

IT consolidation  
**hardware/data  
integration**



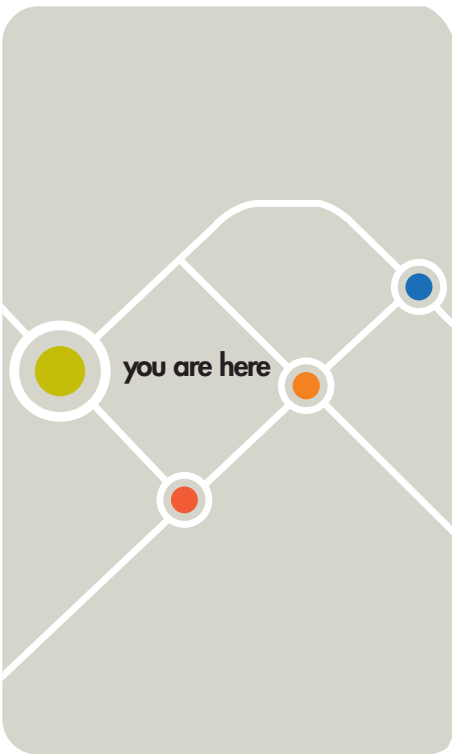
hardware/  
data integration

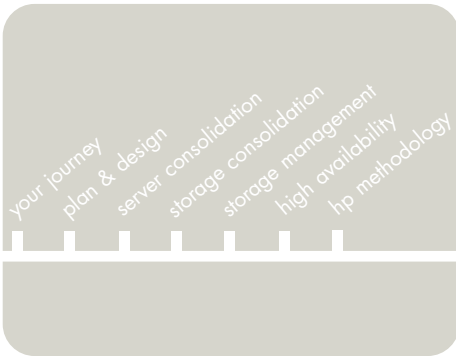


## hardware/data integration

This guide focuses on the benefits of consolidating hardware and/or data. It also introduces HP's unique capabilities for helping you accomplish this consolidation more quickly and effectively. Case studies demonstrate successes our customers have achieved in this endeavor.

This is one of six HP IT consolidation guides. If you are interested in a journey overview, collocation, application integration, moving to a utility computing environment, or gaining a deeper understanding of HP's leadership methodology and consolidation best practices, feel free to review the appropriate guide.





## where is your IT consolidation journey headed?

Redundancies. Overlapping functionalities. Application availability issues. Inconsistent processes. These are just a few of the inefficiencies that have likely crept into your IT infrastructure as rapid growth and revenue generation became more critical aspects of your business. Optimization, while always important, has typically been a lower priority.

But the business climate has changed. Today you can no longer afford to support multiple disparate platforms, task-specific servers, or suboptimal storage. And you can't tolerate unnecessarily duplicated instances of applications and associated databases.

### plan for success

The right consolidation strategy will always focus on the complete set of issues that determine how your IT organization will meet its goals of operational excellence and lowest possible total cost of ownership (TCO), while delivering uncompromising business value to the organization as a whole.



## why embark on the hardware/data integration journey?

Today, IT managers are expected to improve performance and availability of existing services as they reduce operating and capital costs. Fortunately, through consolidation, HP can help you deliver improved performance, better service levels, and higher availability rates while still significantly cutting costs. How? Instead of approaching consolidation from a purely technical perspective, HP works with each company to make recommendations based on an organization's unique business situation and IT environment, identifying both short-term tactical and long-term strategic benefits.

### the time to act is now

Delay this journey and you forego significant savings every month you postpone consolidation—money that could be used to fund critical projects or improve profitability. And while the savings can be significant, consolidation is more than a tactical method to reduce complexity and operational costs. It can position your company to more effectively pursue opportunities for business growth, provide an avenue to improve quality of service, and transform IT into a service.

As an industry leader in delivering adaptive infrastructure solutions, HP has already worked with hundreds of companies to consolidate servers, storage, and databases, optimize existing data centers, and improve staff utilization and service levels. HP can help your company become more agile by designing an adaptive IT environment that fits your evolving needs, with reduced risk and complexity and real-world return on investment (ROI). Partnering with HP on the consolidation journey, your company will be ready and able to take advantage of today's rapidly changing business and IT environment.

HP will work with you to plan and implement a consolidation effort that results in improved proactive detection and correction of problems, faster deployment of new services, an enhanced end-user experience, and elimination of inefficiencies across your environment. Fundamentally rethinking your entire computing environment ensures that these added benefits are achieved, while you significantly reduce IT costs and improve service levels.



*Essential to the goal of reducing IT costs and complexity through hardware/data consolidation is the ability to fully understand your existing infrastructure. HP OpenView management software provides a consolidated view of your enterprise's entire heterogeneous environment, including networks, servers, and storage.*

### **consider your business environment**

Whether you're planning to simply collocate your servers or to implement a more far-reaching project such as virtualizing your data center for maximum server and storage utilization, you and the business stakeholders involved need to agree on the overall project objectives. By working with your line-of-business managers to determine where IT better aligns with their needs, you'll create an environment that is more responsive to the changing business climate.

For example, as you consider the tactical business benefits of eliminating legacy server platforms, standardizing operating systems, or improving service levels, you have an opportunity to move to a more strategic platform. The cost-effective porting and migration services HP offers help you make these transitions. And as we've seen with other customers, you can use your consolidation savings to fund your journey to a utility computing environment.

### **understand your existing infrastructure**

Essential to the goal of reducing IT costs and complexity through hardware/data consolidation is the ability to fully understand your existing infrastructure. HP OpenView management software provides a consolidated view of your enterprise's entire heterogeneous environment, including networks, servers, and storage.

Managing your IT infrastructure from a service management perspective puts you in a better position to understand how IT impacts your business. For instance, once you understand which servers are most heavily utilized, where the bottlenecks reside, which systems are underutilized, and which lines of business are generating the most IT service calls, you can create a solid hardware/data consolidation plan that will allow you to lower costs, improve the quality of your IT services, and meet business expectations.

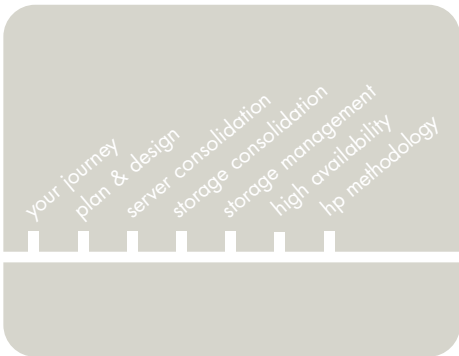


## **build a roadmap for consolidation**

Every consolidation journey is unique, and HP has helped customers worldwide determine the optimum places to begin their journeys. HP will help you create a roadmap for IT consolidation that keeps you ahead of the competition. That roadmap—HP’s detailed approach to consolidation—is defined in the Best Practices and Products companion guide.

The roadmap sequences your consolidation projects to accelerate their contribution to your overall business objectives. Just as important to consider is the time the projects take to complete. Keep in mind that the real benefits of consolidation are not realized until the project is completed, when hardware is retired and support agreements and leases are terminated.

HP’s proven approach and experienced consultants work in combination to accelerate the time it takes to complete a consolidation project—and to reap the benefits. Our customers often do not have sufficient staff, methodologies, or tools to dedicate to consolidation projects. With HP’s experience, we get you there with the urgency your business requires.



*The roadmap sequences your consolidation projects to accelerate their contribution to your overall business objectives. Just as important to consider is the time the projects take to complete.*

## getting there, your way

Ultimately, we team with you in ways that ensure your IT consolidation journey is successful so that your IT department transforms itself into a service provider. We'll work with you every step of the way—helping you plan your journey for optimal success, enabling you to address some of your most complex business issues, and collaborating on ways to keep you ahead of your competition.

### Staples chose hp for hassle-free IT

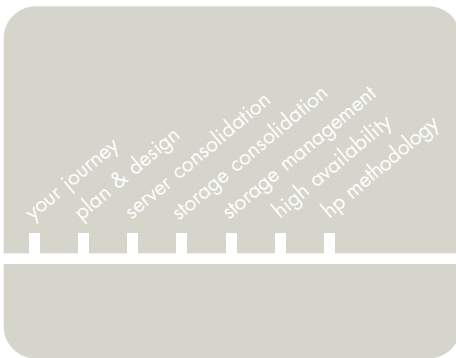
Several years ago, Staples realized that to remain competitive and continue its aggressive growth rate, it needed to improve IT performance, flexibility, and scalability while maintaining a strong return on its IT investment. Additionally, it wanted to reduce costs by consolidating applications and reducing the number of servers, as well as the number of IT vendors.

In 1997, Staples had numerous UNIX vendors, including HP. "We looked at all of those vendors and after a detailed comparison, decided on HP," stated Max Ward, Staples' vice president of technology. "We wanted a 'Tier One' vendor in the UNIX marketplace to partner with. We needed an experienced vendor who could work with us at solving our business problems as opposed to just supplying high-performance equipment for low dollars."

Once Staples selected HP, it embarked on an aggressive plan to replace its older UNIX servers with HP 9000 servers. Ward explained that Staples' Technology Services group worked with HP, and other key partners including Oracle and EMC, to design a configuration of hardware, software, and backup systems "that not only would provide better service levels, but also more redundancy and a better growth path."

Dave Guillotte, Staples' director of Technology Services elaborated on the benefits of the systems consolidation program, "With the new HP IT infrastructure we increased users' access to databases, created development and quality assurance environments that didn't previously exist, and reduced the physical number of servers to support. We went to larger, higher-end platforms, consolidating applications on the same box while meeting our users' needs. Today, we are able to use HP Process Resource Manager (PRM) to prioritize workloads and development requirements, while maintaining the service-level expectancies of our users."

Staples also contracted with HP Services for consulting services to assist in the migration of the legacy environment to HP. "HP put one of its key support people on site," added Guillotte. "She's basically been an extension of our staff and an expert on the systems themselves, giving guidance in some of our more high-profile projects. Looking forward, we have ongoing plans to phase out smaller applications and replace them with best-in-class HP-UX-based applications running on HP 9000 Enterprise Servers," commented Ward. "As our IT partner, HP is focused on our business issues and providing solutions to solve them, and, as a result, Staples' standard platform is now HP."



### make hp your partner for success

*“When we looked at consolidating our hardware, we were struck by the breadth of products that HP offers. They were one of the few vendors able to give us the range of components we needed to serve all our application needs.”*

—Stanley Krok, Chief Information Officer,  
Children’s Memorial Hospital



Understanding the different components of a consolidation helps you decide when to use outside consultants, when to use internal resources, and how these teams can collaborate to more rapidly complete consolidation projects.

From technology implementation to process redesign and employee retraining, HP understands all the critical technical components, and offers world-class service management capabilities to ensure that all aspects of the consolidation are successful. From redesigning your infrastructure, to modifying your IT processes, to supporting the consolidated environment and ensuring your staff has any required training, HP has the answers.

### hp helps heal hospital infrastructure

Since its founding in 1882, Children’s Memorial Hospital in Chicago has focused on the needs of children and their families. More than 120 years later, kids continue to come first at Children’s Memorial and today, the organization provides care through a multibuilding campus in downtown Chicago and at 13 Chicagoland locations. In 2001, *U.S. News & World Report* ranked Children’s Memorial Hospital the No. 1 children’s hospital in Illinois and one of the best in the country. The hospital treats more than 80,000 children annually and typically performs more than 13,000 surgical procedures a year.

As a result, Children’s Memorial strives to be the most efficient organization possible. To keep pace with the growing demand for its services, the hospital adopted an aggressive plan to upgrade and expand hospital facilities such as outpatient and ambulatory care areas and neonatal and pediatric intensive care units. In the early 1990s, the organization began working toward a “best-of-breed” strategy in its internal delivery of IT services. But as capital budgets were cut a few years later, a centralized IT strategy was a lower priority. Individual departments sought out their own solutions, leading to a proliferation of vendors, hardware, and software. Children’s Memorial evaluated various options, and chose HP as one of its key infrastructure vendors to help simplify the IT environment.

### consolidating servers improves uptime, service response

Previously, Children’s Memorial had multiple server and PC vendors. It standardized on HP server systems all operating under HP-UX. “That change made an important impact on our staff training needs. Consolidating all of our servers on HP-UX allowed our support staff to focus on one operating system. In the past, we often outsourced part of that responsibility, because with multiple vendors and operating systems, we needed to have multiple skill sets within our own technical staff. Now, it’s no longer a problem. Consolidation allowed us to focus the training of our limited technical staff,” said Stanley Krok, Children’s Memorial Hospital’s CIO.



## real-life journeys in hardware/data integration

Hardware/data integration consolidates workloads from many to fewer servers, and consolidates data from many directly attached storage devices to large “farms” of storage that are accessible from larger numbers of servers. For many companies, consolidation is a direct route to increased system availability, improved system management, and greater agility.

### it starts with server consolidation

Before the current technologies and infrastructures that enable consolidation were available, including inexpensive bandwidth, enterprises tended to distribute computing technology locally to the department or business unit that required the solution. At the same time, with the seductively low acquisition cost associated with departmental servers, business units could easily purchase new servers without extensive financial justification. The result? Server proliferation. That’s exactly where Korea’s largest bank found itself at the close of the 1990s.

### hp consolidation is money in the bank

As its functions became more complicated over time, Korea’s largest bank added multiple servers to make real-time information processing easier and more efficient. Eventually, the opposite was true. Adding more servers necessitated a more extensive network management and IT support structure. Achieving data compatibility and integrity became increasingly difficult, too.

By the close of the decade, not only did the bank want to consolidate servers and downsize its loan processing and account information systems, it also wanted to transfer all of its loan information systems to a web environment. Because of the extent of the consolidation involved, the bank turned to HP Korea for help.

The account and loan processing systems were consolidated on an HP Superdome. The system demonstrated excellent performance, significantly reducing batch-processing times from hours to just minutes. Thanks to the new user interface, inquiries for new loans are processed in half the time, and inquiries filed online are handled quickly and efficiently as well.

With the HP Superdome, the bank’s loan processing activity improved significantly. For example, loans that required several attempts to process in the past are now processed quickly and efficiently due to the improved user interface. The limited performance of legacy systems could never have provided such results.

Online inquiries are handled more quickly, too. In the past, online processing was put on hold until the weekend while uploading 50 million bits of data from the Bank Association. Now, these inquiries can be processed daily as they are received.

*“Compaq’s technologies—including ProLiant, AlphaServer platforms, and StorageWorks—help us by lowering our costs and providing highly available, highly reliable solutions, enabling Intuit to provide better service and more features to our customers.”*

—Richard Marino, Group Manager,  
Technology Operations for Intuit

## hp and Intuit—expanding reach on the web

Intuit is best known for its popular Quicken and QuickBooks financial programs. But like many software companies that built their successes with popular shrink-wrap desktop programs, Intuit is using the web to fuel its growth in the e-Finance business.

Both Quicken and QuickBooks have integrated web connectivity, making Quicken.com one of the Internet’s largest financial websites. With several hundred online applications for its customers, such as electronic tax filing and loan brokering, Intuit’s web business is growing at a phenomenal rate every year. Add to that several million customer tax returns, loan quotes, subscriptions, credit card processing, and shrink-wrap business operations, and it is easy to see why Intuit is constantly adding new servers and storage.

In managing its IT environment, Intuit, like any other company, must balance performance with cost. One of its goals is to consolidate its many UNIX Oracle servers into fewer new-generation AlphaServer systems, while gaining high availability at the same time. The AlphaServer platforms, particularly the new high-performance GS-series, allow Intuit to both increase overall system performance while reducing total cost of ownership.

To Intuit’s customers, having its websites up and running 24x7 is a given—erratic availability is the kiss of death to any commercial website. With hundreds of Oracle databases supporting thousands of online users concurrently, Intuit relies on HP to attain zero downtime.

“Running Tru64 UNIX on our AlphaServer systems has allowed us to use much smaller servers than we were previously using from another vendor. The performance of the Compaq equipment has been absolutely outstanding compared to anything else that we’ve had in the data center,” says Peter Philp, Senior Systems Manager, Technical Operations at Intuit.

“Tru64 UNIX combined with TruClustered AlphaServer platforms is almost revolutionary, delivering nearly 100% uptime,” says Philp. “The shared file system is unbelievably failover transparent to both the customer and to the application. Tru64 UNIX is Intuit’s new high-availability solution. The performance of our AlphaServer systems has absolutely blown the doors off the competitors.”



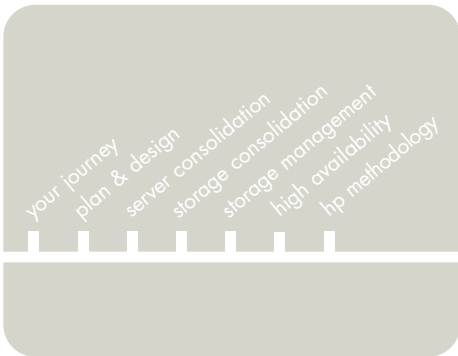
#### storage consolidation—a logical next step

Another key aspect of hardware/data consolidation is storage consolidation, which is typically accomplished by leveraging much of your current investment. HP's storage consolidation solutions deliver technology leadership at the lowest total cost of operation. Thanks to HP's adherence to industry standards and open connectivity, you can consolidate while maintaining flexibility, operational excellence, and high service levels—and that's what separates lackluster organizations from stellar performers.

#### database consolidation—continuing the advantages

There are three primary approaches to consolidating database instances

- move them to fewer, bigger servers or clusters, and allocate specific processors within the server or cluster
- allocate them to multiple processors within the cluster, providing failover and greater data availability
- merge them into fewer instances or a single database instance accessible to all processors in a cluster—a solution that provides the greatest level of availability, manageability, and scalability



## hp and Circuit City— a better way to develop new markets

Keeping abreast of a massive inventory of cameras, printers, computers, wireless phones, faxes, TVs, stereo systems, car audio systems, and all types of electronic games—not to mention customer service—in more than 620 stores and in 159 markets, requires powerful and reliable data storage capabilities and effective analysis tools. That’s exactly what Circuit City, a national consumer electronics specialty retailer, had in mind when it chose to develop a more efficient storage solution—one that was designed to keep up with the demands of the company’s growth and, at the same time, reduce the total cost of ownership.

“As our legacy storage devices were all coming out of warranty, we looked at their ongoing operational costs. When calculating the systems administration costs of managing seven EMC frames versus switching to a single HP frame, we realized the payback period on our investment would only be 12 to 15 months, equating to a return on investment of close to 100 percent. Plus, at the same time, the new storage devices would greatly improve data efficiency and availability,” explained Bill McCorey, VP of MIS for Circuit City Stores.

HP Services assisted with the installation of the initial HP xp512 by delivering services including infrastructure, design, implementation, tuning recommendation, and HP Data Migration Service. “The first HP Data Migration Service was efficient and the knowledge transfer from the HP storage specialists to our team was well coordinated,” commented McCorey. The second HP xp512 migration is being aided with the Fujitsu Softek TDMF data migration tool and HP Services.

McCorey explained, “We were able to run during our peak season in November and December with just an hour and a half of downtime, resulting in 5-nines availability, exceeding our performance goal of 99.99%. HP was the critical vendor in hitting this milestone. We couldn’t have achieved that level of availability without HP’s service and support.”



## hp helps keep Continental Airlines steady in turbulent times

For most of us, taking a plane trip involves finding the best fare, dealing with security, choosing a comfortable seat, and hoping someone will be there to pick us up at our final destination. For the airlines, however, a three-hour jaunt from Houston to New York involves far deeper concerns like cost-per-ticket projections, scheduling comparisons, flight planning, maintenance reviews, and fuel allocation analyses—just to name a few of the multitude of operations.

### focused on a fast return

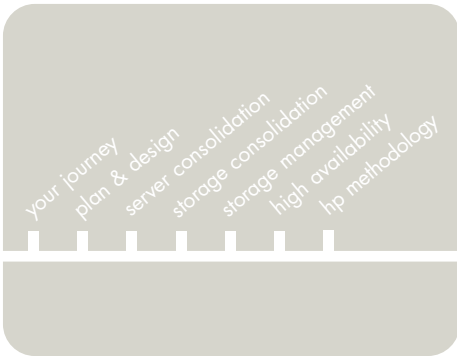
In 2001, Continental started to consider IT consolidation as a means of removing the barrier of physical data center space. However, after the devastating events of September 11, 2001, the airline faced some severe financial issues as passenger-per-flight rates plummeted across the industry. Continental management reacted swiftly by formulating a new philosophy mandating that all approved projects would require a pay-back period of less than one year.

### consolidating for optimal results

Dan Morales, Managing Director of Financial Systems for Continental Airlines, noted, “Many of Continental’s existing business-critical applications were already running on HP-UX. The Superdome provided Continental with an environment that we were familiar with as well as a flexible environment for growth with the use of partitioning. We have a Superdome in each building, about one-and-a-half blocks apart, connected via four McData Directors to the SAN.” HP MC/Serviceguard is configured between the Superdomes on all but one partition, providing robust failover capability. Most importantly, in each building there is an HP Surestore Disk Array xp512 housing production data, and an HP Surestore Virtual Array 7400 for development data, connected to the SAN.

## massive cost savings

Continental found that most of the cost savings being realized were due to a reduction in maintenance fees by removing the older systems, as well as reduced manageability fees from EDS, because it no longer has to maintain some of the servers in the EDS data center. Additionally, some software licenses associated with several of the legacy servers could be cut. “The applications coming onto the Superdome and SAN saw a 30–50 percent performance increase over the legacy hardware, which was better than we had anticipated,” said Morales.



*“HP’s performance-driven ProLiant servers are the easiest to maintain and support in-house. They sustain our critical-care environment and protect our IT investment over the long term.”*

—Bob Pappagianopoulos, Corporate Director of Technical Services and Operations, Partners HealthCare System

## adaptive infrastructure replenishes life-support systems for medical network

Partners HealthCare System must maintain continuous access to confidential patient data and ensure total quality care and billing efficiency through documentation. With help from HP, the medical network deployed an information-technology lifeline, which provides critical patient information on demand and helps medical providers make healthcare decisions.

As Partners HealthCare System grew, so did the server platform. Four data centers now contain about 642 HP ProLiant servers. The medical network plans to whittle that number by 42 percent through a consolidation initiative, which will also conserve data center space, save on software license fees, and centralize the management of many mission-critical applications.

HP ProLiant servers support a medical environment where downtime is simply not an option. HP Smart Array RAID, mirroring, and redundancy technologies ensure that the servers keep pace with the bustling medical wards. The redundant, hot-swappable components and RAID controllers ensure that vital data is always just a computer away.

Partners HealthCare System’s IT pros can easily adapt the HP ProLiant server platform to changes in a complex application environment. This flexibility lets the IT staff focus on critical business needs. “We can upgrade our HP ProLiant servers faster and easier than servers from other vendors,” says Bob Pappagianopoulos, Corporate Director of Technical Services and Operations for Partners HealthCare System. “If an application grows too large, instead of moving it to another server, we can easily scale the existing server by adding memory and CPUs.”

Partners HealthCare System also relies on HP Services for new-server provisioning and configuration. HP ProLiant Essentials software automates the generation of standard server configuration scripts, making it possible to install many servers rapidly and reliably.

Now that Partners HealthCare System has constructed a solid IT foundation, Pappagianopoulos looks forward to slashing the amount of time required for launching new applications from nearly 12 weeks to 1 week.

Partners HealthCare System’s ability to share sophisticated knowledge and automate documentation processes ensures a high level of medical care and billing efficiency. Its adaptive HP infrastructure underpins ongoing scientific breakthroughs, such as designing treatment plans based on patient genetic profiles. “Our HP infrastructure resides at the core of our scientific activities and helps us capitalize on future innovations,” concludes Pappagianopoulos.

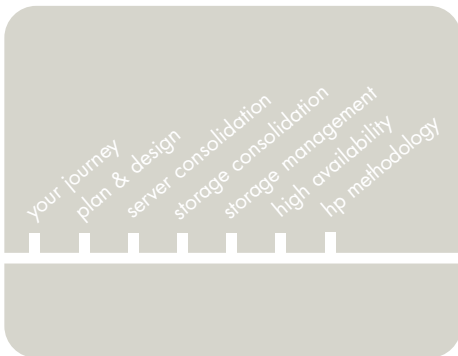


#### hp openview provides complete storage management

In today's increasingly volatile business climate, the challenges IT managers face can be overwhelming. How can IT help grow the business and optimize the customer experience, while decreasing operational expenses to achieve maximum profitability?

A Shanghai government office responsible for issuing social security cards found the answer to enhanced efficiency and manageability of its storage network by consolidating storage and using HP's OpenView. Every year, this municipal authority issues over five million social security cards to citizens—and the number continues to grow.

As the central data center for population information in Shanghai, the office provides a range of other services such as data exchanges among labor, public security, medical insurance, and public fund subsystems. Data sharing over several subsystems enhances citizens' convenience and also strengthens the efficiency of relevant administrative bodies in Shanghai.



### taking consolidation to the next level

To achieve consolidation of information systems and improve storage capabilities for customers like the municipal authority in Shanghai, HP offers a number of comprehensive hardware and software storage management products. The hardware suite of products, such as HP StorageWorks Disk Array xp512, is specifically designed to support the growth of storage demands, to monitor and eliminate internal problems, as well as to serve as a warning signal for imminent bottlenecks.

Our storage software solution, the HP OpenView SAM, consists of a variety of storage management software products

- the HP OpenView Storage Node Manager allows automatic recovery of storage devices, realizes real-time instant monitoring, and performs troubleshooting
- the HP OpenView Storage Allocator provides management access to the entire storage network, enabling the user to locate storage devices independent of time and location—this ease of access has the advantage of simplifying business procedures

“With HP’s OpenView SAM and Omniback II, we have been able to increase our productivity and reduce our costs significantly. The flexibility and extensive functionality have also helped us eliminate performance bottlenecks in the system network as well as ensure fast backup and recovery for all data,” said the office’s CIO.

A successful consolidation strategy depends on effective services as well as the products involved. With IT managers working harder than ever to align IT with the enterprise’s overall corporate objectives, HP OpenView is an invaluable tool for managing services to meet service levels and business expectations. HP provided the Shanghai municipal authority with a comprehensive set of services and products, while acting as a trusted partner through completion of the consolidation effort and beyond.



## a route to ensuring high availability

Improving service levels and minimizing downtime are important aspects of a consolidation effort. If a business is to remain competitive and keep clients happy, high availability (HA) must be a key part of any consolidation focus.

For customers who demand zero downtime, unlimited scalability, and dramatic reductions in the system management costs of their infrastructure, HP offers the most comprehensive high-availability portfolio on the market today. From its premier clustering technology to disaster-tolerant solutions, HP is the choice for mission-critical environments.

- Today, organizations worldwide are enjoying 24x7 availability using HP NonStop servers. They offer the flexibility to scale systems and solutions to fit your unique needs and provide open access to a wide array of computing platforms, networks, applications, and devices. The HP NonStop platform offers unstopable availability and scalability, along with an open application development environment, Java-based tools, and support for just about any standard on the market.
- Available for environments with HP-UX or Linux, MC/Serviceguard is a specialized facility for protecting mission-critical applications from a wide variety of hardware and software failures. With MC/Serviceguard, multiple nodes (systems) are organized into an enterprise cluster that delivers highly available application services to LAN-attached clients. HP MC/Serviceguard monitors the health of each node and quickly responds to failures in a way that minimizes or eliminates application downtime.
- HP TruCluster Server software delivers high value to those customers that require virtually no downtime, demand unlimited scalability, and are looking for dramatic reductions in the system management costs of their infrastructure. With HP TruCluster, if a node fails, the software relocates the application to another node without interrupting transactions or users. Additionally, HP's direct I/O to and from each node delivers raw disk performance with the manageability of a single cluster file system. Furthermore, no-single-point-of-failure configurations and load balancing provide optimum service levels and system utilization.



- HP has you covered on the storage side as well. HP Zero Downtime Backup enables customers to instantly copy data to disk, making a business copy. A tape library at a remote site then backs up the data from the business copy. This “staged backup” process enables business applications to stay online 24x7, maintaining business-critical application performance while protecting critical data.
- Our high-end array products and SAN infrastructure products are built with redundant power supplies, fans, cache, and disks. HP has the design capability to do the full-up redundant design coupled with our reliable products for a complete high-availability solution.

With fast recovery from system faults, transparent recovery from human error, protection from data corruption, and dramatic reductions in planned and unplanned downtime, HP’s high-availability solutions ensure that business systems are always available.

### continuing your HA advantages—the hp partitioning continuum

HP is also a leader in providing technologies that are the basis of effective consolidation. One such technology is the HP Partitioning Continuum. Broadest in the industry, the HP Partitioning Continuum simultaneously addresses the typically contradictory needs of flexibility and isolation.

To provide the highest degree of dynamic flexibility, HP has also developed Virtual Partitions and Resource Partitions. These satisfy the need to isolate operating environments so that multiple applications can coexist in the same server or cluster, and allow isolated operating environments to be dynamically created or assigned resources on a running server without interrupting nonrelated partitions. Our customers report that partitioning leads to significant application performance increases and the sort of competitive edge that helps them stay on top.



## hp's proven methodology portfolio

HP provides a full life cycle of services to ensure a successful consolidation implementation. These services can be applied to any IT consolidation, including collocation, hardware/data integration, application integration, or IT utility.

### step 1—consolidation value workshop

HP facilitates a Consolidation Value Workshop to gain agreement among all stakeholders on the objectives of the consolidation and identify the key areas of opportunity to best achieve those objectives.

### step 2—investment justification

Once you've determined the scope of your project, HP consultants help you create the business case for consolidation, using TCO and ROI modeling tools, and readiness analysis and gathering methodologies as appropriate, based on your specific consolidation objectives.

### step 3—architectural blueprint

HP's experienced IT architects work with you to develop a blueprint that considers your organization's business and IT strategy, your current environment, as well as market and technology trends, and helps your enterprise meet its business goals.

### step 4—detailed design

Once the key stakeholders agree on the blueprint, we engineer specific details of the configurations and technologies. Our performance baseline and measurement techniques ensure that your new, "after" consolidated environment will perform as well or better than your pre-consolidation, "before" environment.

Transition planning is also critical and covers communication processes, solution components, legacy integration, user interfaces, resource requirements, partners, milestones, key deliverables, training, predelivery integration, installation, testing, and cutover from existing systems and processes.

Migration planning and piloting are optional—based on your needs. The result of this effort becomes the basis for the implementation.



#### step 5—infrastructure implementation

Implementation focuses on achieving your consolidation objectives. Applications and data are migrated, appropriate tests are conducted, and process consultants assist your teams to make sure that the processes are implemented correctly and effectively.

#### steps 6 & 7—manage and evolve services

Whether or not you choose to outsource some or all of the newly consolidated environment to HP, our commitment is to help you continually monitor your new environment to make sure that it complies with agreed-upon service-level agreements. Over time, we help you with upgrades, performance tuning, and more.

If you choose to manage the new environment internally, HP Integrated Support can integrate all support service needs across your mixed-vendor environment, taking responsibility for consistent service levels, service outcomes backed by agreed penalties, geographic coverage, and other IT complexities that impact your business.

#### iteration—recurring analysis and additional consolidations

Once you have successfully completed your initial consolidation, we apply the same processes to additional consolidation opportunities in your roadmap that are ready to be addressed. Also, HP's Recurring Analysis service ensures that desired goals are met, and that emerging technologies, volatility in the business environment, and best practices are regularly considered. This check-and-balance guarantees that the underlying infrastructure evolves in parallel with the business.



#### why hp?

On the face of it, the companies mentioned in this guide seem radically different, and in many ways they are. But each holds one common belief—provide exceptional customer service and create an IT infrastructure capable of changing on a dime, and success will follow.

IT consolidation is an important solution that can keep your business not just surviving but thriving. Whether your company requires custom solutions, packaged services, systems integration services, or management and outsourcing of services, HP Consulting will work closely with you, using a flexible approach that adapts to your needs and your environment. HP's methodology, encapsulated in a straightforward seven-step process described in detail in the Best Practices and Products guide, is specifically designed to help you meet and exceed your business goals so that you can achieve outstanding results.

**Call hp and ask about IT consolidation.**

**When it really counts, hp delivers.**

Contact HP today to learn about adaptive infrastructure—through IT consolidation solutions based on the best of HP’s broad family of storage, software, servers, and services.

*Courage. Imagination. Vision. Partner with HP.*

**Ride the streamline—journey to the future.**

**Start now.**

To learn more about HP IT consolidation solutions, and how you can improve business agility, please visit [www.hp.com/large](http://www.hp.com/large).



All brand names are the property of their respective owners. The information in this document is subject to change without notice. HP is committed to designing products and services that are accessible to everyone, including people with disabilities. To learn more about the general accessibility features of HP products, please visit [www.hp.com/accessibility](http://www.hp.com/accessibility).

© Copyright Hewlett-Packard Company 2003. All Rights Reserved. Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws. Printed in USA. M0103 P/N 5981.5257EN