

# Alcatel-Lucent 5620 NM

## NETWORK MANAGER | RELEASE 8.0

A proven and scalable network management solution for multitechnology, multiservice networks



The Alcatel-Lucent 5620 Network Manager (NM) is an open, scalable, highly available multiservice network management platform that is deployed in more than 1,000 networks, including 350 of the world's largest service providers. The 5620 NM manages Alcatel-Lucent's Multiservice Wide Area Network (MSWAN) product portfolio that includes TDM, frame relay, ATM, Ethernet, DSL and IP-capable network elements.

### What's New in Release 8.0

In Release 8.0, the Alcatel-Lucent 5620 NM continues with the strong focus on features which are relevant to mobile network environments: from adding support for the Alcatel-Lucent PSAX family of products to enabling management of important features delivered by the Alcatel-Lucent 7670 Routing Switch Platform (RSP) R7.1, 7670 Edge Services Extender (ESE) R5.1, and 7470 Multiservice Platform (MSP) R9.1.

Release 8.0 of the Alcatel-Lucent 5620 NM adds the management support for advanced protection capabilities (1:N line card protection on the 7670 ESE), new cards (new 1-port OC-3/STM-1 cards with SFP modules, new 16-port T1/E1 MS card on the 7470 MSP, new 3-port DS3 CR Card on the 7470 MSP/7670 ESE) and new I/Os (STM-4/OC-12 I/O for the Edge Service Card on the 7670 RSP), as well as the management support for a number of feature enhancements (enhanced CR/IMA, multishelf ESC).

For 3G and HSPA environments, the Alcatel-Lucent 5620 NM delivers extensive support for ATM, including features such as round trip delay, and also provides advanced management capabilities for pseudowires/label switched paths (LSPs) and IP-VPNs on the 7670 RSP. With the Path Migration Tool (PMT), a mobile network operator can perform en masse (bulk) assignment or reconfiguration of thousands of Node Bs to RNCs.

For mobile environments where network restoration is of paramount importance and SPVCs are deployed, the 5620 NM provides full management of both point-to-point and point-to-multipoint SPVCs.

For 2.5G/GPRS environments, additional frame relay traffic management enhancements allow for greater control and flexibility in mapping of frame relay to ATM traffic parameters.

Integration with OSS/BSS systems is further improved via an improved script management tool that offers CMIP/CORBA OSS interface (OSSI) support.

## KEY FEATURES

- Point-and-click GUI with end-to-end management and provisioning
- Full visibility and management of resources from the card/node level to the network level
- Ability to create user-defined custom nodes with limited management
- Flexible configuration and reconfiguration
- Alarm reporting
- Remote diagnostics and troubleshooting
- Real-time statistics collection and reporting
- Full redundancy
- Integration with OSS/BSS systems (CORBA/CMIP)
- Ability to segment, control access to and manage separate parts of network views (for network sharing scenarios)

## Integration with Alcatel-Lucent 5620 Service Aware Manager (SAM)

- Common desktop solution for facilitating the management of Alcatel-Lucent networking solutions for joint deployment of the Alcatel-Lucent 7670 RSP, 7750 Service Router (SR), 7450 Ethernet Service Switch (ESS) and 7710 Service Router (SR)
- Provision of topology discovery, device monitoring, integrated alarm management and navigation to the Alcatel-Lucent 5620 SAM, all from a single management application (Alcatel-Lucent 5620 NM)
- Releases supported: up to 5620 SAM R5.0

## Carrier-Grade Management and Reliability

- Fault management capabilities, including real-time status reporting, generation of trouble tickets, alarms and fault notifications, performance monitoring, diagnostics and maintenance
- Diagnostic tools for network problem isolation including remotely initiated and managed loopbacks, busy-outs, centralized maintenance connections, forced errors, reroutes and path diagnostics
- Automatic rerouting function triggered by failures of links or logical elements (resources)
- Network management redundancy for high availability (non-collocated, geographically distributed active and standby systems)
- Secure access for operator sessions

- Complete management solution from the access to the network core for DSL service such as residential high-speed Internet, business services, extreme density services and voice over DSL
- Single desktop solution for network monitoring and operation of mixed data and transport networks through the 5620 NM and Alcatel-Lucent 1353 Generic Element Manager (GEM)

## Scalability

- 10,000 core, edge and access ATM nodes and 500,000 remote network devices
- 1.5 million network connections (paths); a combination of up to one million PVCs and one million SPVCs or MPLS LSPs
- 255 simultaneous operator sessions
- 1,000 service level partitions (virtual switched networks)
- 128 physical network partitions (virtual backbone networks)

## TECHNICAL SPECIFICATIONS

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### Platform Requirements

- Minimum requirements
  - SunBlade 1000 or later
    - Example: SunBlade 1500, 4GB RAM, 36 GB HDD, 1 CPU @ 750 MHz, CDROM, Ethernet or ATM connection
  - Solaris 10
  - X11R5-compliant X-server software (for remote operator X-sessions)
- TeleManagement Forum – Bandwidth Management Ensemble NMF-038
- Object Management Group (OMG)
  - CORBA (Common Object Request Broker Architecture) interface
- Joint Inter-Domain Management CMIP-CORBA Transaction

### Standards Compliance

- ISO 8879:1986 – SGML
- X.Org – X11R5
- ITU-T TMN, including CMIP, M.3100, X.721, X.723, X.734
- IETF SNMP
- Alcatel-Lucent Distributed Statistics Collector Standards
  - AT&T 54016
  - ANSI T1.403
  - ITU.T G.821, G.822

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