

Buyers Guide for SMBs 2008

Networking

Networking: CAT 6, integrated routers and gigabit switches

Networking infrastructure is the backbone of today's business

Networks today are expected to offer increased and diverse functionality as organizations demand scalable infrastructure that lets them integrate complex upcoming technologies and support fresh business applications.

CAT 6 also known as Category 6 cable is the most trusted and accepted cabling technology among SMBs. The earlier inhibitions expressed by the companies towards the standard mainly came from the technology coming at a high price and the need for the products to be interoperable and backward compatible in order for it to work, but the enhanced performance platform offered by CAT 6 have made it the preferred cabling technology that continues to rule till date.



There has emerged a growing realization among IT heads that the cabling infrastructure of an organization should be future proof. It should not only look after the current needs of a business, but also meet the requirements that might arise in the future. They look at cabling as a long-term investment that should last at least 12 years to 15 years, and therefore are extremely cautious in making their cabling choices. When they do decide to go in for a technology, they go in for the most up to date technology available at that point of time.

With growth and expansion being the watchwords of the moment, demand for advanced applications, higher bandwidth and quick data transmission escalates. This demand in turn requires an optimal physical infrastructure which is where cabling comes in. Owing to these demands, cable suppliers are increasingly boosting and adding enhanced technologies and solutions to fulfil these higher transmission rates. Key factor attracting smaller enterprises towards CAT 6 has been a cut in prices.

SMBs are benefiting from greater power and wider functionality of switches and integrated services routers. Switches continued to maintain the edge they had in speed over routers while gaining features. The trend is to have gigabit switches, both managed and unmanaged. SMBs tend to go in for unmanaged gigabit switches whereas enterprises prefer managed ones.

The primary features to look out for in a router are support for multiple network protocols, networking interfaces, and routing protocols. Access Control Lists (ACL), Radius (Remote authentication dial-in user service) authentication, SPI (Stateful Packet Inspection) firewall, and Virtual Private Network (VPN) are some useful security features to look out for.

The use of a router to protect small offices could gain precedence as many organizations believe that the use of an integrated router will provide better value for money than a traditional software-based firewall.

The market has grown remarkably and this has resulted in vendors embedding other important features such as load-balancing, et al, in entry-level routers to target SMBs who were earlier unattended due to the high cost of feature-rich routers.

Apart from feature-rich routers and converged network, the demand for wireless networking equipment and devices has soared because of the anywhere, anytime access that these provide. Market players see huge scope on the wireless front in the coming years and feel that routers offering wireless capabilities will be popular, replacing the need for separate wireless access points for small office networks.

SMBs are deploying wireless and IP telephony in a big way, the only difference being that they are looking for easy manageability, a simple graphical interface, and easy support as they have fewer people handling their IT infrastructure. Hence the adoption of wireless technologies is expected to affect the structured cabling market.

While the debate over wired or wireless remains unresolved, the basic factor driving SMB adoption will be low total cost. Cost-effective solutions are available, with most networking vendors and solution providers pushing custom-built products and solutions. Companies are trying to sell low-cost high-utility networking products to SMBs.

Switches:

3Com 3C16475CS

Features: This Web-managed Layer 2 10/100 Ethernet switch supports advanced features (VLANs, IEEE 802.1X authentication and Rapid Spanning Tree). If desired, the switch can be configured using a web browser or SNMP management software. It has twenty-four 10/100 ports and two dual-purpose Gigabit ports (copper or SFP-based fiber).



Price: Rs 14,000

Contact: Vivek Gupta

Telephone: 98450 99655

E-mail: vivek_gupta@3com.com

Website: ap.3com.com

Cisco Catalyst Express 500 Series

Features: This series of switches is designed to meet the needs of growing businesses with up to 250 employees. This family of Layer 2-managed fast Ethernet and Gigabit Ethernet switches offers non-blocking, wire-speed performance and provides a secure network foundation optimized for data, wireless, and IP communications. It also offers options for Power over Ethernet (PoE).



Price: Rs 33,764

Contact: Vishak Gopinath

Telephone: 022 4043 4122

E-mail: vigopina@cisco.com

Website: cisco.com/en/US/products/ps6545/index.html

Nortel BES1000 series

Features: This gigabit switch with a 100% wirespeed/non-blocking architecture is Layer2 managed and secured. It supports Power over Ethernet.



Price: Rs 45,000

Contact: C.Ramanan

Telephone: 99400 55411

E-mail: ramc@nortel.com

Website: nortel.com

D-link DES-1024D

Features: It features 24 10/100Mbps ports with auto MDI/MDIX for each port, full/half-duplex support for each port, and flow control. Its other features include auto-learning of the network configuration, secure store-and-forward switching scheme and per-port auto-correction of reverse twisted-pair polarity.



Price: Rs 4,700+ taxes

Contact: Kandarp Jhala

Telephone: 022 3061 6666

E-mail: sales@dlink.co.in

Website: dlink.co.in

Aten CS 1782

Features: This DVI KVM switch combines a 2-port KVM switch with a 2-port USB 2.0 hub at the same time as providing an interface for a DVI monitor and 7.1 channel surround sound support. It allows PC gamers, audio and video enthusiasts to share a dual link DVI display, USB keyboard, mouse, and surround sound system between two computers.



It is focused on audio and video-based applications, e.g., desktop publishing, video, image and audio editing, CAD/CAM display plans and schematics, home theaters, and high-end PC gaming. The device supports widescreen resolutions and is audio-enabled.

Price: Rs 10,500

Contact: Nitin Naik

Telephone: 020 2425 1594/96

E-mail: sales@cubixindia.com

Website: cubixindia.com

Dax DX-5026MGV

Features: The switch features 24 10/100 ports, 2 Combo Gigabit and fiber/copper ports. It supports QoS features such as L2/L3/L4 traffic classification/priority management; authentication such as Local, RADIUS, TACACS+, Port (802.1x), HTTPS, SSH, port security, Extensible Authentication Protocol over LAN (EAPOL), IGMP v1, v2 and v3 snooping.



It has security features such as MD5, user/password protected system management terminal, static port security (MAC based), L2/L3/L4 access control list, SSL; IP clustering for a virtual stack of up to 36 switches via single IP; and granular rate limiting rate limiting (Ingress and Egress based). The Egress rate limiting is 512 Kbps, 1 Mbps, 3.3 Mbps granularity for total 30 levels, and Ingress rate limiting is 512 Kbps, 1 Mbps, 3.3 Mbps granularity for total 30 levels.

Price: Rs 23,450

Contact: Subashini Prabhakar

Telephone: 044 2432 3558

E-mail: subha@dax.in

Website: daxnetworks.com

Rittal KVM Switches

Features: From standalone solutions for 8 to 32 servers, to complex multi-user systems for data center applications with up to 2,048 computers this family of switches lets you administer computers either at the local level or via TCP/IP networks worldwide.



Price: Rs 61,036 for SCC compact 8/32

Contact: Mallikarjuna

Telephone: 93424 12004

E-mail: mallik@rittal-india.com

Website: rittal-india.com

Linksys SRW224G4

Features: It features 24 10/100 ports. This managed L2 switch comes with 4 10/100/1000 Gigabit ports and 2 combo SFPs (SNMP V1, V2, V3, RMON, Spanning tree 802.1d, 802.1w, 802.1s, QOS, ACL, VLAN).



Price: Rs 17,849

E-mail: linksys_india_sales@cisco.com

Website: in-linksys.com

Cabling:

D-link DC6CAUTP4P3X

Features: D-link DC6CAUTP4P3X features 4 pairs, 100 ohms, unshielded twisted pair enhanced category 6 tested till 350 MHz. The individual cable pairs are separated by a PE former (Star Shaped). It has solid 4 pair 24 AWG Cat 6 and is rated for a temperature of 75 degree C.



The performance is optimized up to 350 MHz, wherein it exceeds all requirements for Gigabit Ethernet. It is C UL listed and ETL verified, and has 305/ 1000 FT per reel.

Price: Rs 5,900 + taxes

Contact: Debraj Dam

Telephone: 022 3061 6666

E-mail: sales@dlink.co.in

Website: dlink.co.in

Optilink cabling

Features: Optilink's structured cabling products, UTP & STP Cable-Cat5e and Cat 6.

Price: Rs 1,300 onwards

Contact: Vikram Nagda /Piyush Dedhia

Telephone: 022 6633 1101/02

E-mail: sales@optilinknetwork.com

Website: optilinknetwork.com



Dax DXC05300V/ DXC06300V

Features: In DXC05300V/ DXC06300V models, Cat-5e / Cat-6 UTP Cables are tested up to 160 MHz/ 550 MHz, which exceeds EIA/TIA standards. It supports Gigabit throughput and the cables are designed to meet Indian environmental conditions and tangle free while routing.



It is available in pull free Box/Spools, in a standard length of 305 mtrs. Dax also offers end-to- end Cat-5e and Cat-6 passive solutions, the performance of which exceeds EIA/TIA standards.

Price: DXC05300V – Rs 6,910

DXC06300V – Rs 9,380

Contact: Subashini Prabhakar

Telephone: 044 2432 3558

E-mail: subha@dax.in

Website: daxnetworks.com

Dax DX-805E

Features: This modular router has two 10/100 ports and a serial interface with sync speeds of up to 2 Mbps and a free slot for VoIP integration. It has compatibility with other vendor products via industry standard routing protocols such as RIP1, RIP2, OSPF, IRMP, BGP; and has integration of VoIP technology with protocols support such as H.323; H.225; H.245; RTP; RTCP and voice coder such as G.711;G.723;G.729.



It has IPsec capability, supports management features such as Simple Network Management Protocol (SNMP) V1, v2, v3, Telnet, local management through router's console port, DHCP server, RMON; and multicast routing protocols such as IGMP v1/v2, PIM-SM, PIM-DM, DVMRP. DX-805e also has an integrated NAT firewall security that protects LANs from unauthorized network access.

Price: Rs 34,290

Contact: Subashini Prabhakar

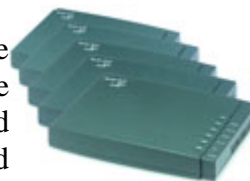
Telephone: 044 2432 3558

E-mail: subha@dax.in

Web site: daxnetworks.com

3Com 3C13613

Features: The Router 3013 has one 10/100BASE-T; one ISDN BRI S/T, one serial (Sync/Async), one Console, and one AUX serial port. It's high-speed processor addresses remote connectivity, routing and security needs. It supports advanced QoS and traffic management capabilities for converged voice, data, and video.



Price: Rs 48,000

Contact: Vivek Gupta

Telephone: 98450 99655

E-mail: vivek.gupta@3com.com

Website: ap.3com.com

BA Systems EN2400

Features: This router features industry standard CLI, in-built Firewall/VPN/IDS/IPS/QoS, content filtering, 200+Kpps performance, two in-built GigE ports, in-built Aux, console, and USB ports.



Its other features include inbuilt 512 MB RAM and 256 MB flash memory, up to 8 port CE1/FE1/V.35 on a single chassis, modular architecture, link based load sharing and (over E1, DSL and Ethernet), minimal touch deployment, NMS Support for centralized, provisioning and real-time monitoring, Web based device management, offline, configuration generator tool, and it comes with 3 year warranty.

Price: Rs 2,00,000

Contact: Krishna PV

Telephone: 99001 51355

E-mail: krishnapv@ba-sys.com

Website: ba-sys.com

Linksys RV042

Features: This 10/100 4-Port VPN router lets multiple computers share an Internet connection. The dual Internet ports on this device let you connect a second Internet line as a backup to insure that you're never disconnected. It also features a built-in 4-port full-duplex 10/100 Ethernet switch to connect four PCs directly, or you can connect more hubs and switches. Up to 30 remote office or traveling users can securely connect to the office network from off-site. It can serve as a DHCP Server, and has a SPI firewall.



Price: Rs 11,275

E-mail: linksys_india_sales@cisco.com

Website: in-linksys.com

Cisco 2800 Series routers

Features: These routers are targeted at SMBs and enterprise branch offices, are designed for wire-speed delivery of secure concurrent services; they combine data, voice, video, and wireless services onto a single secure device.



The 2800 ISR also offers features like built-in security such, built-in redundant power supply connector and integration with Cisco Unified Communications Manager Express for call-processing support for up to 96 Cisco IP phone users.

Price: Rs 84,645

Contact: Vishak Gopinath

Telephone: 022 4043 4122

E-mail: vigopina@cisco.com

Website:

cisco.com/en/US/products/ps5854/index.html

Wireless routers

Linksys WRT310N

Features: The Access Point built into this Internet-sharing router and 4-port Gigabit switch supports draft 802.11n and MIMO using multiple radios per band to create signals for maximum range and speed, with reduced dead spots. It also works with 802.11g and 11b devices and its wireless signals are protected by industrial-strength encryption.



Price: Rs 7,999

E-mail: linksys_india_sales@cisco.com

Website: in-linksys.com

Optilink OL-6025gM

Features: This outdoor wireless (802.11b/g) device with a powerful integrated antenna can be used for outdoor Wireless LAN deployment—to connect multiple offices, for campus wide Wi-Fi, etc.



This device can be used for point to point or point to multi-point connectivity between two or more locations up to an aerial distance of 5 Kms. It supports Power Over Ethernet (PoE) technology, support video surveillance, VoIP and data simultaneously. It also supports 54 Mbps; in the Turbo G mode it supports 108 Mbps.

Price: Rs 11,000 + Taxes

Contact: Vikram Nagda /Piyush Dedhia

Telephone: 022 6633 1101/02

E-mail: sales@optilinknetwork.com

Website: optilinknetwork.com

Apple AirPort Express

Features: This 802.11n router is based on an IEEE 802.11n draft specification, AirPort Express features two antennas and uses a technology called multiple-input multiple-output (MIMO) to transmit multiple data streams simultaneously. With its support for both the 2.4GHz and 5GHz wireless frequencies, AirPort Express reduces the possibility of interference from appliances and cordless phones that use the 2.4GHz frequency. It connects up to 10 users at twice the range, is Wi-Fi certified, compatible with 802.11a/b/g, and is Mac and PC friendly.



Price: Rs 4,160

Telephone: For sales: 080 2574 4646

For support: 1800 425 0744 / 080 4140 9000

E-mail: indiasales@mac.com

Website: apple.com / apple.co.in

Cisco Aironet 1130AG Series

Features: Designed for WLAN coverage in offices and similar RF environments, this access point features integrated antennas and dual IEEE 802.11a/g radios delivering a combined capacity of 108 Mbps.



Price: Approx. Rs 29,686

Contact: Paramjit Puri

Telephone: 080 4159 3247

E-mail: papuri@cisco.com

Website: cisco.com

3Com 3CRWDR101A-75

Features: This ADSL Wireless 54 Mbps 11g Firewall Router combines an ADSL2/2+ modem, router, 802.11g wireless access point, four-port switch, and firewall to enable up to 253 total (64 wireless) users to share a share a single ADSL or ADSL2/2+ connection. To shield wireless connections, the 11g gateway router implements 128-bit WPA/WPA2 with TKIP/AES encryption along with 40/64 and 128-bit Wired Equivalent Privacy (WEP) encryption for legacy clients. A stateful packet inspection firewall, hacker pattern detection, URL filtering, IP and MAC address filtering and other security features help protect the network.



Price: Rs 5,000

Contact: Vivek Gupta

Telephone: 98450 99655

E-mail: vivek_gupta@3com.com

Website: ap.3com.com

Amplebit 54 Mbps Wireless Router

Features: Amplebit's 54 Mbps Wireless Router (Akeo AK5400X) is a 802.11b/g compatible wireless router with four Ethernet Ports. It supports IEEE802.11b/g with Data Transfer Rate up to 54 Mbps, 64/128 Bit WEP and WPA Encryption, WAN Connection by PPPoE/Static IP/Dynamic IP/PPTP/DHCP/ L2TP, special applications (Port Triggers), WDS and DDNS (DynDNS) function and VPN Pass Through (IPSec/PPTP).



Price: Rs 1,090

Contact: Debashish Pramanik

Telephone: 98809 42450

E-mail:

Debashish.pramanik@amplebit.com

Website: amplebit.com

D-Link DIR-300

Features: This Wi-Fi and Wi-Fi WPS (Wi-Fi Protected Setup) certified device works is Windows Vista and Xbox Live! certified. The DIR-300 supports VPN Passthrough, IGMP Proxy, UPnP, and Smart QoS. The device lets you setup two wireless networks (one private and one Tomizone Public Hotspot) in minutes with the D-Link Quick Router Setup Wizard.



Price: Rs. 2,300 + taxes

Contact: Kandarp Jhala

Telephone: 022 3061 6666

E-mail: sales@dlink.co.in

Website: dlink.co.in

Dax DX-924 ABO

Features: This IEEE 802.11b/g/n wireless broadband router with one 10/100M WAN port and four 10/100M LAN ports complies with the 802.11n draft 2.0 standard to offer speeds up to 300 Mbps. It also supports NAT/NAPT IP sharing; WAN Protocols, including PPPoE/Static IP/PPTP/DHCP; 2T3R MIMO technology to enhance the throughput and coverage range; Wi-Fi Protected Setup (WPS) with reset button; 64/128-bit WEP encryption and WPA-PSK, WPA2-PSK security; WMM function to meet the multimedia transmission requirement; and WDS mode.



Price: Rs 12,290

Contact: Subashini Prabhakar

Telephone: 044 2432 3558

E-mail: subha@dax.in

Website: daxnetworks.com

Others:

Tatanet Readynet

Features: Tatanet Readynet is a broadband Internet over VSAT. It other features include ready plans, rented CPE and no separate AMC.



Price: Rs 7,200 – 17,000

Contact: Sabita Rajendran

Telephone: 022 6791 8777

E-mail: marketing@tatanet.co.in

Website: tatanet.co.in

D-Link GLB-502T

Features: D-Link GLB-502T features ADSL2+ router with 1 port Ethernet and USB and in-built splitter. It has downstream of 24Mbps and upstream of 1Mbps. Besides, it also supports 8 multiple PVCs.



Price: Rs. 1,500 + taxes
Contact: Kandarp Jhala
Telephone: 022 3061 6666
E-mail: sales@dlink.co.in
Website: dlink.co.in

Amplebit External ADSL 2+ Router

Features: Amplebit's External ADSL 2+ Router (Akeeo AK2400X) is an external ADSL2/2+ modem, tested for full compliance on MTNL, BSNL, Airtel and Tata Indicom ADSL connections, it supports data transfer rates of up to 24 Mbps for downstream and 1 Mbps upstream.

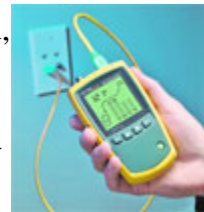


Its other features includes compliance with ADSL/ADSL2/ADSL2+, support for PPPoA, PPPoE and Ethernet over ATM, full routing and NAT support and detailed diagnostic support.

Price: Rs 939
Contact: Debashish Pramanik
Telephone: 98809 42450
E-mail:
Debashish.pramanik@amplebit.com
Website: amplebit.com

Fluke Networks MicroScanner2 Cable Verifier

Features: The device features an oversized, backlit LCD screen with the power to display wiremap results graphically. It has user-configurable NVP for twisted pair and coax and determines actual NVP with known length of cable.



This Cable Verifier meets requirements for MIL-PRF-28800F for Class 2 random vibration and solicits and detects the presence of 802.3af compatible PoE (Power over Ethernet) devices.

Price: Rs 10,000 to Rs 500,000 depending on configuration and needs.

Contact: A Sitaramaiah

Telephone: 080 4032 2000

E-mail: sita@flukenetworks.com

Website: flukenetworks.com

F5 Networks BIG-IP Link Controller

Features: Most businesses maintain multiple Internet connections. BIG-IP Link Controller (LC) intelligently controls the flow of traffic across those connections, preventing problems and making sure the fastest available connection is always in use. The device has a single CPU, 768 MB of base memory, 4 Gigabit Ethernet CU ports, and 2 optional Gigabit fiber ports. Its other features include 500 Mbps traffic throughput, maximum power consumption of 300W, and maximum heat output of 1025 BTUs.



Price: Rs 6,50,000

Contact: Ashwin Kulasekhar

Telephone: 080 4036 5405

E-mail: ashwin@transition-asia.com

Website: f5.com