

# HP OfficeShare Network for Personal Computers

## Technical Data

**Product Numbers**  
**D1802A, D1805A,**  
**50923F, 50924F,**  
**50925F, 50926F,**  
**50927F, 50928F,**  
**50929A/F, 50930A/F**

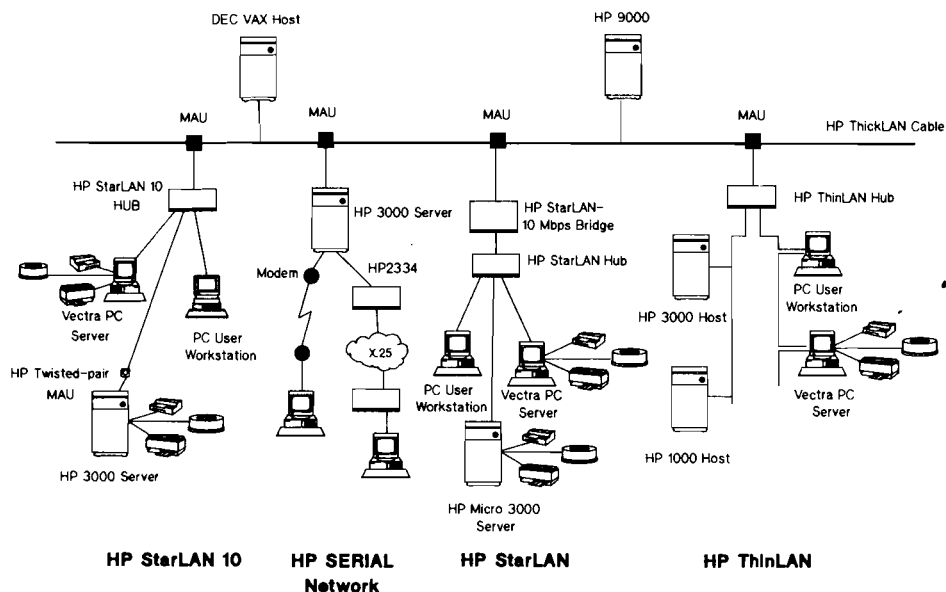
The HP OfficeShare Network family is an important element of HP's AdvanceNet network strategy, providing support for personal computers, including the HP Vectra PC, IBM PC/XT/AT, IBM PS/2 and HP Touchscreen PC. This family of networking products allows access to HP's distributed processing and office productivity services as well as communication within engineering and manufacturing environments. The OfficeShare services can run on several network hardware links, including HP StarLAN,

HP StarLAN 10, HP ThinLAN and the HP SERIAL Network.

### Features

The HP OfficeShare family of HP AdvanceNet-compatible network products provides several major communication services for PC users:

- Transparent sharing of high-quality and high-capacity computer resources
  - Disk and file sharing on a PC or HP 3000/V server
  - Printer and plotter sharing on a PC or HP 3000/V server
- Terminal access to HP 3000, HP 1000, HP 9000 Series 300 and 800 and DEC™ VAX™/VMS™ computers
- Network File Transfer (NFT) to HP 3000, HP 1000, HP 9000 Series 300, 500 and 800 and DEC VAX/VMS computers
- NetBIOS compatibility for use of PC-to-PC communication applications
- Network InterProcess Communication (NetIPC) programmatic interface between PCs and HP 3000s, HP 1000s and HP 9000s
- Remote Process Management (RPM) between PCs and HP 3000s



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## Functional Description

### Disk, Printer and Plotter Sharing

With the HP OfficeShare Network, PC users can share disks and files transparently on a PC or HP 3000 server. Access is easy, using the same operations as on a local disk. Files on a server can be set up for private or public access, as needed, and protected with passwords.

PC users can also share printers and plotters on PC or HP 3000 servers. Access is transparent, as if the peripheral was connected to the PC, and uses spooling, so that a user need not determine whether the peripheral is already in use.

### Terminal Access

The HP OfficeShare Network provides PC users with terminal access over the network to HP 3000, HP 9000, HP 1000 and DEC VAX computers as if the PC were directly connected to the minicomputer itself.

This terminal access uses HP AdvanceLink or the HP Terminal Program to provide terminal emulation. HP AdvanceLink also provides a simple file transfer feature to the HP 3000. Terminal access from PC to HP 9000, HP 1000 and DEC VAX computers requires the TELNET service on the minicomputer.

### Network File Transfer

Network File Transfer (NFT) allows the PC to transfer a file to or from an HP 3000, HP 1000, HP 9000 or DEC VAX computer or initiate a transfer between any two of these computers. The NFT operation uses the **dscopy** command, which can be issued from the keyboard or from within a program.

### NetBIOS

NetBIOS implements the IBM NetBIOS standard for PC-to-PC communication. It allows use of certain applications, such as communications gateways, written for IBM PC and Token Ring networks and other networks. A list of qualified applications is available separately. NetBIOS is not supported on the HP SERIAL Network, which is used only for PC-to-HP 3000 communication.

### Network InterProcess Communication (NetIPC) and Remote Process Management (RPM)

The NetIPC/RPM application development package provides a set of link-time libraries that can be appended to programs written in Microsoft C and Lattice C to allow use of the NetIPC and RPM services. These services provide communication with an HP 3000, HP 9000 or HP 1000 and enable application developers to write distributed applications.

NetIPC enables the PC to communicate over the network with a peer process running on the HP 3000, HP 1000 or HP 9000. RPM enables the PC to control a process on the HP 3000.

### Network Links

HP StarLAN is HP's 1-Mbps LAN link using twisted-pair wiring. This link supports HP Vectra PCs, IBM PC/XT/AT and the IBM PS/2, as well as the MICRO 3000 and HP 3000 Series 37. It is a flexible network link for integrating PCs and HP 3000s in complete office automation solutions. Personal computers on a StarLAN network can communicate with HP computers that are on ThinLAN or ThickLAN networks via a bridge.

HP StarLAN 10 is HP's 10-Mbps LAN link that runs over unshielded twisted-pair wiring. This link supports HP Vectra PCs, the IBM PC/XT/AT, the IBM PS/2, the HP Touchscreen PC as well as HP 3000 computers. Twisted-pair wiring is the preferred wiring in the Business Office environment. Now, with HP StarLAN 10, environments with a large number of nodes, heavy traffic or high-performance workstations can take advantage of the benefits of twisted-pair wiring.

HP ThinLAN is HP's 10-Mbps thin coaxial cable LAN link, supporting the HP Vectra PC, IBM PC/XT/AT, IBM PS/2 and HP Touchscreen PCs, as well as HP minicomputers. It is especially useful in engineering or manufacturing environments.

The HP SERIAL Network provides an asynchronous connection for HP Vectra, Touchscreen or IBM PCs to HP 3000 computers. This connection provides remote access to HP 3000 Resource Sharing, Information Access, HP DeskManager, terminal access and NetIPC/RPM services. HP Vectra and IBM PCs can also make this connection via back-to-back HP 2334A multiplexers over an X.25 network. HP SERIAL does not support NetBIOS or communication to HP 1000, HP 9000 or DEC VAX computers.

**HP Computer Museum**  
**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

## Supported PCs

PC	User of Server Resources	Act as a Server	Terminal Access to:				
			HP 3000	HP 1000, HP 9000, DEC VAX Host	NFT	NetIPC/RPM	NetBIOS
HP 150/Touchscreen	Yes	10 users	Yes	No	No	No	No
HP Vectra PC	Yes	30 users	Yes	Yes	Yes	Yes	Yes
HP Portable Vectra CS PC	Yes	No	Yes	No	Yes	Yes	No
HP Vectra CS PC	Yes	10 users	Yes	Yes	Yes	Yes	Yes
HP Vectra ES & RS PC	Yes	30 users	Yes	Yes	Yes	Yes	Yes
IBM PC/XT/AT	Yes	No	Yes	Yes	Yes	Yes	Yes
IBM PS/2	Yes	No	Yes	Yes	Yes	Yes	Yes

PC	StarLAN 10	ThinLAN	StarLAN	SERIAL
HP 150/Touchscreen	Yes**	Yes	No	Yes*
HP Vectra PC	Yes	Yes	Yes	Yes
HP Vectra Portable CS PC	No	No	No	Yes
HP Vectra CS PC	Yes	Yes	Yes	Yes
HP Vectra ES & RS PC	Yes	Yes	Yes	Yes
IBM PC/XT/AT	Yes	Yes	Yes	Yes
IBM PS/2: Model 30	Yes	Yes	Yes	Yes
Micro Channel Models	Yes	Yes	No	Yes

\* Not via back-to-back HP 2334As on an X.25 network.

\*\*HP 150/Touchscreen support on StarLAN 10 is available in U.S. and Canada only.



## Features/Benefits

- Transparent disk and file sharing on PC or HP 3000 server:** Facilitates communication by allowing sharing, consolidation, controlling and securing of data. Users need not be concerned with where the information is stored. Sharing single copies of key data provides data integrity by reducing redundancy that can lead to inaccuracy.
- Transparent printer and plotter sharing and spooling:** Access to powerful peripherals without having to dedicate a device to each user. The user accesses the remote peripheral much as if it were attached to their PC. Spooling allows freedom to print or plot without first checking to see that the specified device is in use.
- Unattended file backup and recovery on HP 3000 Resource-Sharing servers:** Important programs and data can be protected automatically.
- Off-line selective or complete backup on PC servers:** Using the same software as for standalone PC backups provides an easy process to protect files.
- Support of both HP 3000 and personal computers as servers:** A personal computer is an economical alternative which provides a compatible and scalable growth path to the HP 3000 family of minicomputers.
- Security for network resources through passwords, and security for data through MS-DOS-supported byte-locking capabilities:** Customers can be sure that only the users who should have access to information can gain that access. The possibility of data overwriting is minimized when networked or multiuser application software uses locking features.
- Microsoft® Networks (MS®-Net) compatibility, including DOS 3.x file sharing and locking:** A de facto standard, MS-Net provides support for multiuser applications. Application updates and licensing control

- can be centrally administered, ensuring that all users have access to the same version of an application.
- **Terminal emulation and file transfer capabilities for complete support of data processing applications on HP 3000s, using HP AdvanceLink software or the HP Terminal Program:** The many data processing applications available on Hewlett-Packard's powerful minicomputers can be used.
  - **Integration of PCs and minicomputers with HP's Personal Productivity Center services and applications, including HP AdvanceMail, HP DeskManager and HP Information Access:** Preserves investment in personal computers; the power of the personal computer can be used to off-load the HP 3000 by providing such activities as data base access and electronic mail to the PC users. PC users benefit from increased sharing of information, increasing productivity.
  - **Terminal access to HP 9000 Series 300 and 800, HP 1000 and DEC VAX computers using HP Terminal Program or AdvanceLink:** Access to manufacturing and engineering applications via communication with the TELNET services on these computers.
  - **HP AdvanceNet Network File Transfer to HP 3000, HP 1000, HP 9000 and DEC VAX computers supporting the 3-node model:** Easily share data with a wide variety of users — the PC users can initiate a transfer to or from a computer, or between two other machines, manually or programmatically.
  - **NetBIOS compatibility:** Access to a wide range of software developed for NetBIOS, including communication products.
  - **HP AdvanceNet NetIPC/RPM development with HP 3000, HP 9000 (3xx), HP 9000 (8xx) and the HP 1000:** Application developers can develop distributed applications that utilize the processing power of both the PC and the HP 3000, HP 9000 or HP 1000.
  - **Choice of link including unshielded twisted pair at 1 Mbps or 10 Mbps and 10 Mbps coaxial:** Flexibility to use the right wiring and link speed for any need.
  - **Evaluation of existing twisted-pair wire for HP StarLAN networks with HP WireTest Services:** Quick and easy verification of whether existing wire may be used with StarLAN networks.
  - **SERIAL Network supports 1200, 2400 or 9600 baud<sup>1</sup> connections. Data transfer rate for remote connection is dependent upon modem choice:** Allows use of asynchronous modems and low-cost wiring.
  - **Support of HP SERIAL Network over back-to-back HP 2334A Multiplexers:** Enables access to HP 3000 Personal Productivity Center via an X.25 network.
  - **Supports HP's AdvanceNet strategy and conforms to the IEEE 802.3 specifications:** Allows expansion of existing networks or the ability to start today with a PC LAN and expand to the full line of HP AdvanceNet products in the future.
  - **Support for Microsoft Windows 2.0 on user workstations:** Users can take advantage of Windows with network software in use.
  - **Support for Expanded Memory System (EMS):** Much of the network software can reside in EMS, leaving more room in main-memory for programs and data.
  - **Expandability/flexibility:** A wide range of services and links can be combined to meet specific needs, whether it be a PC-only network or a network with a wide range of computers.
  - **Multivendor support:** Complete integration of IBM PCs as network users; communication from PCs to DEC VAX computers.
  - **Network diagnostics:** Ensures network continuity and operation by helping pinpoint and solve any problems that may arise.
- <sup>1</sup>IBM PC and PC/XT are supported at 1200 and 2400 baud only.
- ## Supported Peripherals for PC Servers
- ### HP Vectra-Supported Peripherals
- #### Printers and Plotters
- Printer and automatic feed plotters that are supported on each Vectra PC model as a standalone system are supported on that same model as a server.
- #### Disk and Tape Drives
- 45816A/M** 20-Mbyte Internal Hard Disk Subsystem
- 45817A/M** 40-Mbyte Internal Hard Disk Subsystem
- 45896A/M** 20-Mbyte Internal — half height
- 45897A/B/M** 40-Mbyte Internal — half height
- D1173A** 20-Mbyte Hard Disk for Vectra CS
- 9134H** 20-Mbyte Standalone Hard Disk<sup>2</sup>
- 9134L** 40-Mbyte Standalone Hard Disk<sup>2</sup>
- 9154B** 20-Mbyte Standalone Hard Disk<sup>2</sup>
- 9142A** 1/4-inch Tape Backup Unit<sup>2</sup>
- 9144A** High-Performance 1/4-inch Tape Backup Unit<sup>2</sup>
- <sup>2</sup>As supported by the original Vectra PC. Requires HP 88500A Disk/Tape Interface. Not supported by the Vectra CS, ES or RS.

## HP Touchscreen-Supported Peripherals

	HP 150B Server	HP 150C Server	Product Number	Description
Disk Drives	X	X	9133D	15-Mbyte Hard Disk with Microfloppy*
	-	X	9133H	20-Mbyte Hard Disk with Microfloppy*
	-	X	9133L	40-Mbyte Hard Disk with Microfloppy*
	X	X	9134D	15-Mbyte Hard Disk
	-	X	9134H	20-Mbyte Standalone Hard Disk
	-	X	9134L	40-Mbyte Standalone Hard Disk
	X	X	9134XV	15-Mbyte Standalone Hard Disk
	-	X	9153A	10-Mbyte Hard Disk with Microfloppy*
	-	X	9154A	10-Mbyte Standalone Hard Disk
Tape Drives	X	X	9142A	1/4-inch Tape Backup Unit
	X	X	9144A	High-Performance 1/4-inch Tape Backup Unit
Plotters	X	X	7550A	8-Pen A3-/B-size Auto Sheetfed Plotter (RS-232 only)
Printers	X	X	2225A	ThinkJet 150 cps HP-IB Printer
	X	X	2225D	ThinkJet Printer with RS-232C Interface
	X	X	2227A	QuietJet PLUS with RS-232C Interface
	X	X	2601A**	Letter-Quality Printer - Fast Daisy Wheel
	X	X	2602A**	Letter-Quality Printer - Slow Daisy Wheel
	-	X	2603A**	Letter-Quality Printer - Daisy Wheel
	X	X	2686A	LaserJet 8 ppm Printer with RS-232 Interface
	X	X	2686A Opt. 300	LaserJet PLUS Printer with Parallel and Serial Interface (using Serial Interface)
	X	X	2686D	LaserJet 500 PLUS Printer with Parallel and Serial Interface (using Serial Interface)
	X	X	2932A	200 cps Wide-carriage Dot-matrix Impact Printer with RS-232 Interface
	X	X	2932A Opt. 046	200 cps Wide-carriage Dot-matrix Impact Printer with HP-IB Interface
X	X	2934A	200 cps Dot-matrix Impact Printer with Letter-Quality Mode and RS-232 Interface	
X	X	2934A Opt. 046	200 cps Dot-matrix Impact Printer with Letter-Quality Mode and HP-IB Interface	

\* Microfloppy disk drives and tape drives are not supported as shared devices.

\*\* These printers are not supported for the following applications being run from an HP 150 Workstation: Executive Memo-Maker, Executive Cardfile, Executive Spreadsheet, Personal Cardfile, MemoMaker and VisiCalc.  
- =Not supported at this time

### Application Software

Contact your Hewlett-Packard Sales Representative to determine whether the application software that interests you has been certified for use on the network.

## Functional Specifications

### Implementation:

Lower layers – IEEE 802.3 and 802.2  
 Access method – CSMA/CD  
 Upper layers – HP AdvanceNet TCP/IP and MS-Net

### PC Servers:

Maximum number of simultaneously connected user workstations per PC server:

<b>Vectra CS PC</b>	<b>HP Touchscreen PC</b>	<b>All Vectra servers</b>
10	10	30

Maximum number of printers and/or plotters per PC server: 4

### Link Dependent Specifications

	StarLAN	StarLAN 10	ThinLAN	SERIAL Network
Maximum length of cable	Up to 250 meters between hubs or hub and node	Up to 100 meters between hubs or hub and node	185 meters per segment; Max. 4 segments/ThinLAN Hub*	50 ft.
Line data rate	1 Mbps	10 Mbps	10 Mbps	1200, 2400 and 9600 baud†
Cable type	Unshielded twisted pair (Type 10BASE5)	Unshielded twisted pair**	RG-58C/U (Type 10BASE2)	RS-232 for direct or modem connection

### Network Capacity and Performance

Although the data travels through the network at the stated rate, the throughput achieved by a user will differ depending on a number of factors. The primary factors affecting performance are the types of applications each user requires, disk perform-

ance, the number of users requiring simultaneous access across the network, the main memory and speed of the processor being used and the load on each system from non-network applications. HP Systems Engineers and HP Network Consultants are available to consult on network designs to meet your specific needs.

\* More detailed information can be found in the SiteWire Planning Guide.

\*\* For additional information, consult the HP StarLAN 10 Wiring Specification Note (P/N 5958-9013)

† IBM PC and PC/XT are supported at 1200 and 2400 baud only.

### PC Product Requirements

#### Vectra and IBM PCs

For ...	Requirement
Every HP Vectra or IBM PC user or server; and users of applications developed using NetIPC/RPM	HP OfficeShare transport software (included with the appropriate link product)
PC servers	PC Server software (HP Vectra)
PC users of PC or HP 3000 servers, NFT or NetBIOS	Network Services-User Service/Vectra PC
HP 3000 Terminal Access	Network Services-User Services/Vectra PC plus HP AdvanceLink (rev A.05.00 or later) or HP Terminal Program
HP 9000/1000/DEC VAX Computer Terminal Access	Network Services-User Services/Vectra PC plus HP Terminal Program (rev. A.00.02 or later) or HP AdvanceLink (rev B.02.00 or later)
Development of PC-HP 3000, PC-HP 1000 or PC-HP 9000 distributed applications	NetIPC/RPM Development Package/Vectra PC
All networks	PC User Configuration and Diagnostics Package (for appropriate PC and link type, licensed per number of users)

## HP Touchscreen PC

HP Touchscreen PC user nodes use either the ThinLAN or SERIAL User Link Kits. HP AdvanceLink version A.03.02 is required for HP 3000 terminal access. HP Touchscreen PC servers use the ThinLAN Server Kit. The appropriate PC User Configuration and Diagnostics Package is also required.

## Minimum PC Memory Requirements

User systems require 512 Kbytes minimum memory with 640 Kbytes recommended. HP Vectra servers require 640 Kbytes while HP Touchscreen servers require 512 Kbytes. Please see the HP OfficeShare Network Configuration and Ordering Guide for complete information.

## Hardware Component Specifications and Power Requirements



	<b>HP StarLAN Interface for the HP Vectra PC, IBM PC</b>	<b>HP StarLAN Hub (HP 27212A)</b>
Operating temperature	0°–55°C	0°–55°C
Relative humidity	5–95% relative @ 40°C non-condensing	5–95% relative @ 40°C non-condensing
Dimensions	4 in. x 8 in.	13.2 in. x 8.6 in. x 1.5 in.
Weight	8 oz.	5 lbs.
Power consumption	4 watts (maximum) at 5V	15 watts (maximum) at 120/240V

	<b>HP StarLAN 10 Interface for the HP Vectra PC, IBM PC</b>	<b>HP StarLAN 10 Hub (HP 28663A)</b>
Operating temperature	0°–55°C	0°–55°C
Relative humidity	5–95% relative @ 40°C non-condensing	5–95% relative @ 40°C non-condensing
Dimensions	4 in. x 8 in.	12.795 in. x 12.795 in. x 3.937 in.
Weight	8 oz.	10 lbs.
Power consumption	5.5 watts	40 watts (maximum) at 120/240V

	<b>HP ThinLAN Link for the HP Vectra PC, IBM PC</b>	<b>HP ThinLAN Link for the HP Touchscreen PC</b>
Operating temperature	0°–55°C	0°–55°C
Relative humidity	5–95% relative @ 40°C non-condensing	5–95% relative @ 40°C non-condensing
Dimensions	4 in. x 7 in.	4 in. x 11 in. x 1.5 in.
Weight	10 oz.	10 oz.
Power consumption	5 volts @ 1 amp (maximum) 12 volts @ .25 amp (maximum) 8 watts (maximum)	12 volts @ .12 amps (maximum) 6.4 watts (maximum)

HP StarLAN, HP StarLAN 10 and ThinLAN for PCs do not have any special power requirements, provided the installation site meets Environmental Class A specifications (office environment). Should the site

not meet these specifications, you will need to upgrade the site to meet all warranty and service contract agreements. Your local HP Sales Office can help determine the status of your site.



## Minicomputer Connectivity

The following tables show the minicomputers that PCs can communicate with over the network, which network hard-

ware can be used and what software is needed for the minicomputer. Information is also included on hosts for terminal access and NFT.

### Hardware

### SERIAL

Computer	StarLAN	StarLAN 10	ThinLAN	ThickLAN	Network
MICRO 3000/XE, HP 3000 Series 37	StarLAN/ 3000 Link	ThinLAN 3000/V Link Link Opt. 142	ThinLAN 3000/V Link	ThinLAN/3000 Link Opt. 242	Advanced Terminal Processor (ATP) Asynchronous SERIAL Network Link**
HP 3000 Series 42-70	N/A	ThinLAN 3000/V Link Link Opt. 142	ThinLAN 3000/V LinkLink	ThinLAN/3000 Opt. 242	Advanced Terminal Processor (ATP) Asynchronous SERIAL Network Link**
HP 3000 Series 900	N/A	ThinLAN 3000/XL Link Link Opt. 142	ThinLAN 3000/XL Link	ThinLAN 3000/XL Link Opt. 242	N/A
HP 9000 Series 300	N/A	LAN/300 Link Opt. 241 and HP 30241A MAU	LAN/300 Link	LAN/300 Link Opt. 241 and HP 30241A MAU	N/A
HP 9000 Series 500	N/A	LAN/500 Link Opt. 241 and HP 30241A MAU	LAN/500 Link	LAN/500 Link Opt. 241 and HP 30241A MAU	N/A
HP 9000 Series 800	N/A	LAN 9000 Series 800 Link Opt. 740	LAN/9000 Series 800 Link	LAN/9000 Series 800 Link Opt. 740	N/A
HP 1000	N/A	LAN/1000 Link	LAN/1000 Link Opt. 241 and HP 28641A ThinMAU	LAN/1000 Link	N/A
DEC VAX computer	N/A	DEC Hardware*	DEC Hardware*	DEC Hardware*	N/A

\*Detailed information on connectivity to DEC VAX computers can be found in the HP AdvanceNet for Engineering Solution Guide.

\*\*Communication via 2334As on X.25 requires V delta 2 MIT.

## Software

	Server	Terminal Access	NFT	NetIPC/RPM
MICRO 3000/XE, HP 3000 Series 37	MPE V/E* Resource Sharing	MPE V/E* link software	MPE V/E* NS3000/V (ver.A.00.04)	MPE V/E* NS3000/V (ver.A.00.04)**
HP 3000 Series 42-70	MPE V/E* Resource Sharing	MPE V/E* link software	MPE V/E* NS II	MPE V/E* NS II
HP 3000 Series 900	N/A	MPE/XL 1.1 NS3000/XL release 1.1	MPE/XL 1.1 NS3000/XL release 1.1	MPE/XL 1.1 NS3000/XL release 1.2
HP 9000 Series 300	N/A	HP-UX 6.0 NS/300 release 5.2	HP-UX 6.0 NS/300 release 5.2	HP-UX 6.2 NS/300 release 6.0
HP 9000 Series 500	N/A	N/A	HP-UX release 5.11 NS/500 release 1.03	N/A
HP 9000 Series 800	N/A	HP-UX release 2.0 (ver.A.02.00)  ARPA Services release 2.0 (ver.A.02.00)	HP-UX release 2.0 (ver.A.02.00) NS/800 release 2.0 (ver.A.02.00)	HP-UX release 2.0 (ver.A.02.00) LAN Link (ver.2.1)
HP 1000 A-Series DEC VAX computer	N/A  N/A	RTE 5.0 NS 5.05 VMS 4.5 NS for the DEC VAX computer release 2.0	RTE 5.0 NS 5.05 VMS 4.4 NS for the DEC VAX computer release 2.0	RTE 5.1 NS 5.1 N/A

\*Requires MPE V/E revision  
G.02.02 (UB delta 3 MIT) or later.  
\*\*RPM requires MPE V/E V delta  
1 MIT. (ver.A.00.06).

### Notes:

1. For NetIPC/RPM, the HP 3000 requires the link product for NetIPC and NS/3000 for RPM.
2. N/A = Not Available

## Installation Services and Policy

### Customer Installation Responsibility

The customer is responsible for installing all personal computers, workstations and servers. If needed, assistance with these tasks is available on a time-and-materials basis from local HP Sales Offices. For networks that include HP minicomputers or multiple PC servers, HP strongly recommends purchase of installation services to install, configure and test the network.

The customer is also responsible for the installation of wiring that meets the appropriate RS-232 or IEEE 802.3 specification and must ensure that all safety grounds in the power system for the area served by the LAN are interconnected. The customer is responsible for complying with all applicable building codes during the installation of LAN cabling and components.

## Support Services

### Software Support Services

HP provides several software support options for personal computers on PC LANs, including:

- HP Helpline — personal computer phone-in consulting (charge is on a per-call basis).

- Response Center support contract — unlimited calls for one person at one customer site. This service is included with the Workgroup Coordination Assistance product.
- Software Material Subscription (SMS) — provides software updates to the appropriate products.

### Hardware Support Services

Available hardware support services range from on-site service with four-hour response to repair at regional HP service facilities. With so many plans from which to choose, there is one to fit your needs. Contact your local HP Sales Office for details.

- HP WireTest — HP WireTest is a unique service provided by Hewlett-Packard to verify the suitability of your existing twisted-pair cable for use with HP StarLAN 1-Mbps networks. This service is delivered by

HP Customer Engineers and performed on a time-and-materials basis.

## Implementation Assistance

Hewlett-Packard also offers HP OFFICE-ASSIST: Local Area Network (P/N 32597A + 60A), which provides a project management approach to integrating LAN capabilities into your business environment.

For quick implementation of your network, a simplified service interface, verified network operation, and assured ongoing supportability, please refer to the HP Network Startup Data Sheet in this guide.

## Customer Training

For information about customer training, please contact your local Hewlett-Packard Sales Office.

## Ordering Information

### HP Vectra PC, IBM PC/XT/AT

**D1802A** StarLAN 10/Vectra PC Link

**50923F** Network Services-User Services/Vectra PC

**50923F Opt. 0A9** 10-user license

**50923F Opt. 0AA** 50-user license

**50924F** NetIPC/RPM Development Package/Vectra PC

**50925F** PC Server Software/Vectra PC

**50926F** StarLAN/Vectra PC Link

**50927F** ThinLAN/Vectra PC Link

**50928F** SERIAL Network/Vectra PC Link Software

**D1805A** LAN/Micro Channel PC Link Software

**50929F** LAN PC User Configuration and Diagnostics Package/Vectra PC

**50929F Opt. 0A9** 10-user license

**50929F Opt. 0AA** 50-user license

**59030F** SERIAL Network PC User Configuration and Diagnostics Package/Vectra PC

**59030F Opt. 0A9** 10-user license

**59030F Opt. 0AA** 50-user license

### HP Touchscreen PC

**D1803A** StarLAN 10 User Link Kit (interface and software)

**D1804A** StarLAN 10 Server Kit (interface and software)

**50907A** ThinLAN Server Kit (interface and software)

**50908A** ThinLAN User Link Kit (interface and software)

**50910A** SERIAL Network User Link Software

**50929A** ThinLAN PC User Configuration and Diagnostic Package/HP Touchscreen

**50929A Opt. 0A9** 10-user license

**50929A Opt. 0AA** 50-user license

**50930A** SERIAL Network PC User Configuration and Diagnostic Package/HP Touchscreen

**50930A Opt. 0A9** 10-user license

**50930A Opt. 0AA** 50-user license

### HP StarLAN Accessories

**27212F** HP StarLAN Hub. Includes the hub box and external power supply.

**Opt. 900** U.K. Power Cord

**Opt. 901** Australian Power Cord

**Opt. 902** European Power Cord

**Opt. 903** US/CAN 125V Power Cord

**Opt. 904** US/CAN 250V Power Cord

**Opt. 906** Swiss Power Cord

**Opt. 912** Danish Power Cord

**Opt. 918** Japanese Power Cord

**28647A** HP StarLAN 10-Mbps

**802.3** Bridge. Includes the bridge box, thick MAU and 5-meter AUI cable.

**Opt. 900** U.K. Power Cord

**Opt. 901** Australian Power Cord

**Opt. 902** European Power Cord

**Opt. 903** US/CAN 125V Power Cord

**Opt. 904** US/CAN 250V Power Cord

**Opt. 906** Swiss Power Cord

**Opt. 912** Danish Power Cord

**Opt. 918** Japanese Power Cord

**Opt. 241** Deletes thick MAU and AUI Cable

### Unshielded Twisted-Pair Cables

**92268A** 4-meter Unshielded Twisted-pair Cable

**92268B** 8-meter Unshielded Twisted-pair Cable

**92268C** 16-meter Unshielded Twisted-pair Cable

**92268D** 32-meter Unshielded Twisted-pair Cable

### StarLAN 10 Accessories

**28663A** StarLAN 10 Hub

**Opt. 241** Deletes thick MAU and AUI cable

**Opt. 242** Deletes thick MAU and adds a thin MAU

**Opt. 900** U.K. Power Cord

**Opt. 901** Australian Power Cord

**Opt. 902** European Power Cord

**Opt. 903** US/CAN 125V Power Cord

**Opt. 904** US/CAN 250V Power Cord

**Opt. 906** Swiss Power Cord

**Opt. 912** Danish Power Cord

**28664A** StarLAN 10 Twisted-pair MAU

**Opt. 001** Loopback Connector

### *Unshielded Twisted-Pair Cables*

**92268A** 4-meter Unshielded Twisted-pair Cable

**92268B** 8-meter Unshielded Twisted-pair Cable

**92268C** 16-meter Unshielded Twisted-pair Cable

**92268D** 32-meter Unshielded Twisted-pair Cable

### **HP ThinLAN Accessories**

**28645A** ThinLAN Hub. Includes hardware for attaching up to four HP ThinLAN segments to an HP ThickLAN backbone cable. Can also be used for connecting four HP ThinLAN cable segments without an HP ThickLAN backbone cable.

**Opt. 241** Deletes thick MAU and 5-meter AUI cable

**Opt. 900** U.K. Power Cord

**Opt. 901** Australian Power Cord

**Opt. 902** European Power Cord

**Opt. 903** US/CAN 125V Power Cord

**Opt. 904** US/CAN 250V Power Cord

**Opt. 906** Swiss Power Cord

**Opt. 912** Danish Power Cord

**92223A/C** HP Repeater Kit. Includes hardware for attaching two HP ThickLAN cable segments.

### *ThinLAN Coaxial Cables*

The following cables, which have BNC connectors and a PVC jacket (unless otherwise stated), can be ordered from HP Direct Marketing Division (DMK).

**92227A** 1-meter ThinLAN Cable

**92227B** 2-meter ThinLAN Cable

**92227C** 4-meter ThinLAN Cable

**92227D** 8-meter ThinLAN Cable

**92227E** 16-meter ThinLAN Cable

**92227F** 32-meter ThinLAN Cable

**92227G** 64-meter ThinLAN Cable

**92227H** 128-meter ThinLAN Cable

**92227J** HP ThinLAN Cable without connectors, PVC jacket, cut to length (minimum 300 meters, maximum 3000 meters)

**92227K** HP ThinLAN Cable without connectors, FEP jacket, cut to length (minimum 100 meters, maximum 3000 meters)

**92227L** ThinLAN Connector Pair for cut-to-length ThinLAN Cable

**92227M** ThinLAN Cable Tools Kit for cut-to-length ThinLAN Cable

**92227N** ThinLAN "T" Connector and Cover

**92227P** ThinLAN Terminator Pair

**92227Q** ThinLAN Loopback Connector

**92227R** ThinLAN "T" Connector Cover

### **HP SERIAL Network Accessories**

**32003A** Asynchronous SERIAL Network Link for HP 3000

### **Upgrades**

Upgrades for earlier versions of OfficeShare (customer must order the base product, i.e., 50923F, 50925F, 50929F or 50930F)

**D1802AN** StarLAN-to-StarLAN 10 Link Upgrade Credit for Vectra and IBM PCs. Requires version B.00.00 or later of OfficeShare User Services and Server Software

**28663AN** StarLAN-to-StarLAN 10 Hub Upgrade Credit for Vectra and IBM PCs

**50923F Opt. 0CJ** Network Services-User Services/StarLAN User Upgrade Kit

**50923F Opt. 0CK** Network Services-User Services/ThinLAN/StarLAN 10 User Upgrade Kit

**50923F Opt. 0CL** Network Services-User Services/SERIAL User Upgrade Kit

**50925F Opt. 0CJ** PC Server Software/StarLAN Server Upgrade Kit

**50925F Opt. 0CK** PC Server Software/ThinLAN/StarLAN 10 Server Upgrade Kit

**50929F Opt. 0CN** ThinLAN/StarLAN 10/StarLAN Configuration Upgrade Kit for Vectra and IBM PCs

**50930F Opt. 0CL** SERIAL Configuration Upgrade Kit for Vectra and IBM PCs

### **Documentation**

**HP Vectra PC or IBM PC/XT/AT**

**50923-90000** User's Guide

**50923-90001** NFT User's Guide

**50924-90000** NetIPC/RPM Programmer's Guide

**50925-90000** PC Server Guide

**50929-90000** Planning Guide

**50929-90001** PC Workstation Configuration Guide

**50929-90002** Diagnostics and Troubleshooting

**50929-90003** Welcome Manual

**50930-90000** SERIAL Network Guide

### **Related Documents**

**5954-9016** HP AdvanceNet for a Company-wide Network Solution Guide

**5954-9017** HP AdvanceNet for Computer Integrated Manufacturing Solution Guide

**5954-9018** HP AdvanceNet  
for Engineering Solution  
Guide

**5954-9019** HP AdvanceNet  
for Regional Sales and Service  
Solution Guide

**5954-9020** HP AdvanceNet  
for the Business Office  
Solution Guide

**5955-7680** Cable and Accessor-  
ies Installation Manual (HP  
ThinLAN cable configuration)

**5956-4142** HP OfficeShare  
Networking Family Configura-  
tion and Ordering Information  
Guide

**5957-4624** Making the LAN  
Connection (primer)

**5958-9004** HP StarLAN Wire  
Specifications

**5958-9013** HP StarLAN 10  
Wiring Specification Note

**5959-2208** HP SiteWire  
Twisted-pair Cabling Installa-  
tion Guide

## Warranties

The HP OfficeShare hardware products are warranted for one full year against defects; software products are warranted for 90 days. Check with your Hewlett-Packard Sales Office for more information.

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