

# Tellabs<sup>®</sup> Advanced Operations Software Package

Improve IT efficiencies by increasing speed of LAN configurations, monitoring, troubleshooting and MACs, while reducing human error, network downtime and security risks

#### Overview

Tellabs® Optical LAN and Tellabs® Panorama™ PON Manager can improve IT efficiencies by increasing the speed of LAN installations, configurations, monitoring, troubleshooting and MACs, while decreasing human error, lowering operational costs and reducing security risks. Tellabs® Advanced Operations Software Package provides CIOs and IT pros with additional advantages to streamline policies, procedures for day-1 installation and ongoing year-over-year operations with:

- Advanced Operations Installing the LAN
- Advanced Operations Managing Performance, Alarms, Events and Troubleshooting
- Advanced Operations Managing Moves, Adds, Changes and Services/Applications Delivery
- Advanced Operations Managing Powered Devices
- Advanced Operations Managing Web Browser User Interface
- Advanced Operations Automating the LAN

#### **Benefits**

CIOs and IT pros are constantly striving to "do more with less" while working to improve business productivity. Tellabs Advanced Operations Software Package can impact quantifiable benefits for CIOs and IT pros' endeavors with:

- Tools that speed the installation of Passive Optical LAN
- Quick views, fast isolation and easy drill-down, which uncover root causes that speed resolution
- Web Browser User Interface that enables faster Moves, Adds, Changes and Services/Applications delivery
- Centralized intelligence, automation and management for Powered Devices (e.g., IP phones, IP cameras, WAPs)
- Functions that can improve IT productivity and, ultimately, overall business productivity

### **Features and Functions**

Tellabs Advanced Operations Software Package is a simple, smart, stable, secure and scalable means of achieving Advanced Operations for modern high-performance LANs. Tellabs Advanced Operations Software Package accomplishes this by providing the following additional functions:

Advanced Operations Installing the LAN — Tellabs Advanced Operations Software Package simplifies the installation process further by using "Commissioning Wizard," which configures ONTs, sets network policy, manages end-points and creates ACL filtering. The Commission Wizard speeds this process by walking IT staff through a series of Templates and Profiles. There are default Templates and Profiles that are meant to satisfy 80% of customers' configurations based on Tellabs engineers' experience from many years of successful deployments. Next, the "Add OLT Wizard" leads IT staff through a series of windows that load ONT Templates, alarms, uplinks, VLAN, service Profile, NAC Profile and port Templates that are associated to the OLT. Again, default Templates and Profiles are already preloaded, and if changes are made, these changes can be saved as new defaults for the future. The key benefit of the Add OLT Wizard is that it allows IT staff to scale the initial commissioning of an OLT across hundreds of VLANs, thousands of ONTs and subtended powered devices (PD), such as phones, WAPs and IP cameras.

Templates and Profiles are a key part of Tellabs Advanced Operations Software Package and are preloaded with high runner criteria already configured. Profiles cover PON, DSCP, PoE, RSTP, PAE (802.1x), NAC, LLDP and ACL information. Profiles can be associated with service, connection and/or port. Once Profiles are saved, you can assign the settings to an ONT or port with one click. Templates are similar to Profiles, and they can include Profiles. Templates can be designated as "default" or "golden," and they can be assigned at Ethernet ports, ONTs and other network elements. Templates ensure that ONTs are created with the services that you most commonly use, therefore eliminating most data entry. Both Templates and Profiles assure consistency with IT policies and procedures across building, campus and all business locations with the exportable service activation templates option.

Advanced Operations Managing Performance, Alarms, Events and Troubleshooting — Managing your Optical LAN efficiently begins with proactive performance monitoring, such as real-time views of optical power levels, PON thresholds alarms and CIR thresholds alarms. And Tellabs Advanced Operations Software Package supports Syslog, which is another good place to capture the logging of events. Troubleshooting is a reality of managing any LAN. Tellabs Advanced Operations Software Package troubleshooting capabilities include quick access to the alarms and events, and fast drill-down from the equipment view, which

we will discuss in more detail later. The Tellabs PON Manager Web-based interface, part of Tellabs Advanced Operations Software Package, is a great tool for troubleshooting as it provides fast navigation for quick views, fast isolation and easy drill-down to uncover root causes and speed resolution.

Advanced Operations Managing Moves, Adds, Changes and Services/Applications delivery — A big part of managing an Optical LAN is the Moves, Adds and Changes (MAC), and Tellabs Advanced Operations Software Package can assist. For "moves," users and devices can move freely throughout the LAN and will be authenticated, authorized and configured automatically. With "adds," auto-configuration is a reality once Templates and Profiles are established. Templates and Profiles allow for new users, services and devices to be added to the network with one click. "Changes" are made easy with Templates and Profiles too, because they can be modified, and global changes can flow across the LAN with one click. These Templates and Profiles can be changed in bulk or to a select defined group.

Services and applications are managed at the network level, at the Service Level Agreements (SLAs) level and at the security level. When we say services and applications are managed by the network, we are referring to Layer-2 VLAN provisioning. When talking about management by SLAs, this includes setting QoS, bandwidth, filtering and bridging types for the services and applications. And when we manage services and applications security, we are speaking about Tellabs PON Manager walking IT staff through the settings of Access Control Lists (ACLs), security policy and port state.

Whether deploying hundreds or thousands of ONTs, the Tellabs Advanced Operations Software Package streamlines the initial installation and ongoing management of ONTs through Unexpected ONT Bulk Assignment (i.e., logic for handling unexpected ONTs), Auto Configuration (i.e., ONT is automatically provisioned) and Auto Conversion (i.e., automatically aligns services if ONT types are different) mechanisms.

Advanced Operations Managing Powered Devices — Tellabs Advanced Operations Software Package provide automation down to the Powered Devices (PDs), such as phones, WAPs and IP cameras. This is accomplished because Network Access Control (NAC), IEEE 802.1x, DHCP (with option 82), RADIUS and Link Layer Discovery Protocol (LLDP) can extend controlled access to LAN users and to PDs. These protocols allow for consistent policies to be managed through Tellabs PON Manager Templates and Profiles and then automate PD configuration, monitoring and power management.

Advanced Operations Managing Web Browser User Interface — The Tellabs PON Manager Web browser user interface is a fabulous tool for IT staff. It is made available through Tellabs Advanced Operations Software Package Web browser management and is a subset of Tellabs PON Manager features and functions, and is meant to streamline daily operations of performance monitoring, diagnostics and MACs for better Advanced Operations. The Tellabs PON Manager Web client supports advanced search, service management and troubleshooting.

Advanced Operations Automating the LAN — The biggest topic of automation revolves around higher-level network management. Tellabs Advanced Operations Software Package provides the ability to integrate OLT/ONT features/functions into higher-level network management or back office software with SNMP and MIBs. By automating backup/restoration, reports/analytics and leveraging higher-level network management, CIOs and IT pros can effectively reduce mission-critical repetitive tasks to zero dollars.

#### **Specifications**

Tellabs Advanced Operations Software Package is a specialized license of specific features and functions provided in conjunction with Tellabs Optical LAN Base Software Package and Tellabs Panorama PON Manager Software. Therefore, the hardware and software specifications are the same.

#### Solaris Operating System

Solaris								
Number of OLTs	Number of GUIs	Processor	Memory and hard disk					
1-10	5	√ 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)	√ 8 GB RAM √ 300 GB SAS Disk					
Operating System		Solaris 10 (any update) for Oracle 10g and Postgres Solaris 10 (update 6 or later) for Oracle 11g						
Database Support Support G4-bit Standard Edition for Oracle		√ 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	√ 4 GB RAM √ 160 GB SATA Disk				
1–10	5	√ 1 Intel CPU with at least 4 core	√ 8 GB RAM √ 160 GB SATA Disk				
Operating System		√ 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	√ 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	√ Minimum RAM requirement becomes 8 GB if Oracle 11g is used				

# **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 Operational as optional selections. Tellabs Advanced Availability Software Package does not include hardware described in this data sheet. If additional hardware is needed, then that hardware should be purchased separately. Tellabs Advanced Availability Software Package provides the authorization and means to manage such hardware.

Tellabs Advanced Availability Software Package Part Number and Part Numbers for other Software Packages

	1150 OLT	1150E OLT	1134 OLT	1134AC OLT	1131AC 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 Operational	81.SR290AO1150	81.SR290AO1150	81.SR290AO1134	81.SR290AO1134	81.SR290AO1131

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.



+1 800 690 2324 +1 630 798 9900 www.tellabs.com 1415 West Diehl Road Naperville, IL 60563 U.S.A.



TEL9454 11/14