

# Mixed Wires

2010 was a mixed year for the structured cabling market. Most of the players had their share of cash crunch. Revenues of major players barring few took a nosedive due to global recession

According to research estimates the structured cabling market in India is fluctuating between Rs 800 to 1000 crore. Overall the market was down by 20 percent since FY '08-09 due to fluctuating copper prices in the international arena. With the advent of 10G, bandwidth problems have been solved to a great extent. Gaurav Ahluwalia, MD, R&M (India) said, "With over 671 million subscribers, the Indian telecom sector is experiencing unprecedented growth. We will introduce products that cater to the telecom sector's emerging needs." Few years ago only large enterprises had specific cabling requirements. With markets opening up, many principals are targeting SMBs as well. Belkin launched structured cabling solutions for SMB's sizing from 25 to 100 computers. Mohit Anand, MD, Belkin said, "India has a large pool of SMBs. These mid-sized companies have a consistent growth rate, which is why we have designed our strategy around this."

There is a dichotomy in choosing fiber or copper cables. Since the cabling takes part in the initial construction phase, the investment is fairly low. This results in faulty networks and delayed data transmission. There are various standards available like 10BASE-T or 100BASE-TX and also a clear migration from Cat5e to Cat6 as a default standard. Milind Tamhane, VP—Product Management and Exports, Digilink remarked, "We are seeing expectations for higher frequency uses for copper products. We are also witnessing fiber being more popular in LAN/WAN fields. Enterprises have realized advantages of intelligent patch panel solutions, PoE Midspan solutions." With the approach to reduce costs associated with downtime, companies are investing in high-quality cabling solutions to enable greater performance and meet security needs. Pre-terminated cabling solutions are also gathering significant traction. These solutions minimize the amount of installation time and thus reduce the chance of errors occurring during the installation. Ahluwalia said, "Fiber optic solutions are gaining more acceptance due to pre-polished connectors, pre-terminated fiber and MPO fiber plug and play connection systems. These, dramatically decrease the complexity of installing fiber cabling and the risk of error." An estimated 80 percent of the market is still copper-based, while the rest of it is driven by fiber. Within copper, Cat5e forms 40 percent, Cat6 55 percent and the rest five percent is Cat6a. FTTH, extension of structured cabling to the residential domain and Giga-ready homes are bearing out to be the key growth drivers.

For the last couple of years the key driver in structured cabling solutions has been a demand for datacenters, network virtualization, penetration of Internet in rural India and use of converged triple play network over the same physical network infrastructure. Apart from these factors growing SOHO and SMB segment with an equal growth in enterprise, education and government infrastructure

are also playing an important role.

In line with the new generation of applications, new technologies have emerged in structured cabling and UTP to counter the bandwidth requirements. Armored and unarmored Cat5e and Cat6 cables are being used by most of the service providers.

Subhashini Prabhakar, Chief Technology Manager, Dax Networks elaborated, "Glass fiber, light wave division multiplexing, usage of plastic optical fiber, coaxial cable and other wireless technologies are gaining importance. UTP cabling system or fiber optic cable must be universally applicable in a combination configuration. These systems can transmit voice synthesis, low-speed data and high-speed LAN information and is easy to extend. This allows enterprises with future expansion needs to upgrade anytime and anywhere."

Dax offers a range of products under the fiber category like field installable fiber connectors, semi intelligent user-friendly patch panels which are cost-effective and easy to troubleshoot. R&M has introduced the single circuit management system (SCM) which is a complete modular system for high-grade, high-density fiber management at central network hubs of service providers. The SCM system makes management of individual fibers and subscribers clear-cut, reliable and efficient for all levels of the next-generation network. Digilink has its focus set on datacentre products, products suitable for FTTH environment. The company is still betting on Cat6 range hugely.

With enterprises catching the eye of many vendors, government seems to be equally lucrative. Digilink is concentrating on manufacturing, BFSI and PSU apart from education. R&M is also almost treading the same path by showing prime importance to telecom. According to IDC reports Digilink has been ranked at second position in the Indian structured cabling systems (SCSs) segment. The company has a strong hold in providing entire end-to-end range of

structured cabling solutions for enterprises and SMBs. Digilink accounts for 20 percent of the marketshare in the cabling systems marketplace. The company has garnered plenty of awards by winning 'Best Structured Cabling Brand 2010' conducted by The DQ Channels. The PCQuest Users Choice Awards 2010 ranked Digilink as 'India's Most Wanted IT Brand for Structured Cabling.' Tyco which has the largest marketshare of 24 percent also has similar plans along with Systemax closing at 13 percent, Molex standing at 10 percent, R&M at eight percent and Dax at 2.7 percent.

Another recent trend which has emerged is cashing on the green phenomenon. R&M's products are RoHS and REACH compliant and are Low Smoke Zero Halogen (LSZH). The company prefers working with raw material suppliers who are ISO 14001 certified. Their new headquarters, the R&M Cube situated in Wetzikon (Switzerland) employs a balanced energy concept that helps reduce CO2 emissions by up to 90 percent compared to conventional buildings. Dax Network has tried to incorporate this in their product design by exceeding standard specifications. This provides enough headroom for higher performance; thus making it suitable for emerging technologies. The company also offers a standard 20-year warranty on all their cabling products. This will eliminate the frequent changing of cables.

Structured cabling technologies are designed to cater to all the demands of a typical datacenter, while future proofing it for changing needs of the business. The 10G solutions that are available on both twisted pair (Cat6a-shielded and unshielded) and fiber are effective for bandwidth hungry applications. While twisted pair is the norm in most Indian network infrastructures, technologically fiber is being touted as more superior solution and today's datacenters

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"Even though the market size is increasing, we are observing a lot of commoditization happening. Most builders and architects are offering cabling along with the projects" Rajiv Kumar, Proactive Data Systems

**“Our bet will be on 10G networking in both copper and fiber. 2010-11 promises to reverse the slowdown trend and 2011-12 is expected to see a 15 to 20 percent growth” Anubhav Gupta, Artek Enterprises**

adopt both twisted pair and fiber, single or in combination to derive most effective solutions for their needs.

Installing and maintaining a structured cabling system is a herculean task. While Dax is offering end-to-end structured cabling solutions which are custom made for customer's network scenario forecasting all the possibilities of issues that would arise. R&M does meticulous planning while designing a solution to ensure it is future-proof, flexible, scalable and efficient. Technical proficiency is another essential factor. Installations where these aspects are ignored are likely to lead to complications or failures.

The future looks bright for structured cabling with almost all major industries vouching for it. In the wake of growing need of IT-enabled services across all verticals, structured cabling has become a key to every infrastructure and is all set to grow at a phenomenal rate. Nearly 40 percent of its total market is expected to be driven by the datacenters. According to research, the industry is expected to grow at a CAGR of around 20 percent over a period of the next few years. The SMB's, residential and commercial complexes are fast becoming the key drivers for its growth. Copper cables are still dominating the scene with 70 percent of the structured cabling business in India, fiber has still a long way to go. Copper and fiber will continue to be the growth area for the industry but Intelligent Physical Layer Management System (IPLMS) will increase. Milind Tamhane of Digilink said, "We also expected tier-4 Green datacenter as growth area last year. There is good potential in residential cabling another where we can expect tremendous growth in coming days. This all will create business opportunity and incremental growth in the structured cabling industry in India."

#### OTHER SIDE OF THE COIN

With a total market size of Rs 1000 crore plus, SPs form an indispensable part of the pie. With the cabling market growing 20 to 30 percent every year, the dynamics of business is fast changing. Spark Technologies which is based in Delhi, is one of the prominent players in this space who has a strong hold in the government sector. SR Nautiyal, MD, Spark Technologies said, "Our forte is government based projects and we have undertaken many projects in Tripura, Jharkhand and Uttranchal. We have deployed engineers across the country at 50 to 60 locations." The company undertook cabling projects for the CWG 2010 which was worth Rs 2.65 crore. Spark Technologies also handled 'Tripura City Wide Network Area' worth Rs 1.25 crore.

It is a known trend that customers opt for single vendor for civil, electrical and networking front. Most electrical vendors may or may not provide installation according to market standards. Valuepoint Systems, a Bengaluru based system integrator and services provider works closely with OEMs for new technology products and solutions like Cat6+ and Cat7. Ganesh Mahabala, Sr VP—Sales, Marketing, Strategy and Alliances, Valuepoint quoted, "Customers may not get networking installation as per industry standards (IEEE/TIA-EIA). We tell them to choose networking as part of their IT than real estate and they should evaluate vendors who have sufficient experience and knowledge about IT services." The company clocked a total turnover of Rs 153 crore in the previous financial year.

With the massive industrial growth and rapid infrastructure expansions added with the maturity

in customers understanding of structured cabling advantages, one can envisage a huge potential in India. Today, network is becoming the back bone of every business from SMB to enterprise and as customers are becoming increasingly intolerable towards down time, every organization is aspiring to have zero down time platform. They are ready to make investment and deploy solution that would reduce down time.

Rajiv Kumar, MD, Proactive Data Systems said, "Even though the market size is increasing, we are observing a lot of commoditization happening. Most builders and architects are offering cabling along with the projects. The expertise is missing and many vendors who sell premium products are under pressure." Proactive Data Systems undertook projects in government as well as corporate sector. The company is not looking at the entire spectrum of market but is catering as the premier supplier. After setting up a strong base in ITes, Proactive Data Systems

Delhi-based Artek Enterprises is slowly emerging as a strong player in the structured cabling area. The company has partnered with Digilink to increase marketing activities in the channel for structured cabling products. Artek has put in place a four-member team consisting of a graphics and web designers for promotions. The team rolls out schemes and offers for partners on a daily basis. Anubhav Gupta, Director, Artek Enterprises said, "The support from Digilink was most crucial. Both our promotion teams worked closely to circulate schemes to every partner. With a major shift in trend from Cat5e to Cat6 cabling last year, Cat6 provides better connectivity and higher speed (1Gbps). Fiber installations are still being opted

for their backbone networking even in small networks." However when there are talks about wireless technologies ruling the roost in future, it is still far from delivering the kind of bandwidth needed for upcoming applications.

Most of the business still comes from metros but 2011 will definitely see a rise in upcountry selling. Artek clocked a total turnover of Rs 118 crore out of which structured cabling was a

sizeable 22 percent. It has recorded a consistent 20-25 percent YoY growth and like other fellow competitors, it has undertaken government projects as well as defense contracts. The company has a unique dual strategy where it is promoting its cabling products in the market through channel partners. The second strategy is direct promotion of cabling products to customers in turnkey projects. Both these approaches are aimed at increasing awareness with potential customers and partners of the new and upcoming technologies. Artek strongly believes in educating partners on the advantages of using the latest technologies and the benefits it brings to their customers.

The market for 2011 looks promising with a growth of at least 20 percent. Cat5e will continue to be phased out as Cat6 and Cat7 play a stronger role in communications. A rise in demand for fiber optics with fiber to the node connectivity and the availability of higher bandwidth from service providers is also expected. Gupta said, "Our bet will be on 10G networking in both copper and fiber. 2010-11 promises to reverse the trend and 2011-12 is expected to see a 15 to 20 percent growth. This is supported by the fact that Q3 and Q4 of 2010 showed signs of revival with the IT and BPO sectors opening up and cautious, commenced invitation of RFPs from the vendors."

India is increasingly adopting global standards for datacenter design and installation. The standards promote network infrastructure that includes 10G based categories 6A and OM4 fiber. The adoption of intelligence within the physical layer has increased in recent times.

#### THE CHAMP

If we analyze all the above factors, Artek has come a long way in the cabling arena. The company has clear cut strategies, has recorded a consistent YoY growth and adopted new technologies. What clearly demarks Artek from the rest is the market analysis which it does periodically.

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#### VERDICT



**SOLUTION CHAMP**  
**ARTEK ENTERPRISES**  
Structured Cabling



**ANUBHAV GUPTA**  
Director, Artek Enterprises

wants to increase its focus on manufacturing, health-care and education. Kumar also stated the fact that customers are well educated and are spending time to select the right product rather than selecting the cheapest product or solution. This trend is also helping customers to look at structured cabling as a 'long term investment' rather than other cheaper 'just in time' solutions.

Once again Tyco has emerged as the most popular brand amongst SPs. Digilink comes close to second position and Systemax, Comscope are at #3. Molex, ADC India and R&M can be grouped into the next level with Panduit and Belden. With Cat7 coming into the market there is hope that the consumption of high-end products will increase. Most SPs also feel that the manufacturers need to up sell without being too volume oriented.