IBM Nways Campus Managers for HP-UX

Nways to build your network. One way to manage it–proactively!

Nways Campus Manager LAN for HP-UX Version 2
Nways Campus Manager ATM for HP-UX Version 2
Nways Campus Manager Remote Monitor for HP-UX Version 2
Nways Campus Manager Remote Monitor Advanced for HP-UX Version 2
Nways Campus Manager Suite for HP-UX Version 2

Highlights

- Reduces network ownership cost and improves network availability
- Provides easy-to-use, graphical network management
- Provides comprehensive device management through that same easy-to-use graphical user interface
- Supports large networks, including APPN® and Data Link Switching (DLSw)
- Provides remote monitoring of your network's performance, through RMON and RMON2 support
- Provides comprehensive management for ATM networks, including support for non-IBM devices that use ATM Forum-compliant MIBs
- Manages switched virtual networks, including ATM Forum-compliant emulated LANs (ELANs)
- Offers seamless integration between the various Nways™ Campus Manager management applications to provide a comprehensive network management solution

Take a look at the Nways Campus Manager products

Nways Campus Manager LAN provides an easy-to-use, cost-effective, comprehensive network management solution for customers with IBM networking devices in medium-to-large Ethernet, FDDI and Token-Ring networks, including virtual LANs (VLANs). It also supports APPN networks and DLSw networks.

Nways Campus Manager ATM provides easy-to-use, efficient management for ATM networks, including virtual networks formed from ELANs.

Nways Campus Manager Remote Monitor (ReMon), in conjunction with RMON- and RMON2-compliant agents, provides money-saving remote analysis of Token-Ring and Ethernet LANs.

Managing your network doesn't have to be difficult

Nways Campus Manager ReMon Advanced contains all the functions of Nways Campus Manager Remote Monitor (ReMon), and adds the ability to view communication patterns across the network at network layers, allowing you to tune your network and identify problems between networks.

Nways Campus Manager Suite contains the functions of Nways Campus Manager LAN, Nways Campus Manager ATM and Nways Campus Manager ReMon Advanced. You can save money by buying the Nways Campus Manager Suite, rather than purchasing separate products to perform all the functions the Suite offers.

The Nways Campus Manager family of products are the management applications for you to use to configure and operate heterogeneous, campus-wide networks.

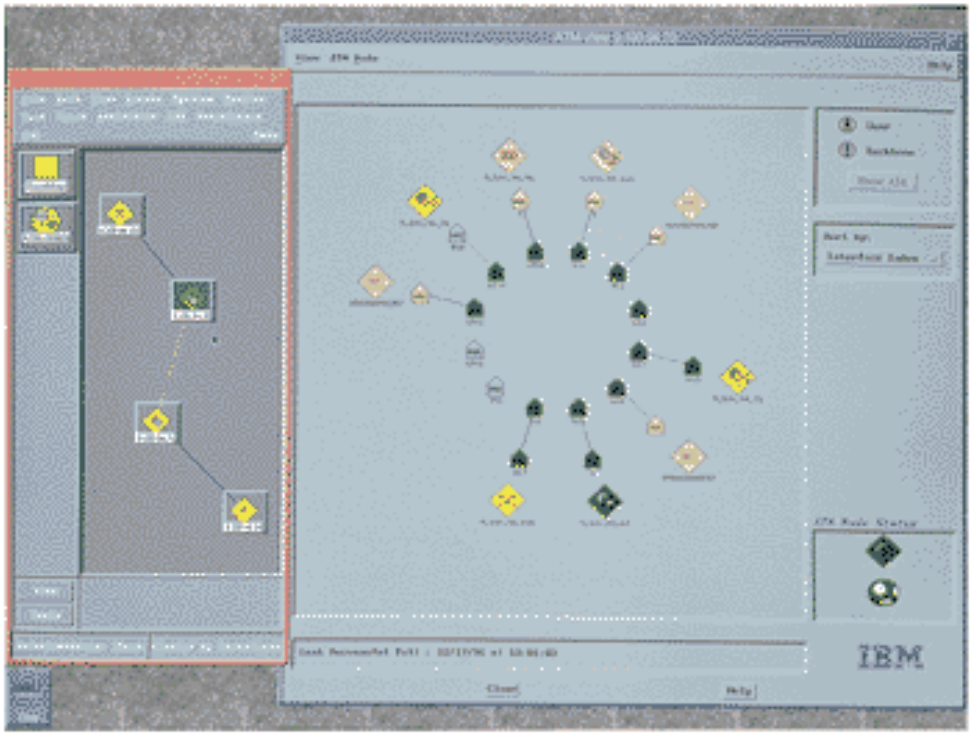
All products require HP OpenView, and all are available on 4-mm tape or on CD-ROM.

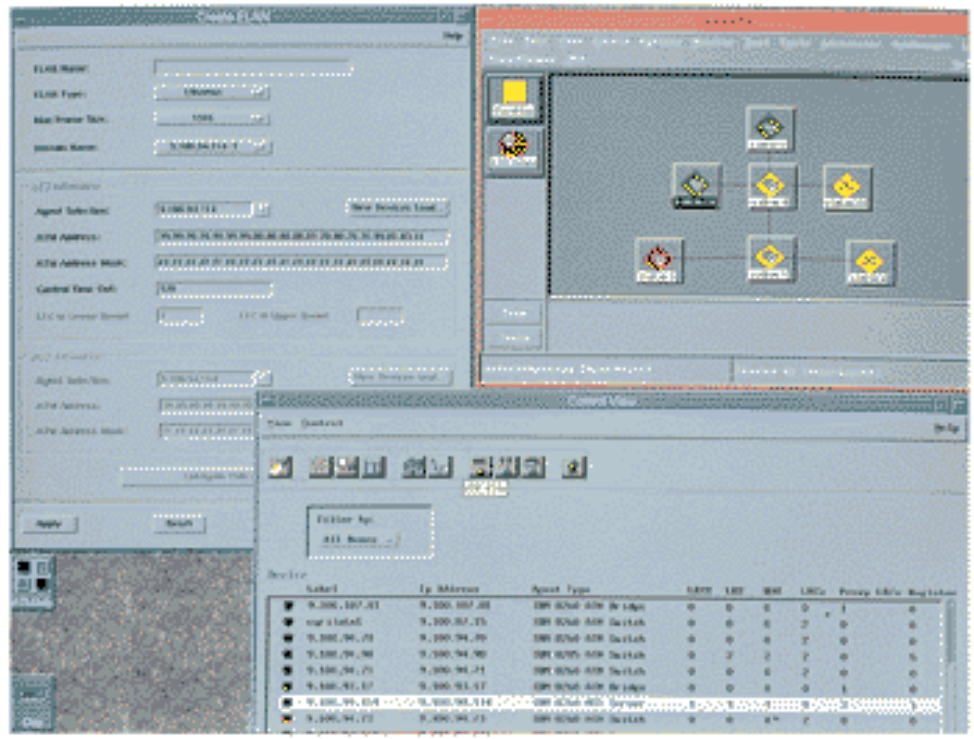
Reduces network ownership cost and improves network availability

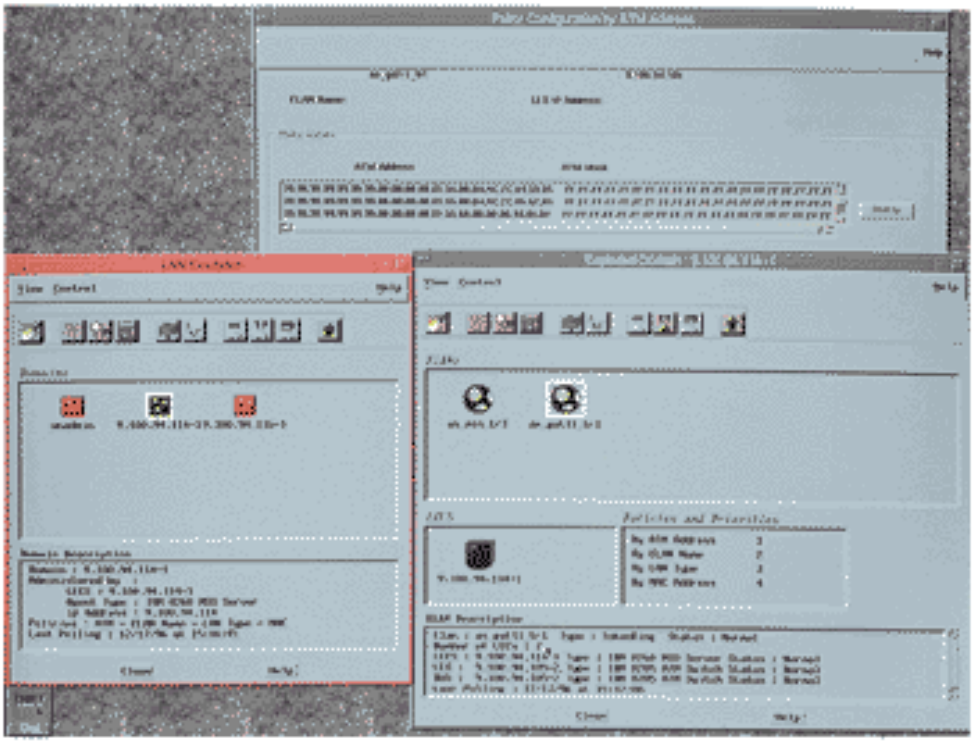
The Nways Campus Manager family for HP-UX provides integrated software applications that lower network operating costs. The Nways Campus Manager family of products has a common look and feel, so your network operator training is reduced and your personnel are more productive. These network management applications enable you to find and resolve problems quickly, reducing network outages. With Nways Campus Manager, your operators configure and manage the network and network devices remotely from a single network management workstation, reducing the number of operators and the amount of travel. Performance information available from the Nways Campus Manager family facilitates performance refinements and network tuning, helping you to optimize your network.

Provides easy-to-use, graphical network management

Nways Campus Manager lets you take control of your networks (Ethernet, FDDI and Token-Ring LANs, DLSw networks, APPN networks, ATM networks, switched networks and VLANs). The graphical user interface gives you topology views of your network and realistic views of your network resources, with color-coded status of resources and overall status of each network. The easily recognizable color-coded icons on the network views make navigating the network a snap.







The auto-discovery capability assists with the initial topology and identifies configuration changes. When a network changes, the discovery capability identifies the changes and updates your network map. You can allow discovery of particular SNMP agents, can filter discovery based on

criteria, such as IP address, and can set the discovery interval to optimize polling.

You can set up VLANs remotely using a drag-and-drop interface and manage the VLAN components remotely.

You can set performance-thresholding capabilities, collect real-time and historical statistics and display the information your network operator needs to manage your networks and networking devices proactively.

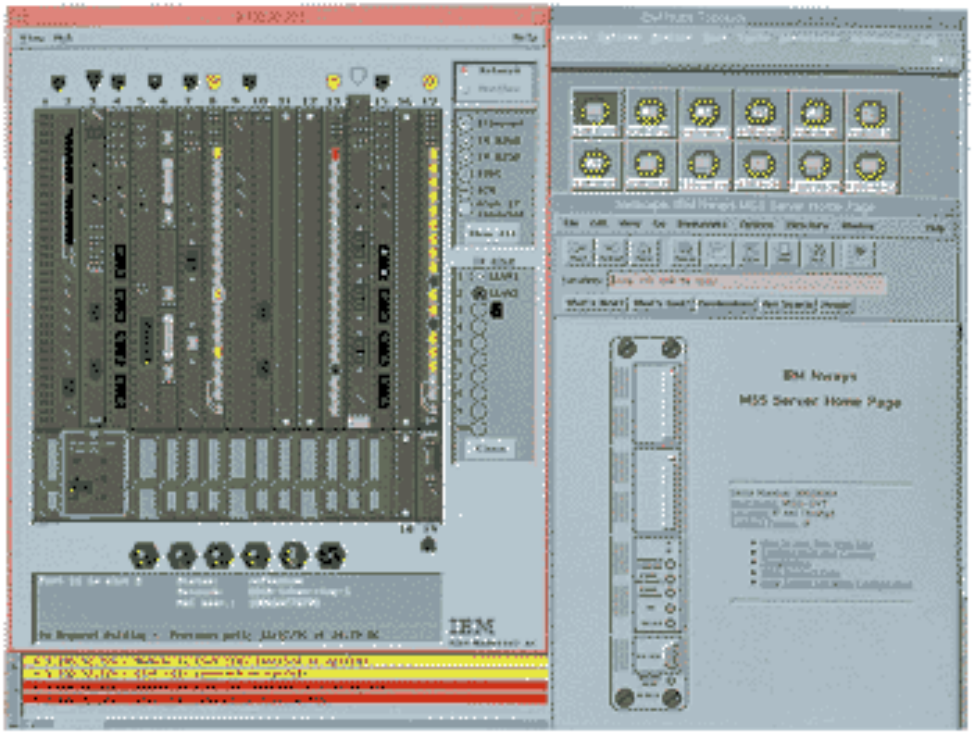
Extensive support for problem management includes trap management, polling intervals, threshold notification and the graphical network-monitoring already mentioned. By defining an element as a critical resource, you can have the Nways Campus Manager LAN application perform a specific fault-management task, based on an alert from the resource. This function is especially helpful when monitoring large networks because you can concentrate your fault management on critical resources.

You can also download code updates to specific devices.

To provide security you identify the level of access controls that you need. The management applications then use the security features inherent in HP OpenView and SNMP to control access to networking devices. Management applications for specific devices such as the 8235 Dial-In Access to LANs (DIALs) Server supply additional security features, such as limiting access by user or IP address.

Provides comprehensive device management

You can configure, reset, monitor, set performance thresholding capabilities for, collect real-time and historical statistics for, download microcode to and Telnet to devices in your network. The graphical user interface gives you realistic views of your network devices, with color-coded status of components and overall status of the device. The Nways Campus Manager applications provide a complete set of messages, traps and event notifications for devices in the network.



You get the following device support with these Nways Campus Manager products:

Nways Campus Manager LAN:

- IBM 8224 Ethernet Stackable Hub
- IBM 8225 Fast Ethernet Stackable Hub
- IBM 8230 Token-Ring Controlled Access Unit
- IBM 8235 Dial-In Access to LANs (DIALs) Server
- IBM 8238 Token-Ring Stackable Hub
- IBM 8250 Multiprotocol Intelligent Hub
- IBM 8260 Nways Multiprotocol Switching Hub
- IBM 8271 EtherStreamer/Nways Ethernet LAN Switch
- IBM 8272 LANStreamer®/Nways Token-Ring LAN Switch
- IBM 8281 Nways ATM LAN Bridge
- IBM 2210 Nways Multiprotocol Router
- IBM 6611 Network Processor

Nways Campus Manager ATM:

- IBM 8210 Nways Multiprotocol Switched Services (MSS) Server
- IBM 8281 Nways ATM LAN Bridge
- IBM 8282 Nways ATM Workgroup Concentrator
- IBM 8285 Nways ATM Workgroup Switch
- IBM 8260 Nways Multiprotocol Switching Hub ATM components
- Other ATM devices that implement the AToMMIB MIB or LAN Emulation (LANE) standard MIBs

Nways Campus Manager ReMon and Nways Campus Manager ReMon Advanced provide support for these RMON-enabled products:

- IBM 8225 Fast Ethernet Stackable Hub
- IBM 8230 Token-Ring Controlled Access Unit
- IBM 8238 Token-Ring Stackable Hub
- IBM 8250 Advanced Token-Ring Management Module
- IBM 8260 Token-Ring Media Access Daughter Card
- IBM 8260 Ethernet Media Access Daughter Card
- IBM 8273 Nways Ethernet RouteSwitch
- IBM 8274 Nways LAN RouteSwitch
- Other RMON-compliant probes

Nways Campus Manager ReMon and Nways Campus Manager ReMon Advanced provide support for these RMON- and RMON2-enabled products:

- IBM 8250 Ethernet RMON Probe
- IBM 8260 High-End Token-Ring Media Access Daughter Card
- IBM 8260 High-End Ethernet Media Access Daughter Card
- Other RMON2 probes that implement the Enterprise Communications Analysis Module (ECAM)

Nways Campus Manager Suite manages all the devices and features managed by Nways Campus Manager LAN, Nways Campus Manager ATM and Nways Campus Manager ReMon Advanced.

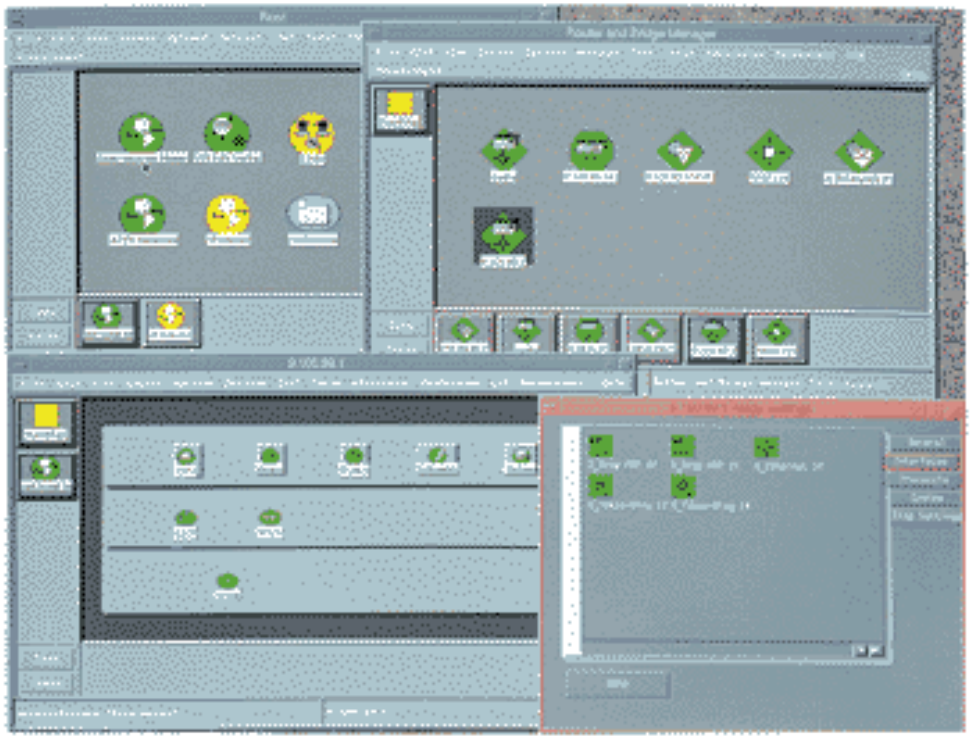
Supports large networks, including APPN and DLSw

Nways Campus Manager LAN and Nways Campus Manager Suite support large networks by using the distributed polling capabilities provided by the TME® 10® Mid-Level Manager (MLM). Distributed polling means that the discovery and polling functions are distributed to a set of nodes, rather than having one node (the network management workstation) poll large groups of devices. This reduces management loads on the networks and reduces processing at the management

workstation. With TME 10 MLM, each MLM (usually in a remote node) performs the polling and sends information back to the management workstation only when thresholds are exceeded.

Nways Campus Manager LAN and Nways Campus Manager Suite provide one MLM for the HP-UX platform; other MLMs for the remote nodes platforms (HP-UX, Windows® NT®, Sun, AIX®, OS/2®) are available through the Systems Monitor component of the TME 10 Distributed Monitoring product.

Nways Campus Manager LAN and Nways Campus Manager Suite support APPN and DLSw topologies. With the APPN topology feature you can view your APPN networks end to end. You can discover participating APPN resources, view them and view their status as color-coded icons. APPN protocol performance and error events (data and graph) are also provided. The DLSw technology provides the ability to transport SNA, NetBIOS and APPN traffic across an IP network. The DLSw topology displays connectivity, resources and color-coded status in your DLSw network. The topology is refreshed as new nodes are discovered.



Provides remote monitoring of your network's performance, through RMON and RMON2 support

RMON and RMON2 are standards from the IETF that advance the state-of-the-art in open network performance management and fault diagnosis.

RMON (RFC 1757 and RFC 1513 extension for Token Ring) defines a standard set of MAC-layer statistics and the ability to filter and capture data packets for analysis. RMON2 provides additional statistical information at the network and application layers of the protocol stack. IBM's RMON2 support is based on the ECAM that will be migrated to RMON2.

ECAM lets you go beyond the current RMON standards to full seven-layer data collection, including

segment, host and conversations statistics, for the major protocols and application types. By viewing the conversations across the network, the real communications patterns and the use of expensive links become apparent. With this information you can tune the network and adjust the location of key resources such as file servers. ECAM also allows network operators to view the internetwork traffic for troubleshooting.

Nways Campus Manager ReMon provides not only the RMON functions but also takes advantage of the ECAM capabilities (RMON2) to provide address translation and protocol distribution within your network. Address translation translates MAC addresses to network-layer addresses. Protocol distribution allows you to view the protocols and applications being used on the network.

Nways Campus Manager ReMon Advanced includes all features associated with Nways Campus Manager ReMon and more. Nways Campus Manager ReMon Advanced provides the RMON2 ability to do protocol-matrix analysis of Layer-3 or higher protocols using the ECAM capability in the RMON2 probe. The protocol matrix provides information about who is talking to whom in the network and what protocols they are using. Nways Campus Manager ReMon Advanced also includes the Traffic Transmission Monitor Module (TTMM), which provides a fast, effective means of transmitting captured packets to specific segments or rings for stress-testing or network simulation. The captured data can also be loaded from other LAN analysis tools, such as IBM DatagLANce™ Network Analyzer.

Provides comprehensive management for ATM networks, including support for non-IBM devices that use ATM Forum-compliant MIBs

Nways Campus Manager ATM provides easy-to-use management for ATM networks, including virtual networks formed from ATM Forum-compliant ELANs, and manages ATM devices that use ATM Forum-compliant MIBs.

One of the premiere features of Nways Campus Manager ATM is its ability to fine-tune the auto-discovery capability for ATM. You can allow discovery of particular SNMP agents, such as non-IBM ATM devices, can filter discovery based on criteria such as IP address or device type and can set the discovery interval to optimize polling.

When viewing the topology map you can display an entire ATM network, or you can zoom in on the subnetwork or device of interest. You can choose monitored resources by selecting resource icons using drag-and-drop to place them on the monitor panel.

You can select key performance counters and track their variations over time. This data can be stored and displayed in various graphical forms across a selected time interval.

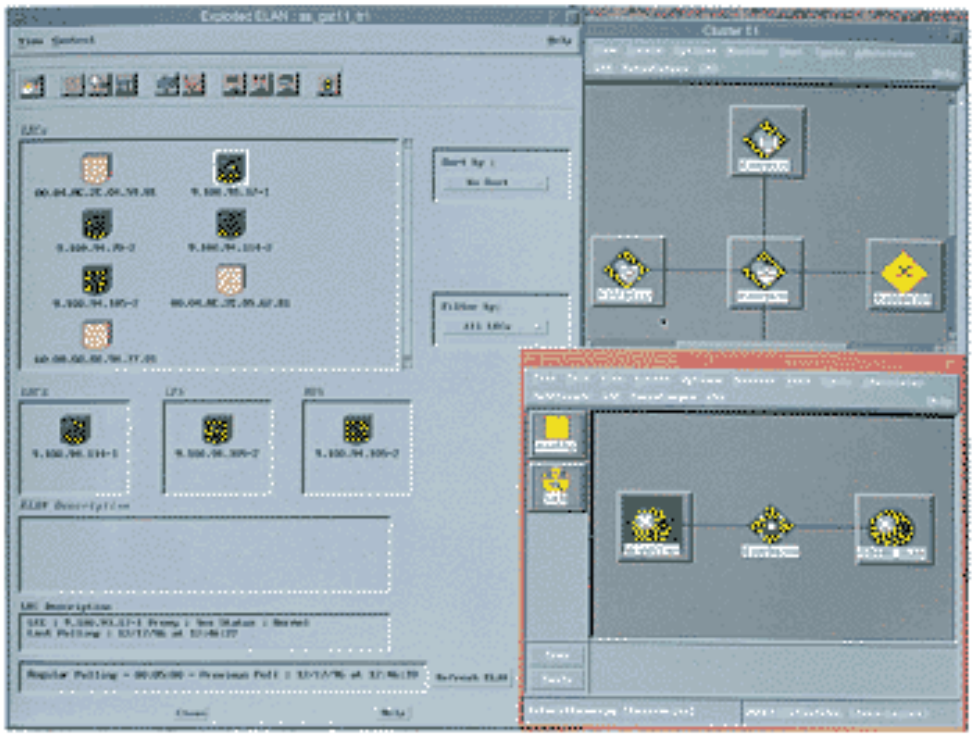
With the connection-tracking function, you get true ATM end-to-end management capability. This function graphically displays any virtual connections between two endpoints on the ATM network. Connection-tracking shows all the actual hardware resources that support the entire path of the connection, such as adapters, concentrators, switches and bridges. This function launches other management functions on these devices, such as performance-monitoring.

Manages switched virtual networks, including ATM Forum-compliant emulated LANs

You can set up a VLAN remotely, using the drag-and-drop feature of the graphical interface to assign components to the VLAN. For networks that contain 8250s, 8260s, 8271s or 8272s, you can assign ports on those devices to VLANs. In an ATM network you can assign ATM devices to ELANs.

Comprehensive support for LANE includes automatic discovery of LESs, LECs and proxy clients

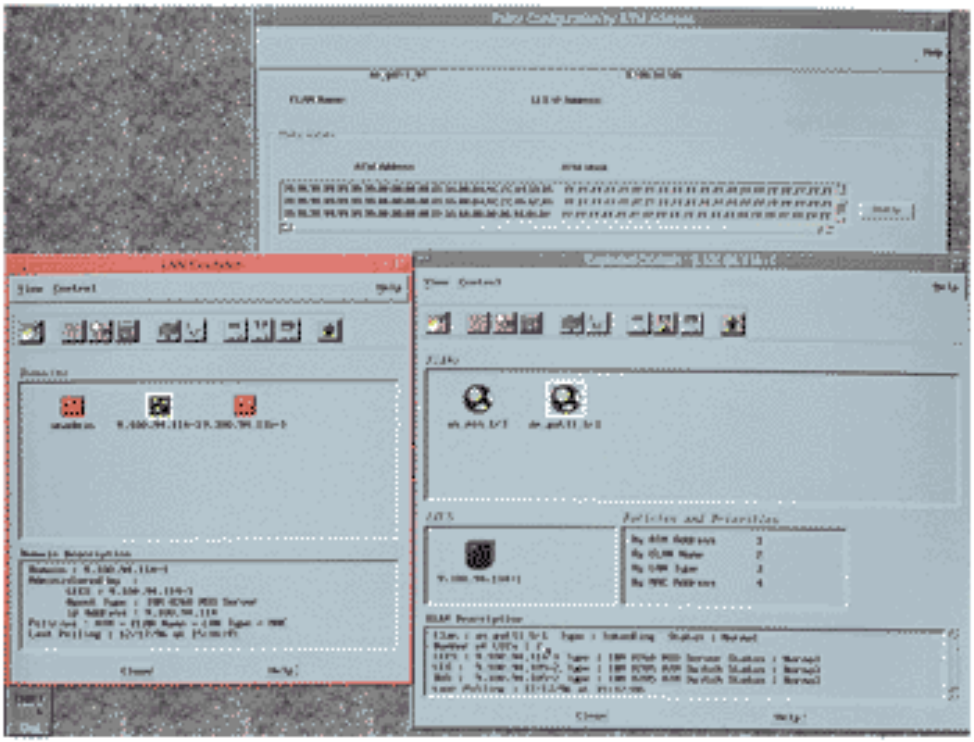
(in LAN switches). Discovered topologies are dynamically updated to show color-coded device status and devices assigned to VLANs. Templates help automate VLAN configuration by grouping a set of individual actions and executing them with a single command.



Offers seamless integration

Nways Campus Manager LAN, Nways Campus Manager ATM and Nways Campus Manager ReMon (or Advanced) management applications work together seamlessly, helping you configure and manage your network, and detect and resolve potential network problems before they occur.

The Nways Campus Manager family of products includes support for sorting, searching and retrieving key management information, such as network users' information, using object-oriented data storage. Object-oriented data storage provides client and server access to a common object model, with enhanced storage and retrieval, search, Nways import and Nways export functions. Managed-node information is maintained across restarts. For Nways Campus Manager ATM and Nways Campus Manager Suite, this object-oriented support allows automatic search of ATM devices based on a number of criteria, including IP address, ATM address, user name and ELAN name.



IBM Nways Campus Manager family for HP-UX V 2 at a glance

Hardware requirements (management station)	• Any station supporting HP OpenView, with 100-MHz processor speed or greater • 256-color (8-bit planes) display device; device must support 8-bit planes, or more, to use topology maps • 96 MB or more of memory • Free disk space (in addition to that needed for HP-UX and HP OpenView): – Nways Campus Manager LAN: 430 MB if all components are installed – Nways Campus Manager ATM: 155 MB if all components are installed – Nways Campus Manager ReMon: 65 MB if all components are installed – Nways Campus Manager ReMon Advanced: 75 MB if all components are installed – Nways Campus Manager Suite: 620 MB if all components are installed • Swap space equal to 3 times the amount of RAM • A physical connection running TCP/IP between the network and the station • One of the following drives, to install the software: – 4-mm tape drive – CD-ROM drive
Software requirements	• HP-UX V 10.20 • HP OpenView for HP-UX V 4.11 • TME 10 Distributed Monitoring product V 2.3.1, if more than one instance of the MLM is needed.

For more information

To find out more about the IBM Nways Campus Managers 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 also access the IBM Networking Home Page at `http://www.networking.ibm.com`

Copies of this and other related product specification sheets can be obtained from the IBM FAX Information Service by dialing 1 800 IBM-4-FAX (1 800 426-4329) in the U.S. or Canada or by dialing (415) 855-4329 outside the U.S. and Canada and requesting any of the following document numbers:

- 7216: *IBM Nways Campus Managers for HP-UX*
- 6513: *IBM Nways Manager for Windows*
- 6655: *IBM Nways Campus Manager ReMon for AIX*
- 6667: *IBM Nways Campus Manager LAN for AIX*
- 6665: *IBM Nways Campus Manager ATM for AIX*
- 7265: *IBM Proactive Management Solutions for the Campus and Wide Area Network*
- 7266: *IBM Nways Campus Manager Suite for HP-UX*
- 7267: *IBM Nways Workgroup Manager and ReMon*

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Department TYCA
PO Box 12195
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