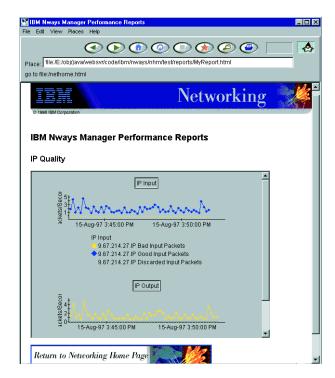


IBM Nways Workgroup Manager for Windows NT Version 1.1

- Operates on Windows NT® V4.0
- Reduces network ownership cost and improves network availability
- Provides easy-to-use, graphical management of LAN and ATM networks
- Provides comprehensive device management, including IBM Ethernet and Token-Ring adapters
- Interoperates with IBM
 Netfinity® program to provide integrated systems and network management
- Provides Web-based device management using Java™ technology
- Provides Java-based performance management with distributed polling engines
- Provides remote monitoring of your network's performance, through the use of RMON- and RMON2-compliant agents
- Provides seamless integration
- Year 2000 ready





Nways® Workgroup Manager provides an SNMP management platform and a suite of graphical device management applications that bring integrated, heterogeneous SNMP management to the Windows NT 4.0 environment. It provides complete management for SNMP-enabled workstations, hubs, routers, bridges, switches and adapters. And Workgroup Manager supports Web-based device management using Java technology, allowing you to access any SNMP device in your network through the corporate intranet or the Internet.

Everything you need to manage small workgroups from a single Windows NT-based platform is available on this ready-to-run, out-of-the-box application. It comes fully equipped with configuration, performance, fault, security and accounting management, as well as remote monitoring capabilities. And Workgroup Manager provides graphical device management for IBM routers, LAN switches, remote-access devices and hubs.

Positioning and Benefits

Problem: Need for consolidated management across a network using varied network devices and operating system platforms

Environment: A large appliance manufacturer has separate plants for different product lines, each with its own multivendor LAN and ATM networking devices.



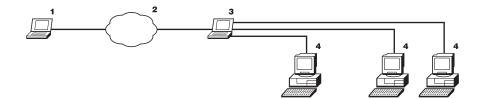
Solution: Nways Workgroup Manager allows centralized management across the entire network, including generic device management support for non-IBM hardware.

Benefits

- Centralized management makes it easier to find and fix problems throughout the network, resulting in fewer outages of shorter duration.
- Support for a wide variety of networking protocols and hardware devices means that fewer management applications are needed, simplifying operations and improving network efficiency.
- Consistency across sites leads to reduced training, improved end-user support and increased staffing flexibility.

Problem: Need for inexpensive LAN and ATM proactive management of autonomous workgroup environments

Environment: The appliance manufacturer has autonomous workgroups in each of its separate manufacturing plants.



Solution: Nways Workgroup Manager for Windows NT provides an inexpensive way to manage each of the workgroups from a Windows NT platform.

Benefits

- Full graphical device management of the LAN or ATM network devices from a single management station makes management and problem determination easier and inexpensive.
- The ability to access any SNMP device in the network from a Web browser through the corporate intranet or the Internet allows for full device management, giving you the ability to view status and make changes at any time.

- 1. Workgroup A
- 2. Workgroup B
- $\textbf{3.} \ \textit{Workgroup} \ \textit{C}$

Laptop Java-device management
 Internet or corporate intranet
 Local management station

4. Distributed polling engines (DPEs)

Product Overview

Using the easy-to-use graphical network and device displays for rapid problem-source identification and resolution minimizes system downtime. You can prevent problems such as network congestion by setting thresholds and collecting data that helps you make adjustments to keep the network humming.

Java-based management support enables you to manage your devices from your intranet, the Internet and from your local NT workstation. When Nways Workgroup Manager is installed and configured for Web-based management, you can use your JavaSoft JDK-1.1-enabled Web browser to access Nways Workgroup Manager functions from any platform anywhere in your enterprise.

Because IBM embeds RMON agents in its networking devices, if you also have Nways Workgroup Remote Monitor (ReMon) running, then Nways Workgroup Manager has the ability to access the Nways Workgroup ReMon information (RMON coupling).

Nways Workgroup ReMon is an RMON application that collects, monitors, analyzes and displays network statistics from RMON, and IBM's Enterprise Communications Analysis Module (ECAM) agents. Nways Workgroup ReMon supports all the RMON MIB groups (RFC 1757 for Ethernet and RFC 1513 extension for Token Ring), IBM's RMON2 support is based on the ECAM that will be migrated to RMON2.

Nways Workgroup ReMon's support of RMON2 and ECAM lets you go beyond the current RMON standards to full seven-layer data collection, including segment, host and conversation statistics, for the major protocols and application types. With this information you can tune your network.

When you purchase both Nways Workgroup Manager and Nways Workgroup ReMon, you will have the added bonus of RMON coupling for the IBM 8225, 8230, 8237, 8238, 8250 and 8260 hub and concentrator devices and the 8270, 8271 and 8272 switches. RMON coupling allows the graphical management applications for these devices to seamlessly access and display the RMON and ECAM data provided for these devices by Nways Workgroup ReMon.

Operates on Windows NT V4.0

Nways Workgroup Manager is a true 32-bit native Windows NT application that operates on Windows NTV4.0.

Reduces network ownership cost, improves availability

Nways Workgroup Manager provides graphical device-management applications that lower network operating costs. Nways Workgroup Manager applications have a common look and feel, so your network operator training is reduced and your personnel are more productive. These management applications enable you to find and resolve problems quickly, reducing network outages. With Nways Workgroup 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.

Nways Workgroup ReMon provides RMON and ECAM support, which reduces network operation and administration costs by making users more productive and by identifying network problems before they occur. Cost-savings and staff productivity go up as the number of RMON-managed LAN segments increases.

Provides easy-to-use graphical management of networks

Nways Workgroup Manager lets you take control of your IP networks. 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 display the information your network operator needs to manage your network and networking devices proactively.

Key network features of Nways Workgroup Manager include:

- Automatic discovery of your IP network
- Real-time, graphical views of network topology
- Ability to browse, update and compile MIRs
- Color-coded and aggregated network and device real-time status
- Trouble-ticketing
- Trap management, including specifying trap severities
- Trap compilation
- Polling configuration and notification
- Performance threshold configuration and notification
- Inventory management
- Collection and presentation of realtime and historical statistics

To provide security you identify the level of access controls that you need. The management applications then use the security features inherent in the SNMP management platform to control access to networking devices.

Interoperates with IBM Netfinity to provide integrated systems and network management

The IBM Netfinity program provides systems management for IP workstations and servers, which includes management of CPU, memory, disk, adapters, applications, files and operating systems.

If Netfinity Manager for Windows NT is installed on the same workstation as Nways Workgroup Manager, then you can access the Netfinity functions from Nways Workgroup Manager. This means that when you double-click a Netfinity client workstation or server in an Nways Workgroup Manager topology map, Nways Workgroup Manager will automatically invoke Netfinity Manager to enable you to manage the workstation or server.

Provides comprehensive device management, including IBM Ethernet and Token-Ring adapters

The graphical user interface of the device-management applications gives you real-time views of your network devices, with color-coded status of components and overall status of the device. Nways Workgroup Manager device-management applications provide a complete set of messages, traps and event notifications for devices in the network. In addition the device-management applications support "hot spots" for point-and-click problem determination and action (for example click a port and status information and clickable actions are displayed immediately).

Nways Workgroup Manager supports the following products.

Stackable hubs, access units and concentrators:

- IBM 2210 Nways Multiprotocol Router
- IBM 2212 Access Utility
- IBM 2216 Nways Multiaccess Connector
- IBM 6611 Network Processor
- IBM 8210 Nways Multiprotocol Switched Services (MSS) Server
- 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, including IBM 8235 Dial-In Access to LANs (DIALs) Switch Model I40
- IBM 8237 Stackable Ethernet Hub 10BASE-T
- IBM 8238 Token-Ring Stackable Hub
- IBM 8239 Token-Ring Stackable Hub
- IBM 8245 10/100 Ethernet Stackable Hub
- IBM 8250 Multiprotocol Intelligent Hub
- IBM 8260 Nways Multiprotocol Switching Hub
- IBM 8260 Switching Module Series (blades/modules in the 8260)
- IBM 8265 Nways ATM Switch (available at a future date)
- IBM 8270 Nways LAN Switch Models 600 and 800
- IBM 8271 Nways Ethernet LAN Switch Models 108, 216, 212, 412, 512, 612, 624, 712, E12, E24, F12, and F24

- IBM 8272 Nways Token-Ring LAN Switch Models 108, 216, 208, 408
- IBM 8273 Nways Ethernet RouteSwitch
- IBM 8274 Nways LAN RouteSwitch (requires IBM Nways RouteVision, sold separately)
- IBM 8275 Nways Ethernet LAN Switch
- IBM 8276 Nways Ethernet RoutePort (requires IBM Nways RouteVision, sold separately)
- IBM 8277 Nways Ethernet RouteSwitch (requires IBM Nways RouteVision, sold separately)
- IBM 8281 Nways ATM LAN Bridge
- IBM 8282 Nways ATM Workgroup Concentrator
- IBM 8285 Nways ATM Workgroup Switch
- IBM Network Utility
- Any SNMP device in your network (generic Java-based management)
- IBM Ethernet and Token-Ring adapters
- MSS Client Universal Feature Card (UFC) in:
 - IBM 8270 Nways LAN Switch
 - IBM 8272 LAN Switch modules (3 slot models)
- MSS Domain Client UFC in:
- IBM 8270 Nways LAN Switch
- IBM 8272 Nways Token-Ring LAN Switch model 216
- IBM 8271 and 8272 LAN Switch Modules (2 or 3 slot modules in the 8260)
- And more! For more details see www.networking.ibm.com/netmgt

Provides Web-based management using Java technology

Web-based management using Java technology enables you to manage your network not only from an Nways Workgroup Manager workstation, but also over your intranet or the Internet through a JDK-1.1-compliant Web browser. With Java technology, as the status of your network changes your Web browser is automatically updated with the latest information.

This management support includes real-time status of the device (complete with a graphical view of the supported IBM devices), the ability to configure the device through a user-friendly hierarchical navigation tree and the ability to do performance management of these devices.

Provides Java-based performance management with distributed polling engines

Performance management provides the ability to select and monitor specific MIB objects or collections of MIB objects. Creating collections of MIB objects allows you to create complex expressions that provide a better representation of performance information.

Using the Java-based performance management capability, you can specify which objects or collections of objects to monitor, set thresholds for these objects, specify the action to occur when a threshold is exceeded, display the data graphically (pie charts, line graphs, bar charts and so on) and store the data for report generation. Java-based performance management requires a Java Database Connectivity (JDBC)-compliant database to store the performance information.

Using this performance information allows you to base-line and tune your network, thus allowing you to proactively manage your network (be notified of problem situations before they occur).

To provide support for larger networks Nways Workgroup Manager's performance functions use Java-enabled distributed polling engines. The polling engines enable you to offload the polling of information from the manager workstation, thus freeing the processor on the manager, and to place the polling close to the devices being polled, thus freeing bandwidth across WAN links. These polling engines are intelligent agents that you can configure to notify Nways Workgroup Manager when exceptions (thresholds exceeded) occur. The polling engines can be placed in any Java-enabled workstation (Java virtual machine) in the network.

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

RMON defines a standard set of MAClayer statistics and the ability to filter and capture data packets for analysis. ECAM provides additional statistical information at the network and application layers of the protocol stack.

Nways Workgroup Remote Monitor provides not only the RMON functions but also takes advantage of the ECAM capabilities 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 Workgroup ReMon provides support for these RMON-enabled products:

- IBM 8225 Fast Ethernet Stackable Hub
- IBM 8230 Token-Ring Controlled Access Unit
- IBM 8237 Stackable Ethernet Hub 10BASE-T
- 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 8270 Nways LAN Switch
- IBM 8271 Nways Ethernet LAN Switch
- IBM 8272 Nways Token-Ring LAN Switch
- IBM 8273 Nways Ethernet RouteSwitch
- IBM 8274 Nways LAN RouteSwitch
- Other RMON-compliant probes

Nways Workgroup ReMon provides support for these RMON- and ECAM 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
- IBM Token-Ring Universal Feature Card (UFC) that goes in:
- IBM 8270 Nways LAN Switch
- IBM 8272 Nways Token-Ring LAN Switch
- IBM 8272 LAN Switch modules for the IBM 8260 Nways Multiprotocol Switching Hub
- Other ECAM-compliant probes

Provides virtual LAN configuration management

A virtual LAN (VLAN) is a subnetwork defined by software instead of physical wiring. VLANs enable networks to support the needs of workgroups, which improves worker productivity and network security and ultimately cuts network administration costs.

The IBM 8270 Nways LAN Switch, IBM 8271 Nways Ethernet LAN Switch and IBM 8272 Nways Token-Ring LAN Switch have VLAN capability built in. You can set up a VLAN remotely, using the drag-and-drop feature of Nways Workgroup Manager, without going to the wiring closet.

To configure VLANs for the IBM 8273 Nways Ethernet RouteSwitch and IBM 8274 Nways LAN RouteSwitch, you can use the IBM Nways RouteTracker Manager program.

Provides seamless integration

Nways Workgroup Manager and Nways Workgroup ReMon management applications work together seamlessly, helping you configure and manage your network, and detect and resolve potential network problems before they occur.

Year 2000 ready

The IBM Nways Workgroup Manager for Windows NT Version 1.1 is Year 2000 ready when used in accordance with its associated documentation and is capable of correctly processing, providing and receiving data within and between the 20th and 21st centuries, provided that all other hardware, software and/or firmware used with the product properly exchange data with it.

Benefits

- Supports heterogeneous LAN and ATM networks so you don't have to buy individual applications to support different devices and protocols
- Provides Web-based device management enabling you to manage your devices from the intranet, the Internet and from your local NT workstation
- Provides Java-based performance management, enabling you to analyze historical performance data for network planning and fault prevention
- Allows you to view performance graphs in any one of several formats from your Web browser
- Offers real-time, graphical views of network status to keep you informed of any change in network or device conditions as soon as it occurs
- Collects and presents real-time and historical statistics to facilitate troubleshooting and problem determination
- Provides generic device management support for any SNMP-enabled device from a Web browser
- Supports Netscape and Internet Explorer

Nways Workgroup Manager for Windows NT Specifications

Program	Program Number	FC	PN	
Nways Workgroup Manager for Windows NTV1.1	5801-AAR	1525	4300226	
Nways Workgroup Remote Monitor for Windows NTV1.1	5801-AAR	1524	4300225	

Key Customer Benefits

- Ready to run, out of the box
- Comprehensive solution for LAN and ATM networks
- Support for both LAN and ATM networking devices, including VLAN management
- State-of-the-art Java management technology for device and performance management
- Easy installation and configuration
- Solution that grows with your network
- Interactive and real-time status updates
- Fully functional device management
- Fully distributed (Web-based) management
- Dynamic client update capability
- Web-based, multivendor, generic device management support

Supplementary Information

The following sales tools are available for Nways Workgroup Manager:

- Specification sheet: IBM Nways Workgroup Manager for Windows NT, V ersion 1.1; IBM Nways Workgroup Remote Monitor for Windows NT, Version 1.1, G224-4527
- You can also access IBM's Network Management home page at: www.networking.ibm.com/netmgmt