MANAGED DATA NETWORKS: MANAGED SWITCH

Improve LAN performance, lower costs and focus on more strategic activities.

Product summary

Telstra's Managed Switch addresses the growing importance of LAN reliability and performance for business operations. The growth of unified communications applications and L2 Ethernet WAN solutions, as well as the networking complexity from IT centralisation and virtualisation are key drivers. By adopting Telstra's Managed Switch service, you can reduce complication and costs.

Telstra can provide a full range of LAN management and reporting services tailored to suit your requirements. We support the complete LAN network lifecycle including network assessment, planning, purchase, design, deployment, as well as 24/7 monitoring and management. With trained resources around the country, Telstra can support your LAN environment across Australia.

Managed Switch can improve LAN performance, simplify management and lower cost of ownership. Through tight integration with our Managed Router solution and the Telstra Next IP™ network and Next G™ network, you can gain a seamless view of your total data network which can reduce the risks of network, convergence and deploying new technologies. What's more, Telstra's professional management can give you more time to focus on core business.

Benefits

Lower total cost of ownership

Telstra invests in trained resources and the latest network management tools and systems so you don't need to. We monitor the equipment lifecycle and management of third party vendors, suppliers and service arrangements. That means you can:

- Replace significant capital expenditure with a consistent operating cost
- Minimise the need to employ new ICT resources or provide training to update skills
- Reduce the resources required to manage multiple vendors and suppliers.

Improve network performance and risk profile

Managed Switch can improve LAN performance and reliability through:

- Guaranteed service levels
- Assurance that solutions offer the most advanced functions lowering risk to business continuity
- Network configuration and dimensioning recommendations and implementation
- Design consultancy to assess the network impact of introducing new business applications.

Focus on core business

Telstra will provide day-to-day support from the Account Management Team through to our highly skilled operational teams and field workforce. We can also perform all device and systems evaluations and accreditation activities. In addition, we can help you develop strategies and plans through network performance analysis and recommendations on potential network changes. That can assist you to:

- Concentrate on core business
- Realign IT staff to higher value activities
- Focus on strategic activities to meet current and future business activities.

Access advanced ICT capabilities to help boost growth and productivity

Close integration with the Telstra Managed Data Networks solution suite offers a seamless managed data platform for future business growth and productivity supporting capabilities such as Unified Communications, security and Telstra's cloud-based Network Computing Services. This can help your organisation:

- Reduce the risk of selecting and managing your own network solutions
- Innovate more rapidly
- Compete more effectively
- Maximise the value of your network investment.

Product features

The Managed Switch solution extends the Telstra Managed Data Network solution suite into your LAN infrastructure. Managed Switch supports traditional features such as Virtual LANs, as well as features highly applicable for Unified Communications such as AutoQoS, and Power over Ethernet (PoE) for powering IP phones and wireless devices. The service can also cover your existing switching equipment if it has been accredited by Telstra.

Management is provided by highly qualified and certified Telstra network engineers around Australia and in our Network Operations Centres. You can choose from four management tiers and customise the service per site. Management features include:

- Monitoring, notification and restoration
- Maintenance
- Assurance
- Lifecycle management
- Back up and restore of configurations.

We also offer one-off services including design, procurement and installation as well as the flexibility to add on additional Managed Data Networks services.

Four flexible management tiers

Choose from four management tiers, each with inbuilt flexibility that lets you customise the management level according to the individual site.

Basic Management

The Basic Management tier is essentially an alerting service. It is ideal for organisations with in-house network monitoring expertise or where switches are not accredited by Telstra for proactive or reactive management. This service tier does not cover switch maintenance and fault management by Telstra.

Reactive Management

The Reactive Management service tier is a cost-effective solution for smaller, non-critical sites. With this tier, management is performed solely on a reactive basis – the switches are not proactively polled by Telstra. Consequently, you must contact the Help Desk when you detect a fault. For an additional fee, you can have access to an online performance reporting service plus monthly written analysis reporting.

Proactive Management

The Proactive Management service tier suits customers who do not have in-house management expertise or have sites where business continuity is essential. Proactive Management provides comprehensive management including proactive monitoring and alarming of the switch, response, diagnosis and repair. It also provides configuration file assurance through daily back-ups.

Proactive Secure Management

The Proactive Secure service tier suits customers with a high security requirement such as government agencies. Proactive Secure, your proactive management service is delivered by Defence Signals Directorate (DSD) cleared staff from ASIO T4 compliant facilities. Access to the online performance reporting is included in the service.

Reporting options

Telstra offers a range of additional, flexible reporting options either for selected sites or for the complete managed LAN network infrastructure. These reporting options may incur an additional fee.

Online Reporting

Online Reporting allows you to view reports and statistics to determine network performance. You can see data in near real time such as traffic utilisation, device metrics (CPU utilisation, memory usage, etc) interface utilisation, top-end reports, trend reporting and more.

Written Analysis Reporting

Written Analysis Reporting provides a comprehensive analysis of the health of your LAN. You can choose which network services are included and have either monthly or quarterly reports.

Managed Switch features

Feature	Description
BaseT Ports supported	10/100
	10/100/1000
10/100/1000 SFP Ports	Provides 10/100/1000 BaseT ports.
Autosensing on Each Port	Detects the speed of the attached device and automatically configures the port for 10- or 100-Mbps operation.
802.1Q Trunking	Allows the setup of separate VLANs with tagged and untagged framing; trunking is used to save ports when creating a link between two devices implementing VLANs.
802.1D Spanning Tree (a Layer 2 link-management protocol that provides path redundancy while preventing undesirable loops in the network)	Simplifies network configuration and improves fault tolerance.
Multicast Management Support	Offers Internet Group Management Protocol (IGMP) snooping in hardware for management support.
Scalable Stacking	Cisco StackWise stacking creates a 32-Gbps switch interconnection. Stacking does not require user ports. Up to 9 units can be stacked together for a maximum of 468 10/100 ports, 468 10/100/1000 ports, 108 optical aggregation ports, nine 10 Gigabit Ethernet ports, or any mix thereof.
Stack Power	Power interconnect system that allows the power supplies in a stack to be shared as a common resource among all the switches. Cisco StackPower unifies the individual power supplies installed in the switches and creates a pool of power, directing that power where it is needed.
SPAN/Port Mirroring	Switched Port Analyser.
Virtual LAN (VLAN) Feature	Enables networks, users or departments to be placed into their own virtual private LAN segment.
Media Access Control (MAC)-Based Port-Level Security	Prevents unauthorised stations from accessing the switch; Cisco fully supports the entire set of Requests for Comments (RFCs).
MAC Sec 802.1ae	802.1AE is the IEEE MAC Security standard (also known as MACsec) which defines connectionless data confidentiality and integrity for media access independent protocols.
802.1x security	• IEEE 802.1x allows dynamic, port-based security, providing user authentication. • IEEE 802.1x with VLAN assignment allows a dynamic VLAN assignment for a specific user regardless of where the user is connected. • IEEE 802.1x with voice VLAN permits an IP phone to access the voice VLAN irrespective of the authorised or unauthorised state of the port. • IEEE 802.1x and port security are provided to authenticate the port and manage network access for all MAC addresses, including that of the client. • IEEE 802.1x with guest VLAN allows guests without 802.1x clients to have limited network access on the guest VLAN.
Voice Virtual LAN (VLAN) Feature for IP Phones	Enables phones to be placed into their own VLANs without the need for end-user intervention; a user can plug the phone into the switch, and the switch provides the phone with the necessary VLAN information.
Power over Ethernet (PoE)	Switches with internal power supply can power Cisco IP Phones and wireless access points (802.3af support).
Support for 802.1P QoS	Supports QoS based on the Institute of Electrical and Electronics Engineers (IEEE) class-of-service (CoS) and port-based prioritisation, allowing the switch to change the CoS settings of tagged packets on a per-port basis.
Port-Based Reclassification for Queues on Each 10/100 That Are Configurable Using a Weighted Round Robin (WRR) Scheduler	Enables users to prioritise mission-critical traffic, such as VoIP and IP-based video applications over regular traffic.

Why Telstra?

Telstra provides network services and solutions to more than 200 of the world's top 500 companies. They rely on us to do business across 240 countries and territories and to enable greater productivity, efficiency and growth.

Telstra solutions offer the best of all worlds – skilled people and a rich portfolio of services delivered on our world-class Telstra Next IP™ network and Next G™ network. To ensure reliable performance, they are monitored and maintained from our dedicated centres using advanced management and operational systems. And they're backed by Telstra Enterprise-grade Customer Service® and one of Australia's largest and most qualified field and technical workforces.

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT YOUR **TELSTRA ACCOUNT EXECUTIVE** VISIT **TELSTRA.COM/ENTERPRISE** OR CALL **1300 TELSTRA**

NEXT **S** GENERATION **SERVICES** | NEXT **G** ® NETWORK | NEXT **IP** ™ NETWORK

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