

"Cat-5" networks are a popular option among internet service providers for establishing subscriber connectivity. These networks are relatively easy and inexpensive to deploy, facilitating quick roll-out of services. Cat-5 networks are essentially hybrid fiber/copper Ethernet LANs extended across the area of operation, on overhead cabling.

In practice, managing service delivery on these Cat-5 networks presents a host of challenges to the service provider. Several factors contribute to the limitations:

- Power needs to be reliably supplied and maintained for the Ethernet switches that constitute the network
- Designed for indoor use, these switches do not withstand surges, lightning strikes and temperature variations
- Failure of a particular Ethernet link in the network leads to disruption of service over a large area, since there is no fault tolerance built into the system
- Ethernet cables connecting subscribers from the switches can run only up to 100m, limiting the coverage area of a switch. This leads to the installation of a switch at every 100m of cable length, resulting in inefficient utilization of the available ports in the switches. On the other hand, more switches mean more devices to manage and maintain
- Most Cat-5 networks are built with unmanaged switches. Unregulated upstream traffic along with virus attacks and other broadcasts from subscriber PCs load the network, bringing down the effective downstream throughput

These factors lead to poor quality of service, with no assurance of reliability or performance. It is impossible to deliver services that demand guaranteed bandwidth and fail-safe connectivity on such networks. Manageable switches conventionally used in LAN environments are not capable of addressing the issues pertaining to overhead Cat-5 networks.

The C-Switch from Midas is designed to address all the inherent limitations of Cat-5 networks. With C-Switches, service providers can offer high-revenue broadband applications and value added services such as streaming video, voice and gaming on the existing Cat-5 cable infrastructure.

Networks that incorporate C-Switches are completely managed and regulated, delivering assured throughputs to subscribers. With centralized monitoring and intelligent control of upstream and downstream traffic of every network user, the efficiency of the network is optimized.

Designed to support longer Ethernet cables, fault tolerant Arc and Ring architectures, surge protected ports and flexible power options including Power over Cat-5 cabling, C-Switches add value to the network, offering 99.99% service availability.

C-Switches enable service providers to deploy a cost-effective overhead Cat-5 network, equivalent in reliability and performance to a carrier-class Metro-Ethernet access infrastructure typically deployed on underground cables.



### Key Features

- 16 port, Layer 2 switch, with 1 port for management.
- Supports Power over Cat-5 cabling. Also acts as a power, driving 6 to 10 cascaded C-Switches with a 100V AC, 10A adapter. Adapters for 230V AC Power Supply are also available.
- Supports Ethernet cable lengths of 300m for 10Mbps and 150m for 100Mbps on CAT5/5e/6 cables.
- Suitable for outdoor mounting with proper thermal engineering and IP64 enclosure.
- Managed centrally, over a secure and reliable communication link over IP, with easy-to-use management software. GUI Management software is optional.
- Control of upstream and downstream bandwidth per port in steps of 16Kbps.
- Broadcast filtering and broadcast storm control on every port for de-cluttering the network.
- Status monitoring and control of every port with the centralized management software.
- Blocking of peer-to-peer traffic among connected PCs to prevent unauthorized network usage.
- Supports Star, Arc and Ring topologies with automatic re-routing of traffic and power in case of cable link failures.
- Lightning surge protection up to 4KV. Additional protection optional.

### About Midas

Incubated by Alumni of IIT Madras, Midas has championed the telecom revolution throughout rural and urban India since its inception in 1994. <sup>Broadband</sup>CorDECT (Fixed Wireless Solution) and DIAS (DSL offering) connect over three million people around the world to the global economy. Midas specializes in DECT, GSM, WiMax, Ethernet switching & routing, DSL, Digital Loop Carrier and Triple Play technologies. Midas employs over 600 people and is headquartered in Chennai, India. A presence in 25+ countries is supported through offices in New Delhi, Singapore, Brazil and partnerships in strategic locations.

[www.midascomm.com](http://www.midascomm.com)

Note: Product specifications are subject to change without notice.

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