

CABLING FOR THE FUTURE

Innovate

THE SIEMON COMPANY NEWSLETTER | AUGUST 2013

Supporting High-Density Applications:

**Siemon LC BladePatch[®]
Revolutionizes High-density
Fiber Patching** P04

**New CCCA White Paper:
Structured Cabling vs.
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**Total Cost of Ownership:
Z-MAX[®] Enhances Emergency
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SIEMON's

LC BladePatch®

REVOLUTIONISING HIGH DENSITY FIBRE

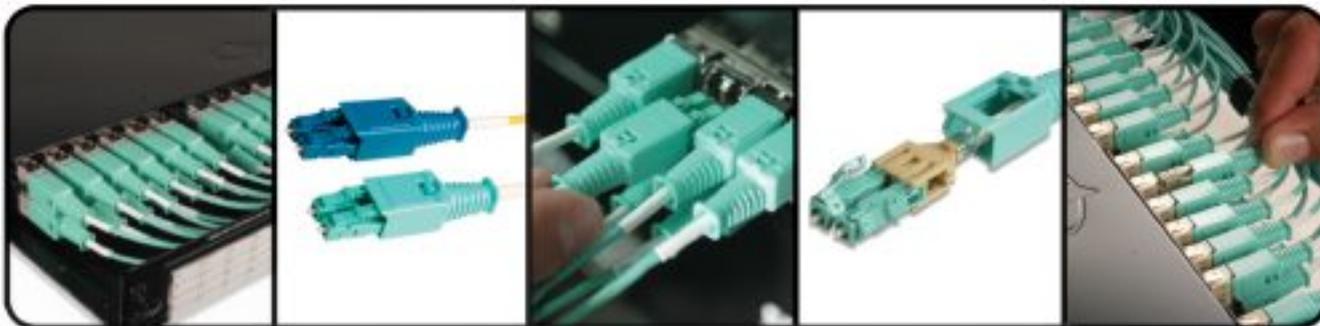


Innovative, Easy Access, Push-Pull Latch Activation

Siemon's LC BladePatch duplex jumper offers a unique solution for high-density fiber optic patching environments. It features a revolutionary and innovative push-pull boot design to control the latch, enabling easy access and removal in tight-fitting areas. The LC BladePatch utilizes a smaller diameter uni-tube cable design which reduces cable pathway congestion improving air flow and increasing energy efficiency while simplifying overall cable management.

The LC BladePatch provides low-loss performance for Multimode and Singlemode supporting the precise optical performance requirements for high speed networks and improving overall network performance and reliability. The LC BladePatch is ideal for patching high density blade servers, patch panels and other equipment.

Learn more and speak with Siemon experts at www.siemon.com/lcbp



Low profile boot design
optimizes side-stackability

Multimode: 50/125 OM3 and OM4
Singlemode (UPC): OS2

Fits within any standard LC
adapter opening or LC SFP
module

Only design with a rotating
latch that simplifies polarity
changes. Connector and
fiber does not rotate
eliminating potential
damage

The push-pull design enables
easy access and removal via
the boot in tight-fitting areas

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Simon improves thermal efficiency with toolless blanking panels.

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DATA CENTER SOLUTIONS
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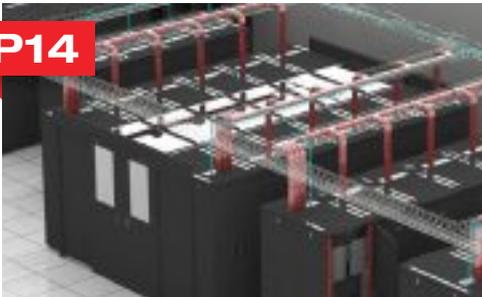
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CASE STUDY
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Siemon LC BladePatch Revolutionizes High-Density Fiber Patching

Siemon has launched an innovative LC BladePatch® fiber optic duplex jumper that revolutionizes high-density fiber patching with the easiest access available in the industry.

With its intuitive, ergonomic action, the LC BladePatch eliminates the need to access a latch during installation and removal, avoiding any disruption or damage to adjacent fiber connectors in the tightest-fitting fiber patching environments.

[Read More](#)

“The LC BladePatch is like nothing the industry has seen for high-density fiber patching. Its push-pull action allows easy removal from the finger grip at the end of the strain relief boot rather than trying to access an LC standard latch and potentially disrupting adjacent connectors.”

Carl Southern, Security and Network Manager, Blue Chip

Siemon Joins CCCA and Supports Launch of Data Center Committee

Siemon has joined the Communications Cable and Connectivity Association (CCCA), adding its voice to the non-profit corporation, which acts as a key industry resource for well researched, fact-based information on the technologies and products of structured cabling media.

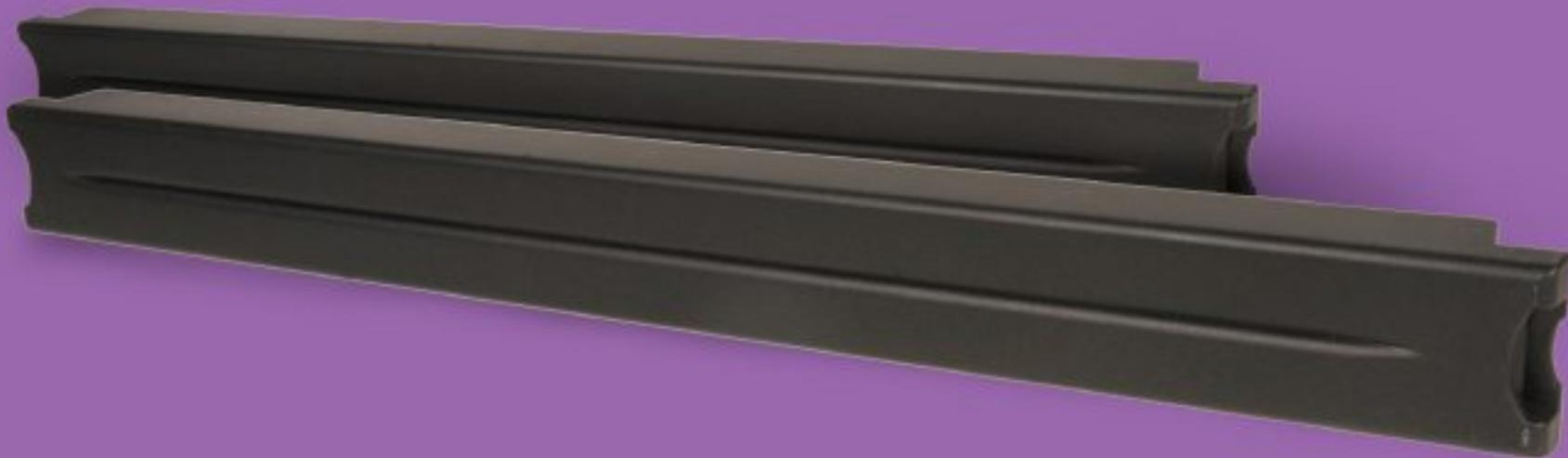
The CCCA, based in USA, seeks to influence the industry globally and its 20 members operate around the world. It supports current and future needs of the networking, IT and communications industries by proactive work on codes, standards bodies and other trade, industry and governmental organizations. It influences policy and decisions affecting the quality, performance and societal needs of structured cabling infrastructure. Explaining Siemon's decision to join the Association, Bob Carlson, vice president of global marketing for the manufacturer said, "The Siemon Company has followed the CCCA and has been impressed with its initiatives and focus on education and creating awareness."

Concurrently with Siemon joining the CCCA, a new Data Center Committee has been formed to leverage the knowledge and expertise of its member companies by providing more education on structured cabling benefits specific to design options in the data center. Bob Carlson has volunteered to chair this new committee and commented,

"We advocate data center design that provides greater flexibility, interoperability and can save significant cost and energy. The CCCA will provide an essential independent and impartial view on best practice that can be trusted by those designing, building or operating data centers."

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Siemon Expands Data Center Airflow Solutions with Toolless Blanking Panels

Siemon announces the expansion of its line of airflow solutions for the data center with the launch of new Toolless Blanking Panels. Designed to help improve thermal efficiency, the blanking panels prevent airflow through vacant rack-mount spaces within cabinets and enclosures.

By isolating the front airspace of the cabinet and blocking recirculation of hot air, Siemon Toolless Blanking Panels keep cold air directed at the equipment where it is needed, preventing overheating and improving cooling system effectiveness in the data center or other network spaces. These durable, lightweight blank filler panels simply snap into the square holes of vacant rack unit spaces with no tools required to fit. According to Siemon, the new blanking panels are also ideal for

aesthetically concealing openings and reserving rack unit positions for future use, plus are easily removed when necessary.

“In today’s data center environment, it’s rare to find every rack-mount space filled with equipment. When rack-mount spaces are left vacant to allow room for growth or reduced power consumption in enclosures, it’s important to prevent airflow through those spaces,” says Robert Carlson, vice president of global marketing at Siemon.

“Siemon Toolless Blanking Panels are the fast, easy and cost-effective way to keep hot air from

coming back to the front of the equipment where it can cause overheating.”

Offered in a 1U height for maximum flexibility and bulk packaging of 10, the Toolless Blanking Panels are claimed to deliver a smart, inexpensive solution for improving thermal efficiency. Siemon also offers a variety of other flat and angled blank filler panels in several rack-unit sizes, including a Brush Guard Panels that allows cables to pass through while still providing thermal protection to maintain isolation.

[Read More](#)

Siemon Expands its User-Friendly Data Center Ecosystem Website

Siemon is pleased to announce a new Data Center Infrastructure Solutions site at www.siemon.com/datacenter with access to Siemon's wide range of data center solutions, Siemon Data Center Design Services and compelling data center customer case studies—all of which elevate the importance of data center cabling as a strategic asset.

“The new Data Center Infrastructure Solutions site offers an intuitive, easy-to-use design that allows end users and data center professionals to quickly navigate through Siemon innovative solutions that support two to three generations of network switches, servers and storage devices.”

These comprehensive data center solutions include shielded and unshielded copper solutions from Z-MAX® category 6_A to the TERA® category 7_A/class F_A end-to-end systems, multimode and singlemode fiber cabling systems and plug-and-play assemblies, intelligent infrastructure management, interoperable high-speed interconnect systems, and a

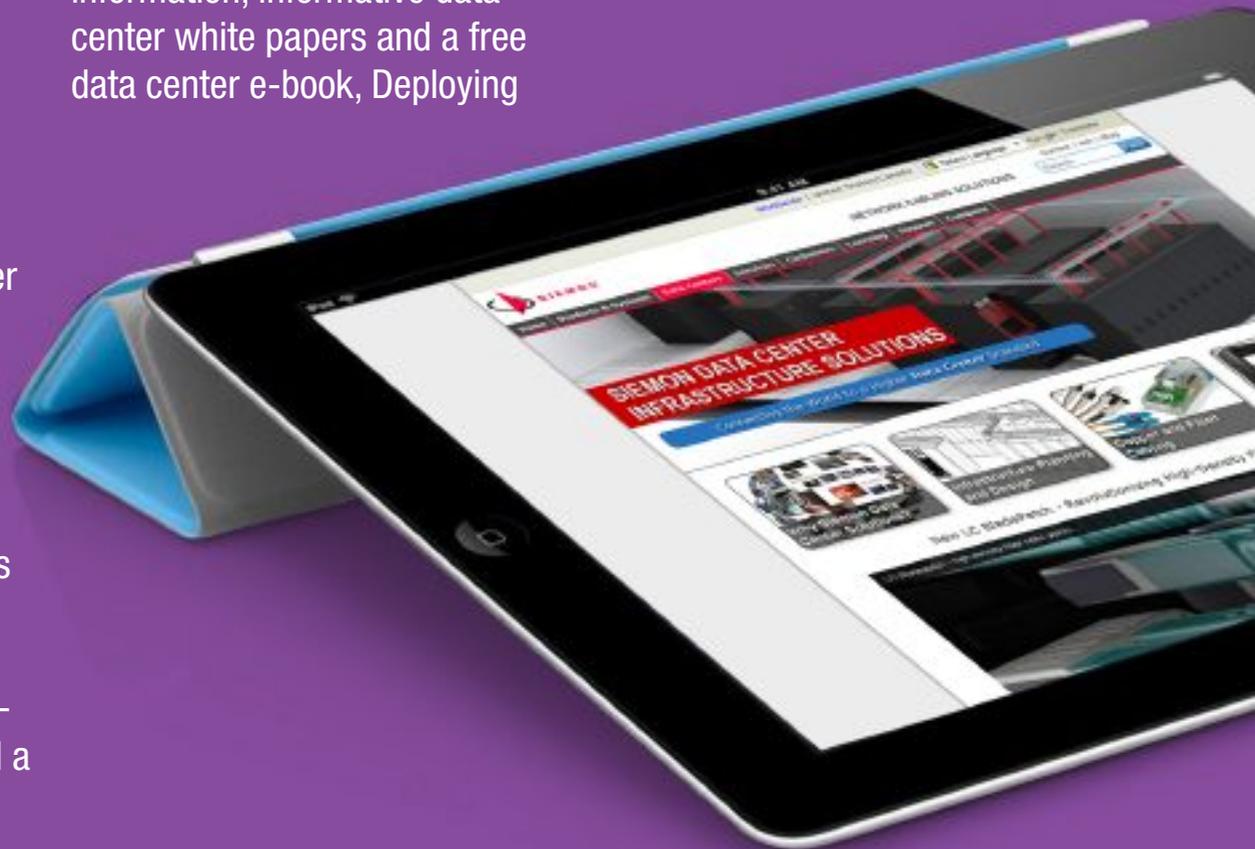
comprehensive line of data center cabinets, cable management, and cooling and power systems that optimize space and energy efficiency.

From the site, users can learn about how a high-performance, reliable cabling system is critical to data center infrastructure, receive guidance on selecting and designing the cabling infrastructure upon which data centers rely, and access a variety of educational tools such as Siemon's online Standards Informant for the latest standards information, informative data center white papers and a free data center e-book, *Deploying*

Managing and Security an Efficient Physical Infrastructure.

Dozens of current customer case studies offer an intimate look into how Siemon is helping data center customers in markets around the world achieve a standards-based data center infrastructure that offers high-speed performance, enhanced cabling management, superior thermal management and power efficiency for maximum uptime and reliability.

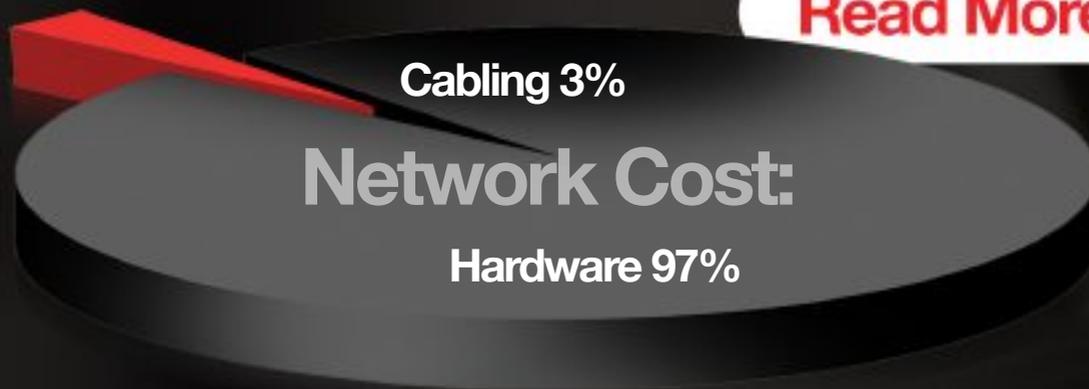
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Why Siemon Data Center Infrastructure Solutions?

Siemon has focused its cabling expertise into a global data center service team, capable of guiding you through the process of selecting, designing and deploying the business-critical cabling infrastructure upon which your entire data center will rely.

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Data Center Design Services

Siemon's specialized Global Data Center Services team can provide analysis and improvement strategies. Enabling you to create efficient, cost-effective data center cabling and cabinet designs for your projects, utilizing:

- Standards Based IT Infrastructure Design
- Thermal Management & Power
- Green Building Credits
- Disaster Recovery
- Latency
- Redundancy
- Global Deployment

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MapIT™ G2 Intelligent Infrastructure Management (IIM) Solution:

MapIT G2 integrates a powerful combination of innovative Smart Patch Panels, user-friendly Master Control Panels and MapIT software to provide real-time tracking and reporting of network wide physical layer activity. This benchmark IIM system offers truly unparalleled ability to manage a complex network.

VersaPOD Data Center Cabinet:

VersaPOD offers the density, scalability and efficiency you need to design the ideal infrastructure for your data center environment. By optimizing the vertical Zero-U space between bayed cabinets, VersaPOD enables design options not previously possible.

Power and Cooling Solutions:

Siemon has developed a range of Intelligent PDU and Cooling solutions designed to provide the maximum flexibility and efficiency for your data center infrastructure requirements.

Fiber:

Siemon has the best performing OM3 and OM4 Multimode and Singlemode high density Plug and Play Fiber Data Center Solutions with industry leading performance margins up to 60%.

Copper:

Best-in-Class Category 6_A and 7_A for Future-Proof Data Centre Performance with Siemon's Revolutionary Z-MAX 6_A or TERA 7_A Cabling System.

Data Center Infrastructure for 10Gb Ethernet and Beyond:

Siemon offers the broadest range of copper and fiber high speed interconnect assemblies, category cabling and cable management solutions. Designed from the ground up to provide high level support of all your networks requirements.

Learn more about Siemon Data Center Infrastructure Solutions

GREEN

Siemon Named Conservationist of the Year

Siemon is pleased to announce that the company was recently named Conservationist of the Year by Moose Mountain Regional Greenways (MMRG), a grassroots non-profit organization committed to land conservation and education outreach in the Moose Mountains region of New Hampshire.

Founded in 1999 by conservation commissioners from the towns of Brookfield, Farmington, Middleton, Milton, New Durham and Wakefield, MMRG has helped preserve a total of 4,186 acres in the surrounding community.

With strong ties to the area, Siemon was named MMRG's Conservationist of the Year due to its long history of progressive environment action and the Carl Siemon Family Charitable Trust's award-winning 3,000-

acre Branch Hill Farm located in Milton Mills and Wakefield. Cynthia Wyatt, daughter of Carl Siemon, was a founding member of MMRG and is now the vice chair. Over the years, she has donated sustaining funds and allowed MMRG to use the Branch Hill Farm for many events. Today, Siemon provides matching funds for the MMRG's largest fundraiser, the Woods, Water and Wildlife Festival.

[Read More](#)

INDUSTRY LEADING

Siemon's Valer Named One of Top 20 Positive

Siemon is pleased to announce sales engineer, was recently positive contributors to the category by Cabling Installation & Maintenance.

As the leading source of information for professionals who design, install and manage the physical-layer infrastructure in data centers and networks, CI&M celebrated its 20th anniversary by recognizing individuals who

CAT 8 CONFUSION

Siemon's Standard Predicts Category

In our recent Standards Informant, a summary of the TIA's recent work as the name for the next generation cabling system currently under development, confusion with the ISO/IEC's nomenclature.

As the Standards Informant explains, the TIA TR-42.7 Copper Cabling Subcommittee has adopted 'category 8' as the name for the cabling system planned to

Valerie Maguire One of the Industry's Top Contributors

Valerie Maguire, global standards expert, was named as one of the top 20 contributors to cabling and networking industry maintenance (CI&M) Magazine.

Valerie has made positive contributions to the industry within the past 20 years. Through an independent survey, Valerie Maguire stood out among hundreds of suggestions that included such industry icons as Steve Jobs and Robert Metcalfe,

as well as several well-known industry leaders. She was also the only woman to make the list.

After beginning her career assembling connecting hardware on the Siemon production floor, Valerie expanded her skillset and ultimately worked to develop groundbreaking standardized test methods that resulted in an industry patent. Today, Valerie melds her standards leadership and technical expertise to increase awareness in Siemon's global markets, implement sales and marketing initiatives, and provide support to both internal and external Siemon customers.



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Standard Informant Category 8 Confusion

In our recent Standard Informant Blog, Siemon has published our decision to adopt 'category 8' 40Gb/s 24-pair OM3 multimode laser-optimized plastic optical fiber (LOP) balanced twisted-pair cabling for development and predicts a new naming convention.

Our new standard will support 40Gb/s transmission in a 2-connector channel over a distance shorter than 100 meters and tentatively describes transmission performance up to 2 GHz.

Traditionally, cabling categories are supersets of each other - meaning that a higher category of cabling meets or exceeds all of the electrical and mechanical requirements of a lower category of cabling and is also backwards compatible with the lower performing category. However, category 8 is expected to have a different deployed channel topology says Siemon's Standards Informant and will not be a performance superset of category 7_A.

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Standards Informant

“Developed by Siemon’s experts to help you stay up-to-date on international network cabling and data centre standards.”



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FLUKE
networks.



CONTROL IT ALL WITH VERSIV™

One single tool for **testing, troubleshooting and handling** even the most complex cabling certification projects

GET READY TO OVERACHIEVE

THE VERSIV PLATFORM ACCELERATES EVERY STEP ON THE PATH TO SYSTEM ACCEPTANCE. For a start, its revolutionary ProjX™ management system puts you firmly in control of multiple projects. It is also designed to **get more jobs done right the first time with less supervision**. The Taptive™ user interface makes the Versiv as **intuitive as your smartphone**. Our LinkWare management software drastically simplifies analyzing test results and creating **professional test reports**. And a unique, future-proof and modular design lets you switch between copper certification, OLTs, OTDR and Wi-Fi analysis with **the greatest of ease**. No more unnecessary errors. No more separate tools. Versiv: get ready to **overachieve**.

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REPORT

SYSTEM
ACCEPTANCE

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New from the Siemon Blog

TIA Approves Class II Cabling Concept – Opening the Door for Fully-Shielded Components

During last week's TIA meetings, the TR-42.7 Copper Cabling Subcommittee accepted the concept of adding ISO/IEC Class II cabling performance criteria into its pending ANSI/TIA 568 C.2-1 category 8 project. The Subcommittee also agreed to create a task group, which will be co-chaired Brian Cerella of Siemon and Frank Straka of Panduit, to work on developing this criteria.

Class II is the name of the new ISO/IEC grade of cabling that will be constructed from fully-shielded ISO/IEC category 8.2 cords, cables, and connecting hardware. Both class II and category 8.2 specifications are targeted to support the 40GBASE-T application over a distance of at least 30m. Category 8.2 components will be an extension and superset of existing category 7_A components.

[Read More](#)

“The Advantages of Using Siemon Shielded Cabling to Power Remote Network Devices” On-Demand Webinar Now Available

With more than 100 million PoE-enabled ports purchased annually, a new 4-pair IEEE 802.3 PoE application on the horizon, and advanced standards-based technology ready to deliver up to 100 watts of power—enough to power a television—delivering dc power over twisted-pair cabling has revolutionized the look and feel of the IT world.

Based on a new Siemon white paper, this educational webinar, “The Advantages of Using Siemon Shielded Cabling to Power Remote Network Devices,”



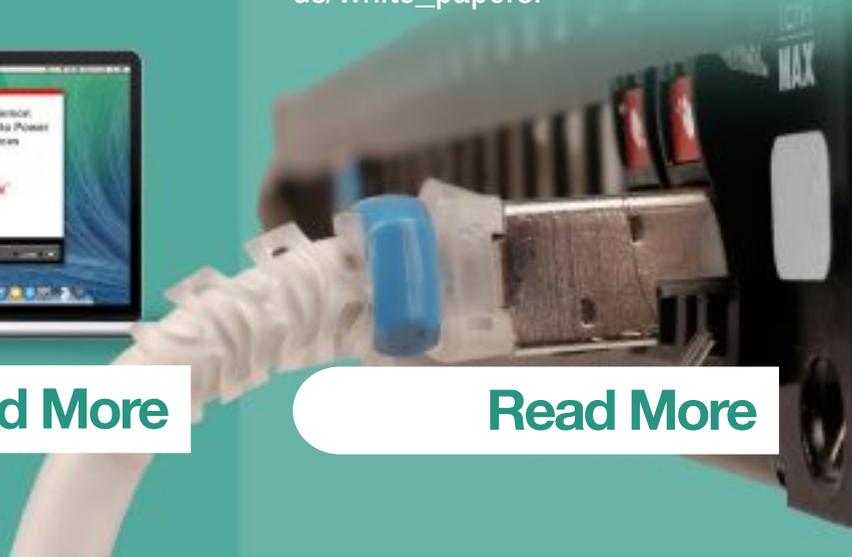
[Read More](#)

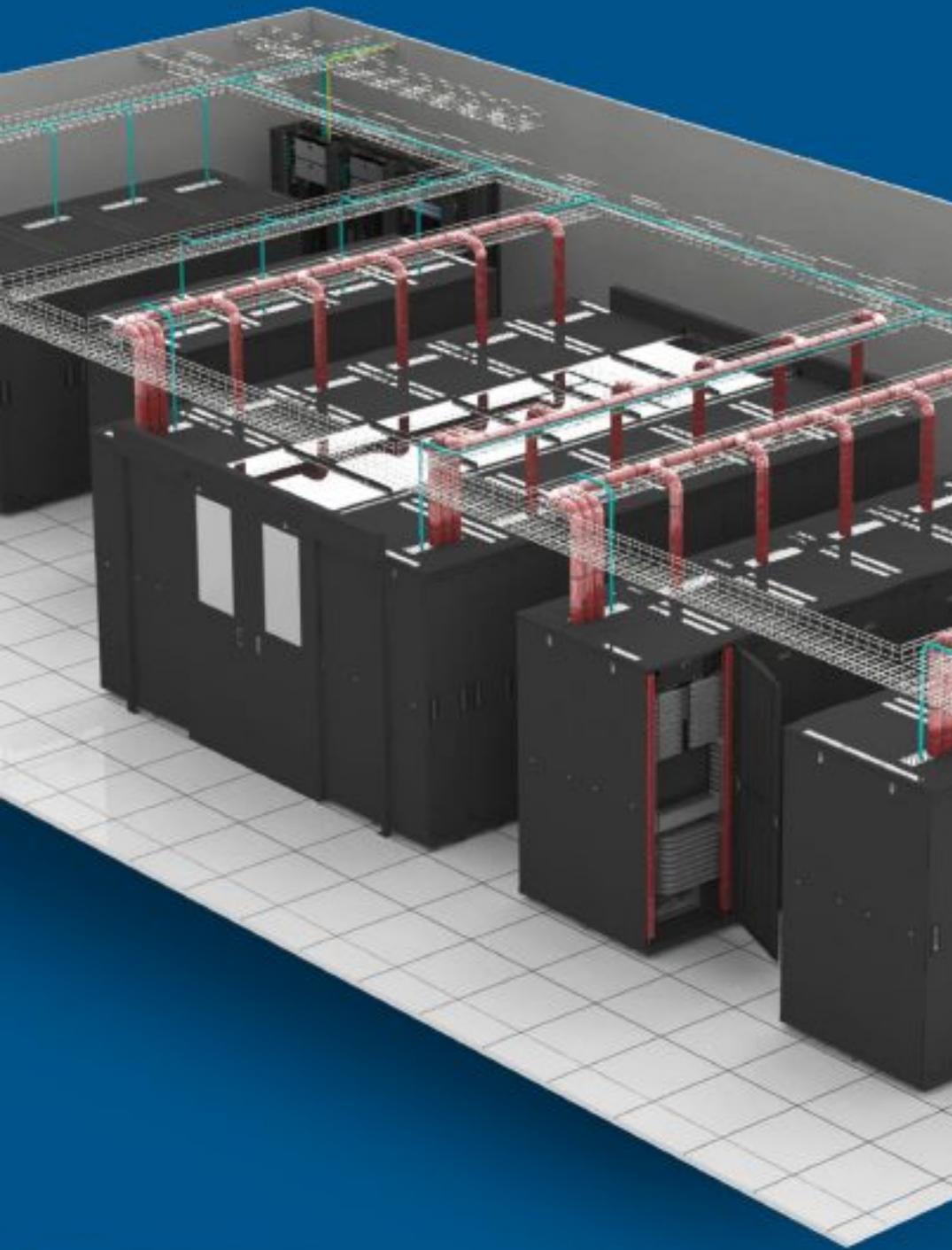
10GBASE-T is here and a real power and cost saver!

According to PHY manufacturer Aquantia (www.aquantia.com), 95% of all the major switch vendors now have a 10GBASE-T offering. These switches increase bandwidth and throughput in data centers and are significantly less power than the equivalent 10GbE 1GbE ports. Power is now in line with fiber, providing a lower cost option that supports 1 and 10 GbE out of the same hardware. This provides additional savings for data centers. Intel® began shipping 10GBASE-T native on motherboards in 2011.

For other benefits of 10GBASE-T, including port savings and fewer switch purchases, please see our whitepaper at www.siemon.com/us/white_papers.

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Navigating of Structure of Rack i

There is no single end-all cabling configuration. You need to examine the pros and cons of each and consider when evaluating top of rack configurations on total management utilization; power consumption and

Bandwidth demand and scalability, server virtualization, high-performance switching capabilities and higher densities necessitate taking a careful look at the various configurations available for cabling a data center. Today's data center cabling configuration choices are also impacted by the need to lower power consumption and ensure efficient cooling of critical equipment, as well as by budget constraints and management structure.

As data centers become more complex, cabling system design and topology become critical.

When the first data centers were built, end user terminals were connected via point-to-point connections. This was

ng the Pros and Cons ured Cabling vs. Top in the Data Center

onfiguration for every data center, and CIOs, data center professionals and IT managers of each solution based on their specific needs. This paper focuses on the many factors to k (ToR) and structured cabling configurations. The discussion includes the impact of those t; scalability and upgrades; interoperability; equipment, maintenance and cabling costs; port cooling requirements.

a viable option for small computer rooms with no foreseeable need for growth or reconfiguration. As computing needs increased and new equipment was added, these point-to-point connections resulted in cabling chaos with associated complexity and higher cost.

In response, data center standards like TIA-942-A and ISO 24764 recommended a hierarchical structured cabling infrastructure for connecting equipment. Instead of point-to-point connections, structured cabling uses distribution areas that provide flexible, standards-based connections between equipment, such as connections from switches to servers, servers to storage devices and switches to switches.

With today's high-performance servers and virtualization, more applications can be delivered from a single rack of servers than ever before.

In response, several switch manufacturers recommend a Top of Rack (ToR) configuration where smaller (1RU to 2RU) edge switches are placed in the top of each server rack (or cabinet) and connect directly to the servers in the rack via short preterminated small form-factor pluggable (e.g., SFP+ and QSFP) twinaxial cable assemblies, active optical cable assemblies or RJ-45 modular patch cords.

ToR significantly increases the number of switches and reduces the initial amount of structured cabling. It is often recommended for its rack-at-a-time deployment, ability to limit the use of copper cabling to within racks, support for east-west (i.e., server-to-sever) traffic and rack-level management capabilities. Both TIA 942-compliant structured cabling and ToR have advantages and disadvantages. When selecting the cabling configuration to best meet the needs of the data center, it is important to examine the impact that structured cabling and ToR have on overall total cost of operations, as well as other trade-offs.

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Advanced Cabling Solutions Emergency Operations in Lee



Statistically impacted by hurricanes every two and a half years with average winds of 112 mph, Southwest Florida has certainly experienced its share of natural disasters.

Originally built in the 1970s as a nuclear fallout shelter, the existing Lee County Emergency Operations Center (EOC) in Fort Myers has served the community well, especially during the 2004 and 2005 hurricane seasons that experienced significant damage

from Hurricane Charley and Hurricane Wilma, respectively. But Lee County has outgrown its EOC. Its lack of space, outdated technology and inability to withstand a category 5 storm surge has made a new larger, advanced facility an absolute necessity

Soon to serve as the county's nerve center of emergency operations, the new 27,000 square foot facility has been a long time in the making. Built with thick reinforced concrete, the new EOC sits 32 feet above sea level and is designed to resist winds over 200 mph—stronger than the most intense hurricane.

“The new EOC will be able to withstand anything Mother Nature or man can bestow on our community and still function as an emergency operations center,”

John Wilson, Lee County's director of public safety.

The new facility is also rated for a seven-day survivability factor with all the backup systems needed to operate for a week freestanding.

Quickly approaching a fall 2012 completion and due to be in service for the 2013 hurricane season, the new EOC features the very latest networking, communications and media applications needed to make critical decisions, effectively coordinate resources and deliver

s Enhance ee County, Florida

information and services to Lee County residents faster in the event of an emergency. At the heart of the EOC is an advanced data center and shielded cabling infrastructure that will ensure effective, ongoing current and future operations to serve the county for many years to come.

Building it Bigger and Better

As the official warning point for Lee County, the EOC is responsible for monitoring severe weather and tropical disturbances, providing support and assistance to first responders and mobile response units, developing emergency response plans and shelter standards, collecting and distributing emergency information, and conducting hazardous materials analysis, drills and briefings. The County also uses social media to update residents and even offers a free downloadable “Lee Evac” app to help residents identify evacuation zones.

During an emergency, the EOC is in full activation and staffed with key personnel from various agencies, relief organizations, utility companies and other essential county departments to act as the focal point for coordination of emergency response and recovery.

Effectively monitoring and delivering critical information for the county requires an advanced network infrastructure with bandwidth to quickly transfer information, reliability to ensure uptime and capacity to support a wide variety of equipment and applications.

Read More

“We now have a real core facility for public safety. In a real-world disaster, we can look at this building as the place where we can survive and still provide emergency response and disaster recovery.”

Stephen Mason, Telecommunications/
Transport Project Manager, Lee County.



Deployed throughout the entire Lee County EOC, Siemon’s Shielded Z-MAX 6_A cabling system features a unique patented plug design that greatly improves channel performance and achieves outlet termination time of less than one minute.

PRODUCT SPECIFICATION SHEETS

COPPER CABLE

FIBER PLUG AND PLAY & FIBER CABLE

INDUSTRIAL

MAPIT MODULAR PATCHING

PATCH CORDS & COMPONENTS

S110 S210 S66 RACKS & CABLE
MANAGEMENT

TOOLS & TESTERS

TRUNKING CABLES

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