WHITE PAPER

CONTENTS

Compaq Insight Manager 4.2

This positioning paper provides an overview of the Integration and Management strategy from Compaq and information regarding the technology, features and use of Compaq Insight Manager.

COMPAQ

ECG044/0998

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NOTICE

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Introduction

As distributed networks have become a critical resource, ensuring high performance and reliable operation is key to smooth business operations. Efficiently managing the distributed enterprise can make the difference between success and failure. Today's networks are growing at a rapid pace, and you need the right tools to manage this rapidly expanding environment.

Recognizing this need, Compaq Computer Corporation has developed a comprehensive management strategy to help customers efficiently deploy and effectively manage a large number of systems. The Compaq systems management strategy has three major components:

- Engineer manageability into all Compaq products thereby lowering the overall cost of managing Compaq products.
- Deliver systems management products that enable comprehensive management of distributed Compaq systems throughout the enterprise.
- Partner with the leaders in systems management to enable broad management of Compaq products.

Management products from Compaq include:

- **Compaq SmartStart** - the intelligent integration tool for setting up Compaq servers and workstations
- **Compaq Insight Manager and Compaq Insight Manager for OpenView and TME10 NetView** -the applications for easily managing Compaq systems
- **Compaq Netelligent Management Software** - the easy-to-use network management application
- **Compaq Remote Insight Board** – for remote management of mission-critical servers
- **Compaq Survey Utility** – the enhanced serviceability tool that delivers on-line configuration capture and comparison
- **Compaq Info Messenger** - the proactive Internet service that brings you the latest information on Compaq products

No other systems management products provide the breadth of functionality and depth of control required for successfully managing the critical components of the distributed enterprise.

This white paper provides an overview of the Compaq systems management strategy and then details Compaq Insight Manager. Additional white papers are available from Compaq covering Compaq Insight Manager for OpenView and TME10 NetView, Compaq SmartStart, Compaq Netelligent Management Software, Compaq Remote Insight, Compaq Solutions for Remote Server Management and the Compaq Systems Management Partnerships.

Compaq Systems Management strategy

Engineered Manageability

Compaq designs extensive manageability into its products, enabling fault prediction and alerting, detailed asset and configuration inventory and performance monitoring. More than 1,000 parameters are instrumented and monitored by Compaq Insight Management Agents. These agents provide predictive failure alerts and access to management parameter values from a broad range of operating environments including Microsoft Windows NT and Windows 95, Novell NetWare and IntranetWare, SCO OpenServer and UnixWare, and IBM OS/2.

Compaq Insight Management Agents are standards-based, delivering their alerts and configuration and performance data via the Simple Network Management Protocol (SNMP). Compaq Deskpro desktops and Compaq Armada and LTE portables are also DMI compliant, ensuring broad manageability.

Products for Comprehensive Systems Management

Compaq has led the industry in the effective integration and management of networked systems through innovative automation. Compaq SmartStart integrates, optimizes and updates tested software solutions for networked Compaq systems. Compaq Insight Manager offers in-depth event, configuration and performance management of Compaq servers, workstations, desktops, portables and network devices from a Windows console. Compaq Remote Insight is a server option board that provides complete remote management of Compaq servers. Compaq Netelligent Management Software is an easy-to-use and powerful network management application for managing Netelligent products. It can be easily installed along with Compaq Insight Manager to provide complete end-to-end network and systems management from a single console. The event management functions from Compaq Insight Manager have also been extended to the RISC-based UNIX consoles running HP OpenView for HP-UX and IBM TME10 NetView for AIX with the availability of Compaq Insight Manager for OpenView and Compaq Insight Manager for TME10 NetView. To keep you up to date with the latest information on your Compaq products, Compaq Info Messenger provides Internet-based, proactive notification of software updates and technical information. This service along with the family of integration and management products can aid you in lowering the total cost of owning your network.

Compaq Systems Management Partnerships

Compaq recognizes the challenge customers' face in managing the distributed enterprise. Ideally, the many networks, systems, applications and databases would be managed with enterprise tools already in use. That is why Compaq has joined forces with the leaders in systems management to provide end-to-end, enterprise-wide management solutions. Compaq partners and their products include: BMC Patrol, Boole and Babbage Ensign and Command Post, Cabletron Spectrum, Computer Associates Unicenter TNG, Dialogic Corporation BoardWatch, Hewlett Packard OpenView, IBM/Tivoli TME10, Microsoft Systems Management Server and Seagate NerveCenter Pro.

Compaq Insight Manager

By partnering with the leaders in systems management, Compaq provides for effective centralized management of Compaq servers and clients. However, the need still exists for deep, robust and flexible management of Compaq systems, a need filled by Compaq Insight Manager.

What is Compaq Insight Manager?
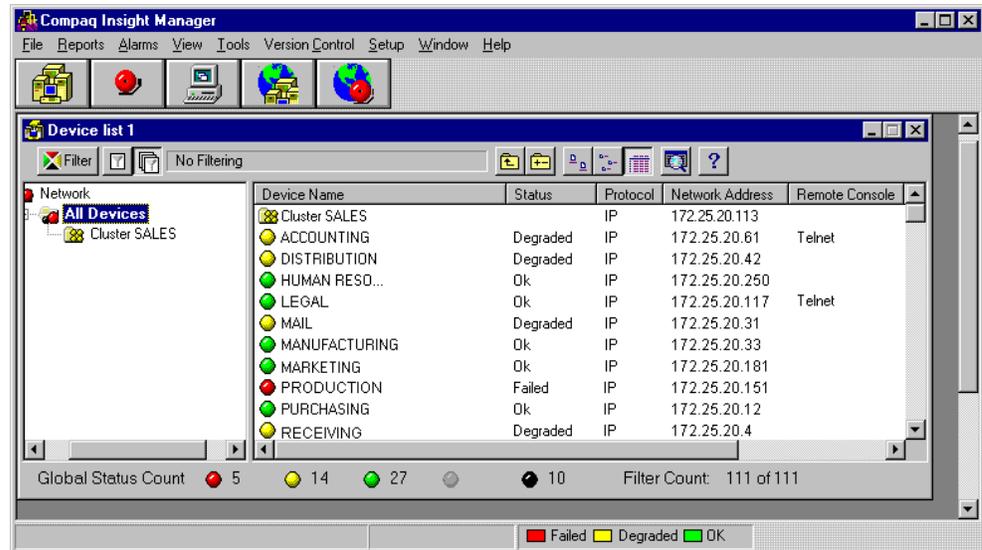
Figure 1-Compaq Insight Manager console

Compaq Insight Manager is a comprehensive management tool to monitor and control the operation of Compaq servers and clients. Compaq Insight Manager consists of two components: a Windows-based console application (*Figure 1 & 2*), and server- or client-based management data collection agents. Starting with Compaq Insight Manager 4.0, the agents for Windows NT and Netware are also web-enabled i.e., these agents enable web browser access and monitoring of management information

Management Agents monitor over 1,000 management parameters. Key subsystems are instrumented to make health, configuration and performance data available to the agent software. The agents act upon that data, by initiating alarms in the event of faults and by providing updated management information, such as network interface or storage subsystem performance statistics.

With Compaq Insight Manager, you have *real control* over your systems, with monitoring and alerting capabilities for the critical systems in your distributed enterprise.
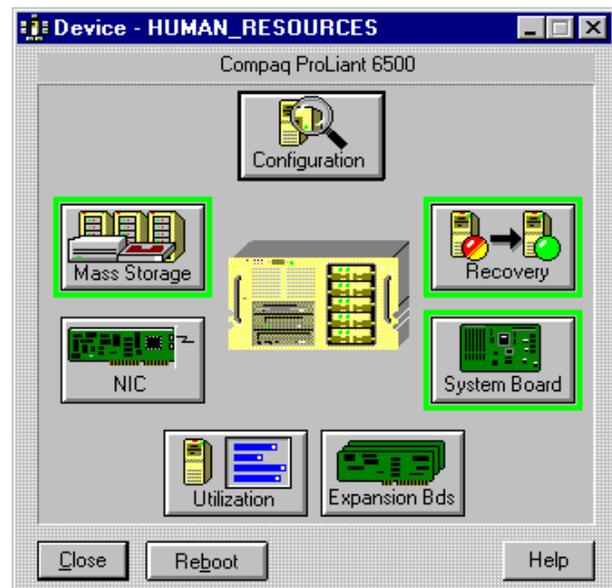
Figure 2-Device view

Compaq Insight Manager: A Short History

With the advent of the Compaq SystemPro in 1989, customers began to use industry-standard servers in more mission critical environments. These users were migrating from mid-range and mainframe environments that offered a great deal of systems manageability. To ensure manageability and increase system reliability, Compaq began to integrate management features directly into the server hardware. By introducing the Compaq Server Manager/R product in 1991, Compaq took a major step forward in manageability with out-of-band management capabilities. With the advent of the SNMP standard, customers began to demand expanded manageability that would integrate with the growing number of SNMP management environments. Compaq responded in 1992 with the introduction of Compaq Insight Manager 1.0 to deliver the benefits of engineered manageability.

During the development of the Compaq ProSignia and ProLiant product in 1992 and 1993, Compaq engineered more manageability and fault tolerance features into the server hardware (*Figure 3*). Compaq Insight Manager has evolved over time to take advantage of hardware manageability advances. Today, Compaq Insight Manager continues to meet the growing systems management needs by delivering the most comprehensive server and client management functionality in the industry. Future directions for Compaq Insight Manager include incorporation of Internet and Web technology within the Insight Management Agents. Compaq is also committed to developing new, innovative Systems Management products that utilize Internet and Web technology, and incorporate the new Web Based Enterprise Management standards.
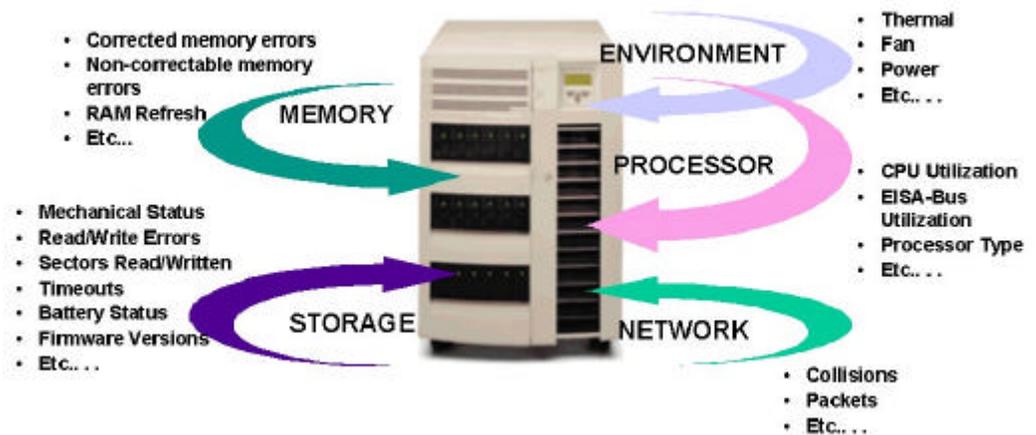
Figure 3-Compaq products are engineered for comprehensive manageability

Compaq Insight Manager Lowers Costs

The most costly component of network management is personnel. As servers and clients are deployed into more mission critical environments and are being used in more remote areas, the human resources required to manage this network have also continued to grow.

Compaq Insight Manager helps reduce the costs of system management by providing centralized fault, configuration and performance information wherever you are located. By centralizing the management of Compaq systems, efficiency is improved because you have the freedom to perform management duties remotely, getting the most out of personnel investments.

In addition to enabling economies of scale by centralizing management, Compaq Insight Manager also reduces cost by significantly contributing to server and client availability. By warning of

impending failures, Compaq Insight Manager complements a full array of hardware fault tolerance features from Compaq with predictive alerting, enabling you to schedule downtime. When a failure does occur, the notification from Compaq Insight Manager allows immediate reaction while its graphical interface eases problem diagnosis and resolution.

Key Features of Compaq Insight Manager

An intuitive visual interface, comprehensive fault and configuration management, industry-leading remote management, and scaleability are the key features of Compaq Insight Manager that put you in command of Compaq systems. The ability to simultaneously manage hundreds of systems is crucial to your success as your network grows. The Compaq Insight Manager console application meets this requirement by supporting Windows NT and Windows 95 with 32-bit addressing and multi-threaded operation.

In addition to being highly scaleable, Compaq Insight Manager is also versatile, supporting the leading operating systems and the breadth of Compaq servers, workstations, desktops and portables. Insight Management Agents support the ProSignia and ProLiant family of servers, the Compaq Professional Workstations, the Compaq Deskpros and Compaq Armada and LTE portables. The agents support a broad range of network operating systems including Novell NetWare and IntranetWare, Microsoft Windows NT Server, IBM OS/2, SCO OpenServer and UnixWare as well as client operating systems including Microsoft Windows 95 and Windows NT Workstation.

Web browser access for monitoring of management information

The Insight Management agents for Windows NT and Netware are web-enabled. This feature enables access to Insight Manager Device and Configuration from everywhere there is network access and a standard web browser. This essentially frees the operator from a single console. The web browser can also be launched from the Insight Manager Win32 console. Clients that have the web enabled agents loaded will be underlined showing that they can be clicked for more information.

Selecting the new "web" button on the Insight Manager console launches the web browser and shows login information for the highlighted device

All of the familiar Insight Manager subsystem information is now visible from the web browser

Figure 4 – Web browser access via the Win32 console

Fault Management

Ensuring dependability is vitally important in today's mission critical environments. Using Compaq Insight Manager, you now have the information needed to proactively manage systems.

Compaq Insight Manager is designed to help manage faults by preventing them from occurring. For example, predictive parameters generated by the Compaq SMART-2 SCSI Array Controller (*Figure 5*) coupled with the trend analysis capabilities from Compaq Insight Manager actually *predict* impending component failures. In the event of a predicted failure, you are immediately notified of potential problems, allowing preventive maintenance to be performed to maximize uptime. In addition, on the basis of a recommendation from Compaq Insight Manager, Compaq will replace, free of charge, components under a Compaq Pre-Failure Warranty. Components covered by the pre-failure warranty include server disk drives, server memory SIMM, and server-based PentiumPro CPUs.
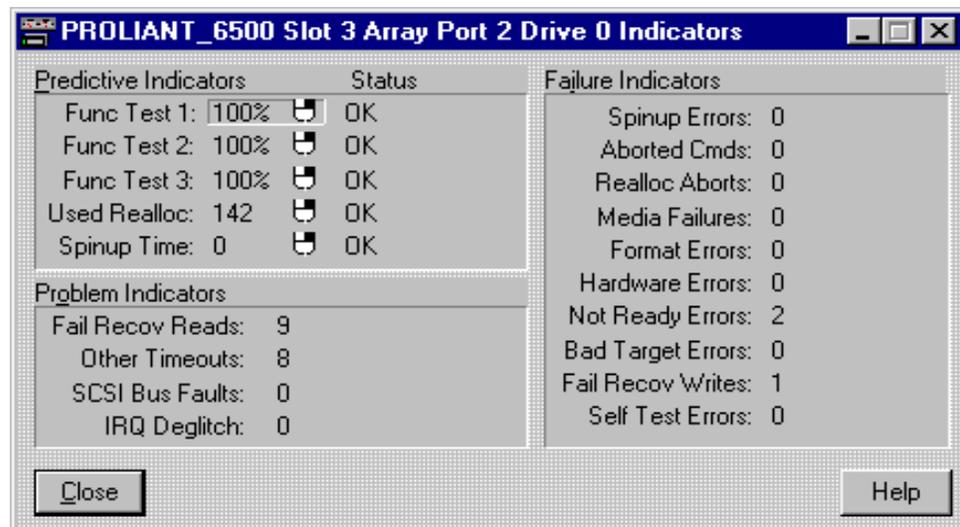
Figure 5-Predictive indicators help spot potential problems before they occur.

With support for the Intelligent Manageability features of the Compaq Professional Workstation, the Compaq Deskpro and Compaq Armada portable, Compaq Insight Manager also receives alerts for impending failure of SMART hard drives, and for potentially system-damaging internal temperatures of managed clients. Predictive alerting allows you to schedule maintenance downtime to address potential problems before a critical failure occurs on the managed system.

If system faults do occur, Compaq Insight Management Agents deliver alarms to the Compaq Insight Manager console (*Figure 6*). Compaq Insight Manager immediately provides a visual representation of the fault, while delivering specific fault information to assist you in performing corrective actions. This fault management capability also provides detailed corrective action information. Each alert delivered to the management console is thoroughly explained in a Comprehensives on-line help file.

Figure 6 - The Alarm Log captures predicted and actual system faults.

For example, should a storage subsystem failure occur, the analysis capabilities in Compaq Insight Manager provides action-oriented text (*Figure 7)* that describe the problem and what to do about it—taking the guesswork out of problem resolution, and minimizing unplanned downtime.
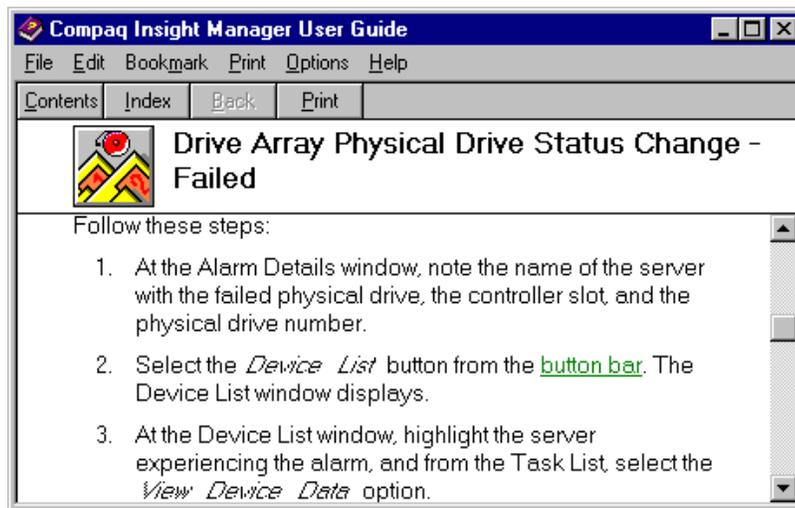
Figure 7 - On-line help is instantly available

In addition to displaying alarms on the management console, Compaq Insight Manager also allows you to launch programs on alarm receipt as well as forward alarms to numeric and alphanumeric pagers. Flexible paging capabilities allows you to specify which alarms should be forwarded to particular pagers at given times. This level of flexibility ensures that you are never out of touch with your systems.
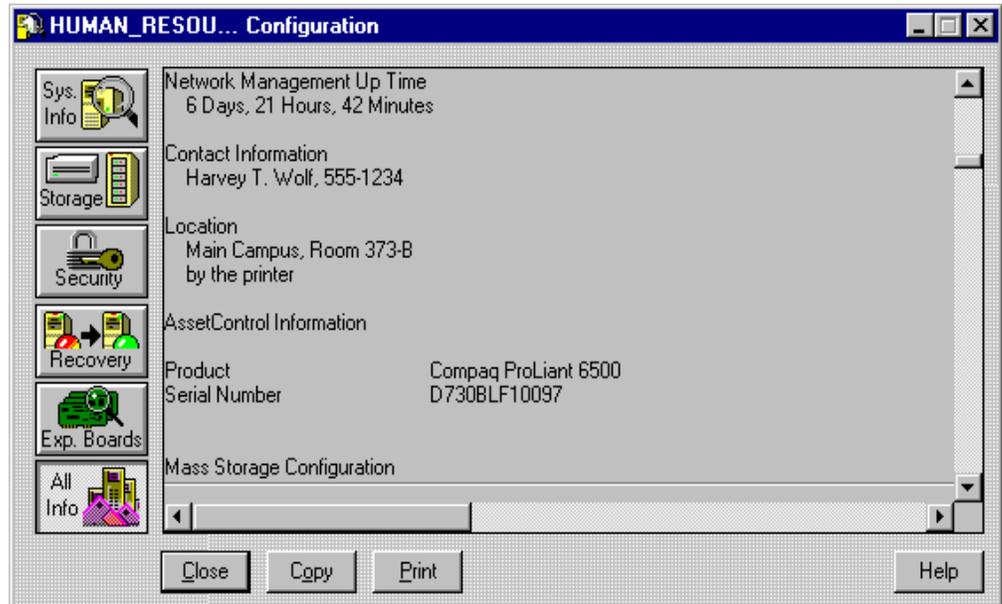
Figure 8 - Detailed configuration information enables inventory and troubleshooting.

Configuration Management

As networks grow into highly distributed, business critical tools, managing configurations to ensure consistency and supportability are critical to containing costs. Compaq Insight Manager provides multiple levels of configuration management.

To solve problems, improve system performance, and manage growth, you must be able to obtain detailed configuration information and effect changes in configurations when required. Compaq Insight Manager performs reporting and maintenance functions to support configuration management.

Configuration Management: Reporting

Compaq Insight Manager provides at-a-glance configuration information, detailed report generation and a database conversion facility that allows you to create custom configuration reports. Additional configuration management is provided by integration with Microsoft Systems Management Server. Working closely with Microsoft, Compaq makes configuration and asset information available to Systems Management Server, detailing server and client subsystems, such as firmware and device driver revision levels, and hardware components locations. With this data in the Systems Management Server database, you can use standard SQL queries to generate configuration reports.

In addition to extensive configuration reporting, Compaq Insight Manager provides maintenance facilities for managing server and workstation configurations through Insight Version Control and Integration Server Maintenance.

Configuration Management: Insight Version Control

The intelligent subsystems and sophisticated software of today's servers and workstations are posing a new challenge - how to manage firmware and software components to ensure on-going, proper operation? To meet this challenge, Compaq provides Insight Version Control to help you track installed version levels and obtain detailed information on needed and recommended upgrades.

With Insight Version Control, each system's drivers, firmware and utility versions can be inspected to determine whether upgrades are required; Version Control also provides information on the benefits of a given upgrade.
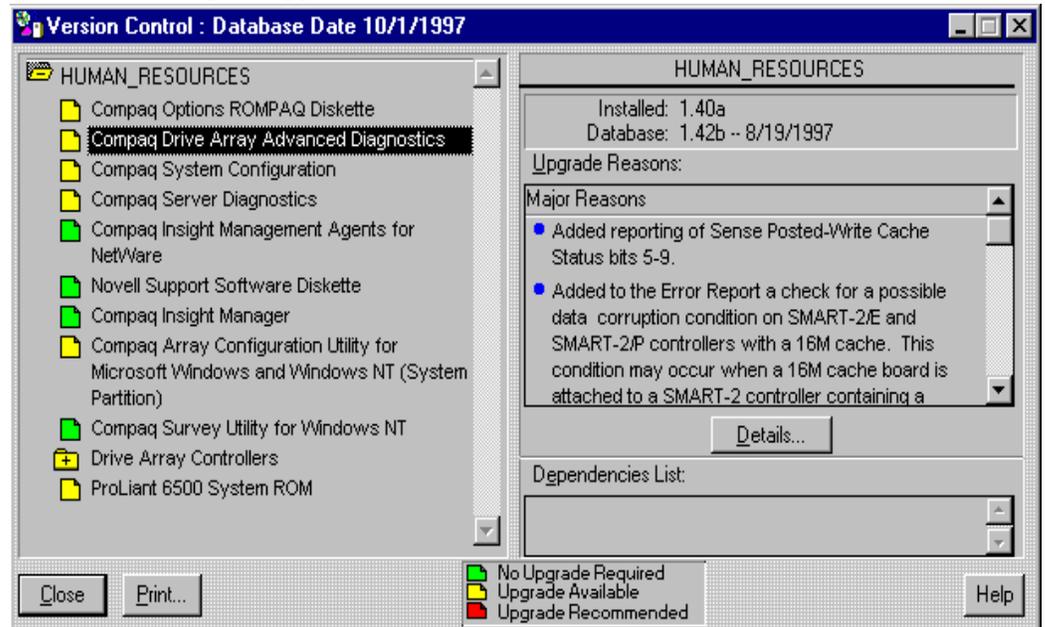
Figure 9 - Insight Version Control helps you keep track of system software.

How Insight Version Control Works

Insight Version Control compares the currently installed releases of a system's firmware and software against a Version Control Data Base which is distributed on the Compaq Management CD, the Compaq Support Software CD, as a downloadable SoftPaq file (SPO965) and on the Internet-accessible Integration Maintenance Support Software Server. If the Version Control database indicates an updated version of firmware or software is available, you are notified with information describing the update and recommendations on upgrading.

Configuration Management: Integration Server Maintenance

Installing and maintaining consistent, supportable configurations has long been a challenge for administrators managing distributed environments. With the Integration Management features in SmartStart and Compaq Insight Manager, Compaq has developed a means for deploying and maintaining servers, cutting support costs and ensuring maximum system up-time by providing a means of monitoring and updating system configurations.

By using SmartStart to setup an Integration Server you can establish a convenient means of installing and maintaining consistent server configurations. Rather than installing and upgrading software from CD, the Integration Server provides network based installation and server maintenance. The Integration Server provides a repository with firmware, driver, utilities, and operating systems (Starting with SmartStart V4.0, users can no longer perform NetWare-based installs from Integration Server). It is a network-based repository for all your system software.

To set up an Integration Server, the SmartStart process is used to place software images on a NetWare or Windows NT server. To install a new server, you boot the SmartStart CD on the new

server and direct SmartStart to load software from the Integration Server. The result is a fully configured, tested and proven server, installed with a standard configuration.
To maintain the standard software on an Integration Server, Compaq developed the Integration Server Maintenance function of Compaq Insight Manager. Integration Server Maintenance reports on the software currently resident on the Integration Server and any updated software that is available from Compaq and enables you to choose those updates that you wish to place on the Integration Server. Compaq Insight Manager can connect to Compaq either via the Internet or via a console-based modem, obtain the desired updates and deliver them to the Integration Server. Alternatively, updates may be acquired from SmartStart CDs.

Integration Server updates can be more proactive by using the Internet-based Compaq Info Messenger service. The Info Messenger will automatically notify you via electronic mail of any software updates that impact your servers.

Updates obtained from the Internet or via modem are provided by a dedicated server at Compaq that maintains Compaq software updates. The transport used on the Internet is HTTP, which enables the network packets containing the updates to pass through most commercial firewall products. Additionally, the network packets are encoded for security purposes.
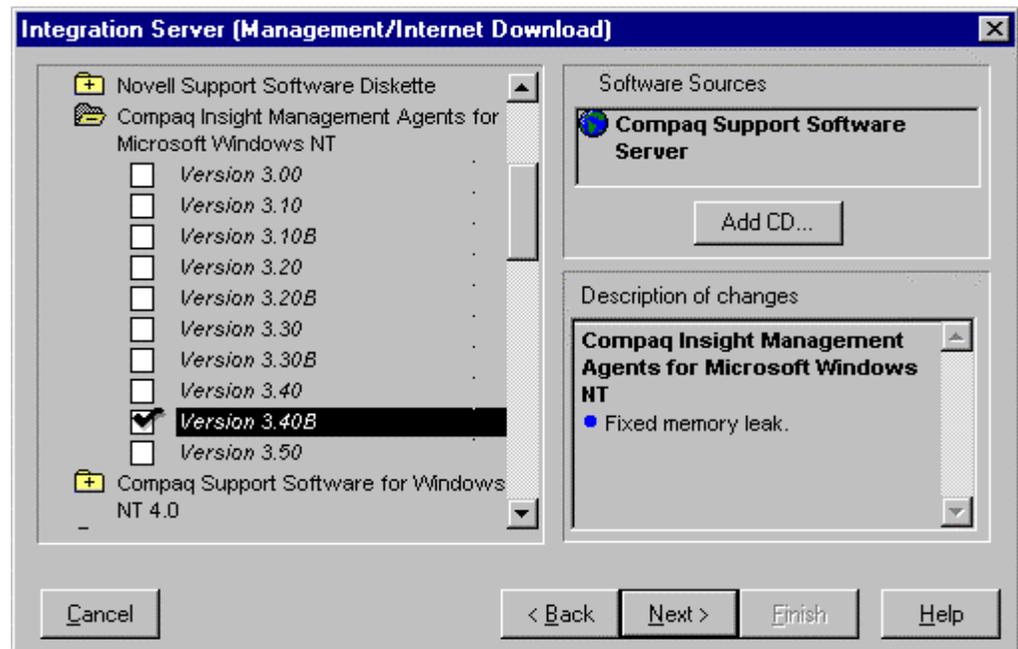
Figure 10 - Compaq Insight Manager shows the software resident on the Integration Server along with updates available from Compaq; you can download updates via the Internet, via a modem connection or from a local CD.

Once updated images are placed on the Integration Server, you ensure that new servers are integrated with the latest available support software from Compaq. In addition, you can use the updated images to maintain currently installed servers by two means. The first is to use an Integration Maintenance Utility, operating on a NetWare or Windows NT server to pull the updated software from the Integration Server to the target server. Alternatively, for updating Compaq Windows NT drivers and management agents, you may choose to use Compaq developed scripts for leading software distribution packages including Microsoft Systems Management Server or Symantec Norton Administrator for Networks. These scripts allow you to push software updates from the Integration Server to multiple target servers. Details on using these software distribution packages can be found in the Compaq TechNote *Updating Compaq System Software from an Integration Server.*

Performance Management

Because you want to monitor your systems, and be alerted when performance problems arise, Compaq Insight Manager provides extensive thresholding capabilities for all major subsystems. The ability to monitor and report on exceeded thresholds helps identify performance bottlenecks and keep systems running at peak levels.

Multiple features aid performance management. For real-time performance monitoring, you can graph CPU, PCI and EISA bus utilization as well as network interface card (NIC) throughput. In addition to this visual representation, Compaq Insight Manager allows you to set thresholds on parameters such as CPU, bus and disk partition usage. When the threshold is exceeded, Insight Management Agents send an alert to the console, allowing you to monitor usage of critical subsystems and be alerted to potential performance issues.

In addition to real-time performance monitoring, Compaq Insight Manager provides the Automatic Data Collection facility for historical performance monitoring. Automatic Data Collection allows you to designate a group of systems for which you need historical performance data. Compaq Insight Manager then tracks and graphs the performance and utilization data based on a defined polling interval. Armed with this information, you can effectively diagnose system bottlenecks and plan for future growth.

Remote Management

Compaq Insight Manager minimizes costly downtime by supporting a full complement of remote maintenance and control facilities that assist in quick recovery from critical failures—remote diagnostics to analyze the condition of the system, remote system configuration, and remote restart. You can perform these tasks on off-line servers either in-band over a network connection (via IP or IPX) or out-of-band using a modem connection. For out-of-band management of on-line servers, Insight Asynchronous Management is available, using the industry standard Point-to-Point Protocol (PPP). A remote console connection may also be established (via IP, IPX) to servers that offer Telnet or NVT remote services.

In addition to software-based remote management solutions, the Compaq Remote Insight board provides hardware-based in-band and out-of-band management of mission critical remote servers. Remote Insight can access Insight Management Agents for on-line servers and provides complete off-line management.

In-band Management of Off-line Servers

The Compaq Insight Manager application operates on consoles anywhere on a network. For in-band management of off-line servers, both Telnet (IP) and NVT (IPX) connections to servers are supported -- this allows you to run diagnostics and the system configuration utility across the network.

Out-of-band Management of Off-Line Servers

For remote off-line servers that do not have network support loaded in the system partition, the system partition utilities – diagnostics and the system configuration utility can be run via a modem to the Compaq Insight Manager console using ANSI terminal emulation.

Out-of-band Management of On-line Servers (Asynchronous Management)

Insight Asynchronous Management supports the out-of-band management of remote on-line servers via a modem connection. For users of NetWare, Microsoft Windows NT, and SCO

OpenServer and UnixWare servers connected to a modem and telephone line can be managed with the same ease as LAN and WAN-connected servers. Insight Asynchronous Management support

for Microsoft Windows NT and SCO UNIX is standard; support for NetWare is provided with the purchase of Compaq Insight Asynchronous Management for NetWare.

Insight Asynchronous Management relies upon the industry-standard Point-to-Point Protocol (PPP) to provide remote access to managed servers. PPP provides a reliable, standard protocol to exchange management data and deliver alerts. Security of modem access is provided with multi-level passwords, standard CHAP and PAP authentication, optional dial-back operation and access logging.

Mission Critical Remote Server Management: Remote Insight Board and Remote Insight Board/PCI

In addition to the software-based remote management solutions offered through Insight Manager, the Compaq Remote Insight board provides an even higher level of reliability for remote server management.

Remote Insight is an intelligent, remote management board that plugs into an EISA slot of the managed server. The new Remote Insight Board/PCI, Compaq's third generation solution for remote management plugs into the PCI slot of the managed server. Since it is hardware-based, Remote Insight offers an additional level of protection and reliability. It is the ideal management tool for remotely located servers in mission critical environments as well as servers that are placed in data center environments. Through an integrated processor, memory, modem and battery, Remote Insight operates independent of the server hardware and software. It provides continuous in-band and out-of-band remote access and delivers critical alert messages asynchronously to your pager or the Compaq Insight Manager console. With help from the on-board battery, the alerting capabilities of Remote Insight extends to delivering alerts for server reset events as well as server power failure.

All of the Remote Insight features combine to ensure communication with the managed server is available regardless of the state of the server, operating system or network. Additionally, Remote Insight provides seamless remote console, capture and viewing of critical server information (including error logs and boot and failure sequence video) to aid in diagnosing server problems, and offers remote reboot capabilities. Fully integrated with Compaq Insight Manager, Remote Insight also functions as an ongoing management tool, eliminating the need for a separate asynchronous management modem. Using the industry standard PPP protocol, Remote Insight communicates with the Insight Management agents and the Compaq Insight Manager console to deliver complete out-of-band management.

Integration with Leading Management Products

Compaq recognizes the challenge customers face in managing the distributed enterprise. These customers prefer to manage their many networks, computer platforms, applications and databases with the enterprise tools they already have in use. They require that any new management products they use be well integrated within their existing environment. That is why Compaq has joined forces with the leaders in systems management to provide end-to-end, enterprise-wide management solutions.

Compaq delivers integration of Compaq Insight Manager with Microsoft System Management Server and integration of the Insight Management Agents with key enterprise management platforms from Hewlett Packard, IBM and Sun. Through the Compaq Systems Management Partnerships, BMC, Boole and Babbage, Cabletron, Computer Associates, Dialogic, Seagate and Tivoli are delivering integration of their management products with Insight Management Agents.

Microsoft Systems Management Server

Compaq Insight Manager integrates with Microsoft Systems Management Server to provide full-featured fault, configuration and asset management. Unique Compaq configuration information including firmware revisions, driver revisions and Automatic Server Recovery status can be loaded into the Systems Management Server database and easily queried. Compaq Insight Manager can also be launched directly from the System Management Server Personal Computer Properties Window.

For more information on integrating Compaq Insight Manager with Microsoft System Management Server, refer to the Compaq TechNote (#184720-005), *Integrating Compaq Insight Manager with Microsoft Systems Management Server*, available on the Compaq Management CD, the Compaq Systems Reference Library CD or on the Compaq Web site.

BMC Patrol

Compaq Insight Manager is integrated with BMC Patrol to provide management of Compaq System hardware health. From the more than 1,000 plus management parameters available from Compaq Insight Manager, BMC Patrol has identified a subset of key parameters that are integrated into their product called the BMC Patrol Knowledge Module for Compaq Insight Manager. This Knowledge Module (KM) allows the user to manage these Compaq parameters directly from the BMC Patrol management console.

For more information on integrating Compaq Insight Manager with BMC Patrol, refer to the Compaq TechNote (#297458-001)*, Integrating Compaq Insight Manger with BMC Patrol*, available on the Compaq Management CD, the Compaq Systems Reference Library CD, or on the Compaq Web site.

Cabletron SPECTRUM

SPECTRUM Enterprise Manager integrates with Compaq Insight Manager, enabling SPECTRUM to manage Compaq systems within a distributed network. SPECTRUM gathers information by communicating directly with Compaq Insight Manager Agents. SPECTRUM automatically notifies the administrator through the SPECTRUM console when a situation requires attention. Automatic problem filtering is possible through the Enterprise Alarm Manager.

For more information on integrating Compaq Insight Manager with Cabletron SPECTRUM, refer to the Compaq TechNote(#276461-001)*, Integrating Compaq Insight Manger with Cabletron SPECTRUM*, available on the Compaq Management CD, the Compaq Systems Reference Library CD, or on the Compaq Web site.

Computer Associates Unicenter TNG

Compaq Insight Manager is also integrated with Computer Associates International Unicenter TNG enterprise and systems management product suite. The MIB definitions of the complete set of 1,000+ Compaq management parameters are compiled into the Computer Associates product, Unicenter TNG Integration Kit for Compaq Insight Manager. Management systems installed with Compaq Insight Manager are identified by CA Unicenter TNG and allow the administrator to manage faults and events generated by the Compaq Insight Manager Agent right from the Unicenter TNG console.

For more information on integrating Compaq Insight Manager with Unicenter TNG, refer to the Compaq TechNote(276463-001), *Integrating Compaq Insight Manager with CA Unicenter TNG*, available on the Compaq Management CD, the Compaq Systems Reference Library CD, or on the Compaq Web site.

Dialogic BoardWatch ä

Compaq Insight Manager integrates with Dialogic BoardWatch enabling system managers to monitor and control computer telephony (CT) components from the Compaq Insight Manager console. BoardWatch ships with web-enabled agents that provide detailed management information for CT components, send traps and enable web browser access and monitoring of CT components management information via Compaq Insight Manager.

For more information on Compaq Insight Manager with Dialogic BoardWatch, refer to the Dialogic TechNote, *Integrating Compaq Insight Manager with Dialogic BoardWatch* available on the Dialogic FirstCall support website.

ManageWise

Compaq has integrated Insight Manager with ManageWise to provide your network with the most comprehensive hardware fault management available on the market. By using Compaq Insight Manager with ManageWise, users have the ability not only to prevent hardware problems, but also diagnose operating system issues. The ability of Insight Manager to monitor Compaq hardware coupled with the ability of ManageWise to monitor the network infrastructure provides a proactive approach to determining network problems.

For more information on integrating Compaq Insight Manager with BMC Patrol, refer to the Compaq TechNote (182074-002), *Integrating Compaq Insight Manager with ManageWise*, available on the Compaq Management CD, the Compaq Systems Reference Library CD or on the Compaq Web site.

Enterprise Management Platform Support

Compaq provides superior integration with the leading enterprise management platforms. Compaq Insight Manager for HP OpenView and Tivoli TME10 NetView is a UNIX-based graphical application that integrates with the HP OpenView and Tivoli TME10 NetView platforms. This application populates the enterprise management map with easily identifiable Compaq system icons, monitors Compaq subsystems for their status and enables users to quickly identify potential or actual faults on Compaq systems. For more details, consult the Compaq whitepaper (ECG155/0398) *Compaq Insight Manager for OpenView and TME10 NetView* available on the Compaq Web site.

Data and alerts collected by Insight Management Agents can also be displayed on management platforms including HP OpenView for HP-UX, Tivoli TME10 NetView and SunNet Manager by using the Compaq Systems Management Tool kit available on the Compaq Management CD.

For quick identification of Compaq systems, the Compaq Systems Management Toolkit enables you to uniquely identify Compaq servers and clients on the enterprise map. Additionally, the Application Registration files from Compaq allow you to run pre-defined queries to the Insight Management Agents from the management platforms.

Compaq Management Integration TechNotes provide all the information needed to easily integrate Insight Management Agents into a variety of SNMP-based management environments. For more information, consult the Compaq TechNote (#145806-005) *Integrating Compaq Insight Manager with Enterprise Management Platforms,* available on the Compaq Management CD, the Compaq Systems Reference Library CD or on the Compaq Web site.

Ease-Of-Management In Your Networked Environment

Compaq Insight Manager has been designed to fit the distributed network environment by supporting the leading network operating systems and strictly adhering to network management standards. The Compaq Insight Manager product breadth allows it to fit into a wide range of network environments.

Strict Adherence to Standards

Insight Management Agents provide a rich collection of server and client information. Compaq Insight Manager and Management Agents embrace standards defined by the network management industry, delivering standard MIB support for RFC 1213, RFC 1398, RFC 1231, RFC 1398 for Ethernet network interfaces and RFC 1231 for Token Ring interfaces.

Supported Environments

Compaq Insight Manager is supported on the industry's leading operating systems, protocols and enterprise management platforms and applications.

Supported Operating Systems

Console	Server
• Microsoft Windows NT • Microsoft Windows 95 • Microsoft Windows 98	• Microsoft Windows NT • NetWare, IntranetWare, and IntranetWare for Small Business • SCO OpenServer • IBM OS/2 • SCO UnixWare
Desktop and Portables	**Workstations**
• Microsoft Windows NT • Microsoft Windows 95 • Microsoft Windows 98	• Microsoft Windows NT

Supported Protocols

- SPX/IPX
- TCP/IP
- PPP

Integrated Management Platforms and Products

- HP OpenView for Unix
- IBM TME10 NetView for AIX
- Microsoft Systems Management Server
- SunNet Manager

Networked Systems Management Partners

- BMC PATROL
- Boole and Babbage Ensign
- Cabletron SPECTRUM
- Computer Associate Unicenter TNG
- Novell ManageWise
- Seagate NerveCenter PRO
- IBM/Tivoli TME10

Year 2000 Readiness

Compaq Insight Manager has been tested for proper date rollover from December 31, 1999 to January 1, 2000; and recognition of leap years, when appropriate, for Years 2000 through 2009 inclusive.

Availability and Usage

- Compaq Insight Manager console application and Compaq Server Management Agents will continue to be distributed as part of the Compaq Server Setup and Management package included with every Compaq server.

- Updates and upgrades of Compaq Insight Manager console and Compaq Management Agents may be downloaded from www.compaq.com/sysmanage, Compaq's management page on the World Wide Web, and installed on additional devices after accepting the click-wrap license agreement.

- The Compaq Insight Manager console and agent software may be used on any number of networked clients and servers.

What's New for Compaq Insight Manager 4.2

- Management support for the newest Compaq servers— ProLiant 5500 Pentium II Xeon model.

- Management support for DIGITAL X86 and Alpha based servers.

- Management support for the newest Storage Options:

    - Smart Array 3200 Controller

    - ProLiant Storage System Model UE

    - Compaq DLT 15 Cartridge Library model 2040

    - Enhancements to Compaq Fibre Channel Storage System

- Support for Microsoft Windows 98 Operating System.

- Support for SCO UnixWare 7 Operating System.

- Support for NetWare 5 Operating System.

- Release of Compaq Power Manager 1.3

    - *Remote Server Option Support:* Compaq Power Manager software will provide UPS backup/manageability for both the primary and secondary server, whichever is on-line.

    - *Manual Install*: Users can now install the CPM software on the drive of their choice and create/name the directory. The option to install the software using the default settings will continue to be supported in addition to the manual install.

    - *Year 2000 readiness*: CPM 1.3 is Year 2000 Ready

- Multi-Device Setup support
  Multi-Device Setup support is important for users that manage large number of devices. This feature allows the user to set up groups of devices more quickly, efficiently and conveniently. With this release the user can:

    - Change the community strings on multiple devices

- • Turn Automatic Data Collection on or off for multiple devices

- • Change the Network Timeout on multiple devices

- Alarm forwarding via email
  This application provides the ability for system administrator to be notified of specific
  Compaq Insight Agent alarms received at the Insight Manager console, via electronic mail.
  The administrator can select multiple recipients for emails, making a selection ranging from
  type of the alarms down to a particular server.
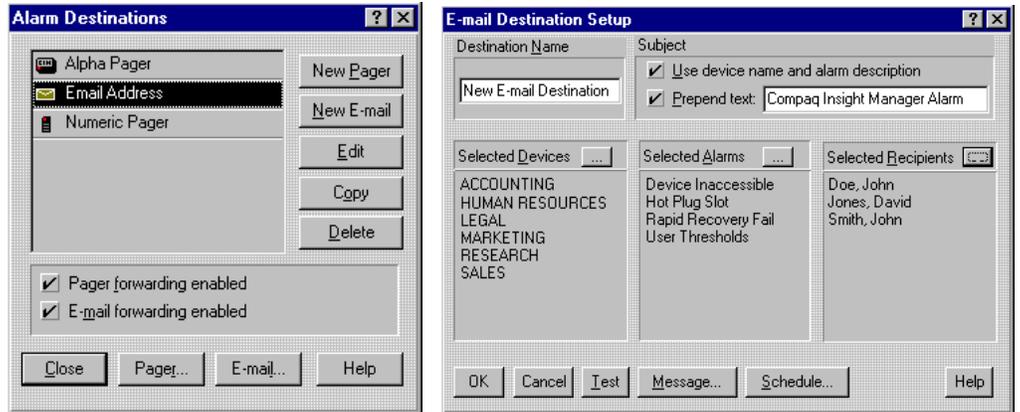
- IP Discovery
  The IP Discovery feature is a user-initiated mechanism that detects IP devices on the network.
  The feature provides users with an easy, flexible way to add/update a comprehensive list of IP
  devices to the Responsible Device List. All features currently associated with the IP Device
  List are preserved.

Compaq Insight Manager Benefits

- **Reduces system management cost** by providing centralized fault, configuration and performance information.
- **Improves operational efficiency** through extensive remote management capabilities.
- **Decreases server downtime** through proactive fault management and version control.
- **Enhances information** provided by existing enterprise management products such as HP OpenView and IBM NetView.

Compaq Management Advantage

- Most comprehensive systems management across the widest range of operating systems.
- Breadth of remote management capabilities from in-band to out-of-band and configuration to diagnostics.
- Ability to provide up-to-date version control information for server and workstation firmware, drivers and utilities.
- Predictive fault management and pre-failure warranty for storage, memory and CPU.
- Extensive online help documentation.
- UPS management and multi-server shutdown capabilities.
- Integration with management software products such as BMC PATROL, Boole and Babbage Ensign, Cabletron SPECTRUM, CA Unicenter TNG, HP OpenView, IBM NetView, Microsoft Systems Management Server, Seagate NerveCenter Pro, SunNet Manager, and Tivoli TME10.

Summary

Compaq Insight Manager continues to set the standard for systems management applications by delivering an unparalleled array of features: proactive fault management, extensive configuration management, highly efficient remote management and the industry's broadest range of integration options. These features ensure that Compaq systems remain the most manageable choice for the distributed enterprise.

Compaq Insight Manager Product Specifications

	Feature	Requirement
Management Console		
System Requirements	Supported Operating Systems	Microsoft
		Windows 95, Windows 98
		Windows NT 3.51, 4.0
	Memory	
	- Windows 95	24 MB minimum; 32 MB recommended
	- Windows 98	24 MB minimum; 32 MB recommended
	- Windows NT	32 MB minimum; 48 MB recommended
	Free Disk Space	
	- Insight Manager application	20 MB minimum
	- Databases	15 MB minimum
	Graphics	VGA color or higher resolution
	Network Interface Card	NIC supported by Microsoft Windows 95, Windows 98 andWindows NT
Management Agents		
Managed System Requirements		
	CPU utilization	Less than five percent
	Management Protocol	Simple Network Management Protocol (SNMP)
		Hyper Text Transfer Protocol (HTTP)
	Free disk space	At least 2 MB
Servers	Supported Models	Compaq ProSignia and Compaq ProLiant
	Supported Operating Systems	Novell (IP, IPX, PPP)
		NetWare 3.12 and 4.10, 5
		IntraNetWare
		IntraNetWare for Small Business
		Microsoft (IP, IPX, PPP)
		Windows NT 3.51 and 4.0
		SCO
		UnixWare, 2.1.2. 2.1.3, 7
		OpenServer Release 5.02, 5.04, 5.05
		(IP, PPP)
		IBM
		OS/2 Warp version 3, Version 4 (IP)
Workstations	Supported Models	Compaq Professional Workstation
	Supported Operating Systems	Microsoft (IP, IPX, PPP)
		Windows NT Workstation 3.51, 4.0
Desktops	Supported Models	Compaq Deskpro
	Supported Operating Systems	Microsoft (IP, IPX)
		Windows 95, Windows 98
		Windows NT Workstation 3.51, 4.0
Portables	Supported Models	Compaq Armada, LTE 5000 (Win 95 & Win NT)
	Supported Operating Systems	Microsoft (IP, IPX)
		Windows 95, Windows 98
		Windows NT Workstation 4.0
Uninterruptible Power Supplies	Supported Models	All Compaq UPS Models:
		T700, T700h, T1000, T1000h, T1500, T1500h, T2000, T2400h, R1500, R1500h, R3000, R3000h
	Supported Operating Systems	Microsoft Windows NT 3.51, 4.0
Supported Standards	REQUEST FOR COMMENT	DESCRIPTION
	RFC 1212	Concise MIB definitions
	RFC 1215	Convention for defining SNMP traps
	RFC 1213	Management Information Base (MIB II)
	RFC 1398	Ether-Like Interface Type MIB
	RFC 1231	IEEE 802.5 Token Ring Interface Type MIB

	Feature	Requirement
Management MIBS	Server and Workstation Management Parameters	Over 1,000
	Server and Workstation Management Traps	Over 60
	Client Management Parameters	Over 300
	Client Management Traps	15