PRODUCT PREVIEW

OTN (Optical Transport Network) Trunk Management Software

Key Features

- Supports both OTN operations
- Manages configuration of different types of payloads and multiplexing
- Manages OPU, ODU, and OTU levels and configuration
- Provides full OTN line maintenance and alarming support, with configurable timers and thresholds for alarm detection
- Supports different devices in one interface
- Fully supports Performance Monitoring ITU-T-G.8201
- Supports GCC0, GCC1, GCC2, PSI, and APS/PCC byte handling
- Provides Trail Trace messages and TIM alarm detection
- Provides Payload Labels and PLM alarm detection
- Fully integrated with OTN APS module
- Includes Driver for OTN device

Standards Compliance

- ITU-T-G.709
- ITU-T-G.798
- ITU-T-G.8201
- ITU-T-G.873.1

With NComm's proven source code and protocol stacks, you have the quality and standard compliance interfaces that you need for less cost than you can do it yourself.

Applications

- Central Office Switches
- OTN multiplexers
- Routers
- Add/Drop Multiplexers
- Access Devices

Product Overview

NComm's OTN Trunk Management Software suite provides a complete software solution for the implementation of OTN systems.

OTN TMS consists of a set of software modules that perform line configuration, alarming, and performance monitoring.

OTN TMS has an optional Automatic Protection Switching (APS) module for implementing the linear APS requirements of ITU-T G.873.1.

The OTN TMS source code is completely data driven, allowing operating mode, alarm timers, and thresholds to be configurable on a static or run time basis.

Additionally, NComm's OTN TMS device driver mapping permits potentially ***many*** device drivers to appear as ***one virtual device*** to the OTN software allowing the OTN interface to be managed as one entity instead of many devices.

The suite includes two levels of ANSI C Application Programming Interfaces (APIs), encapsulating the details of OTN operation and the underlying hardware elements, and provides a clean integration to the target systems' operating environment.

NComm's OTN TMS is supplied as ANSI C source code. User manuals, implementation training and technical support are also included with each license. A sample demo application provides functionality very quickly. This sample application also functions as a guide for integration of the OTN TMS API into the upper management or control systems of your choice.

NComm's Jump Start program can assist in getting your system running NComm's OTN TMS in a week or less. Just contact us for details.

Payload can be in a synchronous or asynchronous format. Constant Bit Rate (CBR) such as SONET/SDH, Ethernet, ATM GFP, and ODU multiplexing such as ODU0, ODU1, ODU1e, ODU1f, ODU2, ODU2f, ODU2e, ODU3, ODU3e1, ODU3e2, ODU4, and ODUflex is supported.

NComm OTN TMS supports the Tandem Monitoring Connection.

NComm OTN TMS supports all OTN rates including 2.5G, 10G, 40G, and 100G.

Key Benefits

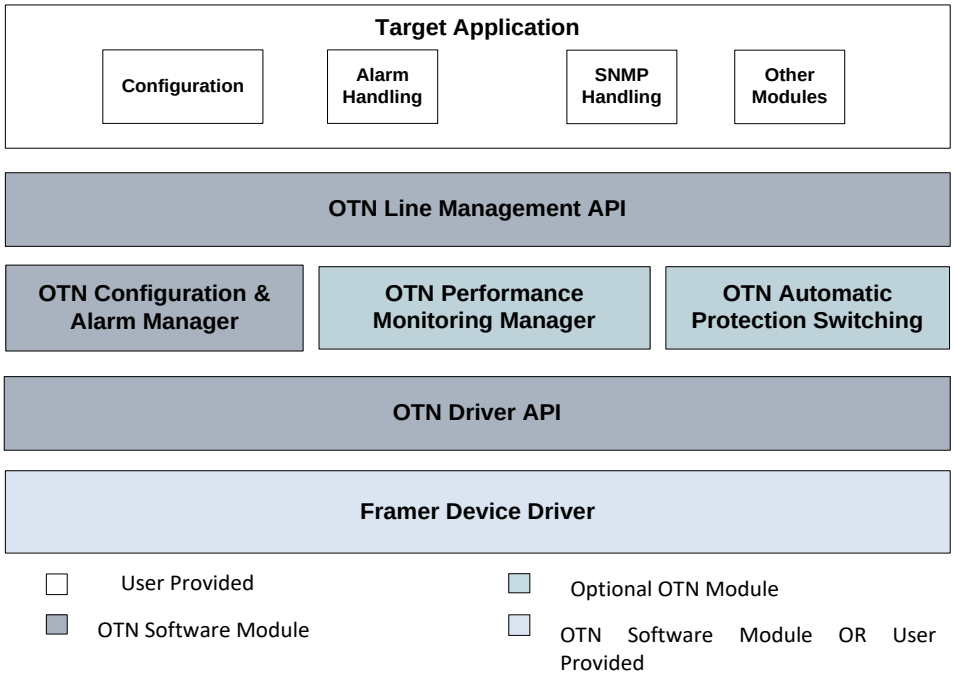
- Fully Standards Compliant
- OS independent
- Pre-ported to Linux
- Easy to use APIs
- Sample application included
- ANSI C Source Code
- Driver Included
- Zero defect policy

For SONET/SDH or Ethernet payloads, please contact NComm for additional Trunk Management Software solutions.

Specifications subject to change without notice 20120510

OTN OAM&P TMS Architecture

As in the entire TMS family of OAM&P software, OTN TMS is architected to be hardware and operating system independent. Well-defined APIs are employed for faster first time integration and ease of reuse.



OTN TMS Software Architecture

The OTN Software API is comprised of a set of ANSI C functions and macros that encapsulate all the functionality and data of the OTN Software. The API provides a clean interface to the OTN Software simplifying the integration of the OTN Software to the target application. The target application is implemented on top of the OTN Line API layer, using the API to access all functionality provided by the OTN Software.

The OTN Configuration and Alarm Manager Module (CAM) provides the interface points for administering and configuring any of the ODU-n lines being controlled by the OTN TMS. The CAM defines the payload interface rate XXX and structure of the interface—OPUk, ODUk, OTUk. Alarm conditions are configurable per type of alarm and per structure of the interface. The CAM also communicates with the PMM for processing performance reports.

The OTN Performance Monitoring Manager Module (PMM) will collect performance data as specified in ITU-T G.8201. The PMM will collect performance statistics for both the near end and far end of the OTN Interface. Performance data is collected for the past 24 hours in 15-minute buckets plus summary information. In addition, the PMM supports collection of data locked to the time of day. The PMM supports threshold-crossing alerts. When enabled, the alerts will inform the application when a threshold has been exceeded and take the appropriate action. The application can retrieve performance information upon request to the PMM for both near end and far end.

The OTN APS module (OTNAPS) implements the requirements defined in ITU G.873.1. The APS module handles the APS protocol and provides control operations to the hardware so that the APS feature can be implemented.

The Device Driver and its associated API provides the interface between the OTN Software and the driver device that manages the hardware implementation of the OTN system and payload mappings. OTN TMS has a Polymorphic Device Driver Mapping Methodology that permits many device drivers to appear as one virtual device to the OTN Software. The OTN Driver API is comprised of a set of ANSI C functions and macros that handle the interaction with the device.