

Cisco ONS 15454 SDH Multi-Service Platform Release 3.3.0

ONS 15454 SDH Multi-Service Platform

Telecommunications service providers, as well as enterprise customers are constantly in search of new solutions for satisfying their users demands for higher bandwidths, more reliable services, and lower costs. As the leader in evolutionary optical networking, the Cisco Optical Networking Group family of products continues to develop solutions to better fulfill these requirements. The ONS 15454 leverages Synchronous Digital Hierarchy (SDH) technology to support the need for network reliability while integrating Gigabit Ethernet service interfaces for high bandwidth transport and a lower interface cost versus current TDM and POS interfaces.



The ONS 15454 SDH supports all the legacy TDM interfaces enabling the service provider and enterprise user to deliver today's services but positioning their network to support carrier-class Ethernet services when the demand arises.

The ONS 15454 multi services platform has become the industry leader by providing users a simple, fast and easy system with the flexibility to aggregate and transport a wide variety of services. With Release 3.3.0, the ETSI standard ONS 15454 SDH multi-services platform is added to the OTBU portfolio of optical products.

The ONS 15454 SDH provides the functions of multiple network elements in a single platform. The ONS 15454 SDH provides TDM solutions with interfaces such as E1, E3 and DS3, data solutions with 10/100/1000 Ethernet solutions with STM1 to STM64 optical transport bit rates.

The ONS 15454 SDH supports the following industry leading capabilities:

- Aggregation and transport of services from E1 to STM64
- Switched 10/100/1000Mbps Ethernet for improved bandwidth utilization
- Flexible networking support including rings, linear point-to-point, linear add/drop, star, and hybrid topologies
- Restoration choices: SNCP, 2-fiber and 4-fiber MS SPR, 1+1 APS, unprotected span, and Cisco's Path Protected Mesh Networking (PPMN)
- Compact footprint for deployment flexibility (3 can fit in a 2000mm ETSI rack/cabinet).
- Carrier Class Reliability

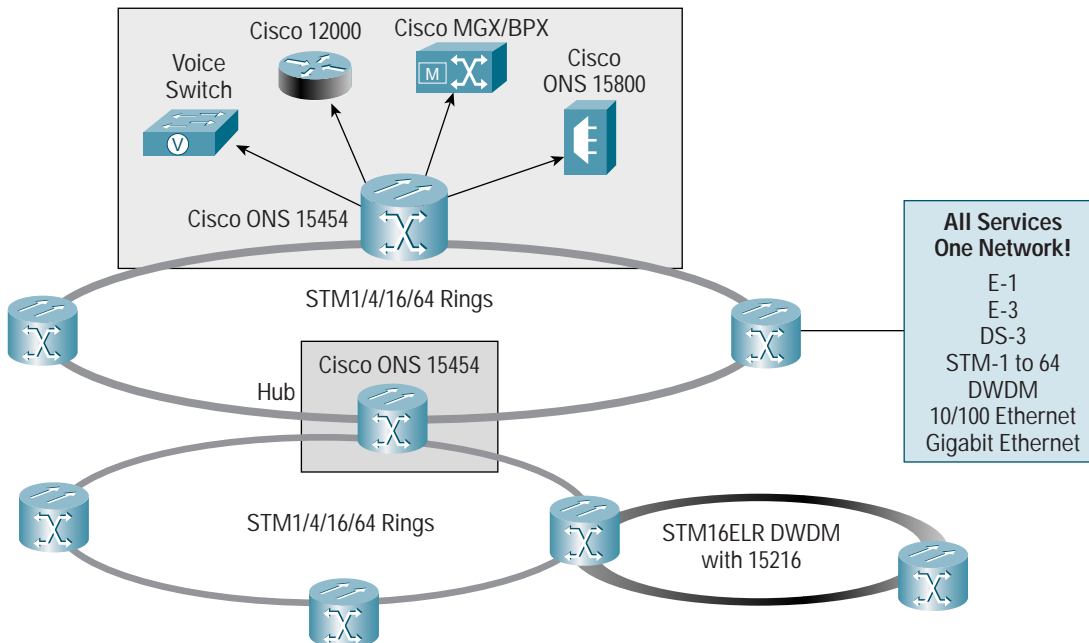
The ONS 15454 SDH continues to extend its capabilities to enable customers to build efficient networks. As well, Cisco continues to deliver carrier class equipment through high quality engineering methodologies and our continued compliance to standards.

Gigabit Ethernet

Gigabit Ethernet is becoming widely deployed in the enterprise market space, as Ethernet LANs to the desktop have scaled in bandwidth from 10Mbps to 100Mbps. Enterprise customers are looking to extend Gigabit Ethernet to interconnect their facilities across town or across the nation. As well, Service Providers want to leverage the cost effectiveness of the Gigabit Ethernet interfaces to interconnect their core and edge routers. The E10/100-12 and E1000-2 modules address this requirement.

The G1000-4 Gigabit Ethernet transport card opens up new applications and network architectures for enterprise users for interconnecting data facilities and revenue opportunities for Service Providers. Service Providers looking to offer new service tariffs leveraging the ubiquitous Gigabit Ethernet interface adds the capability to transport full line-rate Gigabit Ethernet services, with carrier-class survivability and the reliability of SDH.

Figure 1
ONS 15454 SDH Multi-Service Platform Applications Overview



ONS 15454 SDH Release 3.3.0 New Equipment

The new hardware and software being introduced in Release 3.3.0 is outlined in the following table:

Software and Documentation	
15454E-R3.3.0SWCD	ONS 15454 AU4 Release Feature Package 3.3.0 CD
15454E-DOC3.3.0CD	ONS 15454 AU4 System Doc Rel. 3.3.0, CD, English
15454E-DOC3.3.0PP	ONS 15454 AU4 System Doc Rel. 3.3.0, Paper, English
SF15454E-R3.3.0	Release 3.3.0 Software, Pre-loaded on each TCCI
CISCO15454E	Assemble to Order (ATO) MODEL—required options include: Shelf Chassis Assembly, 48VDC Fan Tray Assembly w/Fan Filter, Power/Alarm MIC and Craft MIC and Ship Kit. Other items are configurable options as required.
Common Control	
15454E-XC-10G	SDH AU4 Cross-connect Module: High-Order VC4
15454E-TCC-I	Intl E1/2.048Kbps/T1 timing, common controller
Shelf Assemblies and Accessories	
15454E-SA-ETSI	ONS 15454 SDH ETSI Chassis and Ship Kit
15454E-FTA-48V	ONS 15454 SDH 48V Fan Tray with filter for ETSI Chassis
15454E-ETSI-FTF	ONS 15454 SDH Fan Tray Filter
15454E-AIR-RAMP	ONS 15454 SDH Air Ramp/Baffle for the ETSI Chassis
15454E-CTP-MIC48V	ONS15454SDH Craft, Timing, 48V Power, Timing and Management interface connectors
15454E-AP-MIC48V	ONS15454SDH Alarm,48V Power and Alarm interface connectors
15454E-ETSI-SHPKT	ONS 15454 SDH ETSI Chassis Ship Kit
15454E-FIBER-BOOT	ONS 15454 SDH ETSI Chassis Fiber Boots
15454E-BLANK	15454 ETSI Blank Module (Slot Filler)
15454E-BLANK-FMEC	15454 ETSI Blank Module for FMEC (Slot Filler)
15454E-19MNT-KIT	15454 ETSI Shelf Mounting Adapter Kit for 19 inch ANSI Racks
Optical Interfaces	
15454E-S1.1-4	4 port STM-1 SH 1310nm
15454E-S4.1-1	1 port STM-4 SH 1310nm
15454E-L4.1-1	1 port STM-4 LH 1310nm
15454E-L4.2-1	1 port STM-4 LH 1550nm
15454E-S16.1-1	1 port STM-16 SH (Any Slot) 1310nm
15454E-L16.2-1	1 port STM-16 LH (Any Slot) 1550nm
15454E-L64.2-1-HS	1 port STM-64 LH (High Speed Slot) 1550nm
ITU Grid Optical Interfaces	
15454E-EL16HS4772	1 port STM-16 Extended LH (High Speed Slot) 1547.72nm
15454E-EL16HS4932	1 port STM-16 Extended LH (High Speed Slot) 1549.32nm
15454E-EL16HS5092	1 port STM-16 Extended LH (High Speed Slot) 1550.92nm

15454E-EL16HS5252	1 port STM-16 Extended LH (High Speed Slot) 1552.52nm
15454E-EL16HS5413	1 port STM-16 Extended LH (High Speed Slot) 1554.13nm
15454E-EL16HS5575	1 port STM-16 Extended LH (High Speed Slot) 1555.75nm
15454E-EL16HS5736	1 port STM-16 Extended LH (High Speed Slot) 1557.36nm
15454E-EL16HS5898	1 port STM-16 Extended LH (High Speed Slot) 1558.98nm
15454E-EL16HS6061	1 port STM-16 Extended LH (High Speed Slot) 1560.61nm
15454E-EL16HS3033	1 port STM-16 Extended LH (High Speed Slot) 1530.33nm
15454E-EL16HS3190	1 port STM-16 Extended LH (High Speed Slot) 1531.90nm
15454E-EL16HS3347	1 port STM-16 Extended LH (High Speed Slot) 1533.47nm
15454E-EL16HS3504	1 port STM-16 Extended LH (High Speed Slot) 1535.04nm
15454E-EL16HS3661	1 port STM-16 Extended LH (High Speed Slot) 1536.61nm
15454E-EL16HS3819	1 port STM-16 Extended LH (High Speed Slot) 1538.19nm
15454E-EL16HS3977	1 port STM-16 Extended LH (High Speed Slot) 1539.77nm
15454E-EL16HS4135	1 port STM-16 Extended LH (High Speed Slot) 1541.35nm
15454E-EL16HS4294	1 port STM-16 Extended LH (High Speed Slot) 1542.94nm
Electrical Interfaces	
15454E-E1N-14	14 port E1 Module (1:N<=4)—need FMEC
15454E-75E1-FMEC	14 port E1 75 ohm FMEC (T54)
15454E-120E1-FMEC	14 port E1 120 ohm FMEC (DBx)
15454E-DS3IN-12	12 port DS3 Module (1:N<=4)—need FMEC
15454E-E3-12	12 port E3 Module (1:1 only)—need FMEC
15454E-E3DS3-FMEC	12 port E3/DS3 75 ohm FMEC (T54)
15454E-GBIC-SX	1000-Base-SX GBIC
15454E-GBIC-LX	1000-Base-LX GBIC
15454E-GBIC-ZX	1000-Base ZX GBIC for G1000 only, -5 to +50 degC
Data Equipment	
15454E-G1000-4	4 port Gigabit Ethernet Module—need GBICs
15454E-E100T-12	12 port 10/100BT Ethernet Module
15454E-E1000-2	2 port Gigabit Ethernet Module—need GBICs
Cable Assemblies	
15454E-T54CBL-010	10 Meter 75 Ohm T54 Cable, Single Ended
15454E-T54CBL-020	20 Meter 75 Ohm T54 Cable, Single Ended
15454E-T54CBL-035	35 Meter 75 Ohm T54 Cable, Single Ended
15454E-DBCBL-010	10Meter 120Ohm Twisted Pr Cable,DB37-Male, Single End
15454E-DBCBL-020	20Meter 120Ohm Twisted Pr Cable,DB37-Male, Single End
15454E-DBCBL-035	35Meter 120Ohm Twisted Pr Cable,DB37-Male, Single End

15454E-120TMGCBL	75ohm to 120ohm converter cable for Timing
15454E-PWRCBL-010	10Meter, 8 AWG, 3 Conductor, Single Ended Power Cable
15454E-PWRCBL-020	20Meter, 8 AWG, 3 Conductor, Single Ended Power Cable
15454E-PWRCBL-035	35Meter, 8 AWG, 3 Conductor, Single Ended Power Cable
15454E-ALMCBL-010	10Meter Twisted Pair Alarm Cable, HDB-64Male,Single End
15454E-ALMCBL-020	20Meter Twisted Pair Alarm Cable, HDB-64Male,Single End
15454E-ALMCBL-035	35Meter Twisted Pair Alarm Cable, HDB-64Male,Single End

Availability

The ONS 15454 SDH is presently orderable and it is anticipated that First Customer Shipment (FCS) will be in late May 2002.

Demonstrations

Cisco welcomes you to come see the ONS 15454 SDH metro optical transport platform, including the R3.3.0 capabilities at our Telecom Valley Visitor Center (TVVC) in Petaluma, California or at a Worldwide Executive Briefing Center (EBC) located in Mexico City Mexico, Monza Italy, Sydney Australia and Beijing China. To arrange a visit, please contact your account representative.

Summary

The ONS 15454 SDH multi service platform is a flexible system, enabling a single network element to be deployed in a wide variety of applications. The platform's features and functionality continues to make it simple to engineer, with a minimal set of configuration rules. Questions regarding advanced features, functionality and capabilities of the ONS 15454 SDH system should be directed to your Cisco account representative.

The ONS 15454 SDH platform delivers integrated optical networking, unprecedented multi-service interfaces along with radical economics. The ONS 15454 platform is widely adopted and is deployed by over 700 customers representing >30,000 network elements. Continued product developments and enhancements, such as the line-rate G1000-4 card, have enabled the ONS 15454 SDH to increase its lead in the metro optical transport space. Providing an evolutionary platform, the ONS 15454 SDH meets both enterprise and service provider metro transport equipment needs by providing support for their present multi-service interface demands along with efficient data transport plus low life cycle costs. These capabilities help reduce networking costs and improve service provider profitability through compatibility with their existing, embedded transport and management infrastructures while positioning them to seamlessly offer enhanced data and higher bandwidth services over a common infrastructure.

Additional Information

For additional information see: <http://www.cisco.com>

Or contact your Cisco account representative.

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