Product Bulletin No. 3203

Cisco ONS 15310-MA SONET Multiservice Platform

Product Overview

The Cisco® ONS 15310-MA is a Multiservice Provisioning Platform (MSPP) that switches packet and TDM traffic, and interfaces to both circuit-based and Ethernet/Multiprotocol Label Switching (MPLS) backbone networks. Together with the Cisco ONS 15310-CL, Cisco ONS 15454, and Cisco ONS 15600, the Cisco ONS 15310-MA provides an end-to-end solution for multiservice transport over SONET networks.

Table 1 lists the primary feature and benefits of the Cisco ONS 15310-MA.

Table 1. Features and Benefits

Feature	Description
Carrier-class SONET networking	In a very compact chassis (two systems fit side by side in 6 RU), the Cisco ONS 15310-MA provides six slots for hot-swappable traffic interfaces. High-density electrical (up to 168 DS-1), Ethernet (up to 32 10/100BASE-T), or optical interfaces can be terminated in this small footprint to optimize use of expensive real estate at the central office or remote terminal cabinet. A centralized two-stage – 20-Gbps STS and 5-Gbps VT1.5 – TDM cross-connect can switch SONET encapsulated traffic from any tributary port onto any optical interface. All Cisco ONS 15310-MA common equipment, including processor, cross-connect, timing, and power supply, can be optionally duplicated for 99.999% reliability. Protection for TDM electrical and optical interface modules is also possible. Unidirectional Path Switched Ring (UPSR), 1+1 automatic protection switching (APS), and Path Protected Meshed Networking (PPMN) can be configured for greater fault tolerance in the optical network. The Cisco ONS 15310-MA is NEBS Level 3, FCC, and UL compliant, and supports industrial temperature ranges – making it fully qualified for deployment in central offices, customer locations, or remote terminals.
Carrier Ethernet over SONET	The Cisco ONS 15310-MA can be equipped with Ethernet cards to facilitate the delivery of carrier-class, private-line Ethernet services. Virtual Concatenation (VCAT), Link Capacity Adjustment Scheme (LCAS), standard encapsulation, and SONET sub-50-millisecond (ms) resiliency schemes are used to deliver these point-to-point data services efficiently and in conjunction with the traditional TDM service-delivery requirements. The Cisco ONS 15310 CE-Series 8-Port 10/100 Carrier Ethernet Card can be installed in a Cisco ONS 15310-CL or Cisco ONS 15310-MA for Layer 1 Ethernet-over-SONET applications. The card provides port-mapped services and interoperability with the Carrier Ethernet cards supported on the Cisco ONS 15454, delivering Ethernet and Fast Ethernet solutions that span access and metropolitan-area networks.
Multilayer Ethernet over SONET	Traditional Ethernet-over-SONET services consist of simple Layer 1 mapping of Ethernet frames into SONET for transport between two endpoints where SONET protection mechanisms are used to deliver sub-50-ms resiliencies. Consequently, bandwidth must be reserved for both working and protected traffic, resulting in underutilization of available bandwidth. Furthermore, services such as voice over IP (VoIP), digital videoconferencing, surveillance, and VPNs all require interconnectivity between multiple end locations. Using the traditional Ethernet-over-SONET point-to-point model, these solutions become very complicated and highly inefficient. Switched Ethernet uses statistical multiplexing, which supports oversubscription and better usage of Ethernet networks. Resilient Packet Ring (RPR) enables efficient multipoint services with spatial reuse of bandwidth and sub-50-ms, Layer 2 ring-based protection. By using switched Ethernet and RPR, the result is a more robust, efficient solution that economically addresses the needs of today's advanced services requirements. The Cisco ONS 15310 ML-Series 8-Port 10/100 Ethernet Card is a Layer 2-switched services card that can be installed in the Cisco ONS 15310-CL or Cisco ONS 15310-MA. The card interoperates with the Cisco ONS 15454 ML-Series data cards on the Cisco ONS 15454, delivering Ethernet and Fast Ethernet solutions that span access and metropolitan-area networks.

Feature	Description
Integrated Network Management	The Cisco Transport Controller and Cisco Transport Manager support the end-to-end Cisco ONS 15xxx family of products. With this level of integrated intelligence, network professionals only need to learn how to operate a single, easy-to-use graphical interface in order to provision, configure, and troubleshoot their entire network. This helps service providers significantly reduce operational expenses associated with training, installing, and configuring network equipment, and responding to network failures. Furthermore, revenue-generating services can be provisioned more quickly with this simplified and highly integrated network management solution, making an immediate impact to the service provider's profit line. Along with Cisco Transport Controller and Cisco Transport Manager, the Cisco ONS 15310-MA supports industry-standard management interfaces such as TL1, SNMP, and CORBA for integration into network management systems (NMSs) such as Telcordia's TIRKS, NMA, and TEMS.

Availability

Table 2 lists ordering information for the Cisco ONS 15310-MA, which will be available in the first quarter of calendar year 2006.

Ordering Information

Table 2. Ordering Information

Part Number	Description
15310-MA-SA	Metro access chassis, backplane, common BIC
15310-CTX-2500-K9=	Control, sync, x-connect 480 STS-1, 2128 VT1.5
15310-84WBE-3BBE=	84-port DS-1 and 3-port DS-3E/EC-1
15310-28WBE-3BBE=	28-port DS-1 and 3-port DS-3E/EC-1
15310-P-CE-100T-8=	8-port 10/100 Ethernet Layer 1 only
15310-P-ML-100T-8=	8-port ML-Series 10/100 Ethernet
15310-CTX-FILLER=	CTX Slot filler module
15310-EXP-FILLER=	Blank expansion module
15310-MA-SHIPKIT=	Shelf install accessories
15310-MA-FTA=	Shelf fan tray assembly, includes fan tray filter
15310-CBLMGT=	Optical and front-access electrical cable management
15310-DOOR-KIT=	Door kit
15310-EIA-HD-A=	Combination DS-1 and DS-3/EC-1 backplane interface A
15310-EIA-HD-B=	Combination DS-1 and DS-3/EC-1 backplane interface B
15310M-R7.0.0SWK9=	Rel. 7.0.0 feature package, CD, right-to-use license
SF15310M-R7.0.0K9	Rel. 7.0.0 software, preloaded on MA
15310-DOC7.0.0PP=	System documentation Rel. 7.0.0 English, paper
15310-DOC7.0.0CD=	System documentation Rel. 7.0.0 English, CD

For More Information

For more information about the Cisco ONS 15310-MA, visit http://www.cisco.com/en/US/products/ps6333/index.html or contact your local account representative.

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Pa/LW9883 12/05

Printed in the USA