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# HP OpenView Bridge Manager

## Technical Data

**Product Number 28653B**

HP OpenView Bridge Manager provides the ability to centrally monitor and control the HP 28673A 10:10 LAN Bridge and the HP 28674A Remote Bridge in an extended IEEE 802.3 or Ethernet LAN environment. Developed under HP OpenView Windows, Bridge Manager provides facilities to monitor network traffic conditions, help identify and diagnose network problems, enhance network security, and control bridges serving as redundant data paths to increase network reliability.

As networks grow in complexity and importance, the need increases for up-to-date information on the status of the network. HP OpenView Bridge Manager provides for more effective resource management, and for quick detection and resolution of network problems.

Because bridges are frequently used to interconnect and extend local area networks, they are in an excellent position to provide information about the network and its operation. HP OpenView Bridge Manager, as part of HP's comprehensive family of network management tools, provides a powerful and easy-to-use facility for monitoring and control of HP bridges.

### Features

- Centralized control of multiple HP bridges
- A single HP OpenView workstation can configure and monitor all bridges within the extended LAN
- Verification and identification of all HP bridges will confirm the bridge's configuration and operational state
- Collection and logging of network performance and fault data
- Allows the network manager to track the performance and operation of the network over a period of time
- Automatic notification of network alarm conditions
- Permits early detection of network problems, such as traffic congestion and fault conditions
- Set security mode by static address filtering on sources, destination or protocol types for access restriction
- Selective forwarding of multi-cast addresses
- Easy-to-use operator interface and access to network map facilities
- Set the IEEE spanning tree parameters for primary and backup bridges in a redundant configuration. This allows optimization of a bridged network topology that permits alternate paths and redundancy to protect against network failure
- Diagnostic support and reset initialization
- An integrated function of HP OpenView Windows and coexistence with the HP EtherTwist Hub Manager

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- Automatic discovery of the network configuration
- Online context-sensitive help menus

## Functional Description

HP OpenView Bridge Manager runs on a DOS PC configured as an HP OpenView Windows workstation. Using the network map feature of HP OpenView Windows, bridges can be easily labeled and identified. Easy-to-use menus allow quick access to a variety of bridge management features, including configuration, monitoring, control, performance measurement, and problem identification.

HP OpenView Bridge Manager is based on the de facto standard Simple Network Management Protocol (SNMP).

An up-to-date network map is essential to proper network management. HP OpenView Bridge Manager automatically discovers and displays the network configuration, including the nodes attached to each HP 10:10 LAN Bridge and HP Remote Bridge segment. HP OpenView Bridge Manager does most of the work automatically in minutes, saving network administrators from hours of entering configuration information.

### Bridge Configuration

HP OpenView Bridge Manager allows each HP bridge to be optimized for operation within a particular network environment. For example, each bridge can be configured to filter out local LAN addresses to help minimize excess network traffic. A variety of other filtering and forwarding options are also available. A password associated with each bridge prevents unauthorized persons from changing configuration parameters.

### Error Detection

HP bridges will automatically notify Bridge Manager of error or alarm conditions on the network for reporting to the network operator. Thresholds may be set to specify when a network error condition should generate an alarm condition at the management console. Logging of network error conditions to a disk file is done automatically.

### Network Security

Each bridge maintains an internal address table to assist in the forwarding and filtering of data packets. HP OpenView Bridge Manager permits the network manager to configure the link address of selected nodes as static entries in the address table to prevent unauthorized users from accessing sensitive systems or data located on network subnets.

### Redundant Data Paths

The HP 28673A 10:10 LAN Bridge and HP 28674A Remote Bridge both support redundant data paths between networks. An IEEE 802.1 standard, the spanning tree algorithm permits IEEE 802 Local Area Networks to be bridged in an arbitrary topology that provides alternative paths and redundancy in the case of component failures.

The spanning tree algorithm ensures that there is at most one path between any two end stations by assigning bridges to be either primary or backup links between network segments. Should the primary bridge fail, the backup bridge will automatically take over the transmission of traffic between the two network segments. No user intervention is required for initial configuration or when backup is required.

HP OpenView Bridge Manager permits modification of the spanning tree parameters to explicitly assign the active and backup bridges.

### Network Statistics

Each bridge port automatically collects a variety of information regarding the state of the bridge and the network attached to that port. Examples include the number of packets forwarded, the number of data packets filtered, and the maximum number of packets queued prior to retransmission. This information can be retrieved from the bridge upon request or automatically logged to a file at predetermined intervals to permit performance tracking. Statistics on the filtering and forwarding of packets are also tabulated.

### Diagnostic Facilities

To help diagnose or correct network errors, Bridge Manager can selectively enable or disable bridge ports, or turn off a bridge's filtering capability. This permits a network segment to be isolated under error conditions, or allows traffic to flow freely in both directions. Bridges may also be remotely reset from a network management workstation.

### Configuration Description

HP OpenView Bridge Manager can manage an unlimited number of HP bridges in a local or extended networked environment. (An extended LAN is defined as geographically disperse networks connected by remote, MAC-layer devices.) The HP OpenView network management station must be connected to the extended LAN.

## Product Requirements

HP OpenView Bridge Manager requires a properly configured HP OpenView Windows workstation consisting of the following hardware and software:

### Hardware

A DOS PC platform that supports Microsoft Windows (Intel 80286, 80386, or 80486 processor) with the following:
— 20-Mbyte hard disk
— expanded memory (2 Mbytes)
— mouse
— EGA or VGA display
— one of the following HP network adapter cards: HP 27245A EtherTwist PC Link, HP 27246A Micro Channel Link or HP 27250A ThinLAN PC Adapter Card.

The following personal computers have been tested and approved for use with HP OpenView Bridge Manager: HP Vectras (ES/12, QS/16, QS/20, RS/16, RS/20, RS/25C), IBM (AT, PS/2 Models 50, 55, 60, 70, 80) and Compaq Deskpro 286 and 386.

### Software
— MS-DOS 3.3
— MS-Windows 3.0
— HP OfficeShare, Version B.00.00

HP OpenView Bridge Manager (HP 28653 version B) will not operate with the HP 10 Mbit/s-to-10Mbit/s LAN bridge (28648A/B) or the HP StarLAN bridge (28647A/B). Customers who have purchased a 28647A/B or 28648A/B bridge may obtain the new HP 28673A model by ordering the appropriate upgrade. Please consult your local HP sales office for upgrade information.

## Installation Policy

HP OpenView Bridge Manager is designed to be customer installable. A customer who would like to have Bridge Manager installed by HP must contract this installation service from their local sales office or HP-authorized LAN dealer.

## Ordering Information

**HP 28653B OpenView Bridge Manager includes:**

— HP OpenView Bridge Manager application diskette*
— HP OpenView Windows and HP OfficeShare User Utilities diskettes*
— HP OpenView Bridge Manager Tutorial software diskettes*
— HP OpenView Bridge Manager User Installation Manual

**All diskettes are shipped in both 5.25" and 3.5" versions.*




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