



Past tense, future perfect

As organizations aim to work on zero downtime platforms, the importance of a well designed cabling infrastructure becomes important. Investments are being planned to deploy solutions that ensure maximum uptime. This is particularly true for enterprise and business verticals like BFSI and telecom service providers, which work in data-centric environment where downtime results in direct loss of revenue. These organizations typically deploy large network infrastructure where performance is critically important. With India becoming a hub of services for global organizations, it becomes imperative to have the required infrastructure in place to support these services. As the data center jungle grows in India,

structured cabling continues to be a vital link connecting the components of IT infrastructure.

Vendor update

The acquisition of ADC India Communications (formerly Krone) by Tyco has spurred the competition in the market. This acquisition results in an aggressively competitive scenario among key vendors.

Tyco Electronics is investing in the Intelligent Solution arena to provide real-time analysis tools so that organizations can optimize the use of their assets. Tyco Electronics has acquired the intellectual property (IP) rights to the 9th wire hardware technology that powers its AMPTRAC Intelligent

Infrastructure Management System (IIM). 9th wire technology provides real-time monitoring of planned and unplanned changes to layer 1 physical infrastructure. It allows patch fields, without active electronics, to communicate with analyzers and work with licensed IIM software from iTRACS Corporation. The combined solution makes it easier for IT administrators to maintain an accurate configuration management database, meet corporate needs for maximum network uptime, enhance asset location and turn cabling systems and their connected devices into smart networks.

The company has released new products for data centers that include high-density cabling platforms, AMP

Sigma link cable assemblies (copper 10G compliant cable assemblies that increase high density in datacenter/telecom closet and help reduce real-estate and carbon foot-print of the network environment, the new MRJ21 Ultra slim cabling system which improves airflow around mission critical electronics, simplifies cable management and reduces clutter in horizontal and vertical pathways.

With Systimax 360 cabling solution, CommScope has integrated a fiber, copper and intelligence solution forming the enterprise network infrastructure. The solution offers U/UTP cables, panels, high density shelf and modules, et al, for data, voice, video and building management applications in both wired and wireless networks. This next generation structured cabling solution offers high-density support for storage area networks in data centers with the highest fiber-patching density available in the market. This solution is tailored for the LazrSPEED and TeraSPEED fiber.

Digilink has recently rolled out the premium TG500 and TG800 cabling solutions designed for 10G performances, for termination of horizontal and backbone cabling. The

TG800 product range exceeds the latest Cat 6a 10G standards by a higher margin.

The company is also focusing on four new areas – solution for data centre (ITeS segment), product range suitable for FTTH (Fiber to Home) solution, and offerings for fiber solutions in a tactical environment and residential cabling solutions.

End-to-end solutions from Molex include systems like FSO (Free Space Optics), Blown Fiber, and MIIM, a software tool for the enterprise to deploy and manage projects. The company's pre-terminated copper solutions (Modlink) use the i-Pass connector which allows the enterprise to deploy high speeds (1G) in pre-terminated copper cassettes.

Reichle & De-Massari has introduced its Cat 5e connector, FM45 in India.



EXPERTS SPEAK

GG-45 – Setting standards for Cat 7A

D S Nagendra
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On Cat 7A and implementation

Cat-7A is catching up well across the verticals. Nexans has pioneered the Cat-7A technology with its unmatched patented GG-45 connectivity that offers true, technology up-gradation paths due to its backwards integration with the existing Cat 5E, Cat 6, or Cat 6A cabling. The beauty of Cat 7A is the technology that allows sheath sharing, which means a person can have multiple applications running on the same 4 pair cable.

On VoIP and PoE

PoE is now more in the domain of the switching technology and is becoming a standard in the switches.

On IPLM adoption gaining momentum in India

With global companies setting up operations in India, most of them have the cabling standards clearly defined. Large corporations, especially in the ITeS and BFSI segments,

FM45 is the first tool-free wireable, field terminable, 8-wire RJ45 connector, which makes transmission capacity up to 10 Gigabit Ethernet.

Panduit and Emerson Network Power have entered into a data center partnership to incorporate cooling, uninterruptible power supply (UPS), monitoring and management systems into Panduit's UPI (unified physical infrastructure) solutions, including structured cabling systems.

Siemon has launched a number of products in the cabling space. In copper, it has launched the Z-MAX cop-

per cabling solution which caters to the basic CAT6 and CAT6A product ranges. XLR8 Pre-Polished Fiber Connectors, the enhanced MTP-based fiber Plug and Play solutions provide an enterprise with an opportunity to use and reuse the fiber solution. Siemon's MapIT G2 next-generation intelligent infrastructure management has been launched to help in the management of IT infrastructure.

On 10Gbase-T solutions

We have also observed an increase in the adoption of 10Gig cabling. Most of the data centers that are being setup have cat 6A cabling as their minimum standard, along with fiber. Many state data centers and telecom operators have cat 6A cabling specs incorporated as the minimum criteria that needs to be met.

On key growth drivers

The market has bounced back since January, 2010, and we have seen most of the verticals contributing to the growth. Investments into state data centers and utility infrastructure are providing an opportunity for cabling. The manufacturing vertical has also been instrumental for the growth, apart from the traditional IT/ITeS segment. ●

Nexans has developed GG45, a Cat-7/ Cat-7A, which is a RJ-45 format connector that offers 40 GB on copper. This connector is backward compat-



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“Cat 7A is backward compatible with Cat 6A and Cat 6. The Ethernet frequency is defined up to 1000 Mhz, making it suitable for high bandwidth demanding applications. The Cat 7 cable standard has been created to allow 10 gigabit Ethernet over 100 m of copper cabling. Cat 7 features even more strict specifications for crosstalk and system noise than Cat 6.”

ible with the existing Cat-5e/Cat-6/Cat-6A solutions. As part of its MPO solutions offerings for both copper and fibre, Nexans has launched Copper MPO solution for data centres, which ensures easy and neat installation and mobility. The company also offers EMAC (Environment Monitoring and Control) solutions that can be integrated into the IIM.

With Belkin's foray into the structured cabling business in India, the market has further revved up. The company will offer its entire range of copper and fiber structured cabling solutions in the country. In addition to this, Belkin is also embarking upon an aggressive channel program to recruit, train and equip partners for its structured cabling business.

LS Cable structured cabling solutions-SCS has launched its brand Simple to cater the needs of structured cabling

market. Simple is available with pre-terminated cable for copper, MPO (fiber), overhead routing system and high density racks for data center, intelligent power and management system, and all connectivity for fiber and copper cables. The portfolio includes Cat3 products for voice communications, Cat5e, Cat6 and Cat 6A for 10GIG applications on which the applications are set.

The technology curve

The growing demand for bandwidth across networks has drastically increased the need for high speed data networks. Multimode fiber cables are considered for high speed data transfers within a local network. In order to address the bandwidth demand, a new industry standard for multimode, OM4 has been developed offering higher bandwidth.

PoE (Power over Ethernet) still has limited uptake – this could be due to the limited capacity of the currently ratified standards. PoE is used for security applications, but has not been adopted across large enterprise due to its currently limited capacity. The advent of new standards is expected to enable more widespread adoption of PoE across a broader range of applications.

Physical layer management is an important area which is evolving rapidly. Organizations are looking beyond the ability to manage only the patching field and wiring closet. As the size of networks grows across multiple locations, management of networks is gaining importance. Intelligent cabling is gaining popularity with the increasing number of large networks. Usually problems in the physical layer require more efforts in fault identification than in rectification. Having an intelligent cabling solution enables immediate rectification, as this system can indicate where exactly the network is experiencing problems.

An upward growth expected

The data center cabling market is poised to grow several times which is expected to drive the potential market for Cat 6A/Cat 7 and above. In addition, FTTH deployment is also projected to grow multiple times in the near future. Emerging markets like the tier II and III cities & verticals like manufacturing, IT/ITeS, hospitaly, et al are expanding. These drivers will roll in a positive growth curve for the market. ■