 (from 180 times/year to 60), reducing fuel usage of service vehicles. Reduced dispatch instances of 120 times average 10km traveling distance equals approximately 240 liters of gasoline. The result will be 556kg reduction of CO<sub>2</sub> per building.

#### Contact

azbil group Yamatake Corporation Global Sales Department, Building Systems Company Shinagawa Seaside South Tower, 4-12-1Higashi-Shinagawa, Shinagawa-ku, TOKYO TEL 81-3-6810-1107 URL http://www.azbil.com/

# **Library Management System "Livre"**

Hitachi Systems & Services, Ltd.

#### [Usage/field]

Library management: book processing, receiving, searching, etc. supporting effective use of library materials

#### [Use conditions]

Control up to about 500 million copies

#### [Features]

- · Easy and speedy lending and returning with bar code readers.
- · Easy search and order library materials.
- · Smooth classification and cataloguing.
- · Report various data of library materials.



nergy-saving eff

LIVRE provides CO $_2$  66.6% reduction (by our performance evaluation) by cutting paper, power consumption, and office hours.

#### Contact

#### Hitachi Systems & Services, Ltd. Chubu Sales Division

Nagoya Lucent tower 6-1 Ushijima-cho west district Nagoya City Aichi Prefecture 451-6028, Japan TEL +81-52-569-2128 FAX +81-52-569-2132 E-mail livre-sales@hitachi-system.co.jp URL http://www.hitachi-system.co.jp/lvr/

#### Service

## **Visualization of PUE**

Osaki computer engineering CO.,LTD. PUE Visualization Roger

The system which displays PUE of a data center on a WEB screen. 540,000 yen (except for test adjustment, installation construction, etc.) budget prices are realized by the minimum system configuration containing three wattmeters.

[Usage/field]

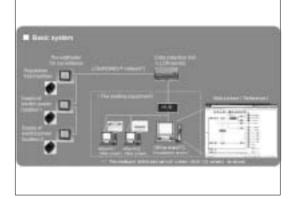
The energy-saving educational campaign of a data center. Logging is carried out by CSV data and it can utilize for a report.

#### [Use conditions]

WEB screen: Microsoft IE ver.6 or subsequent ones

#### [Features]

- 1. Prepare three kinds of WEB screens.
- 1) PUE display screen : express the energy consumption rate of each equipment as a pie chart.
- 2) Trend graph: display the consumption energy of each equipment by a time series.
- Power supply distribution diagram: the display of the power supply distribution diagram of each equipment.
- Since it constitutes using a LONWORKS®\*) network, extension of extension of a wattmeter etc. is easy.
- \*)LONWORKS® network: The intelligent distributed network system which U.S. echelon developed



Energy-savii

Since the point which should be improved is in sight by visualization of the energy consumption of each equipment, it is useful to the educational campaign of the first step of energy saving.

Moreover, a system price is cheap and it is easy to introduce it. By LONWORKS® network, addition of the wattmeter from after is easy if needed.

By CSV data, logging of the measured electric power data is carried out, and it can be easily processed as data for report creation.

#### Contact

Osaki computer engineering CO.,LTD.
Infrastructure business generalization part control technical group
1-11-2, Osaki, Shinagawa-ku, Tokyo Japan
TEL +81-0436-76-9126 FAX +81-0436-76-9132
E-mail motomiya@oce.co.jp
URL http://www.oce.co.jp/

# SAS® Sustainability Management

SAS Institute Japan Ltd.

Identify and respond to environmental, social and economic risks and opportunities - Innovate to drive revenue and support sustainability goals

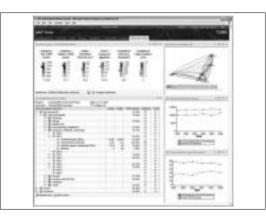
#### [Usage/field]

SAS Sustainability Management enables an organization to measure, manage and report on the Triple Bottom Line - environmental, social and economic in-

#### [Use conditions]

Please contact us regarding system requirements.

- Measure, manage and report on the Triple Bottom Line environmental, social and economic indicators.
- · Predefined sustainability performance management frameworks, including the Global Reporting Initiative (GRI)
- Flexible and scalable GhG modeling.
- Variety of predictive analytics, forecasting and simulation to help plan improvement strategies.
- Total performance management capability including strategic planning, KPI management, activity planning, carbon modeling, forecasting and analysis.



#### Contact

#### SAS Institute Japan Ltd. Marketing Division Roppongi Hills Mori Tower 11th floor, 6-10-1

Roppongi, Minato-ku, Tokyo 106-6111 Japan TEL 03-6434-3700 FAX 03-6434-3701 E-mail JPNSASInfo@sas.com

URL http://www.sas.com/jp

One of our customers, which recently set a corporate goal of reducing absolute worldwide greenhouse gas emissions 25% by 2012, has signed a multi-year agreement to expand their use of SAS Sustainability Management globally.

Another customer has decreased consumption 1 percent per year and reduced carbon dioxide emissions 7 percent. It uses SAS to analyze energy efficiency in 250 facilities, some with high energy consumption (data processing centers, executive centers and large branches).

#### Home

## Home energy saving support system

Panasonic Electric Works Co., Ltd. Lifinity ECO management system

ECO is a growing awareness from all-electric home, photovoltaic generation, energy saving home appliances etc. Panasonic Electric Works is offering a new lifestyle of "ECO management". We help your energy saving activities at home.

Adding "ECO management function" which support home energy saving activities to our home network system "Lifinity", we provide entire house ECO solution.

## [Use conditions]

For newly-built single-family house

#### [Features]

(1)Visualization of electric usage:

Entire home electricity usage is visualized.

To inform waste of electricity and energy-saving result.

(2)Enjoy energy-saving with animation:

Penguin illustrator and energy-saving tips are enjoyed from children to the elderly.

(3)Support energy-saving activities:
To aware electricity and educate ECO-consciousness to reduce too much electricity usage.

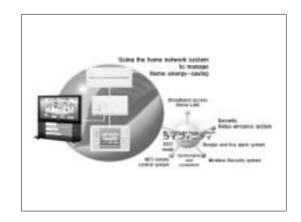
(4)To control electric devices and check power usage from home: Via the control panel, a Panasonic digital TV(acTVila), and a PC

(5)To control electric devices and check power usage from outside the home:

Via a cell phone with subscribing our service.



As the energy saving effect is triggered by making a family to be interested in the display of power usage, making them last their interest in such display keeps more energy saving effect. Lifinity ECO management has realized such functions and might be resulted in around 5% to 10% energy saving. (From the report of the NEDOenergy saving navigation field tests results). This system is also registered as one of the "energy saving navigation systems" which pass the criteria provided by the energy conservation center Japan (http://www.eccj.or.jp/navi/index.html).



#### Contact

Panasonic Electric Works Co., Ltd. Information Equipment & Wiring Products Manufacturing Business Unit **New Business Promotion Department** 

1048, Kadoma, Osaka 571-8686, Japan TEL +81-6-6908-1131

URL http://panasonic.jp/Lif

## **Digital Archive**

Conversion of print catalogs and pamphlets into data for publication on the Web. Not only is convenience improved due to added search functionality, but total printing costs are reduced.

#### [Usage/field]

Conversion of print catalogs and pamphlets into data for Web publication. Allows viewing anytime, anywhere, over the internet.

#### [Use conditions]

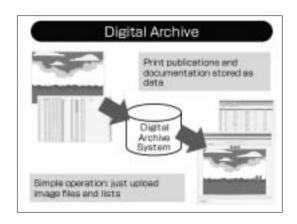
Internet Connection

#### [Features]

- Upload image data from catalogs, pamphlets, etc.
- Adding, modifying, and deleting data is simple, so workload is reduced.
- Users can easily search through digital catalogs and pamphlets.
- · Users can print only the pages they need.
- · Can reduce total output cost for print publications.



- Publication on the web of formerly print based catalogs and pamphlets reduces the number of printed catalogs and pamphlets. Can also reduce the use of other resources related to printing and distribution.
- Users can choose to print only the pages they need, and in the exact quantities they require.



#### Contact

#### **CONEXTIVO Inc.**

#### Planning and Marketing Dept.

URL http://www.conextivo.com/

1-13-35, Izumi, higashi-ku, Nagoya-City, Aichi, Japan TEL 052-950-1060 FAX 052-950-1061 E-mail info@conextivo.co.jp

#### Home

## SaaS Based Easy, electronic application system

NTT DATA KANSAI CORPORATION SaaS Based Easy, electronic application system

This system can satisfy both of the public administration and the residents by making the application procedures of the resident easy and convenient, and achieving low cost of introduction and operation.

#### [Usage/field]

An easy introduction and operation became possible by low cost of introductions and operation.

Application system that achieves customer satisfaction for the administration and the resident.

#### [Use conditions]

The personal computer and the cellular phone

#### [Features]

[Advantage of administration]

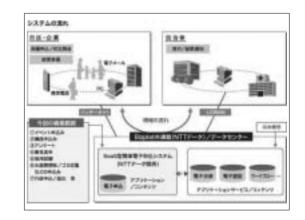
- Reduction in costs with initial cost and operation cost by SaaS
- No need to own server equipments and software
- Advanced security and the enhanced system of the support

[Advantage of resident]

- Available without installation and setting.
- Available with personal computers and the cellular phones, anytime and anywhere

Energy-saving effe

- Reduction of about 440t-CO<sub>2</sub>/year compared to the system of non-SaaS type.
- When this system is introduced in a prefecture, 56.5%. reduction of CO<sub>2</sub> is expected.



#### Contact

# NTT DATA KANSAI CORPORATION PLANNING AND GENERAL AFFAIR DEPARTMENT(PUBLIC RELATIONS)

Meiji-Yasuda-Seimei Osaka-Umeda Bldg, 3-20, Umeda 3-chome, Kita-ku, Osaka 530-0001 TEL +81-6-6455-3186 FAX +81-6-6455-3158 E-mail information@nttdata-kansai.co.jp URL http://www.nttdata-kansai.co.jp/service/apply/

#### [Usage/field]

Online software distribution

#### [Use conditions]

Requires Internet connection

#### [Features]

We provide localization service and sell the localized overseas software to Japanese market.

Our ESD web site www.shareEDGE.com provides TBYB (Try Before You Buy) method to end user.

Then user can try and evaluate the software before buy it.



Energy-saving effe

All software are available as downlodable image. We also promote GreenIT technology at www.shareEDGE.com: http://www.shareedge.com/modules/pnote/index.php?id=8

#### Contact

#### nextEDGE Technology, K.K.

206 Tsukuba City Industry Promotion Center, 2-5-1 Azuma, Tsukuba, Ibaraki TEL 029-858-1126 FAX 029-858-7510 E-mail contact@nextEDGEtech.com URL http://www.nextEDGEtech.com/

#### Home

## **Heat Pump Water heater**

Panasonic Corporation HE-KU37BXS

"Panasonic's Eco-cute" is a household water heater that offers dramatic energy saving on the use of hot water, which nomaly accounts for about a third of a household's entire energy consumption. Effective for not only the environmental impact decrease but also prevention of global warming.

#### [Usage/field]

Household water heating system of energy saving ,using heat pump technology

#### [Use conditions]

Single phase 200V, Maximum current 17A

#### [Features]

- This system is achieved at APF\*3.6 in Japan as a top-class energy-saving device.
   The heat pump performance is improved with high-performance"new CO2-scroll compressor", "new threefold tube type water-refrigerant heat exchanger", etc., and energy efficiency is greatly advanced by improvement of tank heat insulation with vacuum heat insulator. (\*Annual Performance Factor of hot water supply.)
- This system is achieved comfortable shower by "powerful and high pressure supply hot water" through high pressure tank of the first in the industry, and circuit of powerful and high-pressure supplying hot water.
- Using the oxygen enrichment membrane technology which is a unique feature of Panasonic,comfortable bathing by the oxygen bathing function is achieved.



# Energy-saving e

- Succeed in 606kg of CO<sub>2</sub> reduction \*from conventional combustion type water heater. (\*In the case of quantity consumed of standard hot water, CO<sub>2</sub> emissions of combustion type water heater is 1120kg-CO<sub>2</sub> and CO<sub>2</sub> emissions of this system is 514kg-CO<sub>2</sub>)
- A powerful, high-pressure supplying hot water to bathtub of the third floor is achieved, without the pressurizing supplying hot water pump that was necessary so far.

#### Contact

# Panasonic Corporation , Home Appliances Company Air Conditioner Business Unit

2-3-1-1 Noji-higashi ,Kusatsu City ,Shiga, 525-8520, Japan TEL +81-77-561-3370 FAX +81-77-567-9874 URL http://panasonic.jp/sumai/water/

#### Home

## Home Network "FEMINITY" IT Power measuring unit TOSHIBA HOME APPLIANCES CORPORATION IT Power measuring unit

This system displays the amount of the electric power use for the home in detail.

#### [Usage/field]

Electric energy used is displayed in the interphone. Moreover, the user can see data from PC and the cellular phone. The user can use this data for conservation of energy.

#### [Use conditions]

The user can connect this product with an existing distribution panel.

The Internet is necessary.

#### [Features]

The user can check the quantity consumed of the electric power in detail at home. As a result, the energy conservation action is promoted.

More check chances can be given to the user by displaying the measurement result in the cellular phone and the interphone that the user daily uses.

The amount of the natural energy power generation can be measured with this system. This system is an open system based on ECHONET that is an international standard.



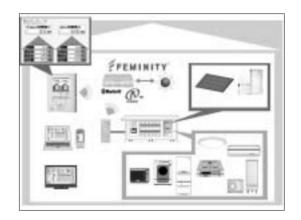
It is necessary to visually present the amount of the electric power use to promote conservation of energy continuously.

There is a report that the energy-saving effect of about 20% can be expected

There is a report that the energy-saving effect of about 20% can be expected when the monitor system continuously displays the amount of the electric power use and the electric rate (rough estimate value). (ECCJ 2008 \*1)

More check chances can be given to the user by displaying the measurement result in the cellular phone and the interphone that the user daily uses.

\*1 http://www.eccj.or.jp/ (The article existed 2008/7/16)



#### Contact

# TOSHIBA HOME APPLIANCES CORPORATION Home IT Network Promotion Group

2-15 Sotokanda 2-chome, Chiyoda-Ku, Tokyo 101-0021, Japan TEL +81-3-3257-5749 FAX +81-3-3257-5915 E-mail kenichi.kunugida@toshiba.co.jp URL http://feminity.toshiba.co.jp/feminity/feminity\_eng/index.html

## **Transportation**

## **Precision Power Analyzer**

Yokogawa Electric Corporation WT3000

WT3000 contributes improvement of the performance of an electric motors and inverters used for an electric vehicle with its world top class measurement accuracy and intuitive user interface.

#### [Usage/field]

WT3000 is the electric power meter with the world top class accuracy. It visualizes an improvement of efficiency of motors and inverters.

#### [Use conditions]

Operating Temp.: 5 to 40C deg,. Humidity: less than 80%(RH)

Power: AC100 to 240V, 50/60Hz, 150VA

#### [Features]

WT3000 evaluate and analyze an improvement of efficiency of an electric motors and inverters with its world top class measurement accuracy and variety of analysis functions.

WT3000 displays the measurement results in both numeric and waveform.



#### Contact

# Yokogawa Electric Corporation T&M Customer Support Center

2-9-32, Nakacho, Musashino city, Tokyo TEL 0120-137046 FAX 0422-52-6624 URL http://tmi.yokogawa.com



The performance of electric vehicle is strongly affected by the inverters and motors. Therefore, in evaluation of these key components, high accuracy measurement instrument is required. WT3000 is the world top class precision electric power meter of 0.06%

## Mitsubishi Integrated Logistic Information System

Mitsubishi Electric Information Systems CORPORATION Dr.Logis

Dr.Logis is a logistic control system that integrates/links the logistic processes such as vehicle dispatch/delivery planning. travel monitoring, and record control; improves vehicle utilization efficiency; brings out an cost-reduction effect; and enables each company to achieve optimal logistic operation.

#### [Usage/field]

A logistic information system (LES) that promotes improvement of efficiency throughout the logistics by linking vehicle dispatch/delivery planning, travel monitoring, and record control.

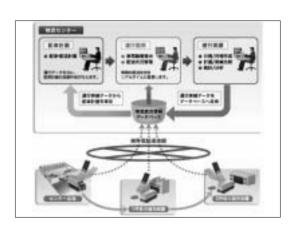
#### [Features]

- Visualizes CO<sub>2</sub> reduction effect by using the function for simulating a CO<sub>2</sub> emission plan
- · Reflects the delivery state in the vehicle dispatch/delivery plan in real
- · Links with a navigation map system
- · Achieves optimization of the vehicle utilization efficiency by using a powerful planning engine
- · Capable of linking with the backbone system and the existing travel control system
- · Creates an optimal vehicle dispatch/delivery plan that meets the actual driving in a short time
- · Enables the increase in accuracy of the next vehicle dispatch plan by feeding back the driving record and operating time

In one case, a total of 167.6 t of CO2 was reduced within a year after adopting the system by increasing the loading ratio and the load mixing efficiency.

- Travel distance: Reduced by 256,000 km

• CO<sub>2</sub> emissions: Reduced by 167.6 t (Note) The CO<sub>2</sub> emission reduction is calculated from fuel (light oil) reduction. For the specific consumption of light oil, 2.62 kg-CO<sub>2</sub>/l is



#### Contact

Mitsubishi Electric Information Systems CORPORATION Manufacturing and Service Marketing Department

MS Shibaura Bldg., 4-13-23, Shibaura, Minato-ku, Tokyo, Japan

TEL 03-5445-7602 FAX 03-5445-7791

URL http://www.mdis.co.jp/products/drlogis/index.html

## **Transportation**

## eco-LOGI Series

Nihon Unisys, Ltd. "Safe Driving Tutor" Service

"eco-LOGI Series" realizes efficient logistics and environmentally-friendly services. "Safe Driving Tutor" Service helps drivers be aware of how they can improve their driving behaviors more safe and fuel-efficient.

#### [Usage/field]

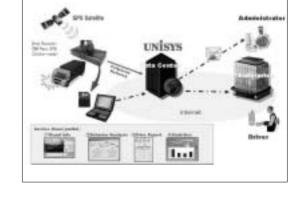
Analyzing dangerous driving behaviors recorded in a driving recorder, it helps drivers drive cars more safely and fuel-efficiently.

### [Use conditions]

Online PC

#### [Features]

- 1. Realtime notification of driving behavior via wireless network when dangerous driving patterns or accidents detected
- 2. Two-million pixel high resolution
- 3. Filters noise information by highly sophisticated wave analysis
- 4. Due to administration and analysis application, driving behavior analysis and daily reports can be available.
- 5. No servers procurement necessary
- 6. 2,980 yen per month, with no initial fee



- "Safe Driving Tutor Service" enables car drivers to be aware of how they can improve their driving behaviors such as sudden accelerations more safe and fuel-efficient by referring recorded driving data. Approximately, drivers can get 10% improvement of fuel-efficiency by reducing sudden acclerations according to MLIT sur-
- A series of eco-LOGI software optimizes transportation efficiency and helps reduce fuel of transportation vehicles.

#### Contact

Nihon Unisys, Ltd. Service Industry Division 1-1-1 Toyosu, Koto-ku Tokyo 135-8560 Japan

TEL 03-5546-5815 FAX 03-5546-7803 E-mail logi-box@ml.unisys.co.jp

URL http://www.unisys.co.jp/solution/logistics/eco/

## **Ubiqlink Traffic Information System**

UBIQLINK, Ltd.

Dynamically creating a real time Road Congestion and traffic flow information by gathering massive positioning information from active cars on the road.

#### [Usage/field]

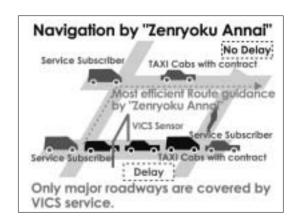
Road Traffic Information based Services with Cell Phones and Automobile Navigation system which covers a wide area but small detailed section with high information refresh rate.

#### [Use conditions]

Cell Phones with Digital Data Communication and with GPS Capability.

#### [Features]

- A wide area but small detailed section with high information refresh rate based traffic congestion information provision are made possible with 12,000 Taxi Cabs with contracted cooperation with Ubiqlink with in entire Japan, and also with the Next Generation mobile navigation system service "Zenryoku Annai by Ubiqlink" customers providing positioning information country wide.
- Could be used for the planning of new Roads and Bridges, as well as the Before and After of the Traffic Flow Analysis once they are built.
- "Zenryoku Annai by Ubiqlink" is the world first Mobile Phone Network based Commercial Traffic Congestion Information Service based on the active information from cars on the road.



#### Contact

#### UBIQLINK, Ltd.

#### Marketing & Business Planning Division

134 Godo-cho, Hodogaya-ku, Yokohama 240-0005, Japan TEL +81-45-336-1860 FAX +81-45-336-1455 E-mail info@ubiqlink.co.jp

URL http://www.ubiqlink.co.jp/english/business/index.html

# :nergy-saving eff

By avoiding the traffic congestion, the reduced travel time and fuel cost savings could be achieved.
With an experiment done by the Ubiqlink's Parents company "NRI"

 With an experiment done by the Ubiqlink's Parents company "NRI" in City of Tokyo, following data were gathered.

Comparing with just using the major road routes only, maximum of 33% travel time reduction with an average of 19% reduction. Comparing with just using the major road routes only, maximum of 24% fuel usage reduction and an average of 14% reduction (based on the mid-size Automobile).

## **Transportation**

## **Traffic Information ASP Delivery Solution**

NTT DATA CORPORATION ViewRoad

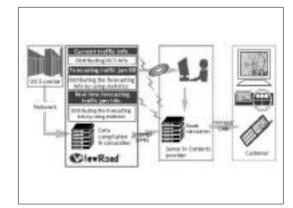
"View Road" provides forecast traffic jam information by original methodology base on the current traffic information which VICS center delivers.

#### [Usage/field]

"View Road" provides forecast traffic jam information by original methodology base on the current traffic information which VICS center delivers.

#### [Features]

- Selects an efficient route at a specific date and hour, and supports the planning of the best delivery.
- Generates the optimal route and the travel time for the rushing business etc. corresponding to emergent event such as accidents.
- Applies the congestion forecast data to the car navigation terminal etc., and achieves the driving plan service that specifies the arrival and departure hours.
- Enables area marketings with traffic information.



# Energy-saving

#### Offers the forecast time required between locations enabling the

- driving plan to specify the arrival and departure hours in advance.

   Enables the drivers to avoid traffic jams by taking the route of the driving plan.
- Reduces idling and, as a result, CO<sub>2</sub> exhaust and the consumption of gasoline.

#### Contact

#### **NTT DATA CORPORATION**

Service & Platform Business Unit, Business Solutions Sector Sanno Grand Building 7F, 14-2 Nagata-cho 2chome, Chiyoda-ku, Tokyo 100-0014 TEL +81-3-5251-9374 FAX +81-3-5251-1031 E-mail viewroad@gis.bds.nttdata.co.jp URL http://madore.glbs.jp/viewroad/index.html

## Predicted Energy Optimization System Yokogawa Electric Corporation Enemap

It is important to reduce generated energy cost and CO2 for production and district air conditioning. Enemap predicts customer's energy consumption volume and achieve optimum energy supply.

#### [Usage/field]

Enemap is applied for operating control system to generate energy of district air conditioning, co-generation, plant utilities.

#### [Use conditions]

Enemap works with operating control system at energy generating plant which is composed several energy generating facilities.

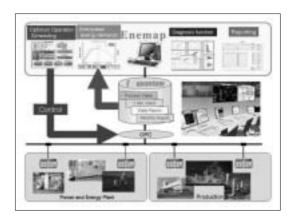
#### [Features]

Enemap can predict the following day's energy work load based on daily operating data and weather forecast. It enable to find best operating schedule of energy plant. Mainly it is very useful to decide the load combination ratio of electric power, town gas, heavy oil etc. The optimum operation schedule function of Enemap is cooperate with Yokogawa's control system and supply better operation environment.

[Energy Saving Effect]

- \*Improving system COP of power plant : more than 10.0% improve-
- \*Energy Saving Ratio (Cost reduction/Total plant energy cost): more than 1% improvement [Automated Effect]

Enemap can reduce manual operation by control each load



#### Contact

## Yokogawa Electric Corporation

Global Business Headquarters Environment Conservation Center 2-9-32 Nakacho, Musashino-shi, Tokyo, Japan TEL 0422-52-5951 FAX 0422-52-8054 URL http://www.yokogawa.co.jp/eco/

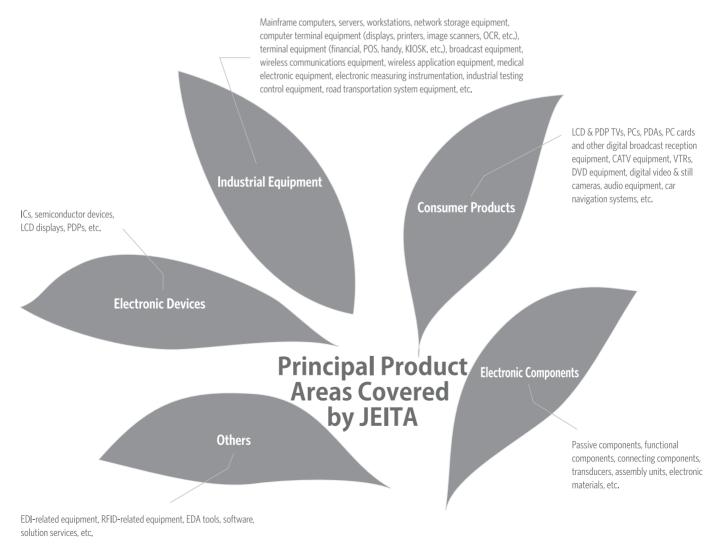
# What Is JEITA?

The objective of the Japan Electronics and Information Technology Industries Association (JEITA) is to promote the healthy manufacturing, international trade and consumption of electronics products and components to contribute to the overall development of the electronics and information technology (IT) industries, and thereby further Japan's economic development and cultural prosperity.

The world is now connected via the Internet, and electronics technologies and IT are penetrating global markets. With the evolution of electronics and progress of IT, technologies in information, communications, imaging and audio are converging to create new systems and products, which are causing enormous changes not only in the economy, but also in our lives and culture.

JEITA's mission is to foster a digital network society for the 21st century, in which IT advancement brings fulfillment and a higher quality of life to everyone.

To this end, the Association is actively submitting plans and proposals to government organizations on behalf of the industries, supporting the diffusion of products into new fields, and promoting environmental preservation initiatives, including those to combat global warming.



# To Support Corporate Activities



As one of Japan's largest industry associations,

JEITA is directly linked to the corporate activities of its member companies, which help sustain the ¥50 trillion global electronics and IT industries.

# **Global Warming Countermeasures**

Having identified the usage of IT and electronics to combat global warming as an issue of utmost importance, JEITA is taking a leadership role in and actively pursuing activities to help achieve a global social structure sustaining both environmental preservation and economic progress.

## Taxation System Amendments and Regulatory Reforms

To help Japan win against ever-growing global competition, it is necessary to ensure equal international footing. For this reason, JEITA supports national policy formation in the form of taxation system amendments, including corporate income tax rate reviews. JEITA also actively proposes technology reforms and conveys details of industry opinions to realize a low-carbon-emission society.

# **Ensuring Global Competitiveness**

JEITA promotes Fair Trade Agreements and Economic Partnership Agreements, and cooperates with government-level negotiations under the World Trade Organization (WTO). The association also supports international competitiveness through measures such as taking the lead in declaring against protective trade trends and helps build the foundations for mutual development in Japan and other countries in Asia.

# Fostering Human Resources

To ensure a stable level of highly skilled engineers in Japan, JEITA works with the academic sector to resolve issues including the decreasing number of young people studying the physical sciences. The association is actively pursuing human resources development through programs tailored to the ages and knowledge of young people from the elementary through graduate school levels.

# **Protecting Intellectual Property**

JEITA is strengthening its activities to ensure adequate protection of intellectual property rights. In addition to preparing official requests related to countermeasures to forged products, JEITA dispatches missions, holds "intellectual property protection conferences" and supports various related measures.

# **Promoting Research and Statistics Gathering**

JEITA is active in performing research and gathering statistics in order to accurately understand increasingly global industrial trends. These activities include the implementation of periodic autonomous surveys of shipments by the industries and the publishing of results of these surveys.

# Introduction of Activities



## **Opportunities for Communication with Industry Leaders**

JEITA's annual New Year's Reception is a major opportunity for interchange not only for leaders and executives of member companies, but also for the many representatives of the industry, government and academia who attend. In 2009, the reception gathered 2,000 attendees from the industries alone. Other occasions for members to communicate include the reception after the Annual Conference of JEITA and the year-end Board of Directors Reception.





## Hosting and Participating in International Conferences and Dispatching Delegations



Japan/US/EU Trilateral IT-Electronics Associations Meeting

JEITA sponsors international meetings in Japan and actively participates in meetings held outside Japan. In April 2008, the association organized the Fourth Japan/US/EU Trilateral IT-Electronics Associations Meeting in Kyoto, Japan. JEITA is also strengthening international links in a variety of fields as a leading industry organization, including the World Electronics Forum (WEF), Asia Electronics Forum (AEF), World Semiconductor Council (WSC), International Semiconductor Environment, Safety and Health Conference (ISESH), World LCD Industry Cooperation Committee, (WLICC), JEITA-CECC Environment Conference and JEDEC-JEITA Standardization Joint Conference. JEITA also sends observers to overseas trade exhibitions — including the IFA Berlin Show, CeBIT, COMPUTEX and International CES — and sponsors research missions to the Americas, Europe and Asia.



## International Standardization Activities and the Formulation/ Issuing of Industry Standards

JEITA proactively participates in activities of international standardization organizations such as the International Electrotechnical Commission (IEC) and International Standards Organization (ISO). JEITA has 25 chairpersons and executive secretaries in this area. As an international advisory organization, JEITA also has 32 related committees and sent about 320 personnel to international conferences in fiscal 2009 (April 2008 to March 2009). In addition, JEITA enacts and issues standards (JEITA Standards, provisional standards and technical reports). It has established more than 600 standards in areas from AV to information communications equipment, electronic application equipment, electronic components, semiconductors, display devices and JISSO systems. About 160 of these standards have been published in English.





## **Publication of Reports and Materials on Industry Achievements**

Achievements of JEITA's committee activities are published in a wealth of research reports and publications available to all member companies. These publications include the Production Forecasts for the Global Electronics and Information Technology Industries, Global Demand Forecast for Major AV Products, Statistics on Domestic Shipments of Consumer Electronic Equipment, Electronic Components Technology Roadmap, Report on Global Production of Major Electronic Equipment, IC Guidebook, FPD Guidebook and Japan Jisso Technology Roadmap.



FPD Guidebook





## **Proactive Information Publication Centered on the JEITA Website**

In addition to introducing the association and its activities, the official JEITA website contains announcements of various data, as well as comments by and on behalf of the industries in press releases, seminar and symposium information, periodicals and applications for JEITA standards, and other statistics and data. Full member companies have access to a dedicated website and the special DISH database system, which allows data searching and downloading from the official website.

http://www.jeita.or.jp







## **Timely Lectures and Seminars with Specialized Themes**



JEITA actively holds forums and seminars to report the achievements of its specialized committees. These events are publicized on the official website, where seats can also be reserved. About 50 events were held in fiscal 2009. On April 27, 2009, the day after the Provisional Budget Plan was submitted to the Japanese Diet (Parliament), JEITA held the "Lecture on Economic Stimulus Measures" for member companies with the cooperation of the Ministry of the Economy, Trade and Industry (METI). In addition, JEITA's Kansai Branch Office hosts events such as technology and environment seminars.



### Trade Shows that Draw Visitors from around the World

CEATEC JAPAN, one of the world's most comprehensive trade shows for the IT and electronics industries, focuses on imaging, information, communication and other fields, and is on a par with the IFA Berlin Show and International CES. The 2008 show was held in October at Makuhari Messe with some 800 exhibitors. Some 200,000 people, from industry insiders, to government employees, researchers and students, visited the five-day show. Media from around the world covered the show in print, on television and on the web.

The International Broadcast Equipment Exhibition (Inter BEE) is a special trade show held every November emphasizing broadcasting facilities and studio/production equipment. In line with continuing advances in digital broadcasting and broadband, the number of exhibitors surpassed 780 in 2008.

Other JEITA-sponsored shows include the Electronic Design and Solution Fair (EDSFair), a special trade show for the semiconductor design field.







# Outline of Major Activities (Fiscal 2009)



## **Global Warming Countermeasures**

- Activities to achieve goals under the Kyoto Protocol
  - Follow-up on autonomous plans to achieve the unit reduction goal for actual CO2 emissions during manufacturing
  - Publicize global warming countermeasures in the consumer electronics/transport sectors and overall energy reduction achievements
  - Outline in detail activities for and opinions on government initiatives such as the Law Regarding the Rationalization of Energy Use, Law Concerning the Promotion of Measures to Cope with Global Warming and Law on Promoting Green Purchasing
- Activities for post-Kvoto and future frameworks
  - Outline in detail industry opinion in advance of the United Nations Climate Change Conference (COP15) in Copenhagen in December 2009
  - Through the Asia-Pacific Partnership on Clean Development and Climate, work in areas such as the diffusion of energy-saving products and the establishment of international energy reduction measurement regulations
- Promotion of Green IT
  - Publicize inside and outside Japan activities to realize a low-carbon-emission society through Green IT contributions (energy-saving IT equipment, productivity enhancement and energy savings through the use of IT and electronics, etc.)
  - Submit proposals to the government and research institutions related to the development and commercialization of revolutionary technologies to realize a low-carbon-emission society
  - Promote international ties and contributions via Green IT to countries in Asia



## **Digital Broadcasting Promotion**

- Smooth transition to digital broadcasting
- Propose policies and respond to issues related to the diffusion of tuners in advance of the full transition to digital broadcasting in 2011
- Prepare the research environment to generate diverse products allowing consumers around Japan to receive the full benefits of digital broadcasting
- Publicize information on the timing of the conclusion of analog broadcasts and understanding of digital broadcasting
- Strengthen ties with government and research institutions to rapidly construct new reception facilities and upgrade existing facilities to handle issues of poor reception in remote areas



## **Requests for Taxation System Amendment**

- Petition activities for the summarization of the contents and realization of requests in fiscal 2010
  - Study tax regulation amendments considered necessary to continue high-level technology development, strengthen Japan's international competitiveness, and ensure stable economic growth and employment, and promote activities to submit requests relevant to the development of the IT and electronic industries



## **Opening New Markets and Strengthening Links in Related Fields**

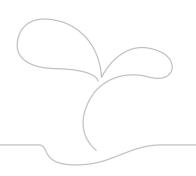
- Activities for advanced technologies, new markets and growing sectors
  - Implement research studies toward development for nanoelectronics, thin-film solar cells, sensing devices and other advanced technologies, and make recommendations concerning technological measures to government and related organizations
  - Strengthen efforts to outline in detail opinions on the convergence of communications and broadcasting, and create new information and communications equipment markets
  - Actively support new business creation using electronic paper and networks to reinforce the usage environment of digital contents, and the full-scale application of the Smartway Service
- ■Topical market:
  - Study regions such as Asia, Central & South America, and Africa as markets and supply points, and strengthen ties with relevant government and industry organizations



## **Promoting International Ties and Cooperation**

- Supporting government cooperation (Preventing protective policies)
  - Work with the Japanese government and related U.S. and European organizations to ensure that the China Compulsory Certification (CCC) system for IT security does not turn into non-tariff barriers
  - Cooperate on promotion of activities to reduce and remove barriers from negotiations at the WTO and NAMA
  - Promote activities to expand ITA (Information Technology Agreement) member countries and increase ITA-classified products in harmony with technological advancements
- Cooperate with the government to promote FTAs (Free Trade Agreements), EPAs (Economic Partnership Agreements) and EIAs (Economic Integration Agreements)

  International conferences
  - Build common understanding centered on environmental measures and strengthened ties with relevant parties at electronics and IT industry organization conferences in Japan, the USA and Europe
  - Participate in the World Electronics Forum (WEF) and Asia Electronics Forum (AEF), and tie up for activities with related organizations outside Japan
  - Promote awareness of future issues and measures by sponsoring the JEITA/CECC Environment Conference





## **Strengthening Industrial Foundations**

- Measures to foster human resources
  - Foster human resources with technological skills through activities such as implementation of practical models through tie-ups with universities under the Industry-Academia Personnel Education Partnership (METI/Ministry of Education, Culture, Sports, Science and Technology, Japan)
  - Through tie-ups with the JEITA Study Committee on IT and Electronics Human Resources Development, promote human resource development measures spanning age groups from elementary through high school
- ■International standardization
  - Actively work to reflect industry opinions in strategic international standards of the IEC (International Electrotechnical Commission) taking into account business in the future
  - Support activities of the IEC Council Board and other Boards of which Japan is in charge and, as managing organization of the IEC Japan Committee, handle international conferences
  - Reinforce domestic foundations for standardization as a prerequisite of international standardization and promote standardization policies closely linked to business activities
  - Foster human resources to promote international standardization
- Promote improvement of systems related to business management foundations, such as logistics efficiency and transaction optimization, and respond to topics at structural reform meetings of the Japanese Cabinet Office



## Response to Economic Regulations and Promotion of Intellectual Property Protection

- Handling economic regulations related to business activities and intellectual property protection
- Submit industry opinions to government agencies and institutions related to various issues under the Copyright Law, optimal regulation of technological protection measures and optimal compensation systems
- Reflect industry opinion in economic regulations and various issues affecting business activities, including the Unfair Competition Law and regulations related to electronic transactions
- Study industry-related issues related to laws and regulations involving intellectual property rights, such as the Patent Law, Trademark Law and Design Law, and submit requests/proposals to the appropriate institutions
- Activities to protect intellectual property
  - In addition to holding the Intellectual Property Protection Conference with CECC, promote countermeasures to product forgeries in the Chinese market and intellectual property protection activities in general
  - Promote intellectual property protection activities by implementing forgery detection seminars for Chinese Customs officials and researching online transactions in forged goods
  - Participate in the International Intellectual Property Protection Forum (IIPPF), activities to deal with forged products in emerging economies and activities to seek action by customs and other enforcement agencies



■ Work toward the establishment of a new legal system to prevent product-related accidents before they happen

■Further promote safety publicity

## Formation of a Resource-Circulating Society and Response to Product Recycling

- Response to Legal Systems
- Outline of details of industry opinions on the 10-year review of the Waste Management and Public Cleansing Law, and diffusing the Electronics Manifesto
- Outline of details of industry opinions on the review of laws related to chemicals (Law on the Management of Specified Chemical Substances, Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances)
- Response to REACH, RoHS, EUP and other international environment regulations, gathering of the latest related information and activities to reflect the
  opinions of Japan in related regulations
- Recycline
  - Forecasting of analog TVs that will be disposed of after the 2011 transition to digital TV broadcasting in Japan and promotion of appropriate recycling measures
  - Work to resolve technical issues related to the recycling of glass panels for LCD and plasma display panel TVs, which have been newly incorporated into the Home Electronics Recycling Law
  - Work with the PC3R Promotion Association to promote PC recycling

## **Correctly Understanding Market Trends**

- Producing and announcing the 2010 Production Forecasts for the Global Electronics and Information Technology Industries
- Promote statistical research activities to prepare data contributing to the management of member companies

## Work on a Response to Reform of the Nonprofit Foundation System

- Respond to laws related to the Nonprofit Foundation System and study JEITA's management structure, membership fees and activities to prepare for changing to a new organization
  - Respond to JEITA's management methods, nonprofit activities and accounting standards under the new system
  - Study the optimal board and committee structure compliant with the rules of the new system
- Strengthen Information Dispersal



# **INDEX**

A	Supporting the Construction of Environmentally Conscious Data Center • • • 86
ALAYALA Networks Componetion	Chemical Management Solution
ALAXALA Networks Corporation	Integrated Internal Information Solution · · · · · · · · 100  SaaS Based e-learning Service · · · · · · · · · 117
Dynamic Energy Saving Network System · · · · · · · · 56  Anritsu Corporation	Saas based e-learning service ************************************
Advanced High-frequency Analyzer · · · · · · · · · · · 81	G
Anritsu Networks Co.,Ltd.	Gomes Consulting Co.,Ltd.
Power-saving Bandwidth Controller · · · · · · · · · · 56	GPN(Gomez Performance Networks)·····69
Anywire Corporation	GFN(Goillez Feriorinalice Networks)
iDC Environmental Monitoring Server······44	H
Environmental Monitoring Unit for iDC server rack ··· 67	Hewlett-Packard Japan, Ltd.
Environmental Monitoring Unit for the power measurement panel PDU · · 85	Video Collaboration Solutions (By collaboration from DESC) · · · 110
ARCHES Co.,Ltd.	HIRAKAWA HEWTECH CORP.
Web ecology education system · · · · · · · · · · · · · · · · · · ·	L2 SWITCHING HUB HS-1008MA · · · · · · · · · · · · · 57
web ecology education system	L2 SWITCHING HUB HS-508A58
C	Hitachi Information Systems,Ltd.
CAC Corporation	Virtualization Clinic - Server Consolidation Services · · · · 69
Server Virtualization Solution	Thin client service for virtualized computers101
Paperless Office Consulting92	REACH regulation compatible chemical material management ASP service. · · · · 101
Canon IT Solutions Inc.	Hitachi Software Engineering Co.,Ltd.
Material Flow Cost Accounting · · · · · · · 82	Agriculture Information Management System · · · · · · 102
Green procurement survey support system · · · · · · 98	Hitachi Systems & Services, Ltd.
CONEXTIVO Inc.	Lysithea93
Proposal System · · · · · 92	Document Solution · · · · · · · · · · · · · · · · · · ·
Unified Communications · · · · · · 99	Library Management System "Livre" · · · · · · · · 120
Digital Archive······122	Hitachi,Ltd.
_	Blade server with reduced power consumption by efficient power control · · · 46
D	Power Saving by Server Virtualization · · · · · · · · 47
D-Link Japan K.K.	Environment-conscious Storage · · · · · · 52
D-Link Green unmanaged gigabit switch with internal power supply · · · 57	The Yokohama Third Center · · · · · · · · · · · 70
	Modular Datacenter · · · · · · · · · · · · · · · · · · ·
	Multi-Biz Media Service TWX-21 · · · · · · 102
Eco Concierge Co.,Ltd.	HITACHI Visual Communication · · · · · · 111
Page only for customer · · · · · 99	
EPSON DIRECT CORPORATION	
Nettop personal computer · · · · · · · · · · · · · · · · · · ·	IBM Japan,Ltd.
	Refrigiration Rear Door Heat eXchanger ······73
Ð	Infinitec Co.,Ltd.
Fuji Electric Systems Co.,Ltd.	Printing management application software · · · · · · 94
Workflow system · · · · · 93	Intel Corporation
Fuji Xerox Co.,Ltd.	Dematerialization of business transactions. (By collaboration from DESC) $\cdots 95$
Color Digital Multifunction Devices······43	Sustainable printing solutions (By collaboration from DESC) $\cdots 103$
FUJITSU LIMITED	Office Energy Use (By collaboration from DESC) · · · · · 103
Middleware that Reduces Power Consumption of PCs $\cdots 40$	Video Conferencing (By collaboration from DESC)·····111
1 Way compact server, achieved energy saving and silent mechanism $\cdots 45$	Intel K.K.
Blade Server for Large-scale Systems that Enables High Density and Energy-saving $\cdots 45$	Energy Efficient Client PC · · · · · · 41
High-performance, High-Reliable, Ecologically Sustainable 2U Rack Server $\cdot \cdot \cdot 46$	Energy Efficient Microprocessor · · · · · · 47
ECO plus monitor which turns off liquid crystal screen when user leaves the seat $\cdot\cdot 59$	IP-CORE Lab.Inc.
Green data center adopted by advanced green technology ··· 68	IA server which realizes zero discharge of the CO <sub>2</sub> ····48

The server that the loading rate to a rack is possible 100%···48	NEC Personal Products,Ltd.
J	Power saving PC ······42
	NEC Soft,Ltd.
JFE Systems,Inc.	Eco-conscious Forms solution · · · · · 96
Electronic List Filing System · · · · · 95	Enterprise web-based e-mail software · · · · · · 96
	Solution for Web Contents Protection · · · · · · 97
	NEC Software Hokkaido,Ltd.
LG Electronics Japan Inc.	Database search system via Web-browsers · · · · · · · 118
LED Backlight Monitor · · · · · 60	Netmarks Inc.
Logizard co.,Ltd.	Environmental monitoring solutions to the data center $\cdots 71$
Logistics & inventory control system · · · · · · 91	TANDBERG Video Conference System · · · · · · · 112
M	nextEDGE Technology,K.K.
_	shareEDGE·····123
MIC Associates, Inc.	Nihon TANDBERG K.K.
Ultra high performance RAID storage subsytem · · · · · 52	Video Conference System · · · · · · 113
Monster capacity Strage · · · · · · 53	Nihon Unisys,Ltd.
Microsoft Co.,Ltd.	SASTIK Service · · · · · 109
Server Virtualization Solution · · · · · · · 49	PowerWorkPlace Online Unified Communication Service · · · 113
Microsoft Unified Communications(By collaboration from DESC) · · · 104	SaaS-type e-learning System·····118
Mitsubishi Corporation	eco-LOGI Series · · · · · · 125
Solution for power reduction of PC · · · · · · · · · 41	NISSHO ELECTRONICS CORPORATION
Mitsubishi Electric Business Systems CO.,LTD.	IT Infrastructure Development Services · · · · · · · · 50
Demand Monitoring System · · · · · · · · 104	Virtual Chassis Switch
Mitsubishi Electric Corporation	Computer Output to Laser Disk for Web·····97
Mitsubishi LCD display · · · · · · 60	NITTO KOGYO CORPORATION
IGBT Module · · · · · · · · · · · · · · · · · · ·	Data Center Air Conditioning Air Flow Control Products · · · · 72
Mitsubishi Electric Information Network Corporation	Nomura Research Institute,Ltd.
General-Purpose Heat and Fluid Analysis Package · · · · · 71	ASP Type Shared online service system for retail securities Brokerage firms · · · · 106
Video Conference System · · · · · · · · · · · · · · · · · · ·	NTT DATA BILLING SERVICE CORPORATION
Mitsubishi Electric Information Systems Corporation	Prior Notification Service for Utility Charges · · · · · · · 115
Core Application for MES · · · · · · 82	NTT DATA BUSINESS BRAINS CORPORATION
Tenant Service System	Report Superintendence System · · · · · · 98
Mitsubishi Integrated Logistic Information System · · · · 125	NTT DATA CORPORATION
Mitsubishi Electric Information Technology Corporation	Green Data Center
Green Management Solution	Authentication Printing System
The Server Virtualization Solutions · · · · · · · · · 105	Receipt examination support system · · · · · · · · · · · · · · · · · · ·
Murata Manufacturing Co.,Ltd.  Digital Ballast	Shared service for the industry of real estate securitization · · · · 115  Traffic Information ASP Delivery Solution · · · · · · · · · 126
RFID Tag for UHF band · · · · · 91	NTT DATA CUSTOMER SERVICE CORPORATION
KI-ID Tag ioi Olii ballu 91	Energy consolidating management solution ·······87
N	NTT DATA KANSAI CORPORATION
NEC Corporation	SaaS Based Easy, electronic application system · · · · · · 122
Energy Saving IT Platforms · · · · · · · · 49	Saas Dased Easy, electronic application system 122
Disk Array Unit iStorage HS8-20·····53	
Disk Array Unit iStorage D8-3054	Oki Network Integration Co.,Ltd.
Energy-Saving Switch · · · · · · · · 58	Energy Management System for IT Equipment ······87
e-learning Service · · · · · · · · · · · · · · · · · · ·	Environmental information gathering service · · · · · · · · · · · · · · · · · · ·
NEC Display Solutions, Ltd.	Print cost reduction system · · · · · · · · · 107
ECO-conscious LCD Display	Osaki computer engineering CO.,LTD.
NEC Electronics Corporation	Energy-saving air-conditioning
Low power 8-bit, 16-bit, and 32-bit MCUs · · · · · · · · · · · · 75	Server room air-conditioning89
Ultra-Low power LSI for portable multimedia devices ·· 76	Visualization of PUE······120
NEC Informatec Systems,Ltd.	
EMI Suppression Support Tool · · · · · · · 83	

Panasonic Communications Co.,Ltd.	Texas Instruments Japan limited
Visual Communication · · · · · · 110	Solar Energy Harvest Kit · · · · · · · 77
Panasonic Corporation	Toshiba Corporation
Mobile PC · · · · · 43	Prevention of Global Warming by energy saving Note PC $\cdots44$
Terrestrial/BS/110 CS Digital Plasma HDTVs · · · · · · · 61	LCD Television · · · · · 63
High Difinition Blu-ray Disc Recorder ······63	TOSHIBA HOME APPLIANCES CORPORATION
"Top Compressor" Refrigerator ······64	Home Network "FEMINITY" IT Power measuring unit · · · · 124
air conditioner · · · · · · · 66	•
Heat Pump Water heater · · · · · · 123	
Panasonic Electric Works Co.,Ltd.	UBIQLINK,Ltd.
An efficient LED downlight · · · · · · 65	Ubiqlink Traffic Information System · · · · · · · · · 126
Home energy saving support system · · · · · · · · · 121	UEJIMA KIKAKU inc.
Panduit Corporation	Server virtualization implement service ··········74
Unified Physical Infrastructure Thermal Management · · · · 50	Y
Data Center Cable Routing System · · · · · · · · · · · · · · · · · · ·	Year-adalas Communities
Philips Electronics Japan, Ltd.	Yamatake Corporation
Video Conferencing (Connect Meeting) (By collaboration from DESC)····114	Air flow management system
R	Energy management & analysis package · · · · · · · · · 79
RAUL Inc.	Instrumentation network modules · · · · · · · · · · · · 84 Energy saving by BEMS (visualization of environment) · · · 90
Green Site License (GSL) · · · · · · · · · · · · · · · · · · ·	Carbon Management System · · · · · · · · · · · · · · · · · · ·
RICOH COMPANY, LTD.	Remote Management System · · · · · · · · · · · · · · · · · · ·
Dry Washing Technology for Adhered Residue ······83	Yokogawa Electric Corporation
Large scale document distribution system · · · · · · · · 107	Optimization System for Facilities Energy · · · · · · · · · · · · 79
Remote management service of output devices ······119	Distributed Control System (DCS) solution · · · · · · · · · · · · · · · · · · ·
Remote management service of output devices 113	Air Compressor Energy-saving System · · · · · · · · · · · · 80
S	Energy-saving by optimizing BTG operation · · · · · · · · 81
Sanyo Electric Co.,Ltd.	Laser gas analyzer measurement control solution · · · · · · 84
Refrigiration Rear Door Heat eXchanger ··········73	Advanced process control solution · · · · · · · · · · · · · · · · · · ·
SAS Institute Japan Ltd.	Energy-saving System for Circulation Pumps90
SAS® Sustainability Management · · · · · · · 121	Optical Fiber Distributed Tempearature Measurement System · · · 109
SEIKO EPSON CORPORATION	Precision Power Analyzer · · · · · · · · · · · · · · · · · · ·
Low-power 16-bit microcontrollers······76	Predicted Energy Optimization System · · · · · · 127
Sharp Corporation	
LCD TV62	
Blu-ray Disc recorder · · · · · · · · 64	
Refrigerator with SC Unique Plasmacluster Technology ····65	
LED Lamps 600 series, 400 series · · · · · · 66	
Air Conditioner · · · · · · 67	
Sony Corporation	
LCD TV with embedded Presence Sensor · · · · · · 62	
Spline Network Inc.	
Software that reduces print cost of laser printer · · · · · · 108	
Sumitomo Densetsu Co., Ltd	
SEM Energy Saving Management System · · · · · · 89	
Symantec Japan,Inc.	
Veritas Cluster Server for VMware ESX ·····51	
Altiris Client Management Suite · · · · · · 51	
Veritas Storage Foundation · · · · · · 54	
Veritas NetBackup PureDisk · · · · · 55	
Symantec Enterprise Vault55	

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The Asia Green IT Forum will be held as part of the green IT energy-saving diagnosis program, introducing the results of that program as well as examples of green IT in Japan. (http://www.greenit-pc.jp/)

February 23, 2010 Singapore

February 25, 2010 Thai (Bangkok)

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