

# WHITE PAPER

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## Compaq: The Premier OS/2 Platform

*IBM's OS/2<sup>®</sup>, a 32-bit operating system designed for Intel microprocessors, is currently installed on an estimated ten million computers, including desktops, portables, and servers. For those ten million OS/2 customers, or anyone contemplating an OS/2 installation, there is no better hardware platform than Compaq. Compaq provides unparalleled product support, price, performance, reliability, and manageability in the OS/2 environment.*

**COMPAQ**

ECG124/0798

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**Compaq: The Premier OS/2 Platform**

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## EXECUTIVE SUMMARY

As corporations and system integrators implement large-scale client/server and distributed network systems, their interests focus on the appropriate operating systems for servers, desktops, and portables. The sometimes-overlooked IBM OS/2 Warp and OS/2 Warp Server provide customers with a state-of-the-art 32-bit multi-tasking operating system for Intel platforms. The OS/2 market is large and by some estimates comprises as many as ten million seats. In the majority of cases these customers are large corporations, particularly in the banking, financial services, health care, and insurance industries, that have significant investments in IBM hardware and software. Today the best hardware platform on which to run OS/2, as with most industry leading operating systems, is Compaq.

Many customers in the OS/2 marketplace may not be aware of the degree of cooperation between Compaq and the IBM Network Computing Software Division. This relationship allows Compaq to ensure that its hardware will fully support new releases of OS/2, and will continue to outperform other vendors' platforms on current and future versions of OS/2. All of the features that distinguish Compaq products in the marketplace, such as performance, reliability, support, and manageability, also distinguish Compaq in the OS/2 market. With this in mind, customers, integrators, or resellers involved in OS/2 implementations should consider Compaq the hardware platform of choice.

This white paper discusses the OS/2 marketplace, the fundamentals of OS/2 architecture, how key industry trends might affect OS/2 development and implementation, and Compaq's position in the OS/2 marketplace. In addition, the extent of Compaq's support for OS/2 across all its product lines and Compaq's future OS/2 strategies are considered.

## THE OS/2 MARKETPLACE

The OS/2 marketplace continues to represent a significant population of users, particularly in IBM's core business segments: banking, financial services, health care, and insurance. A recent report by Summit Strategies (<http://www.summitstrat.com/>), a Boston-area technology analysis firm, puts the population of OS/2 desktop users at "roughly ten million seats." With such a strong market presence, OS/2 now holds, and will continue to hold, a significant position in the operating systems market.

IBM's OS/2 Warp 4 and OS/2 Warp Server 4 operating systems are designed to run on 32-bit Intel x86 platforms. In the desktop and portable arena, OS/2 Warp 4 competes with Microsoft Windows 3.1, Windows 95/98, and Windows NT Workstation 4.0. In the server arena, OS/2 Warp Server 4 rivals Microsoft Windows NT Server 4.0, Novell NetWare 3.x, 4.x, and IntranetWare. OS/2 Warp Server 4 is also competition for versions of Unix designed to run on Intel platforms, such as Linux, BSDI Unix, SunSoft Solaris, SCO OpenServer, and SCO UnixWare. Due to its leading market standing in Intel-based desktop, portable, and server price and performance, Compaq is the platform of choice for deploying OS/2 Warp and Warp Server.

## OS/2 ARCHITECTURE

Originally released in 1986, OS/2 was a joint Microsoft and IBM product. OS/2 Warp and OS/2 Warp Server are true 32-bit operating systems, implementing preemptive multi-tasking and support for DOS and most Windows applications. OS/2 Warp includes native network clients for Novell NetWare (including support for NetWare Directory Services), Microsoft Networking, Banyan VINES, LAN Server, and of course, OS/2 Warp Server. IBM has even included a 5250/3270-emulator running over TCP/IP, to support host connectivity for large corporate customers who require this type of communication. In addition to TCP/IP, other standard Internet protocols, such as HTTP, Telnet, Gopher and FTP are also supported.

The OS/2 Warp family of products also includes native support for Java on both the desktop and server platforms. Java, which was originally developed by Sun Microsystems, Inc., is a network-

centric application development language designed to make applications independent of hardware and operating system environments. In the Java paradigm, applications are designed to run across networks and platforms without modification. However, to accomplish this, the systems must be Java-enabled. The OS/2 Warp family of products provides this functionality.

OS/2 Warp 4 includes two additional features designed to make configuring and using the desktop simpler: an improved graphical user interface, and voice-recognition technology. These features are designed to facilitate the use of the system for end-users and administrators, therefore reducing the costs associated with ownership and system support.

## WORKSPACE ON DEMAND

In 1997, IBM extended the OS/2 Warp Server framework with the addition of WorkSpace On-Demand. WorkSpace On-Demand boots client configuration information and applications from an OS/2 Warp Server and allows users to log on to server-based applications from any client attached to the server. WorkSpace On-Demand takes an approach to network computing similar to such products as SCO Tarantella, Microsoft Windows Terminal Server, and Citrix systems. IBM has laid out plans to migrate OS/2 Warp Server to a network computing framework that relies heavily on Java and WorkSpace On-Demand to deliver server-based applications to thin clients. The performance, availability, and scalability of Compaq servers make them an excellent choice for WorkSpace On-Demand implementations.

## KEY INDUSTRY TRENDS AFFECTING OS/2

Several trends in the information technology industry are affecting, and will continue to affect, OS/2's feature set and presence in the business marketplace. How IBM chooses to manage OS/2 development in regard to these trends will help to determine the continued success of the product. These trends fall into two broad categories: application-related, and infrastructure-related.

### Application-related Trends

Among the trends related to application development and deployment, those most likely to impact the future of OS/2 include:

- **The continued dominance of Windows-based applications on the desktop:** Java has the potential to provide an alternative application platform, and is of particular interest to organizations interested in pursuing a Network PC strategy. In practical terms, the Windows application-programming interface (API) will continue to dominate the market for the next several years. IBM has built support for the Windows API into OS/2 Warp 4, enabling it to run most Windows applications effectively. While corporate applications are still being written for a native OS/2 environment, few vendors continue to develop off-the-shelf OS/2 applications. Therefore OS/2 will have to continue to provide support for Windows applications, and run them as well as Windows NT or Windows 95/98.
- **IBM's support of Microsoft's Windows NT Server 4.0, with application software products such as DB2, Communications Server, Transaction Server, and other server-based software:** In order for IBM's server-based applications software to continue to be viable products in the corporate marketplace, they must continue to support the leading server operating systems, not just OS/2. In particular, IBM must continue to support Windows NT Server, which is experiencing significant growth in market share. This provides an integration advantage to OS/2 customers who plan to introduce Windows NT into their environment or to migrate to Windows NT.

- **Java and Java application development:** Clearly, Java application development is a significant trend affecting OS/2's position in the marketplace, and its deployment is key to IBM's network computing plans. Although Microsoft has also emphasized plans to integrate their applications into a network and internet-centric architecture, they have chosen to pursue an approach based on their own Active Server architecture, while Sun, Netscape, and others pursue a Java-focused strategy. While Microsoft supports Java with Internet Explorer, IBM has built Java support into the OS/2 Warp family of products, making it possible to implement Java applications without the use of a browser. Moreover, IBM is promoting the use of Java for the development of OS/2 based applications. For companies that elect to pursue a network-centric strategy based upon Java, OS/2 and WorkSpace On-Demand may be a solid choice for both the desktop and server operating system platforms.

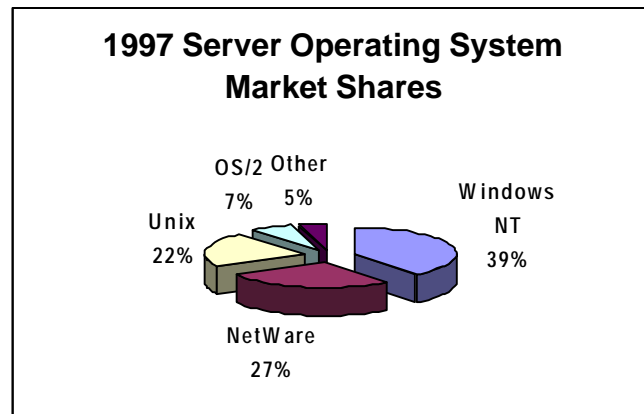
### Infrastructure-related Trends

In addition to application-related trends, several aspects of network design, architecture, and infrastructure deployment will also significantly impact OS/2:

- **Networking; specifically the move toward corporate LAN/WAN environments, the development of corporate intranets, and the use of the Internet to provide network-enabled applications and functionality to small or distant locations:** While OS/2 Warp 4 is a functional stand-alone product, it is designed to facilitate networking and network-enabled applications. OS/2 Warp includes clients for the major network environments, and standard support for the most popular protocols. Dial-up networking and Internet connectivity are also provided in the package. As organizations move toward more dispersed, decentralized, network-oriented environments, OS/2 Warp will stand out as a fully network-competent desktop client. OS/2 Warp Server 4 is similarly network-focused.
- **Emphasis on multi-vendor environments and open systems standards and protocols:** To resolve the challenge of managing and supporting complex network, organizations are turning towards established, standard components and protocols. IBM, historically known for promoting proprietary components and protocols, has positioned OS/2 Warp to provide a more open platform, making it much easier to integrate into complex environments.
- **Cross-platform integration:** Particularly in large organizations that maintain legacy systems based upon IBM mainframe hardware, OS/2 systems are easily integrated. 3270 Terminal emulation is provided as part of the desktop operating environment, and applications providing 5250 support for AS/400 environments are widely available. For integration with Unix-based platforms, OS/2's support of TCP/IP is full featured, including standard utilities such as Telnet, FTP and Gopher.

## OS/2 WARP SERVER MARKET SHARE

The OS/2 share of 1997 server operating system shipments is represented in the graph below. Clearly, while OS/2 market share is declining in the face of pressure from Windows NT, it continues to maintain a market presence, primarily because of its strength in the markets where IBM has traditionally been strong: banking, financial services, health care, and insurance. Based on IDC estimates, 226,000 new OS/2 server licenses were sold in 1997. IDC forecasts OS/2 server



Source:  
IDC 12/97

license shipments to remain in the 200,000 per year range over the next five years (IDC, 5/98). OS/2 sales are particularly strong in Europe with 66% of the 1997 license sales occurring in that geographic region (IDC, 5/98).

## COMPAQ IN THE OS/2 MARKETPLACE

Compaq computers are the premier hardware platform for running OS/2 on desktops and servers. No other hardware vendor can match Compaq's reliability, manageability, price, and performance with OS/2 products. In the present market, many vendors place great emphasis on supporting Microsoft Windows NT Server, Windows 95/98, and Windows NT Workstation. Compaq's commitment to operating system support is not limited to the Microsoft platforms, and includes providing OS/2 customers with the very best pre- and post-sales technical support. For customers considering the implementation or expansion of an OS/2 network infrastructure, there is no better choice of hardware platform than Compaq computers.

### Joint Engineering Development

Compaq and the IBM Network Computing Software Division have a strong technical alliance, that allows Compaq to build the highest-performing and best-integrated OS/2 servers, desktops, and portables in the industry. Compaq engineers are ready to participate in any situation requiring expert assistance in the implementation and configuration of OS/2 on Compaq equipment. Integrators, developers, and customers who wish to implement OS/2 on Compaq equipment, can count on Compaq's outstanding engineering support to ensure the best possible solution, resulting in an optimized system providing the best possible performance.

### Server System Support

Support of Compaq servers in the OS/2 environment is comprehensive. This includes the ProLiant and ProSignia server lines and various peripherals and options, such as storage devices and controllers, network controllers, tape and CD drives, and Compaq Insight Manager. Compaq engineers are experienced in the installation and configuration of OS/2 versions back to Warp Connect 3 on all Compaq server platforms. Compaq's ongoing integration testing with OS/2 operating systems includes current revision levels as well as future products, so those customers with Compaq hardware can confidently upgrade to the latest versions of OS/2.

## WHITE PAPER *(cont.)*

All OS/2 hardware drivers and patches for Compaq servers and server options are developed, tested, and maintained by Compaq. Drivers for Compaq-specific server hardware and options are provided on the Compaq SmartStart and Support Software CD, which ships with every Compaq server. These drivers are also available as Softpaq distribution files on Compaq's Web site (<http://www.compaq.com/>). *Compaq's OS/2 server and server-option drivers are developed, tested, and maintained for all OS/2 operating system environments back to OS/2 Warp Connect 3.* The matrix below illustrates how Compaq server feature support for OS/2 favorably compares to support for other leading operating systems.

Feature	Windows NT 4.0	intraNetWare	SCO OpenServer 5	OS/2 Warp Server 4
<b>Installation Assistance</b>				
OS Sold by Compaq via SmartStart?	N	N	N	N
SmartStart Assisted Integration	Y	Y	Y	Y
<b>High Availability Features</b>				
Automatic Server Recovery	Y	Y	Y	Y
Hot Plug Drives	Y	Y	Y	Y, note 2
Hot Plug Power Supplies	Y	Y	Y	Y
PCI Hot Plug Add	Y	Y	N	N, note 1
PCI Hot Plug Replace (of equivalent card)	Y	Y	Y	Y
Recovery Server Option	Y	Y	Y	N
Redundant Storage Controller Support	Y	Y	Y	Y
Software Fault Tolerance	Y	Y	Y	Y
<b>Systems Management Features</b>				
Compaq Insight Manager SNMP Agents	Y	Y	Y	Y
Compaq Insight Manager WBEM Agents	Y	Y	N	N
Integrated Management Display	Y	Y	Y	Y
Integrated Remote Console	Y	Y	Y	Y
Remote Insight Board	Y	Y	Y	Y
Wellness Viewing Utility	Y	Y	N	Y
<b>Option Support</b>				
Fibre Channel Storage Systems	Y	Y	Y	Y
Online Array Configuration Utility	Y	Y	N	Y
ProLiant Storage Systems	Y	Y	Y	Y
Smart-2SL and Smart-2DH Controllers	Y	Y	Y	Y
Wide-Ultra SCSI Controllers	Y	Y	Y	Y

Note 1: Must be supported by operating system.

Note 2: On Array and Fibre Channel Controllers only.

## Desktop and Portable System Support

Compaq desktop and portable systems are built using reliable, high-performance, industry-standard components for which native OS/2 support is generally available. In those cases where native support is not available, special drivers, updates or patches are available from the manufacturer of the specific component (for example, Matrox, Cirrus, Adaptec, Hitachi or Sony), directly from IBM, or through SoftPaq files available from Compaq.

*Support for OS/2 on Compaq desktop systems covers the Deskpro 2000, 4000, and 6000 and the Deskpro EN and Deskpro EP Series of personal computers. OS/2 version support is available for Warp 3 and Warp 4.* Most of the Deskpro's product features are supported natively in OS/2. To assist in the installation and maintenance of OS/2 on Compaq Deskpros, the appropriate drivers, software patches and updates are available from Compaq. Typically, for hardware not natively supported by OS/2, the current versions of the appropriate drivers are available from IBM or from the vendor of the particular hardware option. Tables indicating Compaq desktop features supported natively, and those which require files from an alternative source, are included in the Desktop Systems Hardware Product Support Matrices in Appendix A.

Moreover, Compaq's most popular Deskpro PC models are certified under OS/2 Warp Connect 3 and Warp 4. IBM maintains a web page reflecting the status of OS/2 support for many devices. That page can be found on the IBM website at [http://www.software.ibm.com/os/warp/hw-cert/pcm/pcm\\_syst.htm](http://www.software.ibm.com/os/warp/hw-cert/pcm/pcm_syst.htm).

*Compaq portable systems that support OS/2 include the Armada 7700 & 7300 families, the Armada 4100, and the LTE 5000 family. As with the desktops, OS/2 versions supported include Warp 3 and Warp 4.* For more details on Compaq portables support of OS/2, please refer to the white paper *Operating System Support for Compaq Portable Platforms* first published September 1997 and updated February 1998. The second edition of this White Paper will be posted on <http://www.compaq.com/>. Most of the features on these portable systems are supported natively in the OS/2 environment. Those that require an additional SoftPaq file are shown in the table below:

### PORTABLE SYSTEMS SUPPORT MATRIX

OS/2 Support	Armada 4100	Armada 7700 & 7300	LTE 5000
Video Drivers	SP2021	SP3137	SP1647
Programmable Key Utility	SP2019	SP3139	N/A
Audio Support	SP2052	SP3138	SP1481
Power Management	SP2019	SP3139	N/A

### Installation Support on Compaq Servers

The installation of IBM OS/2 Warp Server 4, Warp Server Advanced 4, and Warp Server Advanced with SMP 4 on Compaq servers is made easier and more efficient through the use of Compaq's unique SmartStart integration tool. With release 3.50 of SmartStart, which began shipping in November of 1997, Compaq introduced "packaged product" support of OS/2 Warp Server products. In the past, to obtain the full benefits of a SmartStart Assisted Install, customers were required to purchase their operating system from Compaq via an activation key. SmartStart now provides Assisted Integration to all OS/2 Warp Server customers, regardless of where their software was purchased. Compaq no longer sells any operating systems via SmartStart.

Using the SmartStart Assisted Integration path, customers obtain the full benefit of a SmartStart tested hardware configuration and software installation. Assisted Integration for the OS/2 Warp Server Family offers these features:



- Provides a SmartStart interview that highlights and enables the configuration of Compaq server features such as Automatic Server Recovery
- Installs Compaq optimized drivers, ROMPags and support software
- Allows full graphical disk carving capability
- Provides optional automatic installation of the latest Insight Management agents
- Automatically integrates Network Interface Cards.

More information on SmartStart is available via the World Wide Web at <http://www.compaq.com/smartstart.html>.

### **Technical Support**

Compaq's world class Technical Support centers are available to customers globally on a 24x7 basis and are well equipped to address issues with OS/2 on Compaq hardware. Compaq's policy on software version support is to stay in-sync with the respective software vendor. In accordance with this policy, support on Compaq hardware (OS/2 Warp Server 4, Warp Server Advanced 4, Warp Server Advanced with SMP 4, OS/2 Warp 4, and OS/2 Warp & Warp Connect 3) is currently available. Seamless customer support is ensured to Compaq OS/2 customers through Compaq's participation with the IBM Network Computing Software Division in a Technical Support Alliance. "Seamless customer support" means simply that Compaq technical support remains the responsible party, and retains ownership of the problem until it is resolved. For the Compaq OS/2 customer, Compaq is the single point of contact for technical support questions. In summary, Compaq's TSA relationship with the IBM Network Computing Software Division ensures a fully supported and integrated solution for our Compaq OS/2 customers.

### **Systems Management**

Compaq's industry leading management solution, Insight Manager, includes agents to provide comprehensive management of Compaq servers and desktops running in an OS/2 environment. Insight Manager is a complete management solution designed and built by Compaq, providing full integration with all Compaq servers, options, and desktops in the OS/2 environment. Insight Manager is a standards-based application (based upon the industry standard SNMP communication protocol) consisting of management agents that run on the managed hardware, and a Windows console application that provides access to the information available on the managed systems. Insight Manager is also capable of providing alerts directly to other popular SNMP-based management applications such as Hewlett-Packard's OpenView, Sun's NetManager, and IBM's TME 10 NetView. In addition to its own management console, Insight Manager is also available in versions that are designed to run under Hewlett Packard's OpenView and IBM's TME 10 NetView. These versions integrate the information provided by the Insight Management agents directly into the OpenView or NetView console. For more information on the Insight Manager products for OpenView and NetView, see <http://www.compaq.com/products/servers/management/cimov/index.html>.

Insight Manager agents for the OS/2 environment enable the console to collect information from servers running OS/2 Warp Connect 3 and later versions. Performance indicators are available for many Compaq hardware options, including SCSI and drive array storage, UPS, system information (such as processor type and asset details), IDE hard drives, and system health indicators (such as ECC memory and critical error logs). These indicators are displayed via a graphical interface on the Insight Manager console. By double-clicking the appropriate icon, the console operator is able to "drill down" to specific details of the system, even to data specific to a particular component. For instance, the console operator may select a SCSI hard drive installed on a particular machine. The console would then display specific information on the configuration and status of that particular hard drive.

Insight Manager is a powerful application for management of hardware resources in many environments, and is one of the best reasons to select Compaq hardware over another Intel-based platform. The availability of Insight Manager agents for the OS/2 Warp Server environment means that the Insight Manager functionality is available to customers who choose Compaq hardware for their OS/2 Warp Server hardware platform. More information on Insight Manager is available at <http://www.compaq.com/products/servers/management/index.html>.

### **Desktop Intelligent Manageability**

In addition to server management, Compaq offers Insight Agents for Deskpro desktops, bringing a broad set of client manageability features to OS/2 desktop users. Insight Management agents for Deskpros are part of the Compaq Intelligent Manageability tools.

Compaq Intelligent Manageability is the most comprehensive set of desktop management solutions in the industry. Providing easy control and management of the desktop and portable PC, Intelligent Manageability delivers significant financial and intangible returns when used to manage distributed PC environments. Intelligent Manageability is built upon industry-standard components, including DMI 1.1, Intel's "Wired for Management", SNMP, and Net PC technologies. It is tightly integrated with Compaq Management Solutions Partners and Compaq Insight Manager, and delivers solutions in five areas of primary concern for today's business community:

- Initial Configuration and Deployment
- Asset Tracking and Security
- Fault Notification and Recovery
- Software Updating and Management
- Building Blocks and Partners.

For more information please refer to : <http://www.compaq.com/products/desktops/im.html>

### **FUTURE COMPAQ OS/2 STRATEGY**

Compaq's commitment to OS/2 involves not only the current installed base and release levels of OS/2 Warp and OS/2 Warp Server, but also the forthcoming and evolving versions of the product. OS/2 customers should be confident that Compaq platforms are comprehensively supported, not only the current versions of the product, but also on past and future revisions. To ensure this commitment, Compaq will continue to pursue a strategy of providing high-performance hardware platforms and comprehensive software support for the OS/2 environment.

### **Server Systems**

Compaq's commitment to providing the very best hardware for OS/2 Warp Server is clear. To maintain that commitment, Compaq continues to partner with the IBM Network Computing Software Division to ensure that ProLiant and ProSignia server platforms take full advantage of the OS/2 system environment. This partnership will continue to ensure that the features which differentiate Compaq platforms, such as performance, reliability, and manageability, remain the hallmarks of Compaq servers in the OS/2 environment.

Compaq servers provide the best price/performance ratio and management feature set available for the OS/2 marketplace. Compaq develops, tests, distributes and maintains OS/2 drivers for its server platforms and provides top quality technical support to its OS/2 customers through a single-point-of-contact. The combination of all these attributes make Compaq servers the premier OS/2 server hardware platform, now, and into the future.

## **Desktop Systems**

Compaq desktop systems rely on the high-quality integration of many third-party products to provide high-performance systems in a competitive marketplace. The use of third-party products means that the support for these devices in the OS/2 environment rests with the vendors who manufacture the products. Compaq systems use widely available, reliable and supportable components from reputable, high-quality manufacturers. Therefore most components of Compaq desktop systems are supported natively in the OS/2 environment. This continues to be the Compaq desktop strategy for the OS/2 environment. By following this strategy, Compaq can continue to produce high-performance, reliable, manageable desktop and portable systems at a competitive price.

## **OPERATING SYSTEM INTEROPERABILITY AND MIGRATION**

For those customers running mixed operating system environments or planning to migrate to alternative operating systems, Compaq industry-standard hardware is an excellent choice. Compaq is the leading strategic partner with Microsoft on Windows NT, Novell on NetWare, and SCO on UNIX systems. Check out the Compaq web site at [www.compaq.com](http://www.compaq.com) for products and technical information to assist you with the planning and deployment of Compaq equipment in mixed operating system environments and with operating system migration.

Compaq supports your computing needs today and tomorrow with the same great hardware.

APPENDIX A

DESKTOP SYSTEMS HARDWARE PRODUCT SUPPORT MATRICES

DESKPRO EN OPERATING SYSTEM SUPPORT MATRIX

Features	Microsoft Windows				OS/2 WARP	
	3.1 / DOS	95	NT 3.51	NT 4.0	3	4
<b>Graphics</b>						
Deskpro EN Series: ATI RAGE PRO TURBO AGP 2X card	X,S	X,S	X,S	X,S		X,S X,S
Deskpro EN Net PC/SFF : ATI RAGE PRO AGP 2X (embedded)	X,S	X,S	X,S	X,S		X,S X,S
<b>Network Controller</b>						
Deskpro EN Series: Compaq Netelligent 10/100 TX PCI WOL UTP card	X,S	X,S	X,S	X,S		X,S X,S
Deskpro EN Net PC/SFF: Compaq Netelligent 10/100 TX PCI WOL UTP (embedded)	X,S	X,S	X,S	X,S		X,S X,S
<b>Audio</b>						
ESS 1869 16-bit Full Duplex audio (embedded)	X,S	X,S	X,S	X,S		X,S X,S
<b>CD ROM (on CDS Models only)</b>						
24X Max IDE CD-ROM Drive	X,S	Y,S <sup>1</sup>	Y	Y		Y <sup>2</sup> Y <sup>2</sup>
32X Max IDE CD-ROM Drive	X,S	Y,S <sup>1</sup>	Y	X,S <sup>2</sup>		Y <sup>2</sup> Y <sup>2</sup>
<b>Desktop Management</b>						
Desktop Mgmt Agents	X,S	X,S	X,S	X,S		X,S <sup>3,4</sup> X,S <sup>3</sup>
<b>Remote Management</b>						
Remote Mgmt Drivers	X	X,S	X,S	X,S		X,S <sup>3,4</sup> X,S <sup>3</sup>
Remote Mgmt Setup	X	X,S	X,S	X,S		X,S <sup>3,4</sup> X,S <sup>3</sup>
<b>Diagnostics and Setup</b>						
F10 Setup	NA	NA	NA	NA		NA NA
Computer Diagnostics	NA	NA	NA	NA		NA NA
Diags for Windows 95 v. 2.05B	NA	X,S	NA	NA		NA NA
Diags for Windows NT v. 1.12A	NA	NA	NA	X,S		NA NA

Y = Support for this feature is included in the current OEM release of the OS.

S = Compaq Supports this feature in preloaded software or via Softpaq or other electronic distribution.

X = No native support in the OS.

NA = OS independent SW

**FOOTNOTES**

1: Real mode driver is provided via Softpaq

2: Use the Generic IDE CD ROM driver

3: Available 3Q98

4: Requires Warp Connect 3

DESKPRO EP OPERATING SYSTEM SUPPORT MATRIX

Features	Microsoft Windows				OS/2 WARP	
	3.1 / DOS	95	NT 3.51	NT 4.0	3	4
<b>Graphics</b>						
ATI RAGE IIC AGP Card	X,S	X,S	X,S	X,S	X,S	X,S
ATI RAGE PRO TURBO AGP card	X,S	X,S	X,S	X,S	X,S	X,S
<b>Audio</b>						
ESS 1869 16-bit Full Duplex audio card	X,S	X,S	X,S	X,S	X,S	X,S
<b>CD ROM (on CDS Models only)</b>						
24X Max IDE CD-ROM Drive	X,S	Y,S <sup>1</sup>	Y	Y	Y <sup>2</sup>	Y <sup>2</sup>
32X Max IDE CD-ROM Drive	X,S	Y,S <sup>1</sup>	Y	X,S <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>
<b>Desktop Management</b>						
Desktop Mgmt Agents	X,S	X,S	X,S	X,S	X,S <sup>3,4</sup>	X,S <sup>3</sup>
<b>Remote Management</b>						
Remote Mgmt Drivers	X	X,S	X,S	X,S	X,S <sup>3,4</sup>	X,S <sup>3</sup>
Remote Mgmt Setup	X	X,S	X,S	X,S	X,S <sup>3,4</sup>	X,S <sup>3</sup>
<b>Diagnostics and Setup</b>						
F10 Setup	NA	NA	NA	NA	NA	NA
Computer Diagnostics	NA	NA	NA	NA	NA	NA
Diags for Windows 95 v. 2.05B	NA	X,S	NA	NA	NA	NA
Diags for Windows NT v. 1.12A	NA	NA	NA	NA	NA	NA

Y = Support for this feature is included in the current OEM release of the OS.

S = Compaq Supports this feature in preloaded software or via Softpaq or other electronic distribution.

X = No native support in the OS.

NA = OS independent SW

**FOOTNOTES**

1: Real mode driver is provided via Softpaq

2: Use the Generic IDE CD ROM driver

3: Available 3Q98

4: Requires Warp Connect 3

OS/2 WARP SUPPORT FOR THE DESKPRO 2000 PENTIUM II

Features	OS/2 WARP	
	3	4
<b>Graphics</b>		
Matrox MGA 1064/SG Integrated Graphics Accelerator	X,S	X,S
<b>Audio</b>		
ESS 1868 16-bit Full Duplex Audio Card	X,S	X,S
<b>CD ROM</b>		
24x IDE CD-ROM Drive	Y <sup>1</sup>	Y <sup>1</sup>
<b>Desktop Management</b>		
Desktop Mgmt Agents	X,S <sup>2</sup>	X,S
<b>Remote Management</b>		
Remote Mgmt Drivers	X,S <sup>2</sup>	X,S
Remote Mgmt Setup	X,S <sup>2</sup>	X,S
<b>Diagnostics and Setup</b>		
F10 Setup Ver. 1.71	NA	NA
Computer Diagnostics	NA	NA
Diagnostics for Windows	X	X

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S = Compaq Supports this feature in preloaded software or via Softpaq or other electronic distribution.

X = No native support in the OS.

NA = OS independent SW

**FOOTNOTES**

1: Use the Generic IDE CD ROM driver

2: Requires Warp Connect 3

OS/2 WARP SUPPORT FOR THE DESKPRO 4000 AND 6000 PENTIUM II

Features	OS/2 WARP	
	3	4
<b>Graphics</b>		
Deskpro 4000: Matrox MGA 1064/SG Graphics Accelerator Card	X,S	X,S
Deskpro 6000: Matrox Millennium-II (AGP) Card	X,S	X,S
<b>Network Controller</b>		
Compaq Netelligent 10/100 TX (embedded)	X,S	X,S
<b>Audio</b>		
ESS 1869 16-bit Full Duplex audio (embedded)	X,S	X,S
<b>CD ROM</b>		
24x IDE CD-ROM Drive	Y <sup>1</sup>	Y <sup>1</sup>
<b>Floppy Drive</b>		
LS-120 Floppy Drive	X	X
<b>Desktop Management</b>		
Desktop Mgmt Agents	X,S <sup>2</sup>	X,S
<b>Remote Management</b>		
Remote Mgmt Drivers	X,S <sup>2</sup>	X,S
Remote Mgmt Setup	X,S <sup>2</sup>	X,S
<b>Diagnostics and Setup</b>		
F10 Setup Ver. 1.72	NA	NA
Computer Diagnostics	NA	NA
Diagnostics for Windows	X	X

Y = Support for this feature is included in the current OEM release of the OS.

S = Compaq Supports this feature in preloaded software or via Softpaq or other electronic distribution.

X = No native support in the OS.

NA = OS independent SW

**FOOTNOTES**

1: Use the Generic IDE CD ROM driver

2: Requires Warp Connect 3

OS/2 WARP SUPPORT FOR THE DESKPRO 4000S AND 4000N

Features	OS/2 WARP	
	3	4
<b>Graphics</b>		
S3 Trio64 v2/GX Integrated Controller	X,S	X,S
<b>Network Controller</b>		
Compaq Netelligent 10/100 TX (embedded)	X,S	X,S
<b>CD ROM (4000S only)</b>		
20x slimline IDE CD-ROM Drive	Y <sup>1</sup>	Y <sup>1</sup>
<b>Desktop Management</b>		
Desktop Mgmt Agents	X,S <sup>2</sup>	X,S
<b>Remote Management</b>		
Remote Mgmt Drivers	X,S <sup>2</sup>	X,S
Remote Mgmt Setup	X,S <sup>2</sup>	X,S
<b>Diagnostics and Setup</b>		
F10 Setup Ver. 1.72	NA	NA
Computer Diagnostics	NA	NA
Diagnostics for Windows	X	X

Y = Support for this feature is included in the current OEM release of the OS.

S = Compaq Supports this feature in preloaded software or via Softpaq or other electronic distribution.

X = No native support in the OS.

NA = OS independent SW

**FOOTNOTES**

1: Use the Generic IDE CD ROM driver

2: Requires Warp Connect 3