Targeted management for cost-effective networking

IBM Nways Manager Suite Version 2.0

Highlights

Nways Deployment Manager supporting microcode and configuration upgrades to 2000 routers with a single action

Audit function for synchronizing database inventory with routers in the network

Nways VPN Manager validating VPN policies and tunnels

IBM-exclusive, patent-pending policy test simulating traffic against virtual private network (VPN) policies in the router

Patent-pending Layer 2 tests enabling your help desk to replicate dial-in user response time and connectivity

Support for Layer 2 and 3 VPNs, including the IKE tunnel

Forwarding of VPN events to the NetView or OpenView systems management console for visibility

Operational control to prompt policy refresh from the LDAP server

Expanded platform support for the Nways ATM Manager now including HP-UX

Hierarchical Private Network Node Interface (PNNI) topology drill-down and viewing for the IBM 8265 Nways ATM Switch

Support for 8210 MSS emulated LANs including autodiscovery of clients and policy value updates across multiple configuration servers

Support for 8210 MSS Super ELAN groups, including view of Super ELAN members, LANs and bridge port statistics

Advanced Remote Monitor supporting RMON and RMON2 for network-through-application-layer views (sold separately)

Year 2000 ready

Upgrades to the Nways Manager Suite at 50% of full product price

Free trial CD for 60-day test-drive

IBM's Nways® Manager Suite is designed to enable lower-cost, focused and efficient networking. The Suite includes all applications offered in the Nways Element Manager (see *Nways Element Manager Version 2.0*, G224-7015) plus network-wide deployment of router configurations and microcode, virtual private network support and advanced ATM management. This specification sheet also includes information about the separately orderable Advanced Remote Monitor application providing RMON and RMON2 support.

Lowering the cost of network administration with the Nways Deployment Manager

As previewed in PC Week

The Nways Deployment Manager is designed to significantly reduce the administrative cost of updating, upgrading and auditing routers in a network. The Deployment Manager is designed to upgrade 2000 or more routers with a single action.



The Deployment Manager supports a focused, controlled approach to network-wide deployment. Wildcards and SQL-based querying narrow the initial focus of an upgrade. Filtered and custom views hide, sort, and further refine data according to parameters such as microcode version or device type. Configuration files on the router can be preserved from being overwritten during an upgrade. The Deployment Manager will verify that the router has enough capacity to accept a new version of microcode before downloading. And because multiple code images can be maintained for each device, you can "test drive" new versions of microcode while still being able to return to earlier versions.

The Deployment Manager automatically learns network devices and records their configurations and code image information in its database. It seamlessly downloads new versions of microcode from IBM to deploy outward into the network. You can schedule deployment, including an earliest and latest start time.

An auditing function enables the administrator to determine what is different between the database and router network. Differences can be synchronized with the "learn" function (updating the database) or by redeploying to the router.

In Version 2.0, the Nways Deployment Manager supports the 2210 Nways Multiprotocol Router. Support for the 2212 Access Utility is previewed, free of charge to purchasers of Version 2.0, via PTF. Microcode images for the 2210 are supported beginning with MRS Version 2.1 (the currently announced code level is MRS Version 5). The Deployment Manager is supported on the Windows NT® and AIX® operating systems.



Nways Deployment Manager

Validating VPN tunnels and policies with the Nways VPN Manager

As previewed in PC Week

IBM's new Nways VPN Manager supports the building of public but secure networks that link organizations to their remote workforce, partners, suppliers and customers. Because VPNs provide the authentication and encryption needed to secure private traffic over public networks, they lessen the need for expensive leased lines and are expected to significantly reduce the cost of business networking. The VPN Manager is designed to help you take full advantage of the multiprotocol, standards-compliant VPN solution that IBM offers.

Some VPN products offer IP-only connectivity, shutting out users of LAN protocols such as IPX and bridging as well as SNA users. But IBM's "open VPN" solution encapsulates many non-IP protocols into the IP Security (IPSec) protocol and Layer 2 to support traffic paths that begin and end in the multiprotocol host and LAN environments that support many networks today. IBM 221x VPNs are not only multiprotocol, they are designed to be multi-vendor-compatible. The VPN Manager is standards-based, requiring only one endpoint to be an IBM router if the other endpoint hardware supports the standards for IPSec, Layer 2 Tunneling Protocol (L2TP) or migration paths to the standard (Layer 2 Forwarding [L2F] or Point-to-Point Tunneling Protocol [PPTP]).

The Nways VPN Manager supports four activities for validating VPN tunnels and policies: policy and session testing, point-in-time monitoring, logging and forwarding of VPN-related events to the management console, and operational control to disable a VPN or refresh its policy.

Policy and session testing

Three IBM-exclusive, patent-pending tests support the network administrator and help desk. The policy test simulates the effect of traffic against router policies. It helps the network administrator validate that policies will perform as expected before they are implemented under live traffic conditions. Two Layer 2 tests aid the help desk operator in diagnosing remote access VPN problems by replicating the response time and connectivity conditions that the user experiences when dialing in over Layer 2 VPNs.

Point-in-time monitoring

The VPN Manager supports point-in-time monitoring for VPN tunnels, policies and clients. Subnet and wildcard searches and autodiscovery of IBM VPN routers support device as well as tunnel management. Cumulative counters indicate how long a tunnel has been active and represent currently and historically active tunnels. The application also indicates whether Reservation Protocol (RSVP) or DiffServ Quality of Service (QoS) policies are active. Both Layer 2 sessions and Layer 3 (IP) VPN tunnels are supported, and at the IP layer, the VPN Manager provides status on both the data tunnel and the IKE tunnel.

Logging and forwarding of VPN-related events to the management console

The Nways VPN Manager is designed to log and forward security-related events to the systems management console (Tivoli® TME 10 NetView® or HP OpenView Network Node Manager). Among other notifications, the VPN Manager logs and traps tunnel starts, stops, and authentication and decryption failures.

Operational control
The VPN Manager is designed to destroy single or multiple VPNs on command if there is a need to discontinue connectivity. It can also prompt routers to refresh their policy from the LDAP server or from the router SRAM if the policy is stored on the router itself.

When partnered with the IBM 2210, 2212, 2216 or Network Utility, the Nways VPN Manager supports a managed VPN solution. The VPN Manager is supported on AIX, HP-UX and Windows NT. It is fully integrated and compatible with the IBM Nways Manager family of network management products.



Nways VPN Manager

Capitalizing on the precision of ATM networking with the Nways ATM Manager
The Nways ATM Manager (formerly called the Nways Campus Manager) manages physical and logical ATM resources, including private LANs, emulated LANs, and physical and virtual links and circuits. In Version 2.0, the ATM Manager adds hierarchical Private Network Node Interface (PNNI) support, enhances existing LAN Emulation Configuration Server (LECS) management, and supports IBM's "Super ELAN" technology. The ATM Manager also continues to support traditional functions such as autodiscovery of IBM ATM devices, topology-based management, logical link configuration and fault management through its broadcast control manager (BCM). The ATM Manager also enables performance tracking over time. It is available on AIX and is newly available on HP-UX in Version 2.0. The ATM Manager supports the IBM 8260 Nways Multiprotocol Switching Hub, IBM 8265 Nways ATM Switch and IBM 8210 Multiprotocol Switched Services (MSS) Server.

PNNI
In Version 2.0, the ATM Manager enhances subnetwork management by supporting a hierarchical PNNI topology with drill-down capability. This new hierarchical support builds on the ATM Manager's existing PNNI support, which includes autodiscovery and maintenance of peer groups, peer group leaders and inter-peer group links within the PNNI topology. The ATM Manager's PNNI and new, hierarchical PNNI features support the 8265 Nways ATM Switch.

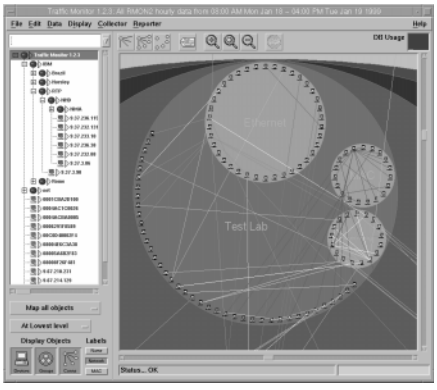
LAN Emulation
Version 2.0 also features management enhancements to IBM's policy-based ELAN solution supporting the 8210 MSS. An ELAN is designed to group users (or clients) by function (such as "finance" or "manufacturing") rather than by physical location. In Version 2 the ATM Manager conveniently auto-discovers ELAN clients.

An ELAN may rely on more than one configuration server, such as for backup in the event of a failure. In Version 2, when a new policy value is added to one configuration server, the ATM Manager maintains the ELAN's additional servers by automatically propagating the new policy value to each of them.

Super ELANs
Super ELANs are groups of emulated LANs that share direct, efficient traffic transfer methods. In a Super ELAN, any ELAN client can communicate directly with any other ELAN client in the group, bypassing the inefficiency of a normal bridging process. In Version 2, the ATM Manager supports this IBM-exclusive technology by enabling the administrator to view the ELANs associated with a Super ELAN, auto-detecting the Super ELAN bridge ports associated with the ELAN, and showing the statistics for these bridge ports.

Nways Advanced Remote Monitor
Nways Manager Version 2.0 offers an Advanced Remote Monitor including the two products formerly packaged individually as Remote Monitor and Traffic Monitor. The Remote Monitor component provides MAC-address-to-network-layer-address translation and MAC-layer packet capture via RMON. It supports all RMON groups (RFC 1757 and 1513). New in Version 2, it also supports probe configuration and protocol distribution via RMON2. The Traffic Monitor component supports graphical performance monitoring, trend analysis, and pattern-of-communication views and reports. It is enhanced in Version 2 to support all groups within the RMON2 standard (RFC 2021 and 2074). It ships with a copy of the Informix database to support data collection. The Advanced Remote Monitor is available on AIX only.

Advanced Remote Monitor is priced and ordered separately from the Nways Element Manager or Nways Manager Suite. Recent Nways Manager licensees purchasing Version 2 should check the product announcement materials for information on a low-cost upgrade on monitoring designed to protect the investments they have already made. On AIX, this low-cost upgrade includes the Remote Monitor component and the Traffic Monitor component; on Windows NT and HP-UX, the upgrade is for the Remote Monitor component only (Traffic Monitor not available on these operating systems).



Nways Traffic Monitor

Try Nways Manager for free!

Nways Manager is available as a no-charge, 60-day, time-out trial package. The trial CD contains the Element Manager, Remote Monitor, ATM Manager, Deployment Manager and VPN Manager (not every application is available on all operating systems). Order yours today!

Table 1 lists the trial CD part numbers.

Table 1—Nways Manager free trial CD ordering information

Program name	Program number	Feature code	Part number
Nways Manager Trial CD for Windows NT	5801-AAR	5739	41L1044
Nways Manager Trial CD for AIX	5801-AAR	5736	41L1036
Nways Manager Trial CD for HP-UX	5801-AAR	5738	41L1040

How to order the Nways Manager Suite

Nways Manager in Version 2 is priced on a per-usage basis. When ordering the Nways Manager Suite, you will always need to supply two part numbers: a base number plus a managed nodes license. For example, to support 100 IBM routers and switches with the Suite on Windows NT, order "Suite program package" part number 41L1046 in a quantity of 1 plus "one managed node" part number 41L1071 in a quantity of 100.

Table 2 lists the part number pairs to use when ordering the Nways Manager Suite.

Table 2—Nways Manager Suite ordering information

Program name	Program number	Feature code	Part number
• Nways Manager for Windows NT V2.0 Suite program package	5801-AAR	5676	41L1046
• Nways Manager for Windows NT V2.0 Suite, one managed node license for program package	5807-AAR	1357	41L1071
• Nways Manager for AIX V2.0 Suite program package	5801-AAR	5668	41L1038
• Nways Manager for AIX V2.0 Suite, one managed node license for program package	5807-AAR	1353	41L1059
• Nways Manager for HP-UX V2.0 Suite, program package	5801-AAR	5672	41L1042
• Nways Manager for HP-UX V2.0 Suite, one managed node license for program package	5807-AAR	1355	41L1065

Upgrades from any previous version of Nways Manager are 50% of the base product price and 50% of the managed nodes price with a proof of entitlement form indicating that you have an Nways management product today. Table 3 lists the upgrades.

Table 3—Upgrades

Program name	Program number	Feature code	Part number
• Nways Manager for Windows NT V2.0 Suite program package from any previous license	5803-AAR	2528	41L1055
• Nways Manager for Windows NT V2.0 Suite, one managed node license from any previous license	5808-AAR	0615	41L1072
• Nways Manager for AIX V2.0 Suite program package from any previous license	5803-AAR	2521	41L1049
• Nways Manager for AIX V2.0 Suite, one managed node license from any previous license	5808-AAR	0611	41L1060
• Nways Manager for HP-UX V2.0 Suite, program package from any previous license	5803-AAR	2525	41L1052
• Nways Manager for HP-UX V2.0 Suite, one managed node license from any previous license	5808-AAR	0613	41L1066

Nways Manager Version 2.0 for Windows NT is designed to manage up to 200 nodes. Nways Manager for AIX and Nways Manager for HP-UX are designed to manage up to 1500 nodes. If you need to manage more nodes, you will need to purchase additional network management server licenses.

Part numbers for additional Element Manager server licenses are listed in Table 4.

Table 4—Additional server licenses

Program name	Program number	Feature code	Part number
Additional server license for Windows NT Suite	5802-AAR	2962	41L1659
Additional server license for AIX Suite	5802-AAR	2958	41L1651
Additional server license for HP-UX Suite	5802-AAR	2960	41L1655

Table 5—Ordering Remote Monitor and Advanced Remote Monitor

Program name	Program number	Feature code	Part number
Nways Manager Windows NT V2.0 ReMon program package	5801-AAR	5677	41L1047
Nways Manager AIX V2.0 Advanced ReMon program package	5801-AAR	5669	41L1039
Nways Manager HP-UX V2.0 ReMon program package	5801-AAR	5673	41L1043

Note: The Advanced Remote Monitor is priced at a flat rate.
The Advanced Remote Monitor is available on AIX only.
The HP-UX and Windows NT products do not include the Traffic Monitor component.

Table 6—Network Management application support by operating system

Nways Manager Application	*Operating System*		
	Windows NT	AIX	HP-UX
Nways Element Manager	X	X	X
Nways VPN Manager	X	X	X
Nways Deployment Manager	X	X	
Nways ATM Manager		X	X
Advanced Remote Monitor		X	

Note: For lists of the Nways Manager applications and IBM hardware supported by Nways Manager Version 2, see *Nways Element Manager Version 2*, G224-7015.

Year 2000 ready

The IBM Nways Manager Suite is Year 2000 ready when used in accordance with its associated documentation and is capable of correctly processing, providing, and/or receiving date data within and between the 20th and 21st centuries, provided all other hardware, software, and/or firmware used with the product properly exchanges accurate date data with it.

For your information

To find out more about the IBM Nways Suite and other high-performance IBM communications and networking products, contact your IBM representative or call IBM Direct at 1 800 IBM-CALL (1 800 426-2255). You can access the Nways Manager Web page at: *www.networking.ibm.com/netmgt*

Prerequisites for the Nways Manager products are listed on the Web and in the Element Manager spec sheet.

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