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HP OpenView VantagePoint
Solution Guide for the
Electronic Enterprise

HP OpenView **Solutions**

"IT needs to reorient its attention towards business requirements and away from technical issues, such as systems availability and staff efficiency....Efficiency and effectiveness per se have no meaning if not achieved towards a business end."

IDC, 1999

HP OpenView VantagePoint — rapidly achieved, business-oriented E-Enterprise management.

The E-Enterprise Management Challenge

Let's face it. Managing an enterprise IT environment has never been easy. Forced from relative obscurity behind the scenes, today's IT organizations are called upon to operate on the front lines of business. As an IT manager or CIO, you are now faced with constantly changing technology, ever-increasing pressures to deliver, a shortage of necessary people and skills, and the on-going difficulty in achieving alignment between IT management and overall business objectives.

IT managers of today must run the organization like a business and measure their value to the enterprise—moving from a cost center to a profit center and strategic differentiator. IT is being held accountable for the service levels provided to end-users. Leveraged as a critical corporate asset, your IT organi- zation is re-vamped in tandem with the business strategy and as a result, new applications, new

systems and new networks are being added at a frantic pace. What's more, the technological approaches to networking, data- base, application, hardware and software platforms continue to diverge. The rapid change and complexity are compounded by unprecedented growth in the use of IT services. Most analysts estimate a near ten-fold increase in electronic transactions over the next three years.

Despite continual advances in technology–and in many cases because of them–IT staff members spend precious time fighting brush fires: reacting to massive amounts of data, a flurry of helpdesk calls, grappling for root causes, and mentally associating component depen- dencies to identify the culprit behind an application service slowdown or even breakdown. Moreover, IT organizations continually struggle to recruit and retain skilled technical resources, and IT staff members with experience are often hard to keep. Recent graduates with freshly minted skills frequently

have little practical experience, while new hires and consultants bring added risk and expense to projects. Lacking the luxury of lengthy project schedules, companies are unable to cultivate in-house teams for new Internet technologies and applications. Many employers are outsourcing specialized IT functions, and making use of service providers for everything from network communications to applications hosting to desktop management.

> **"Reality hit when online trading services grew in two weeks to what was expected to happen in a year."**
>
> Gideon Sasson,
> *Charles Schwab*

At the heart of this fragile "make or break" environment lies the IT infrastructure and the people who manage it. A new approach to IT management is called for– one that is business-centric, adaptable, and skill-friendly.

HP OpenView VantagePoint: A Better Solution

Historically, major enterprise vendors have taken a bottom-up approach to enterprise management. Early tools could detect a failed or degrading element (e.g., router, disk, CPU) and drill down on that element to identify the root cause. More recently, several point solutions have developed a top-down, customer-oriented view of management. They measure availability and performance from the end-user's perspective–right at the desktop. Yet these solutions, distinct and separate from the back-end IT operations, do not help to isolate the specific IT element(s) contributing to the customer problem. In an attempt to diagnose the root cause, IT staff must manipulate management data between multiple tools with incompatible data structures, user interfaces and workflows.

Now there's a better way. The HP OpenView VantagePoint Solution combines the best of the bottom-up and top-down approaches. Whether you're a brick and mortar organization making the "e" transition, a dot.com or a healthy mix of "brick and click", VantagePoint's blend of enterprise management will impact your top and bottom lines, elevating your business to new heights. In an enterprise-class heterogeneous management solution, HP OpenView VantagePoint offers you the following powerful advantages:

- **Achieves results quickly through increased automation.** HP OpenView VantagePoint uses new levels of automation to achieve results rapidly, and without bringing down the IT system. Fast implementation with zero latency is realized because services are discovered and policies are deployed– completely automatically.

- **Provides highly available services with active intelligence.** The active intelligence of HP OpenView VantagePoint lets you achieve superior service availability. That is, IT services will always be available and functioning at peak performance. HP OpenView VantagePoint's active intelligence automatically adapts to the environment, providing quick analysis and problem identification as well as automatic "healing" or correction of the problem.

- **Implements business/IT alignment rapidly with flexible management models.** HP OpenView VantagePoint lets your customers plug their business intelligence into IT management models. That means problems are identified and fixed quickly in reference to the affected business services and applications, rather than from an IT infrastructure perspective. Finally, IT performance can be measured in terms of business objectives and bottom-line results.

"Demand for skilled IT resources is increasing at 10-20% per year, and specialized areas even faster, meanwhile the readily available supply is growing at closer to 1%.

Yankee Group,
October, 1999

HP OpenView VantagePoint: A Closer Look

Instant Intelligence

HP OpenView VantagePoint has revolutionized the concept of rapid deployment with new levels of automation.

Auto-Discovery of Business Services. Thanks to its auto-discovery mechanism, HP OpenView VantagePoint starts with a view of the potential objects to be managed. It lets you discover the physical components, hierarchy, and inter-relationships across a distributed environment for leading operating systems, databases and applications. From there, HP OpenView VantagePoint generates a management model that populates a services map. Similar to an in-memory model, it automatically adapts to changes in the infrastructure by reflecting new resources and relationships. The embedded personality for commercial resources means you no longer need to create, test and maintain correlation rules.

Starts from Business Transactions. Unlike alternative approaches that require the administrator or an applications developer to mentally associate low-level sub-transactions (e.g. a database request) with a higher level business (e.g., payment history screen on a telecom customer application), VantagePoint starts from a business perspective.

The Challenge: It's time we had a fast, automatic, and adaptable means to align IT management with business objectives.

NetFinance, a major financial services firm, has promised to give customers historical access to their last 25 transactions within 8 seconds, using a new web-based application. If the information takes significantly longer than 8 seconds, NetFinance has also promised customers free trading—the lifeline of the firm.

At 3:30 P.M., the operations manager receives a remote page that average wait-times for accessing past trades have increased from 4 to 7 seconds over the last hour—a 15% buffer remains. The web operations manager knows the problem is real and not a derived estimation because HP OpenView VantagePoint is taking response time statistics straight from client browsers. She quickly calls up a report that breaks down the response time among customers using various ISPs and notices no unusual variations among providers. Next she glances at a report breaking down response times by different modem speeds, and observes little variation between those customers employing leased T1s and those coming in on 56K dial-up connections. At this point, she's able to conclude that the problem resides in her shop—probably in the back-end.

Relying again on HP OpenView VantagePoint, she can correlate the customer wait-time degradation with the web service view, revealing that the Los Angeles service status has moved from "normal" to "warning" over a similar period. This alone would typically not be a problem, because the load is often balanced by New York and Boston web services. Drilling down, however, the web operations manager learns that a particular database server is at fault. The events window shows that both CPU and disk I/O have peaked. This is just the symptom, what is underlying problem?

A related HP OpenView VantagePoint database event arrives, signifying that the cache hit ratio is now less than 30%, meaning that too much processing is being executed in disk rather than memory. A database administrator —logging into the HP OpenView VantagePoint console—starts a popular tool in context with that database instance and then proceeds to increase the maximum cache on the server. The root problem is fixed and a potentially costly business problem is averted.

Graphical Configuration of Business Services. HP OpenView VantagePoint provides a point and click interface for you to tie the discovered services with business processes. For example, a set of discovered Microsoft Exchange Servers and their related discovered objects (e.g., CPU, OS, Exchange application) can be linked to an order entry service or an internal mail service for a particular department or both.

Auto-Deployment of Policies. HP OpenView VantagePoint turns the symbiotic relationship between policies and agents on its head: Rather than deploying a one-size-fits-all agent (offering a range of services that often go unused), the kinds of policies being enacted on the managed node actually drive the agent services to be deployed. For example, if your management objective on an Oracle database is limited to historical performance data collection, HP OpenView VantagePoint will deploy only measurement agent services–leaving services that control thresholding, events and actions at home. Agents and their services are no longer static, resource-heavy software, but rather modular objects deployed and removed on demand.

Policy Version Control. HP OpenView VantagePoint automatically keeps an ongoing inventory and version control of the policies deployed in a fashion that dovetails with change and configuration management practices.

Active Intelligence

Distinguishing between real problems and the symptoms of problems is beyond the architectural capability of traditional management tools. That's why HP OpenView VantagePoint goes beyond root-cause analysis by reducing the guesswork associated with diagnosing problems and minimizing the human and technical resource load. HP OpenView VantagePoint's active and adaptive intelligence integrates five leading edge concepts: baselining, dynamic monitoring configuration, guided root-cause analysis, extendible knowledge base, and corrective actions.

Guided Benchmarks. When first deployed, HP OpenView VantagePoint collects defined service level statistics (e.g. response times on key transactions, service up time, and recovery time) as well as influential IT infrastructure metrics (e.g. CPU load and I/O rates) on distributed managed objects. Summary information, presented on a days-of-the-week basis, provides a time-sensitive foundation for establishing more meaningful service level agreements and corresponding management thresholds. As a result, administrators are forced to handle fewer events.

"The explosion in e-business activities has forced the concept of aligning business with IT to a new level. Products are needed that are able to automatically discover key IT services and map them to business processes, providing the intelligence for IT to immediately understand the impact of infrastructure problems on the business. Armed with this knowledge, IT can respond to problems based on the business impact rather than on any limited view of a network, system or application. Those that deliver these products demonstrate clear thought and technology leadership."

Richard L. Ptak, Vice President
System & Applications Management,
Hurwitz Group

Guided Measurement.
HP OpenView VantagePoint's dynamic measurement engine alters the frequency and intensity of data collection based on the status of the managed service. For example, if HP OpenView VantagePoint notices that the Oracle cache hit ratio has fallen below the defined 20% threshold, active intelligence–without the user's intervention–spawns a more intensive, 10-second interval collection of page-out rates, memory utilization and a list of users making calls.

Guided Root-Cause Analysis.
HP OpenView VantagePoint's flexible management model provides the context to connect a problem with a higher level service to that of a supporting object in an easy, visual fashion.

Guided Correction Extendible Knowledge Base. HP OpenView VantagePoint provides a repository of best practices for solving problems once diagnosed. This knowledge base can be extended drawing on past experiences and imported process management and escalation information HP OpenView VantagePoint allows fixes–in the form of scripts or other applications– to be automatically executed or operator-initiated on a remote object.

Business Intelligence

HP OpenView VantagePoint makes it easy for companies to manage IT from a business perspective, while also managing the delivery of services to users. The inventors of the IP topological map have associated the physical infrastructure with the logical business services and processes to provide an unparalleled management model. The model contains not only IT object dependencies, but also business rules and service level information. What's more, it can learn and adapt based on prior management issues..

Business Services. HP OpenView VantagePoint lets you visualize how IT resources work together to deliver business services as well as clarify the bigger picture or focus on a particular managed objected and its parent/child relationships.

Closely Monitor Business Transactions. Using HP OpenView VantagePoint, you can segment the response times, failures, and user aborts of particular transactions within business services. You'll be able to map that to throughput volume over a period of time.

Assess Business Impact. HP OpenView VantagePoint helps you determine how availability, performance, and response-time issues may degrade or threaten business critical services.

Prioritize Problems Solving Based on Business Criteria.
With HP OpenView VantagePoint, you can visualize how IT infrastructure problems cascade up your service hierarchy and to the business groups you support. You can then determine which problems are most critical, establishing a priority for problem resolution.

Accommodate Business Change. As business conditions prompt changes in the IT environment, the HP OpenView VantagePoint management model adjusts dynamically, providing an ongoing, real-time virtual representation.

All the Abilities You've Come to Expect

HP OpenView VantagePoint is built on more than a decade of enterprise management experience and successful implementations at more than half the Fortune 500. As a result, what counts in production implementations is prevalent today in the VantagePoint offering.

VantagePoint's scalability over a large number of geographically dispersed sites, devices and IT administrators is second to none through capabilities such as manager-of-manager, follow-the-sun and local event correlation. VantagePoint has the flexibility to deal with a broad range of organizational constructs afforded through a competence center approach to problem categorization as well as the ability to manage from a Windows or Unix management server. VantagePoint's reliability is delivered through built-in redundancy of management servers, guaranteed operational message delivery and advanced network security. Finally, extensibility is afforded through open event and performance data repositories as well as specific APIs and command-line interfaces to allow customers to integrate other management and perform external, dynamic configuration for large and changing environments.

Behind the Scenes of VantagePoint

The HP OpenView VantagePoint Solution includes a collection of modular products that function stand-alone or in an integrated fashion, allowing your management solution to grow and adapt to your organization over time.

HP OpenView VantagePoint Operations provides a centralized point of control that gives your IT staff close and efficient control of events happening across all systems, creating a "mission control" center for your entire distributed environment. HP OpenView VantagePoint Operations filters, correlates, processes and responds to the thousands of events that occur daily from network devices, systems, databases and applications.

"With the lines between business and IT organizations continually blurring, tools that bridge the historical divide are required. Business and IT functions must understand their impact on each other in real-time, and reaction to any problems must be immediate. Tools that put intelligence in the hands of IT organizations enable faster corrections, therefore resulting in more effectively run business processes."

Corey Ferengul, Program Director
META Group's Service Management Strategies.

HP OpenView VantagePoint Performance analyzes current and historical performance, as well as models and plans future system and application require-ments. It consolidates the entire performance management process across systems and applications into a single view. It creates reports and graphs to help you identify performance problems at a glance, and it allows the administrator to established customized policies to monitor performance metrics across one or more systems.

HP OpenView VantagePoint Navigator automatically discovers and maps the real-time inter-relationships between networks, systems and applications. The resulting physical and logical views of the IT environment allow IT staff to immediately visualize the business impact of lower level component failures. This product also aids in aligning IT problem resolution priorities with business priorities. Finally, through the Service Level Management module, service uptime/outages can be compared with initially established target levels–tracking the IT organization's performance.

HP OpenView VantagePoint Reporter delivers out-of-the-box availability and performance reports that graphically and numerically communicate service quality levels for business and IT managers.

HP OpenView VantagePoint Web Transaction Observer takes a top-down approach, viewing the management environment first from the business transaction level at the end-user's desktop, then drilling down to the service or device causing the problem. It allows IT managers to measure the wait times, failures and "aborts" experienced by customers whose desktops may be outside of the company's control. Results among end-customers can be segmented by modem speed, ISP, geography and other para-meters. This information can be used to compare against defined SLAs, to trouble-shoot or to reallocate IT resources.

HP OpenView VantagePoint Response Time Workbench takes a top-down approach, viewing the management envi-ronment first from the business transaction level at the end-user's desktop, then drilling down to the service or device causing the problem. A point and click interface provides a way to visualize and interact with applications to determine the beginning and end of critical business transactions in a famil-iar Windows environment.

HP OpenView VantagePoint Event Correlation Services speeds the identification and resolution of problems anywhere in the enterprise by correlating events to their root cause, reduc-ing downtime and improving the efficiency of IT staff.

"...it was only a matter of weeks before all of RAG Informatik's SAP R/3 systems with the help of the SMART Plug-In for SAP, were integrated into VantagePoint Operations."

Udo Wisniewski, Head of Department
System Management Infrastructure, RAG INFORMATIK

HP OpenView VantagePoint SMART Plug-Ins extend HP OpenView VantagePoint solutions to manage the particulars of industry-leading ERP, Internet, messaging, database and mid-dleware applications. Provided as modular building blocks on top of these solutions, SMART Plug-Ins retain the differentiat-ing HP OpenView management model, scalability, reliability and security features, yet minimize system/network overhead and footprint.

Using and Driving the Latest Standards

HP OpenView VantagePoint for Windows, the first enterprise-class heterogeneous management solution is built upon the latest Microsoft and Desktop Management Task Force (DMTF) standards to ease configuration and use, accelerate deployment and to ensure compatibility with other management solutions.

HP OpenView VantagePoint's Windows-based solution is the first enterprise-class, heterogeneous management solution to fully comply with Microsoft's Windows design standards which, among others, include: COM, WMI, MMC and Active X.

COM–Microsoft's component framework–allows management capabilities to be treated as a set of components that can be installed at runtime, rather than at compile time. HP OpenView VantagePoint is built on this component architecture so that new management capabilities, such SMART Plug-Ins for specific applications, can be added far more efficiently than is currently possible.

HP OpenView VantagePoint also utilizes WMI, Microsoft's implementation of WBEM, as a common data structure interface. Both inventory data and the entire model descriptions are stored in a CIM-based repository and accessed through WMI, rather than in a proprietary approach. This facilitates the necessary integration of inventory, performance and event data that enables true application service management.

HP OpenView VantagePoint's user interface is built atop the Microsoft Management Console (MMC), a Windows-based standard design to give all Window-based solutions a common graphical interface. MMC compliance ensures a familiar look and feel, and drag & drop capabilities. Not only are all OpenView management capabilities available at a single console, but Microsoft management capabilities, for instance, can be "snapped-in" to the console as well. The various management tools can be mixed and matched to quickly build a customized console with enormous time savings.

HP OpenView pioneered the development of the Application Response Management (ARM) API to afford customers and ISVs a standards-based approach to instrument their applications to emit business level response time information. HP OpenView VantagePoint supports the latest version of ARM, and like other OpenView tools is steeped in manipulating, storing and presenting ARM data.

"Based on a hierarchical implementation of VantagePoint Operations, we manage 600 PTT branch offices. In the branch offices we have over 2000 Windows NT systems that are actively controlled with IT/Operations. The intelligent agents proactively monitor the NT operating system, the installed business applications and the Oracle database on every system. IT/Operations informs Swiss Post about potential operating problems before end users are affected. This helps us to guarantee best-in-class IT services."

Michel Kunz, CEO
Informatik Post

Services and Support

HP OpenView Customer Care provides enterprise customers with the support service needed for their VantagePoint solution. HP OpenView Customer Care Standard is packaged with the VantagePoint solution and includes unlimited phone-in-assistance during normal business hours, software updates (including major and minor revisions) and access to electronic support through the IT Resource Center. With HP OpenView Customer Care, VantagePoint users also have the option to upgrade to OpenView Customer Care Extended, adding 24x7 phone-in-assistance to the standard offering or to OpenView Customer Care Premier, providing users with high-end priority support and proactive, preventative support services. HP OpenView Customer Care helps minimize risk and downtime, and together with VantagePoint, delivers fast realization of service management and helps IT managers and CIOs meet their management challenge.

Training and Education

HP OpenView training and education programs combine world-class knowledge of network, system, and application management, a broad portfolio of training, and an education life cycle methodology to deliver the right solution for your training needs. Please refer to the following web pages to obtain the entire suite of course offerings:

http://www.education.hp.com

http://www.openview.hp.com/training

Backed by Hewlett-Packard and Channel Partners

HP Authorized Channel Partners are in place worldwide to help you select and implement the right HP OpenView VantagePoint solution to meet your specific management challenge. The HP OpenView Developer Partners offer more than 350 integrated complementary solutions that are designed to extend the management capabilities of the HP OpenView family and accommodate existing tools already in use in your organization.

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As you would expect from a Hewlett-Packard product, the HP OpenView VantagePoint solution delivers solid, targeted solutions to problems. Backed by HP's renowned worldwide support, industry-leading hardware, and strong corporate partnerships, HP OpenView VantagePoint possesses all of the critical elements needed to solve the most serious demands placed on IT service management in today's competitive business environment.

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For More Information

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