



Tellabs® Optical LAN Software Package

Improve CIOs' and IT pros' key performance indicators with a modern LAN solution that is simple, scalable, stable and secure

Overview

Tellabs endeavors to help CIOs and IT pros exceed their key performance indicators tied to improving LAN availability uptime, increasing operational efficiencies and locking-down a more secure LAN. To that end, Tellabs continues to advance and provide industry-leading innovations with its Optical LAN solution, including the following software packages.

- Optional Tellabs® Advanced Availability Software Package
- Optional Tellabs® Advanced Operations Software Package
- Optional Tellabs® Advanced Security Software Package
- Required Tellabs® Base Software Release (including Tellabs® Panorama™ PON Manager)

Benefits

CIOs and IT pros are constantly striving to “do more with less” while working to improve business productivity, security and LAN availability. Tellabs Optical LAN Software Packages can impact quantifiable benefits for CIOs and IT pros for the following:

- Build LANs that minimize annual network downtime while lowering costs, reducing human error and improving security
- Improve IT efficiencies by increasing the speed of LAN configurations, monitoring, troubleshooting and MACs, while once again reducing human error and security risks
- Improve physical LAN defensibility, enabling consistent protection policies that are centrally managed, while continuing to reduce human error and increasing network stability
- Enable LAN resources to be defined in software and then dynamically allocated based on real-time needs ensuring policy and procedure consistency independent of human and geographical location impact

Features and Functions

Tellabs Software Packages are simple, smart, stable, secure and scalable, and meet the demanding needs of modern high-performance LANs. The Tellabs Software Packages accomplishes this by providing the following additional advanced features and functions:

Tellabs Advanced Availability Software Package — This optional software package enables redundant fiber route diversity across a redundant Passive Optical network to protect real-time services and applications using Type-B PON redundancy. Additionally, as part of the Type-B PON protection, it includes the highest level of availability with the lowest-measured LAN downtime, with redundant OLTs positioned in geographically dispersed locations. Combine centralized intelligence and management for less human-to-machine action and more machine-to-machine, and the highest degree of LAN availability can be achieved, which means a less stressful, more productive and healthier work environment for employees.

Tellabs Advanced Availability Software Package includes:

- Port-to-Port PON Protection
- Card-to-Card PON Protection
- OLT-to-OLT PON Protection

Tellabs Advanced Operations Software Package — Included in this optional software package are tools that speed the installation of Passive Optical LAN equipment. Additional system management tools help with performance, alarms, events and troubleshooting quick views for fast isolation and easy drill-down to uncover root causes and speed resolution. Operational efficiencies are also achieved with intuitive means of managing moves, adds, changes and services/applications delivery. The software package simplifies policy profiles/templates that automate subtended Powered Device (PD) configuration, monitoring and power management (e.g., IP phones, IP cameras, WAPs). The Web browser user interface enables even greater efficiencies with faster moves, adds, changes and for services/applications daily management. As part of this software package, there is the ability to automate the LAN functions into higher-level network management or back-office software with SNMP MIBs. The goal of the software package is to improve IT productivity and, ultimately, overall business productivity.

Tellabs Advanced Operations Software Package includes:

- SNMP Agent
- Network Access Control (NAC)
- Syslog Support
- PON Threshold-Crossing Alarms (TCA)
- Link Layer Discovery Protocol (LLDP)
- Web Client
- Web Troubleshooter
- ONT Auto-configuration
- Commissioning Wizard
- Add OLT Wizard

Tellabs Advanced Security Software Package — This optional software package starts with the management of powerful security measures at the physical layer, the data layer, user level and port level. It includes secure user management with user certificates on the PON Manager and OLTs/ONTs, and RADIUS craft support. There are mechanisms for the secure delivery of modern Enterprise services and applications, such as Private VLAN support and MAC Authentication Bypass (MAB). There are tool to fight against malicious attacks, which can reduce the threat of both internal and external malicious attacks. And there is an option to manage All-Secure™ PON that provides armored, alarmed and 24/7/365 monitored fiber cabling infrastructure.

All of which provides centrally controlled security management that ensures consistent policies and procedures for HIPAA- and PCI-compliant LANs, and deployment in the most secure government and military networks.

Tellabs Advanced Security Software Package includes:

- 802.1x Port Authentication Entity (PAE) & RADIUS configuration
- Access Control Lists (ACLs)
- User Certificates on the EMS/NE
- RADIUS Craft support
- AS-SIP/Voice Certificates
- Private VLAN support
- Change of Authorization (Cisco ISE) support
- MAC Authentication Bypass (MAB)
- Dynamic ARP Inspection (DAI)

Tellabs Base Software Release — Tellabs Optical LAN solutions simplify LANs by centralizing intelligence, management and control across the LAN. The mandatory Tellabs Base Software Release is the brain that supports this modern high-performance LAN. The Base Software Release controls all operations of Tellabs' equipment, including all OLTs (e.g., 1150 OLT, 1150E OLT, 1134 OLT, 1134AC OLT and 1131 OLT) and Tellabs' extensive family of optical network terminals. The features and functions supported by the Tellabs Base Software Release are as follows [Table 1]:

Tellabs Base Software Release			
CLI	VLAN	MDI/MDIX	IPv4 / IPv6
G-PON	PoE	Private VLAN	TCP
Ethernet	Traffic Class	Timing over Packet	UDP
Voice Codecs	DSCP to Pbit mapping	IGMP	RTP
SIP	Flow Control	TLS	SDP
AES	FEC	Queuing	STP/RSTP/MSTP

Table 1: List of Tellabs Base Software Release Software Package features and functionality

Included as part of Tellabs Base Software is the Tellabs PON Manager, which is the cornerstone of an Optical LAN end-to-end system enabling resources to be defined in software and then dynamically allocated based on real-time needs. The word “resources” is meant to capture all LAN services, bandwidth, traffic management, Quality of Service (QoS), authentication, authorization and Powered Device (PD) management. This omnipresence is possible because, fundamentally, the Optical LAN's systemwide intelligence is centralized in the optical line terminal (OLT) and the associated Tellabs PON Manager. The PON Manager provides the centralized intelligence and element management across the entire LAN, from OLT to optical network terminals (ONTs) and extends to subtended PDs. The PON Manager provides LAN agility, through discovery and end-to-end network views for quick actions; automation to speed provisioning, and moves, adds and changes; consistency that eliminates errors and LAN downtime; and portability across buildings, campuses and all managed LANs.

Specifications

Hardware and software specifications are the same for all software packages. The Advanced Availability, Advanced Operations and Advanced Security Software Packages are specialized annual licenses of specific features and functions provided in conjunction with Tellabs® Optical LAN Base Software Release and Tellabs Panorama™ PON Manager Software [Table 2].

Solaris Operating System

Solaris			
Number of OLTs	Number of GUIs	Processor	Memory and Hard Disk
1–10	5	<ul style="list-style-type: none"> √ Sun SPARC T5-1B server module (3.6 GHz SPARC T5 16-Core CPU) √ Sun SPARC T4-1 (2.85 GHz SPARC T4 8-Core CPU) √ Sun SPARC T3-1 (1.65 GHz SPARC T3 16-Core CPU) √ Sun SPARC Enterprise T5120 (1.4 GHz UltraSPARC T2 8-Core CPU) 	<ul style="list-style-type: none"> √ 8 GB RAM √ 300 GB SAS Disk
Operating System		<ul style="list-style-type: none"> Solaris 10 (any update) for Oracle 10g and Postgres Solaris 10 (update 6 or later) for Oracle 11g 	
Database Support	64-bit Standard Edition for Oracle	<ul style="list-style-type: none"> √ Postgres Release 9.2 √ Oracle Database 10g Release 2 (10.2.0.1) for standard deployment √ Patch #8202632 to update to Release 10.2.0.5 for hardened deployment √ Oracle Database 11g Release 1 (11.2.0.1) for standard deployment √ Oracle Database 11g Release 1 (11.2.0.4) for hardened deployment 	

Windows Operating System

Windows			
Number of OLTs	Number of GUIs	Processor	Memory and Hard Disk
1-2	2	√ 1 Intel CPU with at least 2-core CPU	<ul style="list-style-type: none"> √ 4 GB RAM √ 160 GB SATA Disk
1-10	5	√ 1 Intel CPU with at least 4-core CPU	<ul style="list-style-type: none"> √ 8 GB RAM √ 160 GB SATA Disk
Operating System		<ul style="list-style-type: none"> √ Windows 7 64-bit Professional Edition or above, SP1 for Postgres only √ Windows Server 2008 64-bit Standard Edition R2 for Oracle or Postgres 	
Database Server	32-bit Standard Edition for Oracle	<ul style="list-style-type: none"> √ Postgres Release 9.2 √ Oracle Database 10g Release 2 (10.2.0.3) for standard deployment √ Patch #8202632 to update to Release 10.2.0.5 for hardened deployment √ Oracle Database 11g Release 1 (11.2.0.1) for standard deployment √ Oracle Database 11g Release 1 (11.2.0.4) for hardened deployment 	<ul style="list-style-type: none"> √ Minimum RAM requirement becomes 8 GB if Oracle 11g is used

Table 2: List of Tellabs software and associated hardware specifications

Ordering Information

Each Software Package license provides the ability to operate and manage a single OLT of the type designated by the license. Selection must include the Base Software at a minimum and Advanced Security, Advanced Availability and Advanced Operations as optional selections. Tellabs Software Packages do not include hardware described in this data sheet. If additional hardware is needed, then that hardware would be purchased separately. Tellabs Software Package provides the authorization and means to manage such hardware [Table 3]:

	1150 OLT	1150E OLT	1134 OLT	1134AC OLT	1131 OLT
Base Software	81.SR290BASE1150	81.SR290BASE1150	81.SR290BASE1134	81.SR290BASE1134	81.SR290BASE1131
Advanced Security	81.SR290AS1150	81.SR290AS1150	81.SR290AS1134	81.SR290AS1134	81.SR290AS1131
Advanced Availability	81.SR290AA1150	81.SR290AA1150	81.SR290AA1134	81.SR290AA1134	N/A
Advanced Operations	81.SR290AO1150	81.SR290AO1150	81.SR290AO1134	81.SR290AO1134	81.SR290AO1131

Table 3: Tellabs Software Package Part Numbers

For more information, please contact your local Tellabs sales representative or local Tellabs sales office at the phone numbers provided below, or visit www.tellabs.com.

Take the next step. Contact Tellabs today.



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