
Integrated OSS and Network Management Solutions

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Record of Changes

Version #	Date	Changes
4.0	20 Aug 2002	First public release.
5.0	25 Sep 2002	<ul style="list-style-type: none"> - added Optimization and Synchronization of the Transport Layer solution for Optical Networks - added Zero-touch provisioning solution for optical networks - added Core Management Solution for Enterprise Networks - added Extended Management Solution for Enterprise Networks - added Element Management Solution for Enterprise Networks
6.0	18 Oct 2002	- added Management of Mobile Core Networks solution

OSS/Network Management Solutions

Introduction

Network complexity can make it difficult for you to contain OPEX and deliver new services as fast as you'd like. That's why you need comprehensive network-wide management and streamlined service provisioning, service assurance and billing.

Today's ideal OSS/network management solution has to be quick to deploy, tightly integrated, and feature pervasive automation, flexibility, scalability, multivendor support and carrier-class reliability.

Alcatel's approach, founded on our commitment to open standards, pre-certification of third-party elements and our extensive experience, enables service providers to deploy comprehensive solutions that succeed on all counts.

Alcatel's Network Management and OSS solutions, which are typically deployed in an integrated fashion, include:

> ***Management of Broadband Access***

Lower your total cost of network operations (OPEX) and increase margin and profitability with our customizable broadband access management solutions. Here you can explore our management solutions and OSS solution packs, and discover how Alcatel can, among other things, help you manage multiple access technologies, and add new and enhanced services seamlessly.

> ***Management of Data Networks***

Reduce complexity and operating costs by combining the management of traditional and next generation IP networks. Our market leading platform, supporting the widest number of traditional data services and next generation IP services on the market, can be complemented with standard open interfaces, service assurance, fault management solutions or even a complete turnkey solution (from order entry to billing) for faster integration.

> ***Management of Mobile Networks***

Efficiency is up and costs are down when using our new and advanced tools for the management of second and third generation core and radio access networks (GSM, GPRS/EDGE, UMTS) -- including optimization, planning, fault management, configuration, traffic supervision and analysis. Further increase efficiency and cost savings by combining the management of the radio access mobile network with the mobile network.

> ***Management of Voice and Multimedia Services***

Our integrated management solutions help you manage today's voice services and introduce new, revenue-generating next generation voice and multimedia services seamlessly and efficiently. Our solutions help you to reduce operating expenses and increase revenue whether you are expanding your existing offering using Alcatel equipment and services, or within a next generation multivendor solution.

> ***Management of Optical Networks***

Take control of your optical network with our complete suite of optical network management solutions. Manage the convergence of data and voice services in your metro network; reduce CAPEX and OPEX and deliver new mission-critical services on your optical core network; plan, design and optimize your optical transport network for maximum potential.

> ***Management of Enterprise Networks***

Simplify the management of your entire Alcatel enterprise network through a single platform that allows you to monitor network activity, configure device and policy-based QoS, and provide effective fault isolation.

Management of Broadband Access

Lower your total cost of network operations (OPEX) and increase margin and profitability with our customizable broadband access management solutions. Here you can explore our management solutions and OSS solution packs, and discover how Alcatel can, among other things, help you manage multiple access technologies, and add new and enhanced services seamlessly.

> ***Management of Broadband Access in the ETSI World***

Significantly lowers the total cost of network operations (OPEX) by managing multiple access technologies under one umbrella. Further increases efficiency and cost savings with “point & click” management across access and data backbone networks.

> ***OSS Broadband Solution Pack***

Optimized OSS functions such as provisioning and billing can help service providers maximize their investments in broadband. Alcatel's customized package helps you do just that.

> ***OSS Solution Pack for Teleworking***

Adding teleworking to your DSL internet access services mix can help you increase your margins and market penetration. Alcatel's dedicated OSS service pack helps you compete effectively in this domain.

> ***OSS Solution Pack for Fast Internet Access***

Get a quicker ROI on your DSL infrastructure. With Alcatel's customized OSS Pack, you can deliver a broader array of services to a wider group of customers. You get higher margins and increased market penetration.

Management of Broadband Access in the ETSI world

Products in this solution

Alcatel 5523 ADSL Workstation (AWS)

Alcatel 5620 Network Manager

Alcatel's broadband access management solutions significantly lower the total cost of network operations(OPEX) by managing multiple access under one umbrella.

These broadband access solutions can also be extended to combine the management of broadband access networks and data backbone networks, further increasing efficiency and cost savings.

Highlights

> ***Best of breed element management option***

Alcatel offers element managers that provide the scalability required for managing large access networks. Support for multiaccess is key to reducing operational expenditures. Fault isolation, alarm and event logging and remote utilities like template and bulk provisioning play another significant role in reducing the tasks of operators. Service delivery automation using our open standard interfaces makes large scale deployment of Alcatel access platforms fast and efficient.

> ***Real time monitoring***

You can monitor network operations of your broadband access networks in real time configure node databases, perform operations on network equipment and manage problem conveniently and securely, using a keyboard and a mouse.

> ***Point and click through your entire broadband network***

Through the integration of the multiaccess element manager and the backbone data manager, our customers immediately reap the benefits of reduced OPEX. End-to-end flow through provisioning and fault isolation for managing the entire broadband network increases efficiencies, reduces costs, and improves time to market.

> ***End-to-end provisioning***

With our GUI, you can select two endpoints of your paths and paste them into a path configuration form. For example, one endpoint represents the entry point of the service in the network, the other represents the endpoint on the Alcatel 7300 ASAM access port on which the customer's service is provisioned. Once the endpoints are pasted into the path configuration form, the path is saved and connected, and the customer has broadband access service.

> ***Network partitioning***

You can partition your network according to technology type to differentiate your offerings from competitors. Our solution will allow you to resell bandwidth and services, or provide associated groups like ISPs, backbone or access groups control over their portion of the network.

OSS Broadband Solution Pack

Products in this solution

Alcatel 5620 NM
Alcatel 8920 Alma Vision Provisioning,
Alcatel 8910 Alma Vision Assurance,
Alcatel 8913 Alma Vision Assurance Problem Management
Alcatel 8930 Alma Vision Billing
Alcatel 8942 Customer Management Intelligent Solution

The Alcatel OSS Broadband Solution Pack is a series of generic process templates and OSS applications which allows service providers to reduce the time needed to implement OSS solutions, while offering customization capabilities for all kinds of networks. With this approach, operators get technical, project and business expertise rolled into a turnkey solution.

The Alcatel OSS Broadband Solution Pack covers a comprehensive range of functions. Customer management helps manage active customers through multi-channel interactions. Billing is adapted to specific customer organization and services. Service provisioning encompasses order management, process control, service activation and partner interconnection management. And service assurance monitors trouble tickets, QoS and SLAs.

Alcatel can complement this solution pack with a complete suite of services that includes consulting, from early project definition and dimensioning to service impact analysis and business process engineering and change management; OSS project management and system integration, from specification to system deployment and data migration; staff training; ongoing support with long term and full maintenance service; and network operations.

Highlights

> ***Get the most profitable customers***

With minimal customization required, and a high degree of flexibility, this solution makes high value services quickly available with an increased QoS, helping service providers to win over the most profitable customers.

> ***Minimize manual intervention***

The level of automation brought by this solution minimizes the need for expensive and time-consuming manual intervention in service provisioning and service assurance.

> ***Evolve your OSS with your network***

This solution is modular and scalable, ensuring a permanent and flexible fit with most existing infrastructures.

> ***Cut costs and risks***

With a multivendor and multi-technology design, this solution guarantees smooth interoperability and integration with other parts of the network and other business processes, saving costs and cutting risks.

> ***Put your customers in control***

Higher levels of automation enabled by this solution support the increasing demands from more sophisticated end users to control their own services.

> ***Get a turnkey solution***

As Alcatel can act as a single point of project management and responsibility, to deliver a turnkey, integrated, certified solution, exposure to risk is minimized.

OSS Solution Pack for Teleworking

Products in this solution

Alcatel 5620 NM,
Alcatel 5735 Service Management Centre

Teleworking is a new way for service providers to boost residential DSL penetration and increase revenue per subscriber, without any major capital or operational expenditures. It revolves around one single phone number for reaching the teleworker anywhere (home or office), anytime, transparently, coupled with a complete access to the enterprise communication system. This is done through a corporate VPN, giving secured access to business applications.

The Alcatel OSS Service Pack for Teleworking Service provides a dedicated mix of business process templates, pre-validated OSS applications and network integration as well as professional support services. Consulting professional services are essential to build the service provider's business case, analyze the impact on the existing information system, and design new processes and operation support systems.

OSS functions in the Teleworking service pack are designed to cover the cross-organizational processes (such as billing) between the residential and corporate divisions of a service provider's organization. The customer data should be shared by both the residential and corporate Customer Care entities.

System integration services are also required to integrate new OSS applications in the existing information system. The Teleworking OSS service pack is modular and customizable for a quick, low-risk and low-cost deployment. It can be focused on Service provisioning, service assurance, billing or both, and be rolled out in a phased manner.

Alcatel's OSS integration expertise is a significant added benefit. When teleworkers are activated automatically, errors are reduced to an absolute minimum. This generates more revenue, and a faster return on investment.

Highlights

> *Tap the enterprise market*

Fast Internet Access is the foundation for a complete portfolio of broadband services. Service providers can tap the enterprise market by selling value added services such as teleworking and generate extra revenue and profit.

OSS Solution Pack for Fast Internet Access

Products in this solution

Alcatel 5620 NM
Alcatel 8920 Alma Vision Provisioning,
Alcatel 8910 Alma Vision Assurance,
Alcatel 8913 AVA Problem Management
Alcatel 8930 Alma Vision Billing

The Fast Internet Access OSS Service Pack from Alcatel provides a dedicated mix of business process templates, pre-validated OSS applications and network integration as well as professional support services. Processes and models in this service pack are designed to cover OSS functions, with a model that builds effective relationships between customers, service, network capabilities and resources in the whole service delivery chain.

Adding new added-value services puts you in a better position to compete for residential and SME subscribers. The OSS Service Pack enables you to introduce rapidly, and at an optimized cost, not only fast Internet access, but services such as enhanced personalized services, teleworking, Voice over DSL, VPNs, Web hosting and secured ISP access.

Our OSS pack allows you to implement a personalized solution that meets your unique requirements and matches your legacy systems. It covers key order entry, service fulfillment and service assurance applications.

Alcatel offers a structured approach to the introduction of OSS service packs, including marketing analysis, business process engineering and consulting, personalized and pre-validated OSS solution design, implementation into an existing information system complemented by a full service operation on demand through a single point of contact.

Highlights

> ***Move up the value chain***

You can complement basic DSL broadband access connection with customer empowerment and self-service configuration, up to personalized service bundles.

> ***Enlarge your market***

Target both residential and business users with customized service offerings.

> ***Ease deployment***

Choose modular and pre-validated OSS applications for a quick, low cost and low risk deployment.

Management of Data Networks

Reduce complexity and operating costs by combining the management of traditional and next generation IP networks. Our market leading platform, supporting the widest number of traditional data services and next generation IP services on the market, can be complemented with standard open interfaces, service assurance solutions, fault management solutions or even a complete turnkey solution (from order entry to billing) for faster integration.

> ***Traditional and Next Generation IP Network Management***

Used by more than 350 service providers, our solution is future-proof, offering management support for both traditional and next generation IP services, and positioning our customers for future growth and profitability.

> ***OSS Business Automation Made Easy***

More and more service providers are looking at OSS business automation to achieve the growth rate desired. From products and consulting services to pre-certified integration and complete system integration, Alcatel provides the flexibility to fit your specific integration needs.

> ***Service Assurance for Data Networks***

Service providers are challenged with improving service levels and customer satisfaction; generating new sources of revenue; and cost effectively managing their networks. Alcatel addresses these challenges through a portfolio of service assurance products based on the industry-leading Alcatel 5620 Network Manager (NM). The Alcatel 5620 Service Assurance Solution for Data Networks is a value-added network performance and assurance solution for networks managed by the Alcatel 5620 NM.

Traditional and Next Generation IP Network Management

Products in this solution

Alcatel 5620 Network Manager
Alcatel 5620 CORBA OSS Interface
Alcatel 5620 CMIP OSS Interface
Alcatel 5620 Analysis and Inventory Module

Our solutions support today's market need for fast delivery of differentiated services through unparalleled provisioning speed, market leading scalability and comprehensive fault isolation, ensuring customer satisfaction. Used by more than 350 service providers, our solutions are future-proof, offering management support for both traditional and next generation IP services, and positioning our customers for future growth and profitability. The Alcatel 5620 products support the widest selection of services and technologies, including IP, MPLS, FR, ATM, TDM, X.25, ADSL, LMDS, etc., and offer the most open management suite on the market today, supporting CORBA, CMIP and SNMP.

Highlights

> ***Get a complete view of your network from a single location***

Running on a Sun workstation equipped with a large color monitor, you can display a network topology map, providing a bird's-eye view and complete control of the entire network - including all nodes, cards, physical links and equipment - from a single location.

> ***Real time monitoring***

With continuous synchronization, you can monitor network operations of your broadband access networks in real time, configure node databases, perform operations on network equipment and manage problems and route paths simply, conveniently and securely, using a keyboard and a mouse. Proactive management tools let you solve problems before customers even know about them.

> ***Network partitioning***

You can partition your network according to technology type so you can differentiate your offerings from competitors. Our solution will allow you to resell bandwidth and services, or provide a private network owner to share control of the network between departmental communications managers.

> ***Efficient routing***

We use an advanced routing algorithm so you can be assured each path is on its most efficient route through the network to perform configuration management.

> ***Automate OSS processes***

Our 5620 CORBA and CMIP Network OSS Interfaces are unique in the industry and offer a truly scalable OSS integration portal into the Alcatel network - allowing you to work with the more than 1.5 million subscribers supported by our products.

> ***Open and standards-based***

Our interfaces permit other vendors' systems to interact, manage events and alarms, create, modify and delete paths, obtain network inventory and status and discover a network's topology. You can also manage statistics collection and perform diagnostic and test access operations.

> ***Automated surveillance***

Our tools automate connection management, surveillance and other operations processes (i.e., network alarms automatically trigger external processes, such as customer notification).

> ***Scalability***

Our products allow you to perform end-to-end path connections and configurations and integrate other nodes. You will have the capacity to support 10,000 core nodes, 50,000 edge nodes, a total of 1.5 million S-PVC and PVC connections, an unlimited number of SVCs connections and 255 simultaneous operator sessions.

OSS Business Automation Made Easy: Alcatel 5620 OSS Integration Solution

Products in this solution

Alcatel 5620 CMIP OSS Interface Module
Alcatel 5620 CORBA OSS Interface Module
Alcatel 5620 Network Manager

Services in this solution

Alcatel 5620 OSS Developer Support Services
Alcatel Connected Partner Program

As a service provider, you recognize that Operations Support Systems (OSS) integration, which facilitates automation, is a key to your competitive survival. For data networks managed by the Alcatel 5620 Network Manager (NM), its integration with OSS applications will enable you to automate business services to save time and increase accuracy, achieve faster time to market, lower your operations costs and maximize your return on OSS investments.

Alcatel's 5620 OSS Integration solution enables you to easily integrate your OSS business processes with data networks managed by the Alcatel 5620 Network Manager. Our OSS interfaces provide carrier class, standards-based, scalable CMIP and CORBA open interfaces. Our Developer Support Services facilitate OSS integration, reduce time to deployment, reduce cost and risk of integration, and increase quality of integration. Our Alcatel Connected Partner Program is unique in the industry, and offers precertified solutions, complemented by the strategic use of ISV partners.

The Alcatel solution stands apart in the marketplace in that it is carrier class, standards-based and scalable, offers a precertified integration solution, and continuously builds strategic partnerships with Independent Software Vendors (ISVs)

Highlights

> ***Automate and interoperate with Alcatel 5620 OSS interfaces***

OSS interfaces, the SNMP Trap Forwarder and the Statistics Collector, enable OSS applications to interwork with the Alcatel 5620 NM. Our interfaces enable the automation of your business processes, and allow an OSS application to perform operations such as connection management automation, surveillance, alarm management, inventory management and test management across an Alcatel network

> ***Close the integration gap with Alcatel 5620 OSS Developer Support Services***

The success of an OSS integration project depends on having access to the appropriate resources and expertise. Developer Support Services help close the gap between the existing resources and expertise levels of OSS integrators and what is required for successful delivery. Reduce your overall development effort, minimize time to market, facilitate optimal use of the interfaces, and receive expert support and guidance from analysis through to acceptance testing.

> ***Reduce vendor selection time and accelerate ROI with Alcatel Connected***

The Alcatel Connected Partner Program is a selective partnering program with best-of-breed ISV OSS applications that enables interoperable, pre-certified solutions for your Alcatel 5620 NM-managed data network. If you have not yet identified a preferred ISV OSS application, the choices in the marketplace can be staggering, particularly among service configuration and surveillance OSS. The Alcatel Connected Partner Program makes your choice easier.

Service Assurance for Data Networks

Products in this solution

Alcatel 5620 Analysis and Inventory Module (AIM)
Alcatel 5620 Network Manager
Alcatel 5620 Performance Module
Alcatel 5620 Service Level Agreement (SLA) Module

According to Industry Analysts RHK, “There has been much growth over the last few years. Network inventory/data are out of date. Loss of control is a common theme. Now operators must focus on using inventory effectively...” (December 2001) “As carriers focus on sweating the asset, performance management systems are necessary to measure the quality of service and assist in capacity planning as network utilization increases...” (January 2002). Coupled with these trends, service providers are challenged with improving service levels and customer satisfaction; generating new sources of revenue; and cost effectively managing their networks.

Alcatel addresses these trends and challenges through a portfolio of service assurance products based on the industry-leading Alcatel 5620 Network Manager (NM). The Alcatel 5620 Service Assurance Solution for Data Networks is a value-added network performance and assurance solution for networks managed by the Alcatel 5620 NM. This Service Assurance Solution helps service providers:

- > cost-effectively manage their network and associated services
- > lower their operating costs by increasing the operational departments efficiency
- > monitor their network’s health and performance
- > reduce customer churn
- > improve customer service and satisfaction

Highlights

> *Impact analysis*

Identifies customers and services affected by a serious fault in the network, allowing service providers to prioritize problems.

> *Proactive SLA monitoring and reporting*

Enables calculation of specific performance parameters, including service availability, policing, utilization and inventory, and warnings that service levels are in danger of not being met, before the SLA is violated. Provides predefined, integrated customer service performance reports for each customer and service, as well as the capability to simply and quickly create new reports and SLA parameters via a user-friendly GUI.

> *Predefined performance metrics*

Let you know how well the network is performing, with the capability to create new metrics.

> *Data warehouse and reporting product*

Provides tools to extract Alcatel 5620 NM network data not accessible by any other tool available today.

> ***SLA management application***

Improves the quality of service (QoS) delivered to customers enables operators to concentrate on the problem and the impact on the business. Proves that Service Level Agreements (SLAs) with customers are being met.

> ***OSS tool***

Delivers predefined and off-the-shelf reports on near real time performance metrics for ATM and frame relay networks. Generates unique reports and graphical displays that can be used for engineering, planning, maintenance and operations. Reports are multidimensional offering drill-down access to layers of information with increasing levels of detail allowing operational staff to view most important performance problems in seconds.

Management of Optical Networks

Take control of your optical network with our complete suite of optical network management solutions. Manage the convergence of data and voice services in your metro network; reduce CAPEX and OPEX and deliver new mission-critical services on your optical core network; plan, design and optimize your optical transport network for maximum potential.

> ***Converged Management for Multiservice Metro Networks***

Expand, optimize and increase the flexibility of your existing transport network to manage new services and requirements more efficiently. Manage the convergence of data and voice services in metro networks while leveraging existing investments, minimizing new expenses and providing faster ROI.

> ***Network Management System for Optical Core Networks***

Cross-layer traffic engineering and rapid provisioning, dynamic routing, and faster service turn-up allow you to reduce total cost of ownership and deliver new services. Increase your revenues with mission-critical services; significantly reduce capital and operational expenses; manage in multi-vendor environments thanks to open interfaces.

> ***Designing and Optimizing Transport Networks***

Our Transport Networks management solution lets you get detailed analyses of network usage, effectively design network upgrade and evolution plans, and exploit installed network resources to their maximum potential. Modular and customizable, our solution is ready to help you design and optimize your transport network today.

> ***Optimization and Synchronization of the underlying networks for optical networks***

Our optimization solution helps you achieve operational expenditure reduction that can actually optimize the management of your optical network. Our solution focuses on reducing the maintenance activities associated with the management of your underlying transport network, and ensuring the operational state of the synchronization network for your optical network.

> ***Zero-touch provisioning for optical networks***

Differentiate yourself in the realm of Transmission Service Providers, while generating new revenues with our zero-touch provisioning solution. Our solution lets your customers monitor and, when necessary, interact with their Optical Virtual Private Network, creating new circuits themselves according to their defined contract with you, the Network Provider.

Designing and Optimizing your Transport Networks

Products in this solution

Alcatel 1356 Network Toolkit

As transport networks grow in complexity, carriers must avoid over-dimensioning and encourage the most effective use of resources. Alcatel's network management systems come with a 'design and plan' building block that helps carriers optimize transport networks, from backbone to metro.

Nothing is more strategic to network operators than network designing and planning. These critical functions can only be performed well by taking into account both the transport network's current situation and its continuous evolution.

The Alcatel 1356 Network Toolkit is an enabling solution that covers different functional domains and allows network operators to obtain a detailed analysis of network usage, an efficient and effective design for network upgrade and evolution, and an optimal exploitation of the installed network resources.

Unlike other solutions, the Alcatel 1356 Network Toolkit is directly connected to the installed Alcatel network management system and performs the network design and optimization process on the real managed transport network. These processes are based on the Alcatel engineering rules that govern the Alcatel equipment and to the algorithms already introduced in the Alcatel network management products.

The Alcatel 1356 Network Toolkit is based on a modular suite of applications, which can be effectively adapted to different customer needs. Its basic application, the Analyzer module, provides operators with a clear view of the network.

It also features modules that are specifically developed for operators that have mesh networks with restoration mechanisms managed by the Alcatel 1354 Network Protection Processor, as well as for operators designing metropolitan DWDM networks based on the Alcatel 1696 Metro Span.

Highlights

> ***Get a detailed view of network usage***

With our solution's basic application, operators can retrieve data from the network management system, analyze network demand, capacity and resource utilization, as well as identify bottlenecks.

> ***Get a detailed understanding of the network protection capability***

The application provides the operator with the possibility to analyse and assess the level of traffic protection in case of network failures when the protection is based on the “restoration mechanism”.

Converged Management for Multiservice Metro Networks

Products in this solution

Alcatel 1353 SH/GEM Element Manager

Alcatel 1354 RM Network Manager

Alcatel 1354 BM Broadband Network Manager

As a player in the metro market, you're facing new challenges in terms of fast service rollout, data-intensive applications, and efficient bandwidth usage. At the same time, you need to maintain cash cow revenues from voice or leased line services.

The Alcatel 1300 Multiservice Management solution allows you to expand, optimize and increase the flexibility of your existing transport network so that you can more efficiently handle and manage these new services and requirements.

Alcatel's field-proven, full suite of modular and scalable network management solutions enable you to manage the convergence of data and voice services in metro networks - all while leveraging existing investments, minimizing new expenses and providing faster ROI.

The Alcatel 1300 Multiservice Management solution is a complete and powerful platform administered through a user-friendly graphical interface. It relies on SDH/SONET or WDM core management applications provided by 1354RM on which add-on data-oriented modules can be easily plugged when needed. This same management umbrella handles today's multiservice SDH/SONET and WDM equipment as well.

The Alcatel Multiservice Management solution is so powerful that the underlying infrastructure can quickly be provisioned or extended first before handling new data services using 1354BM product. It only takes a few minutes for operations staff to introduce, provision and manage ATM/IP/Ethernet over SDH/microwave/WDM networks, and set up data services such as new DSL subscribers.

A unique, centralized Element Management based on 1353SH/GEM provides a transversal and homogeneous management solution focused on the maintenance of the Network.

With true inter-domain and automated functions, the solution permits operators to quickly discover, and even extend the underlying SDH/OTN bandwidth and then to accurately localize defects across the different network technologies and layers.

Highlights

> ***Highly scalable***

Scales to support networks ranging from only a few nodes (with tens of connections) to thousands (with hundreds of thousands of connections).

> ***Flexibility through open interfaces***

Easily fits into existing service provider organizations and architectures; integrates with legacy and/or third-party OSS environment.

> ***Manages hundreds of network elements***

Permits a truly integrated management of hundreds and hundreds of different network elements (DWDM, SDH, SONET, ATM, 10/Fast/Gigabit Ethernet, fiber or microwave systems).

> ***Allows on-demand, dynamic provisioning of the network infrastructure***

It does so whenever needed by service network layers and/or by the customer itself.

> ***Offers network-centric functions per technology***

WDM Channels, SDH rings & trails, TLAN, ATM PVCs, all can be managed with benefits of cross-layer management functions.

Network Management System for Optical Core Networks

Products in this solution

Alcatel 1353 SH/GEM Element Manager
Alcatel 1354 RM Regional Manager
Alcatel 1354 NP Network Protection Manager
Alcatel 1354 SN Submarine Network Manager
Alcatel 1354 BM Broadband Network Manager

Cross-layer traffic engineering and rapid provisioning, dynamic routing, faster service turn-up: Alcatel's network management system for optical core networks has all the features you need to reduce total cost of ownership and deliver new services.

To support these carrier needs, Alcatel's solution for Intelligent Optical Core Networks features a high-performance network management system, based on our series of Alcatel 1300 Network Management products.

This network management solution relies on features such as dynamic routing and cross-layer traffic engineering to reduce CAPEX; possibility to dispose of longer mean-time-to-repair, cross-layer provisioning and open interfaces to reduce OPEX - and all these features to speed delivery of new, mission-critical services such as bandwidth-on-demand and optical VPNs.

Alcatel's integrated network management solution for SDH/SONET and DWDM networks is targeted to all operators who already manage or are planning to manage a backbone network -- either terrestrial or submarine -- possibly in combination with a multiservice metro network and/or a data network.

It is based on a modular suite of integrated applications and open interfaces. These include our regional manager capable of providing remote control and supervision for any type and size of SDH/SONET or WDM network; a next-generation network protection application for managing meshed optical backbones, the network management solution focused on Submarine Networks and the manager of ATM/IP/Ethernet services integrated in the Optical Network.

Highlights

> ***Reduce operational expenses***

A longer Mean-Time-To-Repair (MTTR) provided by a robust meshed-based restoration, leads to lower maintenance costs. Meanwhile, the use of open interfaces and cross-layer rapid provisioning also lead to reduced OPEX.

> ***Manage in multi-vendor environments thanks to open interfaces***

Our network management solution is based on interfaces such as MTNM CORBA in the network integrator operating system, IOO to allow external OSS to retrieve alarms, Performance Monitoring data and Network Inventory, and ISN to provide a service management layer view to OSS.

Optimization and Synchronization of the Transport Layer for Optical Networks

Products in this solution

Alcatel 1353 DCN Data Communication Network Manager

Alcatel 1354 SY Synchronization Network Manager

This solution achieves operational expenditure reduction that can actually optimize the management of optical networks. The solution focuses on reducing the maintenance activities associated with the management of the underlying transport network, and ensuring the operational state of the synchronization network for optical networks.

Until now, a major part of transport networks has gone unmanaged: the data communication infrastructure based on Open System Interconnection (OSI) and IP protocols. Our solution processes information transmitted along the management network and reports real-time, user-friendly information on the DCN behavior. This provides operators with unparalleled network reliability and reduces network operation complexity. Any identified problem is automatically detected according to a reference network configuration selected by the operator.

Our solution enables operators to manage the data communication infrastructure regardless of technology (DWDM, optical switching, SDH) or transmission media used (terrestrial, submarine, fiber and radio links). Our solution is completely non-intrusive, able to function independently of the systems already deployed in the transmission network, like add-drop multiplexers, DWDM and microwave radio systems. This ability makes it ideal for use in complex, standard-compliant, multi-vendor networks.

Our solution also enables network providers to monitor the synchronization network of the SDH infrastructure, permitting the detection of timing-loops, timing failures or violation of synchronization rules that can lead to poorly provisioned transmission services to the End-Users.

Highlights

> ***Keep aware of potential problems***

Centralized alarm management can detect synchronization problems, and thus avoid impacts on live traffic. Our solution offers unprecedented network surveillance capability thanks to the supervision of multi-technology, multivendor DCNs. OSI DCN notify operators of such issues as changes in the network topology with respect to the reference topology, transmission errors (incorrect checksum), syntactical or procedural errors inside the routing protocols (e.g. duplication network address), etc.

> ***Grow your network with your business***

Our scalable solution supports growth even for the largest networks.

> ***Understand your network***

Topology management can automatically discover the network topology with no prior knowledge of it. Network elements are identified according to their roles in the routing protocol. Performance management provides the collection of performance data retrieved directly from the Ethernet LAN where the analyzer is located. This includes statistics on traffic, with different filtering capabilities.

> ***Watch your bottom line***

By reducing maintenance activities, our solution provides significant cost savings both in capital and operational expenditures.

Zero-touch provisioning for optical networks

Products in this solution

Alcatel 1355 Virtual Private Network (VPN)

Alcatel 1355 Bandwidth on Demand (BonD)

Alcatel's zero-touch provisioning solution allows Network Providers to differentiate themselves in the realm of Transmission Service Providers, while generating new revenues. Our solution permits end-Customers to monitor and, when necessary, to act on their Optical Virtual Private Network, creating new circuits themselves according to the defined contract with the Network Provider. This is a secured solution that does not require a large investment from the end user side (no additional software): just a PC will do.

Our solution also provides optical bandwidth-on-demand (BOD) services through core and metro SDH, SONET and DWDM optical networks.

Alcatel's zero-touch provisioning solution for optical networks addresses the issue of OPEX reduction by providing an open, OIF-UNI and OIF-NNI standard interface towards external systems enabling them to establish Bandwidth-on-Demand Services automatically and transparently. This allows the transformation of the Optical Network into a GMPLS-based Intelligent Optical Network, also known as an Automatically Switched Optical Network.

Highlights

> ***Increase your revenues with mission-critical services***

Services such as optical time-based bandwidth-on-demand and optical VPNs can increase carrier revenues by about 5%, with faster service delivery to final customers.

> ***Significantly reduce capital expenses***

The use of dynamic routing allows you to optimize bandwidth and thus reduce CAPEX by as much as 40%. Meanwhile, cross-layer traffic engineering across data and optical networks can reduce CAPEX in the data network by as much as 30%.

> ***Solve “buy or build” dilemma***

Efficient solution for the buy-or-build dilemma of new operators and enterprises. Operators can gain competitive advantage by selling spare bandwidth and offering a value-added service.

> ***Reduce operational expense***

Reduces operational expenses through several means: via a carrier-controlled automation and speeding-up of the optical service delivery process to internal and external customers and by maintaining security on network access; by facilitating interoperability in multivendor and multi-carrier transmission networks; and through on-demand and controlled connectivity between the data and transmission layers in multi-technology data and transmission networks.

Management of Mobile Networks

In the competitive world of mobile networks, cellular operators are looking for low-cost, future-proof solutions that can be seamlessly integrated into their back office systems. They need optimal QoS in order to avoid churn and maximize revenue, and they need scalable systems that are able to keep pace with network growth, and are ready to manage new services and functions today and in the future.

Whether you are a new operator looking for a complete ready-to-use mobile solution or an existing operator looking at ways to optimize your business processes, Alcatel can help you make the most of your network. We complement our broad product offering with turnkey solutions and a complete suite of services including consulting, service impact analysis and system integration.

> ***Management of GSM/GPRS Radio Access Networks***

Planning and managing radio access networks with thousand of cells requires scalable, real-time information for smooth network operations. Our GSM, GPRS/EDGE management solutions are the answer, and our comprehensive, highly intuitive interface ensures trouble-free implementation and densification. Further increase efficiency and cost savings by combining the management of the radio access mobile network with the mobile core network using our centralized fixed and mobile voice network management solution.

> ***Management of UMTS Radio Access Networks***

Our UMTS radio access solution provides scalability and access to real-time information for planning and managing radio access networks with thousand of cells. This solution also includes back office network analysis and optimization tools to help cellular operators make sound network configuration and growth decisions. Further increase efficiency and cost savings by combining the management of the radio access mobile network with the mobile core network using our centralized fixed and mobile voice network management solution.

> ***Management of Mobile Core Networks***

Our mobile core networks management solution provides centralized and integrated management for circuit (OMC-CS) and packet (OMC-PS) mobile core networks. With management of core network elements for GSM, GPRS and 3G (UMTS) networks, including related ATM and IP equipment, our solution helps you reduce your operational costs while getting the features and information you need in a secure, reliable, future-proofed network.

> ***Analysis and Optimization Solution for Mobile Networks***

This solution complements our GSM and GPRS/EDGE management offering by provisioning back office network analysis and optimization tools to help service providers making sound network configuration and growth decisions

> ***OSS 2.5G-3G Evolution Pack***

The Alcatel OSS 2.5-3G Evolution Pack enables mobile operators to offer new services while preserving their legacy but evolving GSM systems.

> ***OSS 2-2.5-3G Mobile Pack***

After heavy investments in mobile network infrastructure, you need a swift and sustainable return. The right OSS solution can accelerate the influx of new customers quickly, and help you retain them with great customer care and new services.

> ***OSS Prepaid Solution Pack for Mobile Operators***

As a mobile operator, prepaid services are important to your revenues thanks to their ability to help retain naturally fickle customers and secure additional revenue streams. Our customized OSS solution helps you minimize the associated operating costs.

Management of GSM and GPRS/EDGE Radio Access Networks

Products in this solution

Evolium Operation and Maintenance Center for Radio (OMC-R) – Alcatel 1353 RA

Achieving network growth, maintaining customer satisfaction, and offering competitive value-added services are some of the tough challenges GSM operators face every day. To help them succeed, Alcatel has developed a flexible and integrated solution, the Evolium Operation and Maintenance Center for Radio (OMC-R), for the management of Alcatel BSS voice and data services, including GPRS.

This network management solution capitalizes on Alcatel's experience to meet operations and maintenance needs for scalable and seamless operations, and provide clear and real-time information.

Highlights

> ***Seamless operations and network scalability***

Thanks to its distributed architecture, the plug & play nature of the hardware, and the wide choice of transmission options, the Evolium OMC-R is flexible enough to fit any network topology to ensure smooth network growth. Thousand of cells per region can be managed by an OMC-R; the management of your network can also be geographically dispersed and managed by several simultaneous operators.

> ***Clear, real-time information***

The intuitive graphical user interface (GUI) provides a clear, real-time network overview, with quick, user-friendly access to any operational functions. Context sensitive information is at your fingertips, saving time, money and effort.

> ***Customized information for faster fault isolation***

Powerful sorting and filtering capabilities on real-time network events allow operators to focus on the most critical issues. The fault management features included in the Evolium OMC-R enable operators to choose from a variety of dynamically refreshed network views, with colors indicating levels of urgency.

> ***Fast and simple configuration management***

Configuration tasks are simplified and accelerated when using the Evolium OMC-R. For example, hardware installation and radio configuration can be prepared separately, or extensive radio parameter changes or software upgrade can be made throughout an entire network area in a single operation.

> ***Comprehensive QoS data***

Quality of Service supervision and analysis are made possible through the integration of a Metrica™ database in the Evolium OMC-R. More than 500 indicators with customizable threshold settings covering all types of BSS and GPRS resources are available for immediate assessment and remedy action.

> ***One job, one profile***

The Evolium OMC-R provides efficient solutions to guarantee the security and integrity of network operations. Access control is managed through sets of accessible network equipment, or object access domains, and through supervision, configuration and administration profiles, or functional access domains.

Management of UMTS Radio Access Networks

Products in this solution

Evolium UMTS Operation and Maintenance Center for Radio (OMC-R) – Alcatel 1353 UR
Alcatel 955 Radio Network Planning (RNP) tool

Managing the radio access part of a 3G network can be challenging. In addition to the challenges of finding the right low-cost, future-proof, and scalable solution that can be integrated seamlessly into the back office systems, you are up against tough competition, with fast deployment deadlines, and optimal Quality of Service (QoS) demands. The Alcatel Evolium UMTS OMC-R helps you to meet the challenge head-on.

Highlights

> ***Helping you deploy and smoothly grow your network***

The Evolium UMTS OMC-R has the scalability that lets you keep pace with network growth and be ready to manage new services and functions today and into the future. Built around a highly intuitive user interface, its automation facilities and powerful online help system aid you with any task while bringing the information you need right to your fingertips. Advanced features like hardware plug & play, provisioning and templates-based transmission and radio configuration significantly reduce time and effort.

> ***Trouble-free densification***

The Evolium UMTS OMC-R can be easily interfaced with Alcatel's 955 Radio Network Planning (RNP) tool or your own RNP application for trouble-free implementation of your network deployment and densification. It also provides the perfect adaptation of the Radio Network Optimizer (RNO) to make the best use of human and network resources.

> ***Optimal QoS helps reduce customer churn***

An integrated Metrica[™] database in the Evolium UMTS OMC-R contains the full set of QoS indicators and predefined or customizable QoS reports, so you have full network performance visibility. These indicators and associated reports can be exported as Microsoft Excel spreadsheets for efficient circulation of information to your teams. Problem identification is rapid; for example, the OMC-R displays the network's worst cell in a few minutes. With a graphical user interface assisting you in localizing impacted areas, you can prioritize your maintenance or recovery operations.

> ***Managing in a multivendor network***

Compliance with 3GPP standards lets you operate a complete network in a multivendor environment. External interfaces follow the N Interface specifications and the TMF MCCM works, using XML for file encoding, CORBA for communication services, X.733 for alarms, etc. Interoperability with your transmission manager eliminates inconsistencies in the ATM network configuration. Compliance with standards is the guarantee of smooth integration, and UMTS OMC-R helps you achieve it.

Management of Mobile Core Networks

Products in this solution

Evolium™ Operation and Maintenance Center for Mobile Core – Alcatel 1300 OMC-CS

Evolium™ Operation and Maintenance Center for Mobile Core – Alcatel 1300 OMC-PS

Evolium™ Operation & Maintenance Center is a cost-effective, user-friendly solution that provides integrated centralized management for circuit (OMC-CS) and packet (OMC-PS) mobile core networks. It manages the elements of the core network for GSM, GPRS and 3G (UMTS), including related ATM and IP equipment.

Highlights

> *Features that make a difference*

Our solution is packed with the features you need to manage your mobile network today, and in the future. You'll always know what's happening in your network with access to network information with data on all network nodes displayed through hierarchical views, and our powerful on-line help and documentation ensures you're using your tools to their greatest advantage. You can download and activate network element software from the OMC; you can backup and restore network element data using the OMC; you can be sure you're ready for the introduction of Next Generation Network (NGN) elements (MSC servers and gateways) and IM.

> *Information when you need it*

Various management features provide clear, comprehensive, customized and real-time information on network faults, performance, configuration and security.

> *Secure and reliable management*

Data security, reliability and availability are assured thanks to mirrored disks, duplicated access to the managed elements and optional geographical redundancy,.

> *Future-proof your network*

Ensure seamless operations and network scalability through our modular client server architecture. Our open, flexible architecture allows easy network extensions and smooth migration towards high capacity and UMTS networks.

> *Reduced operational costs*

Through the common interface provided by our solution, service providers can access all management functions through a single point of entry, decreasing the time required to perform common tasks. Operator training is significantly reduced, as is the potential for manual error. The automation of complex tasks (batch processing, job scheduling, alarm management, etc) and the single interface into your OSS dramatically reduce operational expenses.

Analysis and Optimization solution for Mobile Networks

Products in this solution

Evolium Toolchain Network Performance Analyzer (NPA)

Evolium Toolchain Radio Network Optimization (RNO) tool

Evolium Toolchain Lucid Network Availability, Stability and Events Reporting (LASER) tool

Alcatel 955 Radio Network Planning (RNP) tool

Alcatel's Evolium Toolchain solution provides a full and flexible suite of back-office planning, analysis and optimization solution for your network. Working in conjunction with the Evolium Operation and Maintenance Center for Radio (OMC-R), it is designed for rapid customization and smooth integration to fit your particular operational procedures and network engineering methods. With Evolium Toolchain, you really can have it all: real-time information for smooth network operations and state-of-the-art QoS plus all the cumulative, enriched information required to make sound network configuration and development decisions.

Highlights

> ***Release synchronization with OMC-R and BSS***

The Evolium Toolchain updates match Evolium OMC-R/BSS releases. All of the elements in both the Toolchain and OMC-R/BSS share common interfaces, so all OMC-R/BSS functions and enhancements are immediately available for use in your network with the Evolium Toolchain.

> ***Customize your solution***

Evolium Toolchain components are modular, which means that your solution can be scaled as your network grows. Each component is available separately and is powerful enough to handle a complete operational region of up to 5,000 cells.

> ***Understand your network with NPA***

The Evolium Toolchain Network Performance Analyser (NPA) combines the widely-recognized superiority of the Metrica/NPR database with Alcatel's unique expertise in cellular optimization, including a full set of pre-defined QoS indicators and reports to help you analyze your network quickly and completely.

> ***Optimize your network with RNO***

The Evolium Toolchain's Radio Network Optimizer (RNO) application enables you to significantly increase the performance of your existing network infrastructure quickly and efficiently. Optimize your network through our powerful graphical user interface, verify and evaluate your network configuration and effectively track and resolve QoS issues with the outstanding help of the diagnosis module.

RNO enables you to quickly identify problem areas and take proactive steps to fix the problem before it impacts your customers. Over the thousands of existing GSM and GPRS indicators, you can define your own QoS indicator alert thresholds, create your own QoS reports, and export reports to Microsoft Excel for easy publication and post-processing.

Thanks to its interface with A955 Radio Network Planning (RNP) tool or your RNP application, RNO allows you to pinpoint any inconsistency between your planned network and the operational one. Such facility is a must for critical parameters like frequencies or neighborhood.

> ***Field data back to frequency planning***

One of the crucial steps when designing GSM networks is of course the frequency plan which must take into account the existing geographical environment to limit the interference. Interference matrix is usually computed at RNP level but limited in its accuracy by the underlying terrain databases and prediction models. RNO, in conjunction with the Radio Measurement Statistics (RMS^o) feature allows you to measure these interference directly from the field and put them back in A955 RNP, or your own RNP application, for the best frequency plan computation you could expect.

> ***Increase your network stability with LASER***

The Evolium Toolchain LASER (Lucid network Availability, Stability and Events Reporting tool) application turns raw alarms data into useable information about system stability and overall system availability. Modular and scalable like all Evolium Toolchain components, LASER application will prove invaluable to your network engineering teams as they focus on system quality problems, track hardware reliability and measure the impact of events on network performance.

OSS GSM 2G-2.5G-3G Mobile Pack

Products in this solution

Alcatel 8910 Alma Vision Assurance
Alcatel 8913 Alma Vision Assurance Problem Management
Alcatel 8920 Alma Vision Provisioning
Alcatel 8930 Alma Vision Billing
Alcatel 8942 Customer Management Intelligent Solution

The Alcatel Mobile Pack is designed to optimize business processes. This optimization starts with the control of the whole billing chain, from near-real time CDR collection, rating, discounting to billing. It encompasses support for new revenue streams and sharing associated with 2.5 and 3G services.

It also involves accurate management of customer complaints, new customers acquisition processes, efficient tools to increase profit (customer profiling, campaigns management for cross- and up-selling), churn anticipation and avoidance, and of course fraud reduction with sophisticated tools such as usage analysis based on neural networks.

The underlying network should of course be managed with integrated tools, for alarm, performance and problem monitoring and SLA compliance.

The Alcatel Mobile pack is a complete, ready-for-use OSS solution. It can be brought into operations in less than 12 weeks (2-2,5G). It is modular and scalable, and uses technology-agnostic mediation with the network for collection and activation, to shield the Information System from network complexity.

Alcatel can complement this solution pack with a complete suite of services that includes consulting, from early project definition and dimensioning to service impact analysis and business process engineering and change management; OSS project management and system integration, from specification to system deployment and data migration; staff training; ongoing support with long term and full maintenance service; and network operations.

Highlights

> ***Be up and running quickly***

Rapid time to market is key to offering services aggressively.

> ***Thwart fraud***

Advanced usage analysis tools give you the information you need to be proactive in this critical area.

OSS 2.5G-3G Evolution Pack

Products in this solution

Alcatel 8910 Alma Vision Assurance
Alcatel 8913 Alma Vision Assurance Problem Management
Alcatel 8920 Alma Vision Provisioning
Alcatel 8930 Alma Vision Billing
Alcatel 8942 Customer Management Intelligent Solution

Alcatel has designed an effective evolution pack, which adds new state-of-the-art components while minimizing impact on existing legacy systems. This evolution pack is designed to optimize the following business processes: control on the whole billing chain (real-time CDR and events collection, rating, interface with legacy billing for promotions and convergent billing); support for new revenue streams associated with 2.5 and 3G services; accurate management of new generation services and tariffs; new customer acquisition (order entry on customer care screen, service activation); profitability increase (customer segmentation and profiling, scoring, detection of subscribers potentially interested by new generation services); fraud reduction (real time detection of potential frauds and full support for analysis and management of suspicious cases); network monitoring (alarms, performance and SLA management).

Alcatel can complement this solution pack with a complete suite of services that includes consulting, from early project definition and dimensioning to service impact analysis and business process engineering and change management; OSS project management and system integration, from specification to system deployment and data migration; staff training; ongoing support with long term and full maintenance service; and network operations.

The Alcatel OSS 2,5-3G Evolution pack is a complete solution with a flexible, scalable real-time rating system, including the Alcatel charging gateway and an interconnection management system; service provisioning system including order management and process control ; marketing system for advanced business analysis; a service-assurance system including problem management services, intelligent fault-management services, QoS and SLA manager capabilities; a fraud management system completed by technology-agnostic mediation with network for collection and activation, to shield the Information System from network complexity.

Highlights

> ***Rapid time to market***

Be up and running quickly, so you can start to offer services aggressively.

OSS Prepaid Solution Pack for Mobile Operators

Products in this solution

Alcatel 8942 Customer Management Intelligent Solution,
Alcatel 8966 Fraud Management System,
Alcatel 8965 Charging Gateway
Alcatel 8913 Alma Vision Assurance Problem Management
Alcatel 8920 Alma Vision Provisioning
Alcatel 8930 Alma Vision Billing

The Prepaid Solution Pack from Alcatel is a low cost, modular solution. It optimizes the management of prepaid services, accounts, cards, customers, and interconnection fees, while detecting and thwarting fraud attempts.

High profitability is achieved thanks to a pre-packaging of the solution, ensuring seamless integration, minimal implementation time, and pre-customization. A number of mobile operators around the world have chosen the Prepaid Solution Pack and are already experiencing a satisfactory return on investment.

The Alcatel OSS Prepaid Solution Pack is a complete solution for: Advanced services barring / unbarring automatically from IN platform; SIM cards management; advanced customer care; market analysis; complete Fraud Management, especially prepaid oriented; and fast, flexible interconnection billing to verify and optimize connection fees.

Alcatel can complement this solution pack with a complete suite of services that includes consulting, from early project definition and dimensioning to service impact analysis and business process engineering and change management; OSS project management and system integration, from specification to system deployment and data migration; staff training; ongoing support with long term and full maintenance service; and network operations.

Highlights

> ***Increase your revenues***

With marketing analysis, you can target the right customers and stimulate cross- and up-selling.

> ***Reduce your operational costs***

With full automation, functions such as mass creation of accounts, services barring/unbarring or expired accounts purge from HLR all take up minimal resources, and HLR and IN platform inconsistencies are prevented.

> ***Take care of your customers***

With advanced management of customer information, call history, account balance, actions history, orders, unblocking codes and deposits.

> ***Minimize exposure***

The solution includes a complete fraud management system, designed for prepaid services.

> ***Keep interconnection costs under control***

Monitoring and control features help you do this.

Management of Voice and Multimedia Services:

Your expenses will go down and your profits will go up with Alcatel's Voice and Multimedia Services management solutions. Helping you profitably manage today's voice network by combining access and core management, and moving with you to the future of next generation converged networks, Alcatel's voice and multimedia services portfolio is managed by a comprehensive set of tools and products. Our solutions provide end to end management for Alcatel E10, S12, 1540 Litespan and Alcatel 1000 TDM switches, as well as next generation softswitches, media gateways and data transport equipment.

You need to reduce your training and operational time, and increase the speed and accuracy of service deployment and management. Our solutions help you do just that: in addition to providing seamless desktop and alarm integration, Alcatel's network management solutions also provide consistent provisioning of subscribers and network configuration data across different network elements (such as softswitches and access gateways). These solutions can be integrated into your OSS environment through standard open interfaces.

> ***Integrated Class 5 management solution***

Integrate your switching, access and next generation network equipment with our Integrated Class 5 management solution. With an intuitive interface, seamless OSS integration, common network maps, and unified graphical display of critical network information our solution reduces provisioning time, reduces operator training, reduces operator error, decreases time to market, and increases profitability.

> ***Network-wide voice traffic management solution***

Our network-wide voice traffic management solution helps you stay on top of your network performance. Increase your call completion ratio and your Grade of Service offering while reducing non-essential costs arising from unidentified network faults, inefficient architecture and incorrect resource allocation.

> ***Centralized fixed and mobile voice network management solution***

Reduce costs and increase efficiency with our centralized management solution. Designed for both fixed and mobile Alcatel 1000 E10-based voice networks, it integrates seamlessly into your existing OSS, and supports multivendor environments to provide fault, traffic and configuration management functions.

Integrated Class 5 Management Solution

Products in this solution

Alcatel 1300 Convergent Network Management Centre

Alcatel 1360 Switch Management Centre

Alcatel 1353 Multiservice Access Element Manager (1353 DN Litespan)

Integrate your switching, access and next generation network equipment with our Integrated Class 5 management solution. With an intuitive interface, seamless OSS integration, common network maps, and unified graphical display of critical network information our solution reduces provisioning time, reduces operator training, reduces operator error, decreases time to market, and increases profitability.

Highlights

> ***Single interface for end-to-end management of today's voice and next-generation voice and multimedia services***

Our solution integrates the management of switching, access and next generation network equipment. We provide end-to-end management for:

- Alcatel 1000 S12
- Alcatel 1540 Litespan
- Alcatel 5000 and 5020 Softswitches
- IN servers, Billing servers and other servers
- Various types of trunking and access gateways

This integration provides a common network map displaying all of the managed elements, single logon access to all management functions and consolidation of alarm surveillance information into a unified graphical display.

> ***Faster time-to-market and additional revenue through accelerated subscriber provisioning***

Our integrated Class 5 management solution provides service activation, service assurance, and consistent subscriber management through a single interface across both your access and switching networks. The service management module (CMS V5 manager) consistently creates the V5 subscribers in Alcatel 1000 S12 and Alcatel 1540 Litespan nodes. This capability reduces provisioning time, reduces operator errors and decreases time to market.

> ***Reduced operational costs***

Through the common interface provided by our solution, service providers can access all management functions through a single point of entry decreases the time required to perform common tasks. Operator training is significantly reduced, as is the potential for manual error. The automation of complex tasks (batch processing, event scheduling, alarm management, etc) and the single interface into your OSS dramatically reduce operational expenses.

Network-wide Voice Traffic Management Solution

Products in this solution

Alcatel 1340 Voice Traffic Management

Alcatel 1341 Voice Traffic and QoS Analysis

Alcatel offers you one of the most powerful and comprehensive Telecom Voice Traffic Management solutions on the market. It manages your network in real-time and analyzes network performance while helping you reduce costs and lay the groundwork to meet future challenges of evolving markets and next generation technologies.

Highlights

> ***Real-time traffic monitoring and control***

The Alcatel voice traffic management solution provides proactive detection of network problems and rapid diagnosis of network faults. Using our solution, operators analyze the origin of a problem and seek alternate solutions. For example, in the case of failure or congestion, operators can review the load on alternate routes before applying Temporary Alternative Route control.

> ***Controlling traffic in a multivendor and next generation network***

Our Traffic Control application makes it easy to handle traffic in near real-time. Our powerful graphical user interface is independent of the underlying multivendor technology, and hides the intermediate steps required for control activation/deactivation. The generic nature of the system allows it to support next generation technologies and multivendor network elements equally.

> ***Powerful historical traffic and QoS analysis***

Our voice traffic management solution processes, aggregates and stores network statistics in a data warehouse, and transforms huge amounts of data into meaningful information. A wide range of pre-defined reports on dimensioning, optimization, enhanced QoS, what-if scenarios, and more can be generated on-demand or on a scheduled basis. Reports can also be easily customized through the GUI. They can be displayed, printed, exported to an office environment or published on the web.

> ***Explore new business opportunities***

Ad hoc queries to investigate abnormal traffic patterns or search for new business opportunities are all supported in this powerful solution. Analyzing traffic patterns will reveal valuable information leading to new market opportunities, such as special promotions during low-traffic periods or special offers addressing specific market niches.

Centralized Fixed and Mobile Voice Network Management Solution

Products in this solution

Alcatel 1300 NMC2 Voice Network Management

Alcatel 1340 Voice Traffic Management

Alcatel 1341 Voice Traffic and QoS Analysis

Alcatel 8965 Collector/Charging Gateway

In today's competitive telecommunications environment, you need to take advantage of efficiencies wherever possible to reduce operating expenses and increase your revenue. Our centralized fixed and mobile voice network management solution provides a cost-effective solution for the combined management, through a single interface, of today's fixed and mobile voice networks. With an intuitive interface, seamless OSS integration, multivendor support, and unified graphical display of critical network information, our solution reduces provisioning time, reduces operator training, reduces operator error, decreases time to market, and increases profitability.

Highlights

> ***Single interface for management of today's fixed and mobile voice network***

Our solution integrates the management of fixed switching and mobile core equipment. We provide end-to-end management for:

- Alcatel 1000 E10
- Alcatel 1000 E10 MM including media gateway controller (MGC)
- Mobile switching centers (MSCs) including service switching points (SSPs), radio control functions (RCPs), visitor's location register (VLR) and home location register (HLR)/AuC for cellular GSM networks
- GPRS support nodes (SGSN and GGSN) and IP backbone network elements such as border gateways and DNS/DHCP servers
- Universal mobile telecommunications system (UMTS) networks:
- GPRS packet and circuit parts with MSC and HLR for R99 UMTS core networks
- UMTS core networks with a next generation network (NGN) structure

Our management solution provides a common network map displaying all of the managed elements, single logon access to all management functions and consolidation of alarm surveillance information into a unified graphical display.

> ***Integrates into your environment***

Our centralized management solution offers comprehensive, efficient communication with external applications using open interfaces and standard protocols to exchange data in message or file format. Our centralized interface consolidates data from all voice and mobile network elements for easy access and manipulation by your OSS applications.

> ***Adapts to your needs***

Offering you the flexibility to centralize and/or distribute the organization of your operations, our solution allows you to assign specific responsibilities to operators by geographical area, network element type or operational functions.

> ***Evolves with your network***

Manage your GSM/GPRS network elements today with our centralized management solution, and rest comfortably knowing that you are already trained and equipped to manage next-generation UMTS network elements, well positioned for the future. This architectural flexibility also enables easy handling of network extensions, which can be implemented on-line without affecting day-to-day operations.

> ***Reduces costs and increases efficiency***

Our centralized voice management solution significantly reduces maintenance and operational costs. Our user-friendly interface makes complex tasks easier to perform; efficient multitasking and multisession features allows parallel tasks to be executed simultaneously on one or multiple switches; our sophisticated fault detection system and integrated trouble ticketing system allows you to isolate and react to problems more quickly.

> ***Increases billing efficiency***

Our solution can be complemented with the Alcatel 8965 Collector/Charging Gateway to manage call detail record data, retrieve charging information (periodically or in real-time), and to store and reliably transfer the charging information to the billing center.

> ***Increases network performance***

The network-wide voice traffic management features of our solution help you stay on top of your network performance. Increase your call completion ratio and your the Grade of Service offering while reducing non-essential costs arising from unidentified network faults, inefficient architecture and incorrect resource allocation.

Management of Enterprise Networks

Simplify the management of your enterprise network: the Alcatel OmniVista 2000 Series provides a comprehensive set of network management system (NMS) solutions for the enterprise. OmniVista 2000 consists of applications and tools that are designed to simplify the management of Alcatel networking devices, allowing you to manage and monitor your entire network from a single platform.

The OmniVista 2000 network management solution can be extended with supplemental applications and technologies. These supplemental applications are designed to run in the OmniVista environment and extend management services to tasks such as provisioning QoS across multiple devices. This solution provides an extensible platform for enterprises that is based on the Alcatel Enterprise NMS Architecture, where each layer provides a specific management function.

This release of our OmniVista solutions marks a milestone in the development of Alcatel NMS solutions for the enterprise. As Alcatel moves towards new products and capabilities, OmniVista is unifying the management of the network in a single enterprise platform. New applications are being planned for our enterprise NMS solutions to expand their capabilities and make them an integral part of your multivendor enterprise network environment.

> ***Core Management Solution for Enterprise Networks***

View multiple Alcatel devices, perform functions such as device discovery, view networks or subnetworks topologically, and collect and view alarm, health and event information from multiple switches in a single location.

> ***Extended Management Solution for Enterprise Networks***

Add value to your core management solution with Alcatel's extended management solution. Policy-based management and reliable ATM call detail record collection reduce management time and simplifies operations. Take control of your QoS with our Expert Mode tools.

> ***Element Management Solution for Enterprise Networks***

Employ elegance and simplicity with next-generation Web-based managers for our next-generation switches and comprehensive switch manager clients for the rest of the Omni switch family. With out-of-the-box management and near-universal access, our element management solutions provide secure management for your Alcatel enterprise network.

Core Management Solution for Enterprise Networks

Products in this solution

OmniVista 2520 Basic Single User Pack

OmniVista 2540 Basic Multi-User Pack

Monitor your network activity, configure and troubleshoot your network devices, and manage your entire Alcatel enterprise network from a single platform. The OmniVista 2500 series is a comprehensive set of network management solutions that offer applications and tools designed to simplify the management of Alcatel networking devices.

Highlights

> ***Unified management***

Provides a common graphical interface and network management infrastructure for performing management functions, integrating applications, and unifying element management across multiple devices on your network.

> ***Network-wide visibility***

Provides you with an extensive view and in-depth reporting of activity on your network, with functions such as discovery, physical and logical topology maps, centralized alarm, health and event management, graphs, and statistical information.

> ***Configuration management***

Provides direct access to each individual device through its native element manager, and allows all networking devices to be configured from a centralized location.

> ***Scalable architecture***

Provides single-user and multi-user versions and an extensible architecture with applications that allow the OmniVista 2000 environment to be tailored to the user's network and budget needs.

> ***Extended management tools***

With our core management platform in place, you're perfectly positioned to add value to your enterprise offering with our extended management solutions. Our tools allow you to simplify QoS configuration and tracking, generate ATM accounting information, and more.

Extended Management Solution for Enterprise Networks

Products in this solution

OmniVista 2730 PolicyView with One-touch QoS

OmniVista 2720 ATM AccountingView

Add value to your core enterprise management solution with the OmniView 2700 series of supplemental applications. Enable simplified QoS configuration with OneTouch QoS through PolicyView, an application designed for easy implementation of policy-based management and QoS across multiple switches. Generate accurate billing records for ATM usage through ATM AccountingView.

Highlights

> ***“One-touch” simplification***

Reduces amount of interfaces for configuring QoS for VoIP and time critical data operations.

> ***Three modes of operation***

OneTouch for voice simplifies the configuration of QoS for VoIP networking. OneTouch for data allows you to set priorities for selected servers. Expert mode offers complete control over QoS definition.

> ***Accurate ATM billing record***

ATM usage can be tracked accurately from call detail records, providing important information for billing based on actual usage.

> ***Standards based reporting***

Develop reports based on various reporting standards including Bellcore Accounting Format (BAF)

Element Management Solution for Enterprise Networks

Products in this solution

OmniVista 2221 Switch Manager Client for Windows

OmniVista 2222 Switch Manager Client for HP-UX

OmniVista 2223 Switch Manager Client for Solaris

OmniVista 2260 TrackView Client

WebView

WBM

X-Vision

Our element management solutions are open and flexible, allowing you to work in the environment of your choice: through direct access in standalone mode, using industry standard network management platforms such as HPOV, or through Alcatel's powerful core management solution, the OmniVista 2000 network management platform.

Element management applications are specific to device architectures; that is, they differ based on the device type being managed. For example, WebView is the element manager for our next-generation OmniSwitch 7000 family, TrackView is the element manager for the OmniCore products, and SwitchManager is the element manager for many of the other Omni family products.

Highlights

> ***Out of the box GUI management***

With element management solutions embedded in our next-generation switches, web-based GUI management is ready right out of the box, with no special software to install.

> ***Easy configuration***

Provide graphical switch-level monitoring and configuration capabilities for all switches in the Omni family.