

The Alcatel 5620 Network Manager (NM) is the cornerstone of the Alcatel family of network and service management products for data networks. An integrated part of the Alcatel family of products, the 5620 manages wire-line and wireless broadband services originating on access devices and transported over edge and core switches. The 5620 is a proven platform, currently installed in more than 1,000 networks worldwide, including over 800 customers. The scope of the 5620 is exemplified by the broadest range of services offered on one platform, and the ability to combine multiple access types (e.g., conditional and unconditional copper, fiber, fixed wireless, mobile wireless) over a multi-protocol core (e.g., IP, MPLS, ATM).

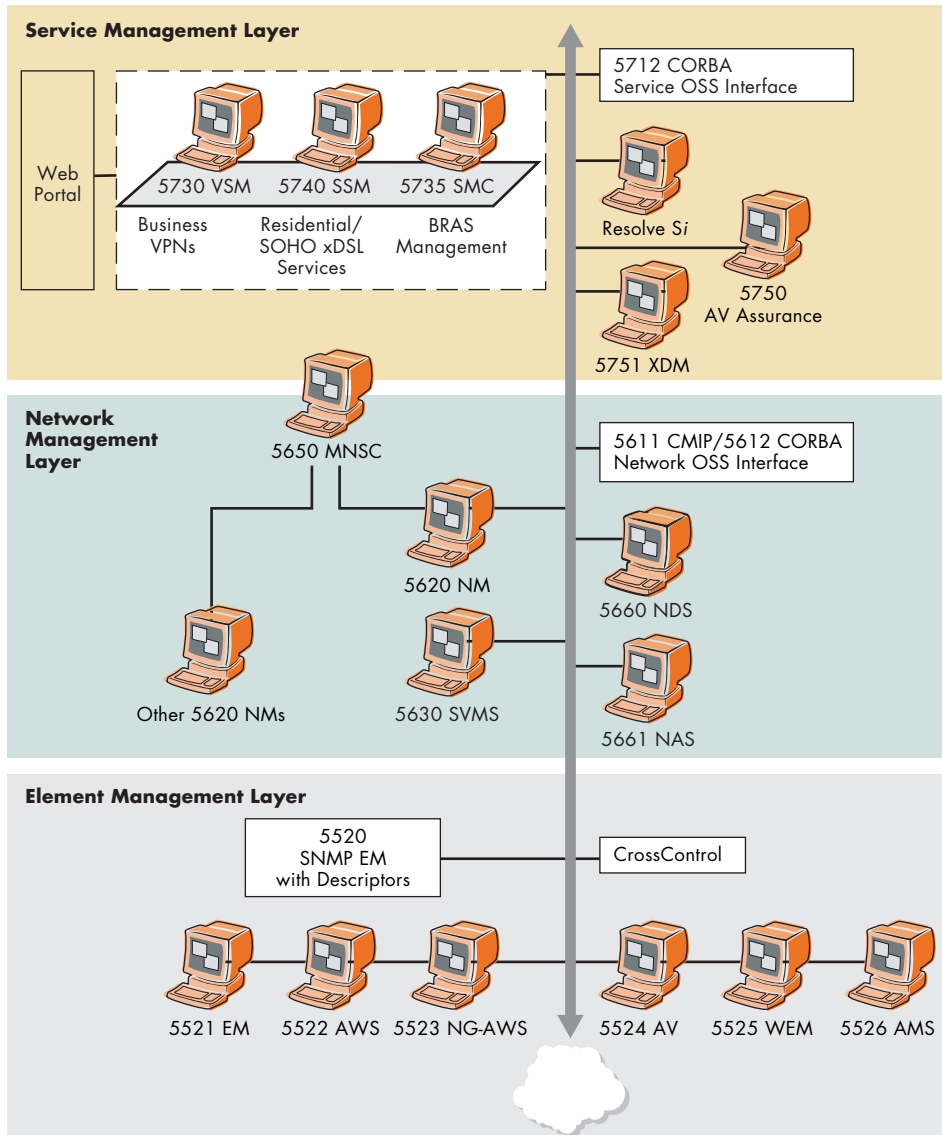


End-to-end  
superior network  
management



Distinguished by its open, scalable, reliable, multi-access, multi-technology management capabilities, the industry leading 5620 empowers network operators to add new service offerings without the overhead of introducing new management systems and retraining staff. These capabilities also lead to lower overall

operating costs, reduced provisioning times and greater efficiency in the use of the network infrastructure. Management functions span fault, configuration and performance management, and accounting and security functions. All of these functions are provided seamlessly across the network.



Alcatel 5735 Service Management Center (SMC)

Alcatel 5750 ALMA Vision Assurance

Alcatel 5751 ALMA Vision Cross-Domain manager (XDM)

Alcatel 5661 Network Analysis System (NAS)

Alcatel 5522 AWS Element Manager (AWS)

Alcatel 5523 NG-AWS Element Manager (NG-AWS)

Alcatel 5524 Assured Vision (AV)

Alcatel 5525 Wireless IP Element manager (WEM)

Alcatel 5526 AMS Element Manger (AMS)

### Multivendor support

The 5620 open management framework facilitates the integration of multivendor devices. With the capability to extend management control across a wider network footprint, network operators can reduce costs and consolidate their networks as well as meet their contracted service levels. For example, the 5620 has a proven record of integrating simple network management protocol (SNMP) and Transaction Language 1 (TL1) manageable elements from other vendors.

### Network restoration

The 5620 is designed to provide the highest availability at all times, even during network failures, minimizing network downtime. The 5620 path and overlay link group feature allows service providers and enterprise network managers to quickly recover from disaster situations without complicated processes and delays.

The 5620 allows operators to specify either an automatic or operator-selected route at the time of service configuration, as well as alternate route destinations for a particular service or path.

In doing so, the 5620 ensures that critical paths and links are highly protected.

Bandwidth can be reserved on an alternate or secondary route so that if a failure occurs on a primary route, the 5620 will automatically switch the connection to the alternate route.

### Network simulation

The 5620's Network Simulator can be used to test and model network resources. The Network Simulator looks and functions like the 5620, but it allows network operators to simulate and test networks without attached equipment or bandwidth resources.

The Network Simulator is useful for: training new operators without affecting live network operations, studying changes to the existing network, testing upgrade scenarios, simulating network failures and re-route scenarios, and designing new networks.

### Statistics collection

The statistics collector is a scalable system used for collecting path endpoint information for: permanent virtual circuits (PVCs), soft PVCs (SPVCs), and switched virtual circuits (SVCs) (using ATM, frame relay and X.25); trunks and access links (ATM, frame relay and TDM); Internet protocol (IP) VPNs (IP-VPNs); and X.25 resources. This includes statistics at the physical, frame and cell switching layers of the network. These statistics provide information about traffic volume, network congestion and error conditions.

The Alcatel Distributed Statistics Collector is an optional add-on for distributed networks. The statistics collection functionality co-resides on the 5620 main platform. For larger networks, operators can use the distributed version of the statistics collector.

## Technical Summary

### What's New in This Release

- ▼ Manages 10,000 core nodes, 500,000 edge nodes
- ▼ 500,000 PVC plus 1,000,000 SPVC connections
- ▼ Managed products include the Alcatel 7300 ASAM DSL Subscriber Access Platform (ASAM), the Alcatel 7411 Broadband Access Server (BAS), and the Alcatel 7390 Local Multipoint Distribution Service (LMDS) platform
- ▼ Enhanced private network-to-network interface (PNNI) functionality to support network load balancing
- ▼ A powerful new Alarm Surveillance System for the efficient management of network alarms
- ▼ Minimum platform requirement: Sun Solaris 2.7
- ▼ IP provisioning support for the Alcatel 7470 Multiservice Platform (MSP) Release 4.3
- ▼ The node navigator feature provides an explorer-style navigation tool that allows operators to quickly and easily access and manage equipment down to the port level
- ▼ Enhancements to the object diagnostic and route trace functions for SPVCs allow operators to graphically display all traversed nodes, including crankbacks

### Carrier Reliability

- ▼ Fault management capabilities including real-time status reporting, trouble tickets, alarms, fault notifications, real-time performance monitoring and diagnostics and maintenance
- ▼ Diagnostic tools for isolating network problems including loopbacks, busy outs, centralized maintenance connections, forced error, forced reroute, and path diagnostics
- ▼ Automatic rerouting function activated on link or logical failures
- ▼ Accounting and data collection tools that allow for service level performance monitoring, service level agreement (SLA) offerings and billing information, in combination with CrossKeys Resolve Si and KeyBill
- ▼ Service management capabilities extended using the Alcatel 5730 VPN Service Manager (VSM) and the Alcatel 5740 Service Subscription Manager (SSM)
- ▼ Network trending and analysis functionality that supports efforts by operations, planning and engineering to optimize quality of service (QoS) through CrossKeys Resolve Ni

### Features

- ▼ Manages TDM, X.25, frame relay, ATM, and frame relay over ATM interworking from a common GUI interface
- ▼ Multiservice core/backbone network consolidation (capable of managing an integrated circuit, packet and cell switched network) and multi-access network consolidation (providing comprehensive control of the entire network from a single location)

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- ▼ Multivendor element management in combination with the Alcatel 5520 SNMP Element Manager (SNMP EM), descriptors, and Alcatel CrossControl
- ▼ Open application programming interfaces (APIs), providing interfaces at all levels of the Telecommunications Management Network (TMN) hierarchy to automate business processes with the Alcatel 5611 CMIP and Alcatel 5612 CORBA Network OSS Interfaces
- ▼ Network management redundancy that ensures reliability using multiple workstations (active and standby) that can be geographically dispersed
- ▼ Online user documentation (based on SGML) for quick, customizable, context-sensitive access
- ▼ Intuitive, sophisticated GUI
- ▼ Connection provisioning and activation for multiservice provisioning of PVCs, SPVCs, SVCs and IP-VPNs
- ▼ Downloadable software upgrades to the network
- ▼ Network simulation functionality to test and model network resources
- ▼ Powerful network design, optimization, planning and failure analysis tools

### **Scalability**

- ▼ Manages 10,000 core nodes, 500,000 edge nodes
- ▼ 500,000 PVC plus 1,000,000 SPVC connections
- ▼ 255 operator sessions
- ▼ 1,000 service level partitions (VSNs)
- ▼ 128 physical network partitions (VBNs)

### **Network Management Compatibility**

- ▼ 5611 CMIP Release 4.1
- ▼ 5612 CORBA Release 4.1
- ▼ 5520 SNMP EM Release 4.1
- ▼ Concord Network Health Release 4.5
- ▼ KeyInfo Release 4.0
- ▼ KeyNotes Release 4.0
- ▼ CrossKeys Resolve Ni Release 3.0 and 4.0
- ▼ Alcatel 5660 Network Design System (NDS) Release 1.0
- ▼ Alcatel CrossControl Release 4.0
- ▼ Alcatel 5630 Secure VPN Management Suite (SVMS)
- ▼ Alcatel 5521 PC-based Element Manager (EM) Release 9.0

### **Service Management Compatibility**

- ▼ 5730 VSM Release 1.0
- ▼ 5740 SSM Release 1.2
- ▼ Alcatel 5650 MultiNetwork Service Controller (MNSC)
- ▼ CrossKeys Resolve Si Release 3.0 and 4.0
- ▼ KeyBill Release 4.0

### **Platform**

- ▼ Minimum database workstation requirement: a Sun Ultra 10 workstation with 512 MB RAM, 18 GB hard drive, CD-ROM drive, LAN or WAN Ethernet or ATM connection
- ▼ Sun Solaris v.2.7
- ▼ X11R5-compliant X-server software (for X-terminal login support only)
- ▼ HP OpenView Network Node Manager (NNM), for enhanced LAN management (optional)

### **Standards Compliance**

- ▼ International Telecommunication Union-Telecommunication Standardization Sector (ITU-T) management network model, X11R5
- ▼ TeleManagement Forum Bandwidth Management Ensemble 038
- ▼ International Standards Organization CMIP and SGML
- ▼ Internet Engineering Task Force SNMP
- ▼ Distributed Statistics Collector standards:
  - AT&T 54016
  - ANSI T1.403
  - ITU-T G.821/822
  - In conjunction with KeyBill: frame relay and ATM PVC, SPVC, Bellcore Automatic Message Accounting Format (BAF)
- ▼ Alcatel SVC Billing Mediation standards: BAF

