GREEN DATA CENTERS & INTERNET BUSINESS

MONTHLY NEWSLETTER COVERING THE GREEN DATA CENTERS & INTERNET BUSINESS WORLDWIDE

Vol. 7 No. 1 **January 2008**

Industry classifications of datacenters — The four tiers				
	TIER I	TIER II	TIER III	TIER IV
Building Type	Tenant	Tenant	Stand-alone	Stand-alone
Staffing	None	1 Shift	1 + Shift	" 24 by Forever"
Useable for Critical Load	100% N	100% N	90% N	90% N
Number of delivery paths	Only 1	Only 1	1 active, 1 passive	2 active
Redundant components	N	N+1	N+1	2 (N+1)
Uninterruptible Cooling	None	None	Maybe	Yes
Support space to raised floor ratio	20%	30%	80-90%	100%
Initial Gross Watts/ft	20-30	40-50	40-60	50-80
Ultimate Gross Watts/ft	20-30	40-50	100-150	150+
Raised Floor height	12"	18"	30-36"	30-36"
Floor loading pounds/ft	85	100	150	150+
Utility voltage (typical)	208, 480	208, 480	12-15kV	12-15kV
Single Points of Failure (plus human error)	Many	Many	Some	None
Year first deployed	1965	1970	1985	1995
Annual IT downtime due to site	28.8 hrs	22.0 hrs	1.6 hrs	0.4 hrs
Site availability	99.671%	99.749%	99.9825%	99.999%
Source: The Uptime Institute				

TOP NEWS

Government and industry push for green datacenters

The US datacenter industry is in the midst of a major growth period stimulated by increasing demand for data processing and storage. The increasing demand for computing

In This Issue...

The Green Data Centers & Internet Business Newsletter is published monthly by Information Gatekeepers Inc. 320 Washington St., Brighton, Massachusetts 02135, USA; Fax: (617) 782-5735; Editorial telephone: (617) 782-5033; Circulation telephone: (617) 782-5033, (800) 323-1088 (Outside MA); Email: info@igigroup.com; Web: www.igigroup.com
Publisher/Editor: Dr. Paul Polishuk **Editor:** Hui Pan **Managing Editor:** Bev Wilson
Circulation Mgr: Jaime Perez **Subscription rates:** $695 per year, US and Canada; $745 per year elsewhere.
Discounts available for multiple subscriptions and licenses (see back page).

resources has led to significant growth in the number of datacenter servers in the last five years, along with an estimated doubling in the energy used by these servers and the power and cooling infrastructure that supports them. This increase in energy use has a number of important implications, including the following:

- Increased energy costs for business and government;
- Increased emissions, including greenhouse gases, from electricity generation;
- Increased strain on the existing power grid to meet the increased electricity demand;
- Increased capital costs for expansion of datacenter capacity and construction of new data centers.

For these reasons, there has been mounting interest in opportunities for energy efficiency in this sector.

Concerns over rising energy costs as well as the state of the environment spurred the US Congress to pass a law on December 20, 2006 (PUBLIC LAW 109–431), which requires the US Environmental Protection Agency (EPA), through the Energy Star Program, to conduct a study analyzing the rapid growth and energy consumption of computer datacenters by the federal government and private enterprise. On August 2, 2007, the EPA published its "Report to Congress on Server and Data Center Energy Efficiency."

This is perhaps the most comprehensive and authoritative study on the US datacenter industry ever conducted.

In addition to the US government, many industry groups and corporations are also pushing the green IT initiatives. Social responsibility has become a major issue for many of the largest companies. The following are some of the "Green IT" industry groups:

The Green Grid (www.thegreengrid.org)

- Charter includes power efficiency in the entire datacenter infrastructure
- Buildings, power sourcing, cooling, equipment density, equipment efficiency
- Defining metrics for datacenter efficiency

SNIA Green Storage Networking Initiative (www.snia.org)

- Focused on power efficiency in all aspects of storage networking
- Network infrastructure, storage, data lifecycle, data management
- Defining metrics for storage network efficiency

Climate Savers Computing Initiative (www.climatesaverscomputing.org)

- Seeking to reduce computing energy consumption by half by 2010
- Saving the equivalent of 11 million cars or 10-20 coal-fired power plants

Vendor Green Initiatives

Storage Vendors

- Tiered storage for information lifecycle management
- "Sleep" mode disk drives/MAID (Massive Array of Idle Disks)
- Storage virtualization/pooling

Networking Vendors

- Infrastructure consolidation
- Energy efficient directors/switches
- Remote office consolidation/File Area Networks

Server Vendors

- Multi-ore/low-power CPUs
- Blade server frames
- Server virtualization

Software Vendors

- Data deduplication/compression
- Data lifecycle management

More and more companies are reporting their greenhouse gas emissions as part of corporate responsibility initiatives, and government agencies are striving to meet energy use goals. Energy-intensive datacenters can become a significant portion of an organization's energy use and greenhouse gas

emissions, and thus challenge an organization's ability to meet these targets.

There is a general trend toward consolidating many smaller datacenters into one or a few large datacenters. These centralized datacenters can support higher equipment densities and more effectively use available floor space than a number of smaller centers can.

For example, HP recently announced its Greenfield project, in which 85 datacenters around the world will be consolidated into a mere 6. The new centers will be using low-power, high-capacity blade servers with upgraded management tools, improved datacenter design, vastly improved power and cooling devices, and automation/virtualization at every turn.

IBM announced on August 1, 2007, that it will consolidate approximately 3,900 of its own servers onto 33 virtualized System z mainframes running Linux to save energy and cut back on its carbon footprint. IBM officials expect the new server environment to use about 80 percent less power than the company's current open-systems setups. IBM expects to save more than $250 million over five years in energy, software, and system support costs.

As the demand for datacenter space continues to grow in the foreseeable future, the force for "greening" these datacenters will become stronger. This dynamic market offers great opportunities to companies that offer products that enable this "green" revolution.

Google spent $2.4 billion on capital expenditures, primarily for datacenters and related equipment in 2007

Google spent $2.4 billion on capital expenditures in 2007, primarily for datacenters and related equipment, up from $1.9 billion in 2006. The increase was expected, as Google announced four major new datacenter projects in the US in 2007, with projects in North Carolina, South Carolina, Oklahoma, and Iowa.

Google's capital expenditures for the fourth quarter of 2007 were $678 million, its biggest quarterly CapEx investment since the second quarter of 2006, when the company spent $699 million. For comparison purposes, here's a look at Google's quarterly CapEx numbers for 2006 and 2007.

4Q 2007: $678 million
3Q 2007: $553 million
2Q 2007: $575 million
1Q 2007: $597 million
4Q 2006: $367 million
3Q 2006: $492 million
2Q 2006: $699 million
1Q 2006: $345 million

Google's earnings release also hinted at the focus of the company's datacenter investment in 2008. In recent weeks, there have been reports that Google is considering a datacenter in Lithuania, and is scouting locations throughout Asia, evaluating up to 18 different countries for future datacenters.

Google's international revenue increased to $2.3 billion, or 48 percent of revenue in the fourth quarter. CFO George Reyes provided some details on the conference call: "Revenue growth in EMEA was primarily driven by a strong performance in France and Germany, where gains were made in the retail, technology, and finance verticals. We also saw solid gains in relatively smaller markets, such as Canada, Ireland, Spain, and the Nordics. Asia and Latin America continue to show impressive growth rates as well, with Brazil, Mexico, Argentina, and China being notable performers in the quarter."

Google co-founder Larry Page also noted that the company made "behind the scenes infrastructure improvements" to improve search quality, including an increase in the size of Google's index. "We also had substantial improvements in latency and freshness, particularly in Europe, Middle East, and Asia-Pacific," Page said.

With international business growing to nearly half Google's revenue, Google seems focused on ensuring that its infrastructure delivers the same good results in overseas

markets. And the numbers for annual infrastructure investment will continue to be large ones. “We expect to continue to make these significant investments in CapEx in future quarters,” said Reyes.

NEW DATACENTERS

Google considers Taiwan as Asia-Pacific datacenter location

Global search engine Google is reportedly considering establishing a datacenter in Taiwan.

According to Minister of Economic Affairs Steve R.L. Chen, the company will use the planned facility to back up data and act as a data-processing center.

The Taiwanese ministry is making concerted efforts to attract Google and has promised to offer a secure supply of power and sufficient land for the project. It is believed that Japan and South Korea are also vying for the facility. No further details have been released.

Morgan Stanley plans NJ datacenter

An affiliate of Morgan Stanley has bought land in Franklin Township, New Jersey, for a backup datacenter for the New York-based financial services firm. Morgan Stanley Management Services II Inc. paid $12.3 million to purchase 17 acres of land from the J.G. Petrucci Company.

Morgan Stanley’s project has been in the works for two years and will join several other datacenter projects in the area bordering Rutgers University in central New Jersey. The Bank of New York also has a datacenter in Franklin Township, while Savvis Inc. and AT&T have facilities in Piscataway.

In 2006, Morgan Stanley gained approvals from Franklin Township for a 330,000-square-foot datacenter, and also arranged for $106 million in structured financing from the New Jersey Economic Development Authority (NJEDA). It’s not clear why Morgan Stanley delayed purchasing the property for another 18 months.

“We purchased this land in 2004 with the intent of developing it as an industrial facility,” Greg Rogerson, principal of J.G. Petrucci Co., said in a press release. “Subsequent due diligence discovered a redundant and reliable power source available, making it suitable for an operations support facility. Franklin Township’s proximity to Manhattan and the abundance of fiber infrastructure enhanced the property’s appeal.”

The New Jersey datacenter market has been active recently, driven by demand from New York financial institutions. While datacenter activity has traditionally been strongest in northern New Jersey, the center of the state is seeing a building boom. Digital Realty Trust (DLR) built a facility in Piscataway last year, and developers are pursuing a large datacenter campus in Old Bridge.

Digital Realty Trust Inc. begins construction on build-to-suit datacenter in London for HSBC

Digital Realty Trust Inc., an owner and manager of corporate and Internet gateway datacenters, announced that the company has begun construction on a custom datacenter facility for HSBC, the global banking and financial services institution.

Located on a development site in suburban London that was acquired by Digital Realty Trust in April 2007, the new state-of-the-art datacenter facility is being built by Digital Realty Trust to support HSBC’s global computing infrastructure. HSBC and Digital Realty Trust have signed a long-term lease agreement for the build-to-suit datacenter. The companies have collaborated closely in developing its specifications to support HSBC’s security requirements and environmental goals, as well as a wide range of other technical and business needs. The project is expected to be completed in late 2008.

"Having a partner for this datacentre project with the experience and resources that Digital Realty Trust offers is a major asset for us. During the design and planning phase for this datacentre facility; Digital's team has been an extension of our own, and the result is a plan that we feel very confident in," said Roy Adorni, global head of datacenter services for HSBC. "Digital Realty Trust's expertise will be just as important now that construction is under way to ensure that the project goes according to plan, meets all of our technical needs, and is completed on time and on budget. A project of this magnitude requires a high level of specialized expertise, which is why we put such an emphasis on selecting the right partner."

"We are very pleased to be HSBC's partner in this major datacentre facility project, which will serve as the cornerstone of its IT infrastructure in the London market. This project with HSBC reflects our unique approach to partnering with companies on build-to-suit datacentres, offering them control and flexibility while making these large projects very cost-effective," said Chris Crosby, senior vice president of Digital Realty Trust. "Our proven ability to work with local utility companies and identify sites that have or can be provisioned with sufficient power to support today's datacentre power and cooling requirements gives our customers a significant advantage when looking to expand, consolidate or upgrade their datacentre facilities."

Digital Realty Trust has built custom datacenters for numerous global companies, including financial services companies that have very specific, complex datacenter requirements for the high-volume, low-latency computing systems. Digital Realty Trust manages all build-to-suit datacenter projects using its proprietary Gating Process, which ensures delivery of custom datacenter projects through the timely, efficient coordination of all processes involved in design and construction while optimizing costs. Unlike traditional development methods for build-to-suit projects, Digital Realty Trust's Gating Process provides customers with transparency and inputs at key stages of the project — from scope and schematic through commissioning and completion — ensuring that the finished datacenter facility supports the unique needs of each organization.

Digital Realty Trust Inc. signs major leases for entire buildings at projects in Santa Clara, California, and Dublin, Ireland

Digital Realty Trust Inc., an owner and manager of corporate datacenters and Internet gateways, announced the signing of two major leases totaling approximately 210,500 square feet at projects in Santa Clara, California, and Dublin, Ireland.

The company signed a long-term lease for Turn-Key Datacenter space with a leading Web 2.0 social networking company for an 86,000-square-foot single-building redevelopment project in Santa Clara, California. The company also leased during the quarter its new ground-up development project, located in Dublin, Ireland, to one of Ireland's largest telecommunications service suppliers. Of the building's 124,500 square feet, 64,500 square feet was leased on a Powered Base Building basis, and the remaining 60,000 square feet was leased on a Turn-Key Datacenter basis.

"These leases demonstrate the success of our redevelopment program and we are pleased with our overall leasing performance during the fourth quarter of 2007," commented Michael F. Foust, chief executive officer of Digital Realty Trust. "Our products offer corporate enterprise customers, including financial institutions, other global Fortune 1000 and Web 2.0 companies alike, as well as large system integrators, flexible, cost-effective, customer-oriented solutions for their immediate and longer term datacenter requirements, making Digital Realty Trust a preferred business partner."

"A record number of leases were signed for our Turn-Key Datacenter space during the

quarter and we see this accelerating pace continuing into 2008," added Chris Crosby, senior vice president of Digital Realty Trust. "Markets where the Company is experiencing the strongest demand include Chicago, Northern New Jersey, Silicon Valley, Phoenix, Dallas and Northern Virginia in the U.S. and London, Dublin, and Paris in Europe."

US Signal adds datacenter location in Chicago, Illinois

US Signal, a provider of data bandwidth capacity in the Midwest, announced the addition of a new datacenter located at 1905 W Lunt Ave, Elk Grove Village, Illinois, to its metro Chicago network.

Customers gaining access to US Signal's dense wave division multiplexing (DWDM) optical backbone, based on Cisco technology, at this datacenter can benefit by lowering network costs to their sites throughout the Great Lakes region.

"Providing services in carrier-neutral data centers is an important component of US Signal's strategy in the Chicago market," said Steve Oyer, vice president of sales, "This location will be critical in enabling more customers to access the US Signal portfolio of Internet, Private Line, Wavelength and MPLS VPN Services at a low cost."

US Signal also recently completed expansion in the Northwest and Western suburbs of Chicago, to complement its existing downtown Loop and other Chicagoland points of presence, by introducing services at the following locations, all in Illinois:

- Elk Grove Village — EGVGILEG
- Oak Brook — OKBRILOA
- Chicago (Newcastle) — CHCGILNE
- Hoffman Estates — HFESILWL
- Schaumburg — SCBGILCO

The US Signal network, the largest in the Midwest, includes more than 700 route miles of fiber-optic metro rings in 14 markets and over 3,500 route miles of long-haul fiber connecting more than 100 on-off ramps, comprising major carrier hotel locations and incumbent telephone company central offices.

Expedient invests more than $1 million to expand Cleveland datacenter

Expedient, a provider of datacenter co-location and managed data network services for local business customers in Cleveland, Pittsburgh, and Boston, announced the beginning of a million-dollar-plus expansion initiative within its Cleveland area datacenter, located in the suburb of Garfield Heights.

To be completed by April, the investment supports Expedient's growth curve, which has been in progression since early last year. In 2007, Expedient's business in Cleveland grew by more than 50 percent. While plans initially forecasted a need for this expansion in 2009, the company is pleased to move up the timing to accommodate new growth.

"This addition will allow us to dramatically expand our ability to serve customers with critical services," said Shawn McGorry, president of Expedient. "In a banner year such as we're having our first priority is to invest in growth with an eye toward exceeding our customers' expectations."

Upgrades consist of adding 4,500 square feet of datacenter space to accommodate more than 160 new cabinets, and increasing power distribution capabilities. Investment in the electric infrastructure will include two 300 KVa Liebert UPSs and a second 1.25 MW Caterpillar emergency generator.

Capabilities already in place in the facility include redundant UPSs, 450 tons of HVAC, FM-200 fire suppression, a diesel generator producing 1.25 Megawatts of power, video camera surveillance, keycard entrance, and lockable cabinets.

Based on its recent growth, Expedient projects that more than half of the new space and infrastructure investment will be used by customers before the end of this year.

The Cleveland datacenter is connected with other datacenters around the country via multi-Gbps, long-haul fiber-optic rings. This provides direct access to multiple Tier 1 providers, a high-availability network including firewalls and load balancers, and on-site engineers and a Network Operating Center to provide support 24 hours a day, 365 days a year.

Bryan Smith, vice president of sales at Expedient, says the company has targeted growth well beyond the Cleveland/Akron corridor. "Improvements like these make us competitive with the biggest providers anywhere," said Smith. "As more customers in surrounding markets learn about our strength and ability to provide reliable service, we will keep well ahead of demands."

For more information about Expedient in Cleveland, visit http://www.expedient.com/technology/cleDataCenter.htm. To take a video tour of Expedient's Cleveland datacenter, please visit http://www.expedient.com/cleveland-datacenter-gallery.php.

THE GREEN GRID

The Green Grid announces continued industry collaboration

The Green Grid, a global consortium dedicated to advancing energy efficiency in datacenters and business computing ecosystems, announced a formal collaboration with the Distributed Management Task Force (DMTF), a consortium dedicated to advancing the adoption of interoperable management standards. The DMTF joins the growing ecosystem of government, non-governmental, and industry organizations that are working with The Green Grid in mutually beneficial relationships that underscore the importance of its mission.

"The Green Grid's efforts to develop standards and metrics for energy efficiency through the work of our Technical Committee is advanced through complementary collaborations with other industry organizations," said Don Tilton, a director of The Green Grid. "We expect this collaboration with the DMTF will help enable the seamless management of heterogeneous IT and non-IT equipment."

The Green Grid and DMTF expect to develop standards designed to improve interoperability of management solutions at all levels of the datacenter. The two organizations' collaboration is expected to develop an interface for heterogeneous management inside and outside of platforms, across datacenters, and for IT and non-IT equipment. The DMTF's Web-Based Enterprise Management (WBEM), a suite of management and Internet standard technologies developed to unify the management of distributed computing environments, will form the basis of the management interfaces it defines.

"Our alliance with The Green Grid to define new standards for energy efficiency will benefit all levels of the datacenter," said Winston Bumpus, DMTF president. "We recognize the importance of the datacenter to today's enterprises and are launching this collaboration with The Green Grid to better meet the needs of our target audiences."

Degree Controls joins The Green Grid to promote energy efficiency in datacenters and business computing ecosystems

Degree Controls Inc. (DegreeC), a provider of thermal-management and dynamic-cooling technology for datacenters, announced its membership in The Green Grid, a global consortium of more than 150 companies dedicated to advancing energy efficiency in datacenters and business computing ecosystems.

DegreeC has been instrumental in increasing awareness of the growing problem of datacenter energy consumption. In 2007, DegreeC brought together a number of experts for a series of seminars focused on reducing datacenter energy consumption. In addition,

DegreeC contributed to the Environmental Protection Agency's (EPA) report on "Server and Data Center Efficiency" and has been an active member of The Alliance to Save Energy.

"With data center energy consumption already consuming two percent of the nation's electrical energy and on track to doubling in the next five years, The Green Grid is serving the important purpose of bringing the industry together to help solve this growing problem. DegreeC is proud to be a Member," said Eric Birch, executive vice president and general manager of DegreeC's datacenter division.

"There is not any one solution to the problem of data center energy consumption," said Birch. "Solving this problem will require effort from everyone in the industry. Greater adoption of more efficient servers is a step in the right direction."

Since unveiling their sophisticated cooling system, AdaptivCool, DegreeC has helped many corporations and universities reduce their datacenter energy consumption and get a handle on skyrocketing energy costs. AdaptivCool can reduce datacenter energy consumption by up to 30 percent.

AdaptivCool's temperature sensors send information to a sophisticated thermal controller that calculates minute-by-minute cooling demand and dynamically controls datacenter airflow. By directing cool air to the appropriate equipment and returning the hot air back to the CRACs, AdaptivCool solves one of the biggest issues in cooling high density IT racks: preventing the mixing of cool and hot air in the datacenter.

In operation, the network of AdaptivCool sensors detects where cooling is needed most, prompting AdaptivCool air movers in the datacenter's floor and ceiling to redirect airflow to solve the problem immediately.

In addition to products like AdaptivCool, DegreeC offers related services such as thermal mapping, hotspot detection, and airflow optimization analysis. DegreeC's datacenter service solutions give datacenter managers a handle on what is going on inside the datacenter.

GREEN PROGRAMS

NTT America announces carbon offset program

NTT America Inc. (NTTA), a wholly owned US subsidiary of NTT Communications Corporation, announced a new program designed to offset carbon dioxide emissions generated from the use of NTTA's enterprise hosting and co-location services. The program will be offered through a partnership with TerraPass and will enable NTTA customers to meet their "Green IT" goals.

Through its relationship with TerraPass, NTTA has calculated the estimated amount of annual power and resulting carbon pollution that enterprise hosting platforms and co-location services emit in a year. All emissions calculations are based on the World Resources Institute (WRI) Greenhouse Gas Protocol, the most widely used international accounting tool for greenhouse gas emissions.

The fee charged for TerraPass carbon offsets is used by TerraPass to fund carbon-reduction programs. These programs include wind farms, farm power generated from methane gas digesters, and landfill gas capture.

The NTTA program allows customers to opt in at the time of their initial purchase of NTTA services, or it can be purchased as an add-on to existing services at any time.

"IT hardware and datacenters are a surprising leading national contributor to carbon emissions," said Vini Handler, NTT America vice president of product management and marketing. "Through our partnership with TerraPass we are now able to offer our customers a simple and effective way to significantly shrink the carbon footprint of their enterprise hosting and colocation services."

NTTA's customer carbon offset program is one of several Green Initiatives being

undertaken by NTTA in datacenters within the US, and globally by NTT Communications.

Alcatel-Lucent cares for climate

Alcatel-Lucent announced that Patricia Russo, the company's CEO, has signed the UN GlobalCompact "Caring for Climate" initiative.

By becoming a signatory of the "Caring for Climate" initiative, Alcatel-Lucent further strengthens its commitment to set goals and to implement relevant corporate strategies and practices in order to increase energy efficiency and reduce the carbon footprint of its activities.

"Caring for Climate" is a voluntary and complementary action platform for those UN Global Compact participants who seek to demonstrate leadership on the climate issue. It is designed to advance practical solutions and shape both public opinion and public policy, raising awareness that climate change is an issue requiring urgent and extensive action on the part of governments, businesses, and citizens in order to avoid serious damage to global prosperity and safety.

Alcatel-Lucent has already taken significant steps towards energy efficiency and CO_2 emissions reduction, and will further strengthen its efforts to take up the climate change challenge. In particular, a Global Climate Change strategy team composed of representatives from all departments involved has been created to guide the overall climate change roadmap. Alcatel-Lucent is also committed to partner with its key stakeholders in order to address Climate Change issues. The company will communicate regularly on its related activities and performance through the existing UN "Communication on Progress" framework, in the Carbon Disclosure Project questionnaire, on its Internet Web site, and especially in the Corporate Social Responsibility Report that is published every year.

Alcatel-Lucent is already actively implementing the 10 Global Compact principles (3 of which are dedicated to environment) in its daily activities and has included them in its Statement of Business Principles.

"Alcatel-Lucent is committed to operating in a manner that protects the environment and the health and safety (EHS) of employees, contractors, customers, and the communities where we conduct business," said Caroline Guillaumin, VP corporate communications and CSR for Alcatel-Lucent. "besides, the company strives to design products that are safe and energy efficient"

CONTRACTS

Switch and Data announces agreement with Interxion to provide co-location and interconnection solutions across North America and Europe

Switch and Data, a provider of Internet exchange and co-location services, announced that it has agreed with Interxion, a European operator of carrier-neutral datacenters, to jointly market their portfolios of network-neutral datacenter and interconnection services across North America and Europe. Interxion operates the broadest footprint of carrier-neutral datacenters in Europe, and Switch and Data offers the broadest market coverage in North America. Together, the two companies can help companies reach new customers and distribute content to end users at 56 sites across the world's two largest markets.

The account management teams of Interxion and Switch and Data can now offer solutions across both footprints to their customers and prospects. Content companies, enterprises, and communications service providers have demonstrated strong demand for co-location and interconnection services to reach new customers in distant markets and place content near end users to improve performance.

Together, Switch and Data and Interxion now provide the broadest solution in the North American and European markets.

"Switch and Data and Interxion can now offer customers the broadest and most diverse co-location, Internet exchange and interconnection solutions in both North America and Europe," explained Ernie Sampera, senior vice president and chief marketing officer for Switch and Data. "We are excited to be able to offer Interxion's extensive footprint across Europe and strong technical support to our customers and give them an integrated solution to expand their businesses into new global markets."

Established in 1998, Interxion has the broadest footprint of carrier-neutral data centers in Europe, with 22 sites in 13 cities across 11 countries. The company offers services from co-location in cabinets, cages, and private rooms to fully outsourced datacenter solutions for disaster recovery that are designed to provide the highest level of operational resilience. Interxion also operates15 Internet exchanges and provides access to 460 Internet service provider and telecommunications carrier networks. The company offers customers ultrahigh power density solutions to support blade server environments up to 20kW per rack.

"Our customers are increasingly interested in a global solution and this strategic alliance with Switch and Data allows us to offer them access to the broadest footprint in the North American market and access to PAIX, the world's first commercial Internet exchange," said Anthony Foy, group managing director for Interxion. "Our customers will welcome an easy way to interconnect, peer and distribute content to the North American market."

Switch and Data was founded in 1998, operates 34 sites in 23 markets, and provides one of the highest customer satisfaction scores for technical and engineering support in the industry. Leading content companies, enterprises, and communications service providers rely on Switch and Data for customer reach, security, and world-class service, delivered across the broadest co-location footprint and richest network of interconnections in North America. Switch and Data offers custom co-location solutions in racks, cabinets, or cages, and offers power and cooling capacities at up to more than 200 watts of power per square foot.

Sun Modular Datacenter fuels momentum with new customer wins

Sun Microsystems Inc. announced new customers and product availability for Sun Modular Datacenter (Sun MD) S20, widely known as Project Blackbox. These new implementations for Hansen Transmissions, Radboud University Nijmegen Medical Centre (UMCN), a second unit at the Stanford Linear Accelerator Center (SLAC), and Mobile TeleSystems OJSC (MTS) highlight the global demand for Sun MD and the broad applicability of a virtualized, modular datacenter housed in an enhanced 20-foot shipping container. Sun also announced a new Sun MD Suite of Services to support Sun MD deployment from site preparation to installation and testing, as well as integration of Sun MD into existing IT infrastructures.

Sun MD, the world's first virtualized datacenter, has generated tremendous customer interest. In the last year, it has visited 73 cities on four continents and been toured by more than 12,000 customers and partners. Sun MD uses Sun's design innovation to engineer out complexity and provide a high-density, energy-efficient, and rapidly deployable solution to meet datacenter expansion and mobility requirements.

Capable of 18 teraflops of compute performance or 3 petabytes of disk capacity in a heterogenous environment, Sun MD is deployable in one-tenth the time it takes to design, build, and deploy a typical brick-and-mortar datacenter, at a fraction of the cost. Sun MD, with its innovative water-cooled design, also delivers 40 percent lower cooling costs, independent of payload, as compared to a

typical datacenter. More information on Sun MD is available at: http://www.sun.com/sunmd.

Customers

Hansen Transmissions

Hansen Transmissions, a Belgium-based wind turbine and industrial gearbox designer, manufacturer, and supplier, is responding to the increasing demand for wind power with the expansion of its manufacturing facilities in India and China. In a multiphase construction project, Hansen selected Sun MD to help ensure its Coimbatore, India, plant would be up and running as quickly as possible.

"In planning for Hansen Transmissions' expansion in India, we considered building a new datacenter ourselves, but determined we needed to be able to offer IT services while the plant was under construction. Sun Modular Datacenter S20 is a great solution for us — cost-effective and easy-to deploy," said Marnix Maes, Hansen's director of IT. "Using Sun Modular Datacenter, we'll be able to offer IT services in a semi-finished factory and start seeing ROI almost immediately. We also expect to use the same model to support our expansion in other countries."

Radboud University Nijmegen Medical Centre (UMCN)

Radboud University Nijmegen Medical Centre (UMCN) is an academic center and teaching hospital in the Netherlands. Facing two server farms reaching full capacity, UMCN sought a solution that would quickly add new compute and storage capacity while minimizing energy costs.

"Sun's Modular Datacenter S20 is a smart solution for rapid, easy deployment of very high-density computing. Sun MD allowed us to not only solve for our growing compute demands almost immediately, but UMCN has also gained significant cost savings in not having to power up an additional datacenter," said John van de Loo, manager services, UMCN. "Sun has really thought through the power and heat exchange requirements for the maximum payload Sun MD can hold, and this modular datacenter really runs as advertised."

Stanford Linear Accelerator Center (SLAC)

The first US customer to use Sun MD, the Stanford Linear Accelerator Center (SLAC) needed to rapidly expand its compute capabilities while balancing diminishing power and cooling capacity in its computing building. Pleased with Sun MD's rapid, easy deployment, SLAC recently purchased a second unit, which will be used to rapidly increase computing resources to its high-performance computing infrastructure to support critical experiments.

"It is very exciting to have Sun Modular Datacenter S20 here at our center because of its simplicity. Every organization, whether it is a physics lab or a financial institution, is going to be faced with the same problem of running out of datacenter support resources.

The chief benefit is this has allowed us to increase our data processing and computing capacity faster — by a factor of three, which we couldn't have done with any other way accessible to us," said Richard Mount, director of computing services, Stanford Linear Accelerator Center. "Sun Modular Datacenter helped us answer the very real challenge of how to scale up computing resources quickly, and this has meant the difference between success and failure."

With the Sun Modular Datacenter Suite of Services, Sun can provide customers a complete turn-key solution for quickly expanding datacenter capacity globally — from preparing the site to installation, testing, and integrating Sun MD in existing IT infrastructures. Key services include the following:

- Assessment and Architecture Services: Sun can work with each to understand their business and assess their needs, design a configuration for payload within Sun MD to support specific datacenter application requirements, and prepare the site for delivery and installation of the Sun MD.

- Sun MD Customer Ready System (CRS) Factory Configure and Build: Sun can integrate and fully test customer payload in the Sun Modular Datacenter using the Sun Customer Ready Systems program, eliminating the hassle of installing IT systems on-site.

- Lights-out Management and Support: Sun remote management services help increase system availability and reduce operating costs by monitoring customers' systems from afar to detect and address potential problems and minimize unplanned downtime.

Sun MD is available starting at $559,000 (US list price). For more information on the Sun MD, go to: http://www.sun.com/sunmd.

MERGERS AND ACQUISITIONS

Equinix expands operations to the Netherlands with acquisition of network-neutral datacenter provider Virtu

Equinix Inc., a provider of network-neutral datacenters and Internet exchange services, announced that it has expanded the company's global datacenter operations with the acquisition of Virtu Secure Webservices B.V., a provider of network-neutral datacenter services in the Netherlands. The agreement will immediately provide Equinix with datacenter operations in the cities of Enschede and Zwolle, and by mid-2008, in Amsterdam.

The acquisition comes as Equinix continues its expansion program in 10 markets in the US, Europe, and Asia-Pacific in 2008. It also follows the 2007 acquisition of European co-location provider IXEurope, which solidified Equinix's market position and strengthened the company's comprehensive global offering for customers.

Founded in 1999, Virtu is a provider of network-neutral datacenter services in the Netherlands. The company's more than 400 enterprise, systems integrator, and government customers include IBM, TUI/Thomson, Netherlands Department of Finance, and Ten Cate. Virtu operates datacenters in Enschede (1,200 net sq. m.) and Zwolle (500 net sq. m.), and it is currently building out a 3,000 net sq. m. center in Amsterdam that is expected to be open for customers in mid-2008. The Enschede center is approximately 40 percent utilized. The Zwolle center recently opened and will be at 80 percent occupancy once all signed contracts are fully installed. The company offers a range of co-location, interconnection, and managed services that complement Equinix Europe's existing portfolio of products, as well as a seasoned team of professionals.

The Amsterdam site — which is currently under construction and was acquired by Virtu through a lease agreement — formerly served as a datacenter for ING Bank. Virtu is currently building out the center to create an infrastructure that is compatible with the increased power and cooling requirements of current datacenter equipment, such as high-power-density (HPD) deployments. Equinix will immediately be involved in the design and modernization of this site, bringing its expertise in next-generation datacenter design.

"With our successful expansion into Europe last year, Equinix broadened its ability to provide customers with a comprehensive global data center and interconnection services platform across North America, Europe and Asia-Pacific," said Steve Smith, president and CEO of Equinix. "Amsterdam is an important location for our primary customer segments, including network service providers, digital content providers, financial services companies and enterprises, and we see significant demand from them as we extend our network-neutral operations to this market."

"As an increasing number of multinational corporations are selecting the Netherlands as a base for serving the European market, the region has become a strategic market for premium data center and interconnection services," said Guy Willner, president of Equinix Europe. "In addition, the presence of AMS-IX,

the largest Internet exchange in Europe, makes Amsterdam an important hub for the networks serving the continent. We are thrilled to add Virtu's seasoned team and customer base in the Netherlands to Equinix."

"We know Equinix well as a fellow IX service provider and professional neutral colocation provider in the U.S. and other European markets and, since the early days of the Internet, had a positive and professional working relationship," said Job Witteman, CEO of AMS-IX. "We particularly value that they understand our market and as a consequence look favorably upon Equinix coming to Amsterdam." Witteman further noted that AMS-IX is planning to further expand in the first half of this year, adding another professional and network neutral datacenter in the city, and is in positive discussions with Equinix regarding their new Amsterdam location.

Equinix intends to invest a total of $48 million for the acquisition of Virtu, the anticipated capital expenditures associated with the build-out of the Amsterdam site, and the assumption of debt. This transaction is not expected to negatively impact Equinix's previously announced 2008 revenue and EBITDA guidance. The company will provide further detail on this transaction on its Q4 results conference call on February 13, 2008.

CRG West announces the acquisition of datacenter in Reston, Virginia

CRG West announced the acquisition of a 285,000 square-foot datacenter and office property in Reston, Virginia. The facility, located at 12100 Sunrise Valley Drive, is situated along the fiber-rich corridor in Northern Virginia and is a short distance from CRG West's existing datacenter located at 1275 K Street in Washington, D.C. Developed as a world-class datacenter, this premier facility's co-location space will be available within months, after CRG West invests more than $20 million in building and infrastructure improvements. Significantly remodeled in 2000, the 12100 Sunrise Valley Drive facility is expected to open in the second quarter of 2008 and offers 60,000 square feet of raised-floor space and 180,000 square feet of first-class office space. Primary power to the datacenter is fed from separate substations, and CRG West will deliver customers up to N+1 or 2N power redundancies, with a critical load of up to 175 Watts/SF. In addition to an exceptional amount of power available, the datacenter is well connected, with networks such as Verizon, Verizon Business, Level 3, Qwest, and Sprint already present in the facility. The acquisition greatly expands CRG West's co-location offering in Washington, D.C. Since early 2007, CRG West's 1275 K Street has been near full capacity. The de facto meet-me room for Washington, D.C., 1275 K Street has nearly 40 networks and is a major point of interconnection on the East Coast.

"We have found a great asset to offer best-in-class colocation space and services to enterprises and government users. Our facility will meet government security requirements and offer the power densities and peering opportunities demanded by enterprises. The Washington, D.C. area is one of the key peering points in the Eastern United States and we expect to continue to play a significant role in its growth and development," said Rob Rockwood, chief investment officer of CRG West. The addition of this datacenter to the CRG West portfolio continues the trend of growth for CRG West, which now offers co-location space in Boston, Chicago, Los Angeles, Miami, New York, the San Francisco Bay Area, and Washington, D.C.

Digital Realty Trust Inc. acquires datacenter property in suburban London

Digital Realty Trust Inc., an owner and manager of corporate datacenters and Internet gateways, announced the acquisition of Foxboro Business Park, a three-building complex located in suburban London. The first building, Unit 1,

totals over 20,000 square feet and is 100 percent leased to a leading international geophysical company as its corporate datacenter facility. Unit 2 is a 31,000-square-foot warehouse that is 100 percent leased to a global manufacturer and marketer of home appliances. Unit 3 totals over 96,000 square feet of vacant space, in which the company plans on building in phases approximately 58,000 square feet of Turn-Key Datacenter space.

"We are continuing to focus on adding both income producing assets as well as buildings suitable for redevelopment to meet the ongoing demand for Turn-Key Datacentres in the supply constrained London market. This property meets both criteria, bringing an ideal combination of stability and longer term growth to our expanding European portfolio," commented Michael F. Foust, chief executive officer of Digital Realty Trust.

"Concurrent with our phased redevelopment plans for Unit 3, we will be upgrading power to the site, which will ultimately offer our customers approximately 15MW of IT load," added Chris Crosby, senior vice president of Digital Realty Trust. "This project gives us an opportunity to offer as many as ten 5,800 square foot Turn-Key Datacentre PODs to corporate customers that have requirements for high quality datacentre space in the London market over the next few years. The space will be built out utilizing our POD Architecture, which employs system plus system architecture providing a full 2N power train, as opposed to the shared electrical buss N+1 infrastructure typically utilized by other providers. Additionally, with our expertise in developing to green standards, including BREEAM in Europe and LEEDS in the US, we plan to deliver these PODS as sustainable datacentres."

Digital Realty Trust's Turn-Key Datacenters are scalable from hundreds of kilowatts of IT load to megawatts of IT load and are located in markets throughout North America and Europe. Each turnkey facility is physically secure and features a state-of-the-art power and cooling architecture that has been optimized for green operation. Every Turn-Key Datacenter is built using the company's proprietary POD Architecture and uses metered power to ensure that clients pay only for the power that they use. Each turnkey facility is also managed via Digital Realty Trust's Critical Facilities Management program to ensure the maximum uptime of mission-critical applications.

NEW PRODUCTS

Cisco introduces new switching foundation for Data Center 3.0 transformation

Cisco has introduced new solutions that continue to help customers realize the Cisco Data Center 3.0 vision for next-generation datacenters. The culmination of this is the introduction of the network platform for Data Center 3.0, the Cisco Nexus Family of datacenter-class switches, and the expansion of the Cisco Catalyst Family. This new infrastructure is the next step in helping customers to design and build datacenter architectures that meet the stringent operational continuity, transport flexibility, and scalability requirements of the next-generation datacenter.

"With its Data Center 3.0 vision, Cisco is transforming the data center into a virtualized environment that revolutionizes how organizations adopt new IT strategies and respond quickly to changing business needs," said Jayshree Ullal, senior vice president of Cisco's Data Center, Switching and Services Group. "The Cisco Nexus 7000 Series is the result of significant and pioneering internal innovation. Combined with the 10-Gigabit Ethernet portfolio that the flagship Catalyst 6500 Series offers, Cisco provides customers with a smooth migration into a new era of data center networking."

These new offerings build on Cisco's datacenter switch market share leadership, more than 15 years of Catalyst switch

innovation, and an architectural approach specifically designed to unify all components of the datacenter. Over the next 18 months, Cisco will continue to invest in its datacenter efforts by adding significant new products and capabilities to help customers architect next-generation data centers.

To address the evolution from Gigabit Ethernet to 10-Gigabit Ethernet for datacenter access, Cisco now offers a datacenter-optimized 16-port 10-Gigabit Ethernet Module that provides up to 130 ports of 10-Gigabit Ethernet per Cisco Catalyst 6500 Series Switch and 260 ports per Catalyst 6500 Virtual Switching System. This new module increases the architectural scalability of the Catalyst 6500, which can help reduce power consumption by up to 50 percent per port. The new module doubles the 10-Gigabit Ethernet port density of the Catalyst 6500 and will help enable high-performance campus local area network (LAN) aggregation, so customers can scale bandwidth for video, mobility, and other collaboration applications.

"With the rapid growth of real-time communication and collaboration applications, our customers are seeking a solution that both protects their existing infrastructure investment and provides them with the flexibility to quickly shift to a 10-Gigabit Ethernet network when their business requirements demand," said Toru Arai, managing director of Net One Systems Co. Ltd. "The new 16-port 10-Gigabit Ethernet Module is an ideal fit for our customers as in addition to providing double the port density on the Catalyst 6500, it also helps reduce power consumption which is increasingly more top of mind with companies globally."

To simplify datacenter operations and offer the highest level of investment enhancement, Cisco also introduced the Cisco Catalyst 6509 Enhanced Vertical Chassis (V-E) as part of the Cisco Catalyst 6500-E Series Switches. The Catalyst 6509-V-E chassis offers nine vertical slots with front-to-back airflow, which is a requirement for the hot-aisle/cold-aisle designs in modern datacenter and service provider co-location deployments. As a part of the Catalyst 6500-E Series Switches, the Cisco Catalyst 6509 Enhanced V-E will support up to 80Gbps per slot for future supervisor engines and modules, delivering architectural investment protection and the ability to meet increasing bandwidth requirements for years to come. Today the Catalyst 6509-V-E supports the Catalyst 6500 Supervisor Engine 720 and 32 Families as well as associated LAN, wide area network (WAN), and other services modules for superior customer investment enhancement and lower total cost of ownership.

The Cisco Catalyst 4900M Series is designed and optimized for the datacenter rack-server aggregation. Ideal for datacenter deployments that require the ultimate in flexibility, the Catalyst 4900M Series offers transport flexibility with optimized buffering for top-of-rack switching and mixing 10/100/1000 and 10-Gigabit Ethernet ports with up to 40 10/100/1000 ports or 24 10-Gigabit Ethernet ports. The Catalyst 4900M is a 320Gbps, 250 million packets per second (mpps), two-rack-unit (2RU) fixed-configuration switch that provides operational continuity with redundant power and fans and investment protection for easy migration to 10-Gigabit Ethernet.

"We have evaluated the Cisco Catalyst 4900M as a solution for demanding high-end media network applications and are impressed with its 10-Gigabit throughput and media-type flexibility," said Bill Moren, senior product manager, storage and networking at Avid, a global provider of tools for film, video, audio, 3D animation, gaming, and broadcast professionals. "The Cisco Catalyst 4900M Series addresses our customer requirements for high-speed performance and quality, and has long served as key component for our digital media creation products."

As a solution to address scalability and consolidation requirements within the

datacenter, many enterprise customers are increasingly turning to blade servers, a server architecture that houses multiple server modules, or "blades," in a single chassis. Cisco recently announced that the Cisco Catalyst Blade Switches will be available for Dell's new PowerEdge M1000e blade server enclosure. This will provide customers with consistent network security, high availability, and quality of service with Gigabit Ethernet performance from the server edge out to the clients at the network edge.

On the new Catalyst Blade Switch, Cisco also introduced Virtual Blade Switch (VBS) technology that allows up to eight switches to be managed as one logical switch for reduced infrastructure complexity. This innovation is the foundation of the blade switches' ability to deliver performance and resilience while simplifying datacenter design, operations, and management. The VBS technology provides unprecedented 160Gbps upstream performance while doubling the bandwidth to a server at the same time. This is especially important for emerging Web 2.0 applications that generate increased inter-server communications.

The Cisco Nexus 7000 Series is the first series of switches specifically designed to meet the requirements of datacenters and scale to 15 terabits per second (Tbps). Purpose-built to meet the requirements of the most mission-critical datacenters, it delivers significant performance and density for continuous system operations and has the transport flexibility to support emerging protocols to prepare for migration to a unified fabric in the datacenter. Building on Cisco's proven storage area network (SAN) operating system and Cisco IOS Software, the Cisco Nexus 7000 Series introduces the Nexus Operating System (NX-OS), which delivers real-time system upgrades with exceptional manageability and serviceability. Cisco also introduced a comprehensive and centralized administration solution, Cisco Data Center Network Manager (DCNM), to simplify datacenter network operations.

The Cisco Data Center Assurance Program (DCAP) is a solution-level testing program involving all the components necessary in datacenter infrastructure. The DCAP program benefits customers by enabling faster deployment, reducing risk, improving end-to-end stability, reducing downtime, and enabling faster, more reliable technology upgrades. Cisco DCAP has been extended to include Cisco Application Control Engine (ACE), VMware ESX Server, VMware VMotion, and other areas.

Additional information and resources on the Cisco data center vision and products announced can be found at http://newsroom.cisco.com/DataCenter_3.

Brocade unveils DCX Backbone for evolving datacenter networks

Brocade, a provider of datacenter networking solutions that help enterprises connect and manage their information, has introduced the Brocade DCX Backbone, the first in a new class of high-performance datacenter networking products designed to address the demanding requirements of the evolving datacenter.

Built on four generations of proven datacenter technology and designed to integrate seamlessly with existing Brocade products — including existing McDATA solutions — the Brocade DCX provides industry breakthroughs in terms of performance, scalability, and efficiency. As a result, customers can use the Brocade DCX to build datacenter fabrics that enable extremely high levels of consolidation and cost savings along with lower deployment and operational risk.

"The virtual server phenomenon has been awesome to watch. Massive consolidation, efficiency improvements and fluidity are all now possible — assuming that the rest of the infrastructure can support it," said Enterprise

Strategy Group founder and senior analyst Steve Duplessie. "The Brocade DCX Backbone has the same value proposition, and actually should make production virtualization deployments happen more rapidly by taking away many of the performance and scalability concerns that server virtualization may present downstream. Bandwidth, density, power consumption and scale can really matter when you are collapsing thousands of physical servers down to hundreds."

The Brocade DCX plays a key role in delivering on the Brocade Data Center Fabric (DCF) architecture announced in October 2007. The Brocade DCF is an architectural framework that allows customers to evolve their datacenter infrastructures for maximum performance, flexibility, and investment protection, while enabling important industry trends such as server virtualization and the greening of the datacenter.

"SunGard is looking forward to upgrading both the mainframe FICON and the Open Systems Fibre Channel environments with Brocade DCX Backbone technology," said Tom Tucker, storage product director for SunGard. "It will offer higher performance to our customers, and allow SunGard to consolidate individual directors and switches into this high port count Backbone product for ease of management in our constantly changing environment."

"We have used Brocade technology for many years at the heart of our data center," said Bertram Schon, chief technology officer at Lufthansa Systems. "As we evolve our data center fabric architecture to meet the growing needs of our users, the DCX Backbone provides native interoperability and the lowest-risk way to evolve our architecture for new levels of performance and capabilities for many years to come."

"The demand for applications and data in our business continues to grow, and our infrastructure must grow seamlessly and non-disruptively," said Germar Braam, lead architect of KPN. "To meet these needs, we chose to evolve our data center fabric architecture with the 8Gbps Brocade DCX Backbone."

"We are excited to get the 8Gbps Fibre Channel Brocade DCX Backbone installed in the EDEKA data center in Hamburg," said Rainer Zander, head of the EDEKA Data Center in Hamburg. "The Brocade DCX enables seamless integration with our existing infrastructure, sustaining our future growth in storage and performance as part of a global data center fabric architecture."

The new Brocade DCX platform brings many new and enhanced capabilities to customers to drive higher levels of consolidation, cost savings, and datacenter efficiencies:

- The Brocade DCX offers the highest levels of performance and scalability: To facilitate broad expansion and greater mobility of virtualized servers and networked storage, the Brocade DCX provides the industry's highest performance, joining the Brocade 48000 Director as the industry's first solutions with 8Gbps Fibre Channel capabilities. With up to 896 ports of 8Gbps Fibre Channel, the Brocade DCX provides more than five times the switching bandwidth of existing SAN directors and supports eight times as many virtual servers.

- The Brocade DCX uses innovative adaptive networking services to better enable server virtualization: The Brocade Adaptive Networking services features included in the Brocade DCX enable the fabric to dynamically allocate shared resources as changes occur in the requirements of virtual servers and networked storage. If congestion occurs (or is predicted), the fabric can automatically adjust bandwidth and other resources according to defined service levels — helping to ensure that higher-priority workloads dynamically receive the resources they need.

- The Brocade DCX offers the highest levels of interoperability and flexibility: Designed for investment protection and extension, the

Brocade DCX is fully interoperable with Brocade and existing McDATA SANs, complementing the Brocade family of datacenter infrastructure products — including the Brocade M6140, Brocade Mi10K, and Brocade 48000 directors; Brocade 200E, Brocade 4900, and Brocade 5000 switches; and Brocade SAN extension solutions. Moreover, the Brocade DCX provides comprehensive and flexible deployment options, including the capability to support Fibre Channel, Fibre Channel over Ethernet (FCoE), Data Center Ethernet (DCE), Gigabit Ethernet, and iSCSI protocols.

- The Brocade DCX simplifies datacenter management: The Brocade DCX supports advanced fabric applications for data migration, continuous replication, and data encryption, enabling customers to better protect and secure their corporate data. The new platform is also supported by a broad range of network management tools, including offerings from Brocade and its OEM Partners.

- The Brocade DCX continues Brocade's leadership in energy efficiency: Reducing energy consumption and accommodating data growth are critical requirements in today's IT strategies. The Brocade DCX is 10 times more power-efficient per unit of bandwidth than competitive offerings, allowing customers to better manage datacenter energy requirements and operational costs.

"The Brocade DCX Backbone sets a new standard for data center networks," said Ian Whiting, vice president and general manager for the Brocade Data Center Infrastructure Division. "Through massive consolidation of SANs, virtual server networks and Data Center Ethernet networks, the Brocade DCX Backbone will enable customers to drive significant costs out of their data center operations while ensuring the performance, scalability, and five-nines availability required for current and future applications."

The Brocade DCX is available today from Brocade and is supported by a broad portfolio of Brocade professional and support services. The new platform is also immediately available from Sun Microsystems, and is expected to be available from all Brocade OEM Partners during the first half of 2008.

MARKET INTELLIGENCE

Asia-Pacific IT executives demonstrate growing preference for 'greener' technology partners

Initial results from IDC's ongoing Asia-Pacific Green Poll end-user surveys assessing the buying behavior of IT executives with respect to green IT in the Asia-Pacific region highlight that awareness and adoption of green IT does vary a great deal depending on the maturity of the market. However, it is becoming clear across the board that end users will be expecting vendors to take more responsibility in terms of bringing "green" products and services to market, as well as improving their own internal "green" operations and practices in the future.

According to Philip Carter, Head of IDC's Asia/Pacific Green IT practice, "It is interesting to see that IT executives are expecting vendors to take more responsibility in the area of Green IT. This is validated by the fact that 81 percent of organizations thought that the 'Greenness' of their IT suppliers would become 'much more important' over the next few years. Today, 18 percent of the organizations surveyed considered the greenness of the IT suppliers before making a selection and another 30 percent expected to do so in the near future."

Furthermore, organizations in the more-developed economies are looking to integrate green requirements into requests for proposals for procurement of IT products and services. In Japan for example, more than half (52 percent) of the organizations surveyed indicated that this is already part of their procurement process. The fact that this approach is still emerging in other countries highlights the varied adoption with regards to green IT in the region.

Also important for vendors is the fact that IT executives will be looking at their internal green policies and practices. The Green Poll highlights that 70 percent of organizations across the region regard this as either "rather important" or "very important." So for vendors, green IT is not just about putting an energy-efficient product on the shelf; it is about having a green supply chain, initiating recycling programs, and reducing internal carbon footprints.

Philip added, "In most cases, the first phase of the adoption of Green IT will be about 'Lean IT' focusing on improving energy efficiency of IT equipment within the data center to reduce costs in the face of rising electricity costs. Initiatives like recycling, e-waste guidelines and paper management, which are perceived to have less of an impact on the bottom line, will not be focal points until sustainability is accepted as part of standard business practice. We also see governments increasingly playing a key role here in the region by way of introducing regulations for energy efficiency and e-waste to expedite organizations down this path."

In emerging economies, it is very clear that cost savings is the primary driver for investment in green IT, while the more-developed economies like Australia, New Zealand, and Japan are beginning to understand that corporate social responsibility will increasingly play a key role as the focus on sustainability becomes more prevalent. For now, however, the Green Poll has highlighted that the majority of the organizations do not currently have a green policy in place within their IT departments, which means that putting "green" into practice has not moved into the mainstream yet.

Hence, the key takeaway for vendors is the need to ensure that they are making a business case for green IT in the context of reducing cost in the short term. However, further down the line, as governments become more active in terms of regulating this area, IDC expects the broader notions of corporate social responsibility and sustainability to become increasingly important and drive both growth and financial benefits in this market.

World rack and rack options market enjoys increased spending

New analysis from Frost & Sullivan, "World Rack and Rack Options Market," finds that the market earned revenues of over $2.42 billion with a growth rate of 12.3 percent in 2006.

Key factors expected to aid in the growth of the rack and rack options market include the ongoing increase in capital expenditure for datacenters across all business platforms, as well as the continued expansion and penetration of wireless services and data access in advanced and developing economies. Furthermore, as a number of regions across the globe fully recover from the economic downturn of 2001 and 2002, they encourage businesses and organizations across all platforms to implement network and infrastructure plans, while keeping in mind efficiency and effectiveness of all hardware and support systems.

"The implementation of network and infrastructure plans provide a strong foothold for all IT and telecom businesses and related industries, such as rack and rack options manufacturers, to grow," noted Frost & Sullivan research analyst Eduardo LoboGuerrero. "Although rack mount equipment has become denser, faster and smaller in form factor, an increasing amount of racks are likely needed to accommodate new equipment."

A key challenge for market participants is the improvement of consumer awareness and successful differentiation of their product offerings.

This aside, the increased participation from branded rack suppliers confines and alters the market dynamic for original rack manufacturers. Therefore, participants who are able to cope, deal, and possibly do business

with branded suppliers enjoy more success in the market.

"As product integration becomes more important to end users, manufacturers that can understand and provide a varied and effective product offering are likely to capture more business and increase market participation," continued LoboGuerrero.

"Consumer awareness plays a crucial role in capturing market share, as racks have been traditionally viewed as commodities and today's racks integrate all major components of a modern datacenter."

In order to gain market participation and presence, market participants should further differentiate their product offerings, while still offering basic-level racks.

Equally, cost control is essential, as a number of competitors target the production of low-priced racks, despite increases in raw-material prices over the past few years.