WHITEPAPER

July 1996

Compaq Computer Corporation

CONTENTS

Overview	. 1
Levels of Management	3
Local Management	. 4
Remote Monitoring	. 5
Centralized Control	. 6
Lower Cost of Ownership	. 8

Intelligent Manageability Benefits

Beginning with the introduction of the Compaq Deskpro in March 1995, Compaq responded to the customer need for easy-to-manage desktops through its industry-leading implementation of desktop management, called Intelligent Manageability.

With Intelligent Manageability, Compaq has revolutionized the way customers manage and support desktops on a network. It has raised control to an unprecedented level while lowering customers' overall cost of PC ownership.

Intelligent Manageability focuses on five areas of primary concern to today's businesses:

- Asset Management—Efficiently inventory PC hardware and software assets.
- Fault Management—Minimize downtime and data loss from hardware failures.
- **Security Management**—Protects desktops and critical data from unauthorized access.
- Support Software Management—Better manage software drivers, utilities, and Flash ROM images.
- Industry-Standard Solution—Compaq's commitment to open standards includes official DMI compliance and joint development with the widest range of industry partners, making Intelligent Manageability easy to integrate into any network.

Easy to inventory. Easy to troubleshoot. Easy to protect. Easy to maintain. Safe investment. All at less cost. Intelligent Manageability offers the best desktop management solution in the industry. The Compaq Deskpro. After all, it's a computer that constantly checks its own pulse.



NOTICE

The information in this publication is subject to change without notice.

COMPAQ COMPUTER CORPORATION SHALL NOT BE LIABLE FOR TECHNICAL OR EDITORIAL ERRORS OR OMISSIONS CONTAINED HEREIN, NOR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL.

This publication does not constitute an endorsement of the product or products that were tested. The configuration or configurations tested or described may or may not be the only available solution. This test is not a determination of product quality or correctness, nor does it ensure compliance with any federal, state, or local requirements. Compaq does not warrant products other than its own strictly as stated in Compaq product warranties.

Compaq, Deskpro, Compaq Insight Manager, registered United States Patent and Trademark Office.

Other product names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

©1996 Compaq Computer Corporation. Printed in the U.S.A.

Microsoft and Windows are trademarks and/or registered trademarks of Microsoft Corporation.

Intelligent Manageability Benefits

First Edition (July 1996) 193A/0796

LEVELS OF MANAGEMENT

Compaq introduced Intelligent Manageability on the Compaq Deskpro in March 1995. Since then, Compaq has continued to further enhance its industry-leading Intelligent Manageability solution. In July 1996, Compaq extended Intelligent Manageability across all commercial desktops.

"Before Intelligent Manageability, managing the desktop simply wasn't done, as the process was too labor intensive. We were going in 'blind.' Moving forward with the Compaq Deskpro gives us our 'vision,' as we'll be able to see what's on the network." —Michael Dmowski, Technical Project Manager, MCI

There are three levels of Intelligent Manageability implementation—local management, remote monitoring, and centralized control (see figure 1). While all Deskpro customers receive Intelligent Manageability benefits, additional capabilities are possible with the use of Compaq Insight Manager and Solutions Partners' products. Compaq has made it possible to benefit from Intelligent Manageability no matter how complex—or simple—the environment.

"Compaq provides systems management tools that are usable today. They're good and they work. The other major vendors can only tell you what they will have in the future. Compaq management tools are more open and they are easier and less expensive to use than competitors'."—Paul Wartenberg, Carl Karcher Enterprises, Inc.

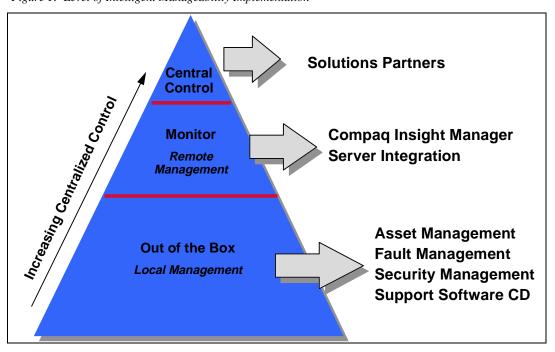


Figure 1: Level of Intelligent Manageability Implementation

- 1. **Local Management** (Out of the Box): Each Compaq Deskpro comes standard with Compaq Insight Personal Edition software for local asset management, fault management features such as local hard drive and thermal alerts, 12 security management features, and support software management with the *Support Software CD for Desktop Products*.
- 2. **Remote Management**: Remote capabilities are provided primarily through world-class client-server management with Compaq Insight Manager.
- Centralized Control: Through Compaq integration with leading LAN Management tools offered by Compaq Desktop Management Solutions Partners, network administrators and IS managers can achieve a high level of centralized control of their distributed enterprise.

"The Compaq products exceeded our expectations. We got highly reliable systems with better performance than we thought possible. The rigorous demands of these applications, and the efficiency with which the systems deliver the necessary performance, prove that Compaq and Microsoft platforms are ready for prime-time business-critical client/server applications."—Chris Gibbons, CIO, Microsoft

"Compaq's approach to networking technologies—taking the enterprise view of things rather than the sole desktop view of things has enabled Pennzoil to competitively compete in the marketplace—to deliver services to local, domestic, and international locations."—Gary Darby, Manager of Network Technologies, Pennzoil

Local Management

Affordable, Quality Desktops with Integrated Features

Legendary Compaq quality and reliability continues with the new Deskpro family.

"The Compaq desktop computers are an inexpensive investment. They have a good, solid architecture that doesn't fail. The PCs are so reliable—we just don't have problems."—Doug Koenig, Senior Technical Support Consultant, Lyondell

"Owning Compaq personal computer with their lower cost of ownership, reliability and quality is a critical component of our information architecture."—Jim Carter, Director, Information Resources, Georgia-Pacific

• An integrated NIC offers out-of-the-box network readiness.

"The inclusion of the integrated NIC—that is to say the built-in, onboard Ethernet with the Compaq line of computers—has enabled us to lower our costs of delivery to our consumers."—Gary Darby, Manager of Network Technologies, Pennzoil Company

• Within the power supply of the Deskpro 4000 and Deskpro 6000 is a surge protector certified to withstand up to 2000 volts.

Asset Management

4

 Pre-installed on all Deskpro PCs, Compaq Insight Personal Edition provides product information that details the manufacturer, model, and processor as well as serial number and Asset Tag information.

Fault Management

- The IntelliSafe (SMART) hard drive is designed to constantly monitor its activity and to predict failures up to 72 hours before they occur.
- With hard drive and thermal alerting, end-users are automatically alerted to imminent hard drive failure and excessive temperature conditions.
- Proactive Backup: In the case of a drive failure, each Deskpro can be configured to automatically back up to a rewritable, optical drive (PD-CD) or to a tape drive.

Security Management

 Every Deskpro has 12 standard security features to protect desktops and critical data from unauthorized access. The Deskpro 4000 and Deskpro 6000 include a Smart Cover Sensor that can alert the user and LAN administrator when the computer cover has been removed.

Support Software CD for Compaq Desktop Products

 Allows administrators to quickly and easily access software drivers, utilities, and Flash ROM images. Support Software Management has been greatly enhanced with the addition of World Wide Web access and new key features called *The Locator* for timely Internet access and *Decision Support* to assist in determining which software is needed.

"When operating system loading doesn't go smoothly, I go back to the [Support Software] CD [for Compaq Desktop Products] which provides me with drivers on-hand to be able to troubleshoot problems. It's been a lifesaver."—Michael Dmowski, Technical Project Manager, MCI

Remote Monitoring

Remote Asset and Fault Management

• Using Compaq Insight Manager, IntelliSafe (SMART) hard drive and thermal sensor alerts can be managed over the network.

"We currently have Compaq Insight Manager running on all of our file servers; we use it for proactive monitoring of such things as temperature conditions, hard drive failure/reliability—those kinds of things. And it has on a number of occasions allowed us to take proactive action to fix a problem before it actually developed into something that impacted our users."—Gary Darby, Manager of Network Technologies, Pennzoil Company

 Alert messages can trigger remote Proactive Backups to prevent data loss and minimize downtime.

"With Intelligent Manageability built into the Deskpro, we can detect hardware failures before they occur, back up the drive, warn the end-user, and get the person back up and running as quickly as possible. Compaq is on the leading edge of manageability."— Michael Dmowski, Technical Project Manager, MCI

 Integration with Compaq Insight Manager and servers enables the LAN administrator to remotely view asset data, configuration data, NIC performance data, and contact information.

"The remote manageability features will be a great cost savings to us. Because of the [large] number of calls that come into the help desk, if we can manage that process remotely, it will save us money. We'd no longer have to dispatch technicians to various sites throughout the day. We see it as a great advantage."—Richard Lemon, Director of Information Systems, Davis County (UT) School District

 Intelligent Manageability's DMI compliance ensures customers of easy integration into any network.

"We feel that Compaq is heading in the right direction with respect to standards. Compaq is achieving a proper balance in innovation but at the same time not straying from existing standards. Compaq is providing a leadership role with respect to DMTF. Through its DMI compliance, Compaq's Intelligent Manageability features provide a level of information critical to the computer's operation. Indeed, it also serves as a way to partner with Compaq."—Michael Dmowski, Technical Project Manager, MCI

• With its remote security management features, Deskpro PCs can alert network administrators when unauthorized access to data and physical components takes place.

"In general, it's our strategy to try to enable the detection of problems, the diagnosis of problems and the resolution of problems through the network, through the remote console capabilities and through the facilities offered by Compaq Insight Manager. Anywhere we can eliminate having to send a technician to a desktop, we will do that, and that makes us more competitive in business."—Gary Darby, Manager of Network Technologies, Pennzoil Company

Centralized Control

Expanded Solutions Partners (95+% of market) and Increased Capabilities

• The Compaq Deskpro with Intelligent Manageability is integrated with leading LAN Management tools from BindView, Intel, McAfee, Microsoft, Novell, Seagate, Symantec, and Tally Systems. These products provide remote, proactive access to the Compaq AssetControl features so that LAN and PC administrators alike can manage Deskpro 2000, Deskpro 4000, and Deskpro 6000 information from a central location.

"A key issue for Pennzoil was the integration of a number of different components that go together to make up the overall manageability of assets. SMS from Microsoft certainly plays a large part of this; Compaq Insight Manager plays a large part; the agents that we're going to deploy on the desktop plays a large part, forming a triangle, if you will, of components—much like the way Compaq Insight Manager can be built and deployed. The key feature for us is the integration of each of the items; the ability to use SMS, for example, to go in and interrogate information that was obtained through the Insight Manager agents. The ability to click on an icon and drill down to a PC and see what its asset components are, for example."—Gary Darby, Manager of Network Technologies, Pennzoil

"Asset management has typically been an enormous challenge for MCI. With over 50,000 desktops and portables, keeping up to date on critical data such as ROM revision numbers, asset tags, and processor types was nearly impossible. As plans for PC replacement are being developed, it is critical for MCI to know what assets are deployed. Intelligent Manageability features will allow network or inventory audits over the network."—Michael Dmowski, Technical Project Manager, MCI

"Reducing the non-value-added steps in asset management is critical. Before [Intelligent Manageability], technicians would manually record inventory information such as asset tags. But using the remote control features of Intelligent Manageability changes that for the better—we [don't] have to manually record information when it can be captured automatically."—Brian Murphy, Sr. Business Systems Analyst, United Technologies Automotive Division

"While using [Microsoft] SMS gives us control over a higher level of products we use, one of the things that we saw with Intelligent Manageability is that it would take us further by drilling down to the hardware level."—Joe Furmanski, Technical Services Manager, University of Pittsburgh Medical Center

We're using Compaq's Insight Manager tightly integrated in with ManageWise. It allows us to do capacity planning well in advance of the need of new servers and desktops. It allows us to look at the servers themselves and identify problems before they become critical. Both of these allow us to plan our purchases in advance and planning allows for us to...negotiate with our vendors the best possible price, rather than on an emergency basis. As far as our resources are concerned, better systems management equates to lower cost of ownership because less resources are necessary to be involved in the management of those systems."—Tony Holland, IS Operations Manager, Novell

- Fault management capabilities are also enhanced from Solution Partners Seagate (optical rewritable backup), Arcada (proactive tape backup), and Cheyenne (local backup systems).
- ASI's AssetPRO and Total Cost of Ownership Analyzer provides administrators with effective asset management tools and projected cost savings using Compaq Deskpro PCs with Intelligent Manageability features, respectively.
- Remote software distribution/licensing is made easier through Solutions Partner products.

Remote Network Management

Integrated with HP OpenView and IBM NetView, Compaq Insight Manager enables
the network administrator to integrate and control their distributed enterprise
environment.

"Compaq is going in exactly the path we want to go in with respect to Compaq Insight Manager integrating with other products."—Michael Dmowski, Technical Project Manager, MCI

"The move away from a host-centric environment was necessary because the mainframe was too expensive to maintain. However, using Compaq Insight Manager with Novell's ManageWise has allowed the district to have a strong grip on maintenance issues. Our

7

network manager can easily view Compaq data through ManageWise."—Richard Lemon, Director of Information Systems, Davis County (UT) School District

Lower Cost of Ownership

Gartner Group states, "No longer are PCs regarded as islands of productivity in most corporations. Rather, PCs have evolved into ubiquitous appliances representing the cornerstone of not just personal productivity but also enterprise productivity, competitiveness and critical internal as well as external communications."

With this broader role, PCs are increasingly viewed as critical assets. Gartner Group recommends that "PCs should be managed as such throughout their life cycle and should be managed in the context of total cost of ownership. IS organizations must dispel the popular misconception that PCs are commodities, that any box or vendor will do or that price is the only differentiator." For example, with effective desktop management that includes the "right" management-enabled hardware, management tools, and policies and procedures, Forrester estimates savings of over \$1,000 per PC per annum.

The result of Intelligent Manageability goes beyond features that make the Compaq Deskpro easy to inventory, easy to troubleshoot, easy to protect, and easy to maintain—it's helping customers drive down their total cost of ownership.

The ability to rapidly deploy things within Pennzoil and also to reduce our cost basis for doing so, is extremely important to us. We have 4,000 desktops spread out across approximately 100 domestic locations and equally as many international locations. The ability to deliver software, check on the status of [the Deskpro], to be proactive in the monitoring and updates of our [Compaq] hardware has been very important to us."—Gary Darby, Manager of Network Technologies, Pennzoil

"In the past, we had over 10,000 employees and 5,000 PCs. Total PC costs added up to more than the other computer costs combined. Since there was no system unification, we had 40 to 60 people supporting each system. We were looking to gain more efficiencies. Intelligent Manageability will enable us to save employees' time (e.g., preventative measures, downtime losses, etc.), create efficiencies, and increase the time the system is available to the user."—Joe Furmanski, Technical Services Manager, University of Pittsburgh Medical Center

"Overall, the Compaq management of the PC provides the base for managing the hardware and software, and when you're talking 2,500 PCs, it's got to be automated. We have reduced costs significantly compared to the average [\$1500 per year or 1/4 of the industry average]."—Large Multinational Food Corporation (Canada) 10/95

Easy to inventory. Easy to troubleshoot. Easy to protect. Easy to maintain. Safe investment. All at less cost. Intelligent Manageability offers the best desktop management solution in the industry. The Compaq Deskpro. After all, it's a computer that constantly checks its own pulse.