

## The Ethernet Switch Market Rebounds

*Customers opt for lower cost switches, negatively impacting switch revenue growth. In contrast, 10G Ethernet switches gain popularity.*

### SWITCHES

As companies increasingly rely on networks as the strategic business infrastructure, it is more important than ever to ensure their high availability, security, scalability, and control. Switches should support intelligent services that consistently address these requirements from the desktop to the core and through the WAN.

Smart and intelligent switches help enable companies to realize the full benefits of adding intelligent services into their networks. Deployments of capabilities that make the network

infrastructure highly available to accommodate time-critical needs, scalable to accommodate growth, secure enough to protect confidential information, and capable of differentiating and controlling traffic flows is critical to further optimizing network operations.

#### Market Dynamics

The Indian switches market is estimated at Rs. 1650 in 2009. The market witnessed a 34 percent decline from Rs. 2500 crore in 2008. Major players in the market include Cisco, D-Link, Nortel, Juniper, Dax, 3com, HP Procurve, Enterasys, and MRO-Tek.

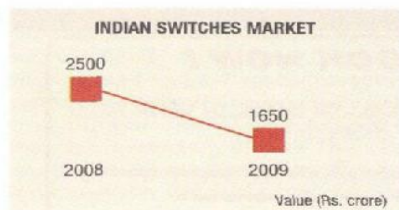
#### Trends

Switches have continued to maintain the edge they had in speed while gaining in features. The trend in switching has been to have both managed gigabyte switches. Switching too is

moving to integrated solutions architecture with wire-speed firewall, IPS and identity-based networking services. Network admission control and end-point security is going to become mandatory in most of the networks.

With increase in the total number of endpoints connected to the LAN, increasing diversity of traffic flows on the LAN through network convergence and more awareness regarding security caused due to an underlying technology shift in the Ethernet switch market has resulted in LANs becoming more intelligent and with increased bandwidth. Gigabit Ethernet and Layer 3 switches too are expected to fuel the switching demand further in the coming few years.

From a technology perspective, the adoption of 10Gbps has seen significant acceleration in data center top-of-rack, campus and service provider aggrega-



tion deployments. There is a huge demand for high density, wire-speed 10Gigabit interfaces on modular as well as fixed platform switches which can scale to support in excess of 100 + interfaces of 10Gbps. This is partly being fuelled by customers who are toying with virtualization technologies for their computing platforms and therefore necessarily need high bandwidth I/O interfaces to the network.

Another interesting trend that is seeing tremendous traction in the Indian market is enterprise customers demanding the ability to provide granular control and access to network and computing resources based on user identity, device identify, device health. This demands a very tight integration between Ethernet switches, Access Control Servers, and security policy enforcement points (like firewalls, IPS, Anti-virus, etc) with the key requirement that on detecting malicious traffic, that these devices can talk to one another and automatically take remedial action. The earlier paradigm of deploying tiered silo-ed layers of security devices (each generating loads of logs) are viewed as inefficient and ineffective in identifying the exact nature of threat when a network/series of devices are under attack.

#### Ethernet switch vendors prep for 40/100G

Globally, April 2010 saw three switching vendors unveiling new and enhanced data center products, including for those looking to upgrade to 40Gbps Ethernet in the near future.

Start-up Arista Networks unveiled its first modular 10Gbps switch, which allows the company to claim leadership in wire-speed 10G port density. Force10 Networks had recently laid claim to that title.

Extreme Networks rolled out software enhancements to allow customers to better manage virtual machines and reduce the number of switching layers, or tiers, in the data center network.

And Force10 announced that it will ship 40Gbps Ethernet switches in the second half of this year.

The announcements indicate that data center switching continues to be the hottest segment of the switching market as users broaden their use of virtualization. Data centers with

thousands of servers, each housing scores of VMs, require increased bandwidth and more granular management to maintain control over the spread of the virtual workload.

#### Growth Drivers

Continued growth and transformation across all key sectors of the Indian economy like manufacturing, infrastructure, banking, government and defence, IT and ITeS, telecom, outsourcing / offshoring, retail, SMB is driving the Indian switches industry. **Prem Nithin, Senior Technical Consultant, Cisco India & SAARC adds**, "Virtualization will definitely act as a catalyst in the growing demand for switches in the future for the enterprise section. In the SMB section, various kinds of switches such as easy-to-install and with low price points will become popular"

On the technology front, we expect to see greater traction coming from the increased adoption of collaborative technology, unified communications, datacenter and security solutions in India as enterprises focus on productivity improvement.

Emphasis on local innovation as tier-II and tier-III markets will emerge stronger and companies will focus on areas such as rural banking, connected agriculture and healthcare. All forms of communication and IT are moving onto the network, which is becoming a revolutionary new platform. The evolving nature and structure of the network are generating new rules of engagement and interaction. Furthermore, collaboration and Web 2.0 technologies on the network will spark dramatic innovation and productivity increases.

#### Future

With the prices of 10 GbE switches coming down to the reality levels, these have seen extensive deployment in enterprise data centers. The raw bandwidth offered by the switches is unprecedented, which offers these an extra edge. **Sanjay Jotshi, Director, Enterprise & channels, India & SAARC, Juniper Networks** predicts a golden future by adding, "The Indian market is one of incredible opportunity with customers increasingly looking for superior value; superior technology and a vendor that provides the ability to manage what's becoming an increasingly complex web of network and security devices in a seamless fashion". ■

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