Alcatel-Lucent
1350 OMS Optical Management System

Unified optics management to accelerate ROI and improve OPEX
The Alcatel-Lucent 1350 Optical Management System (OMS) centralizes multiple network-management functions in one unified management system for the entire Alcatel-Lucent Optics portfolio. With a component-based architecture, it easily scales to meet network growth and development, offering a single system with single integration points for multiple optical-network technologies and reducing OPEX. This multi-technology platform, with extensive and proven Operations Support System (OSS) integration, supports traditional, circuit-based networks while enabling a seamless evolution to an Alcatel-Lucent Optics, packet-based network. Accelerate ROI and improve OPEX by providing a fast track to network transformation.
The network transformation challenge

New packet-based services and applications are forcing service providers to transform their optical networks while simultaneously supporting and evolving existing services and business models. The need to accelerate time-to-service must be balanced against requirements for reducing both operating expenditure (OPEX) and total cost of ownership (TCO). Centralizing provisioning and assurance offers reduced OPEX and TCO, while rapid integration of new technologies accelerates return on investment (ROI).

Any network transformation needs to support residential broadband, managed business networks, industry and public sector services, leased line and mobile backhaul. It must support both traditional and next-generation technologies and multiple generations of both network and OSS technology. The system must manage networks ranging from small start-up networks, through medium-to-large networks, to huge multinational networks — and the networks may be circuit-based, packet-based or both.

The Alcatel-Lucent 1350 OMS has a comprehensive set of applications to manage many optical technologies, including connectivity services based on Ethernet, Transport Multi-Protocol Label Switching (T-MPLS), SDH/SONET and wavelength division multiplexing (WDM) technologies. The software lets you centralize multiple network-management functions into one integrated platform (see Figure 1). Simplify your SDH, SONET and optical Ethernet transport network operations while transforming to service-oriented, next-generation networks (NGNs).

Figure 1. Integrating network management on one platform

- Faster return on investment
- Reduced operations expenses
- Faster service restoration
- Network transformation
- Operations excellence
- OSS integration
- Reduced TCO

Alcatel-Lucent 1350 OMS
One integrated platform
Bottom-line benefits

Faster ROI

The Alcatel-Lucent 1350 OMS is a multi-technology platform with extensive and proven OSS integration. This integration offers the rapid rollout of new capabilities and new technologies into the existing network, improving the ROI by months when compared to introducing a new overlay management system.

The single platform for multiple technologies can reduce training costs by more than 50 percent per technology by shrinking the learning curve and training for new capabilities and technologies. The uniform approach to managing the network means new capabilities and technologies can be added seamlessly alongside traditional components. The operations staff will be familiar with the operations processes. Management of the entire network from a single point allows you to evolve the network segment by segment at a pace designed to meet your business case.

Simplified operations for reduced OPEX

Continually enhancing, simplifying and automating operations offers reduced OPEX for managing the network. The Alcatel-Lucent 1350 OMS provisioning wizard can reduce the number of key clicks involved in provisioning by more than 75%. This wizard and the accompanying operational templates offer enhanced workflow tools to reduce both the mistakes and time involved with repetitive and regular provisioning. By replacing multiple technology-specific systems with a single system, service-assurance OPEX is reduced.

The improved graphical user interface (GUI) is engineered and customizable for enhancing the user experience and improving ease and speed of use. This GUI offers a layered network view that makes it visually easy to identify network performance and issues, cutting problem identification time and improving customer satisfaction. Integrated fault management with layered network views allows network outages and their impacts to be rapidly and correctly identified, reducing truck rolls and improving network up-time.

Cross-technology service restoration saves time and improves restoration accuracy. Field-hardened interfaces provide flow-back, flow-over and flow-through management, allowing Alcatel-Lucent Zero Touch management where supported by the OSS ecosystem.

Features

- Improved, technology-layered GUI with packet-provisioning wizard and operational templates
- Extensive interface support:
  - Open standards-based interfaces: TMF MTNM, ASCII, SNMP
  - Customizable proprietary interfaces: Ioo, Isn, TIM, DET
- Support for Alcatel-Lucent next-generation optics:
  - Packet optical
  - Packet microwave
  - Alcatel-Lucent Zero Touch Photonics
Lower TCO due to flexible, component-based platform

The Alcatel-Lucent 1350 OMS uses a component-based architecture that easily scales with the network as it grows and develops. This architecture allows Alcatel-Lucent to provide a single system with single integration points for multiple optical network technologies and all network sizes. Equivalent technology-specific solutions would require four or five separate systems. The single set of interfaces offers a potential 50-percent reduction in integration costs.

This integration greatly reduces management TCO by providing extensive interface support and experience. It also allows rapid testing and integration between the OSS components as they are upgraded. Proven OSS integration provides full support for new capabilities as rapidly as the wider OSS/Business Support System (BSS) ecosystem is able to support them (see Figure 2).
End-to-end management

The Alcatel-Lucent 1350 OMS offers element management, network management and service management in one integrated package. Management starts with the network elements (NEs) providing:

- Robust management interfaces
- Configurable architectures for resilience, protection and availability
- Performance Monitoring (PM) capabilities
- Configurable alarm and event notification

Element management provides the foundation for accelerating ROI, by rapidly supporting new technologies. The Alcatel-Lucent 1350 OMS delivers full element management across the entire managed network including a map of the total network with physical topology view and a single filterable list of all of the alarmed parameters. It is invaluable in managing the complete Alcatel-Lucent Optics portfolio, as seen in Figure 3.

The Alcatel-Lucent 1350 OMS uses a common desktop, login and security; common GUI and maps; common fault management; and common PM. The Alcatel-Lucent 1350 OMS provides the capability to start and stop applications independently, and is available in compact or distributed configurations. There are High Availability options with N:M protection scheme and load balancing.
Support for network transformations

With support for multiple technologies, multiple services, all network sizes, all network generations and all business models, the Alcatel-Lucent 1350 OMS provides a unique optical-management experience. Alcatel-Lucent has more than 15 years of experience developing and honing procedures and tools for integrating and migrating service-provider networks and the surrounding OSS ecosystems. Management-systems experience with more than 1000 customers allows the Alcatel-Lucent 1350 OMS to complement and enhance the optics NEs and support service providers as they transform their networks.

Recognized world leader in optical networking

Alcatel-Lucent delivers end-to-end communications solutions to service providers and enterprises anywhere in the world. Leveraging its network equipment as well as services, Alcatel-Lucent facilitates its customers’ service offerings and revenue streams. As the recognized world leader in optical networking, Alcatel-Lucent is in a unique position to help service providers navigate through current market conditions. Alcatel-Lucent, with its global reach and scale, combined with local presence in over 130 countries, makes use of a deep understanding of global-market dynamics, as well as the ability to anticipate local requirements.
