Solve the 6 top problems in your data center by depending on a primary service vendor who can unify support strategies for your multivendor server, software, storage, and networking environments into a consistent, manageable whole. A primary service vendor can boost your return on investment, improve change management, reduce total cost of ownership, meet service level agreements, simplify service management, and improve end-user satisfaction—all with a single point of accountability.
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But at the other end of the scale, some data centers are actually comparatively small—in fact, they may even be co-hosted, occupying a few thousand feet or less within a larger structure.

Whether your data center is large or small, it probably faces a similar set of roadblocks to efficiency, uptime, and ROI. Figure 1 shows six of the most common and intractable problems you may be facing, whether today or in the future.

In this white paper, we’ll take a look at these problems. As you’ll see, all can be rectified, in many cases with a solution that also improves efficiency and uptime.

**PROBLEM 1: CALMING YOUR COST ACCOUNTANTS**

Given the state of the economy today, your budget and headcount probably aren’t going to grow much. In fact, they may even be cut. But at the same time your costs and responsibilities are rising. Let’s examine the sources of your costs, and then we’ll look at how to lower them.

**Pressure on operations**

Costs for power and cooling are rising. A 2009 Gartner report predicted power and cooling issues in servers, networking, and storage devices would increase over the next five-year period, and will be the single biggest issue in data center topology through 2014.¹ You’re probably paying more for your technical staff, too. Workers are the lion’s share of your day-to-day data center outlay, making up as much as 40 percent of ongoing costs.² So you simply can’t afford to squander your staff’s time. Finally, the tightening of budgets means you’re probably trying to figure out how to make do with what you have. You can’t simply rip and replace every year; somehow you need to keep pace with new business demands while still shackled to your existing equipment and software.

**What to do**

One way that many companies are dealing with smaller operational and support budgets is by doing something that may seem counterintuitive: they’re appointing a primary service vendor to provide service management expertise. A targeted service management solution from an outside vendor can simplify that service management, improve service quality, reduce operational expenses, and improve efficiency—and it can free your staff for work that’s directly related to your business success.

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A primary service vendor can help you redefine your IT and data center support strategies, and deliver service solutions that address the needs of your business while complementing your in-house expertise. You may want to use outside help to provide short-term skills you don’t have in-house, or to fill in when your IT department is overloaded by some unusual event, like a merger or a new product launch. The added service support can actually boost the productivity of your IT employees—improving customer service, decreasing costs, and freeing up CIO and IT staff time to focus on critical business endeavors.

Determining exactly where to apply the outside help may not be a simple task. But here’s a hint: At a typical enterprise data center, about 70 percent of the IT budget is spent just on management and maintenance. This means that very little of your staff’s time is spent on using IT for innovation that will improve your business.

So how best can outside help be used? You’ll want to decide things like IT strategy and initiatives in-house; but then you can turn over the laborious, time-intensive execution of the strategy and initiatives to that primary service vendor. You’ll probably want permanent staff to focus on the more strategic areas, including long-term programs with significant business impact that align with your overall corporate strategy. And you can use the outside help to do the day-to-day tasks. You may even want the primary service vendor to manage all your other service vendors. The important thing is, you maintain control, and the work gets done.

How much of a payback can you expect? A good target is reducing infrastructure and operations (I&O) costs for a unit of work by 10% during the course of the year, and by 25% or more over a three-year period.

Table 1. How to use a primary service vendor wisely

<table>
<thead>
<tr>
<th>Use your own staff to:</th>
<th>Employ a primary service vendor to:</th>
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<tr>
<td>Plot IT strategy</td>
<td>Execute tactically</td>
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<td>Create business initiatives</td>
<td>Carry out business initiatives under your direction</td>
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<tr>
<td>Work on long-term projects with significant impact</td>
<td>Handle short-term, “quick-hit” projects</td>
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<td>Perform key tasks that are core to your business</td>
<td>Perform day-to-day service management tasks such as:</td>
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<tr>
<td></td>
<td>• Vendor management</td>
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<td></td>
<td>• Basic problem resolution</td>
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<td>• Software updates</td>
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<td>• Password restores</td>
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<td></td>
<td>• Backups</td>
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<td></td>
<td>• Moves, adds, and changes</td>
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<tr>
<td></td>
<td>• Etc.</td>
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</table>

Where to go
Once you’ve decided you need outside help, where can you turn for proven—but affordable—expertise to supplement your own in-house capabilities? The answer is Hewlett-Packard. Our HP Integrated Multivendor Services are a complete service management solution for the entire data center. As the largest technology company in the world, we provide this kind of support in countries all around the globe.

Our innovative service management solutions include automated system monitoring and diagnosis for x86 multivendor environments, coupled with other sophisticated techniques for problem identification and resolution. A typical solution might include the HP Insight Remote Support toolset; centralized call management; rationalized service-level commitment; tailored invoicing; and a combination of remote, mobile, and onsite resources, all tailored to meet your needs.

What about the staff you’re using to run the data center? HP Integrated Multivendor Services can offer a number of ways to keep that staff productive and focused on your strategic goals. This may involve depending on HP for some tasks, while combining your existing staff in a collaborative partnership with HP for others. With HP Integrated Multivendor Services on your team, you spend less time solving problems and more time focused on your business—improving ROI and reducing costs.

The budgetary benefits of HP support services can touch all facets of your data center operations. Sometimes our engineers can help you achieve big savings merely by making simple recommendations. For example, in one data center, increasing the UPS room temperature setpoint resulted in a projected annual savings of more than $12,000.5

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5 http://www.dataplex-systems.com/Document/Blueprint%20for%20Reducing%20Energy%20Costs%20in%20your%20Data%20Centre.PDF

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Figure 2. HP Insight Remote Support provides remote problem resolution and management for the data center
Using such techniques, we have a record of helping customers slash data center power consumption by 30 to 40 percent. What’s more, we’ve designed more than 60 Greenfield data centers; and HP designed the first LEED®-Certified Data Center and the first Greenfield-LEED Gold Data Center, both of which save considerable sums on energy costs. Chances are, we can help you run more efficiently and knock down that monthly energy bill.

**PROBLEM 2: MANAGING YOUR MULTIVENDOR ENVIRONMENT**

The reality of business IT today is that standardization may be in short supply: in the drive toward efficiency, many organizations go for the “best-of-breed” solution regardless of vendor. So, whether your enterprise is large or medium-sized, you’re probably holding a real mixed multivendor bag of hardware and boasting an abundance of different applications and operating systems installed within your IT environment.

When something breaks and you have to find the root cause, that’s when the problems begin. You can wind up with a lot of wasted time and inter-vendor finger-pointing. What’s more, vendor quality can vary substantially. And everything has a different process, different licensing, and a different warranty horizon. You may be faced with dozens—and sometimes hundreds—of individual support contracts to manage, so you need to devote valuable staff resources to the time-consuming, labor-intensive process of managing them. You’ve got patches and upgrades to worry about, too, adding to your management and budgeting nightmare. Plus, there’s a cost to the increased staff, and their training, necessary to stay on top of this convoluted world.

**What to do**

Again, the answer could be to let a primary service vendor—preferably one with wide-ranging experience at delivering managed support solutions for the data center—do all this on your behalf. You simply hand off the overall management of support to the primary service vendor, and that company takes ownership.
and responsibility. Now you have one service contract to deal with, one predictable line item in your budget, and an account-assigned service manager or service management team to contact if something goes wrong.

**Where to go**
As your primary service vendor, HP’s Integrated Multivendor Services can provide all this, and more. It can deal with all of those vendors, leveraging HP expertise while meshing with your existing in-house systems. The result is end-to-end multivendor IT service management (ITSM) that is fully integrated into your IT infrastructure. A variety of service levels provide high-quality technical assistance and operational excellence, and can condense the complexity of a multivendor environment down to a single point of accountability.

We can consolidate responsibility for vendor management and service delivery across your entire technology stack, providing you with more consistent service levels and outcomes. Our engineers can turn your finger-pointing multivendor nightmare into a smooth-running operation. And do you remember that one-contract, one-contact, one-invoice service for your multivendor environment? Of course, HP Integrated Multivendor Services can provide that, too.

**Problem 3: Maintaining Your Mission-Critical Uptime**

If you’re in a time-sensitive business, or the applications running on your servers are business-critical, you need to guarantee those service levels no matter how complex your environment, or how overloaded overloaded your staff. Unfortunately, it’s a harsh but true fact of life that with the resources you have, you simply may not be able to deliver that level of 24x7 computing day after day, year after year. If your IT infrastructure supports a business-critical application environment, where downtime puts your company at major risk of going out of business, your service management and support capabilities need to be way beyond sturdy.

**What to do**

One way to improve your business-critical application availability is with a primary service vendor who has expertise in that field. You might start by using the vendor to provide a one-time evaluation of your current environment, then recommend improvements. This can be a fairly inexpensive route to reducing downtime; you may discover that improvement in your service management procedures, or modifying the IT topology, can make a big difference without the need to purchase new equipment.

Or you can engage that primary service vendor for a longer period of time, bringing in the vendor’s professionals to improve efficiency or to free your staff for work that’s more directly related to your business. These experts can help to highlight potential issues in application availability, data retention, speed of recovery, network availability, and more. When you’re dealing with business-critical applications, the price of a long-term contract may be significantly less than the cost to your business of a single unplanned outage.

To successfully implement the Uptime Institute’s Tier Four level, where you’re at 99.995 percent uptime (which translates to just 24 minutes of unplanned downtime per year), you really need to dot all the i’s and cross all the t’s. And that means doing predictive analysis, and considering all possible factors—both internal and external to your data center—even if those factors don’t seem to have any effect right away.
By joining forces with the primary service vendor, you can bolster your own capabilities and ensure your mission-critical operational service level commitments are met. The right collaborator can assume responsibility and help you avoid downtime while improving your service management.

By joining forces with the primary service vendor, you can bolster your own capabilities and ensure your mission-critical operational service-level commitments are met.

Where to go
Here again, HP Integrated Multivendor Services can play an important role in your business-critical data center. In fact, HP is without peer as a partner in delivering mission-critical computing.

When you engage HP, our professionals will help improve service management and ensure service levels. There’s even a specific program, the Mission Critical Partnership (MCP), with a single customer contract tailored to meet your objectives. In this program, you get a named account support team—trained engineers who are familiar with your applications—as well as flexible reactive support and a proactive IT support solution.

About the MCP: The MCP service delivery team starts the risk assessment process with a thorough assessment of all aspects of your critical IT services. Your IT service management practices are compared to a library of almost 1,600 best practices based on IT Infrastructure Library (ITIL), COBIT, and ISO/IEC 20000 standards. Following identification of risks and gaps, the team works with you to create a prioritized service improvement plan (SIP) containing tasks and milestones to improve your capabilities. The SIP is continually updated to reflect any changing business and technology requirements and to address issues identified during operations.

HP also assists you with ongoing technology management activities, providing both hands-on assistance and knowledge transfer. Through proactive elimination of risks across your people, processes, and technology, coupled with added skills and resources from HP, the MCP helps you continue to improve your performance against key service-level agreements (SLAs) and other commitments.

HP can help enhance all your IT operations, whether mission-critical or not. We have a wealth of experience and service management intellectual property (IP) ready to help solve difficult and complex service management problems. With our help, you’ll be able to introduce service management best practices and leverage HP expertise.

PROBLEM 4: CONTROLLING YOUR CONSTANT CHANGE

What about change management? According to IDC, over 80 percent of business-critical service disruptions can be attributed to poor change control processes, including flawed change impact assessment.

In today’s economically constrained times, you can’t replace equipment or purchase all-new software to stay abreast of every new technology hiccup. However, you still need to keep your existing infrastructure up to date. And that means you need to stay on top of change: you have to plan for it, track it, and manage it. Because change management is not normally the best use of staff time, nor is it likely your core competency, this may be another good activity to entrust to a third party.

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7 Stephen Elliot, Research Manager, IDC, March 2006.
What to do
What kind of services are you looking for? Managing change is easier if you have cost-effective installation and upgrade services for your server environment, including software and peripherals. And you’ll have better control over your IT assets with an up-to-date asset inventory for your entire multivendor IT environment.

Where to go
HP Integrated Multivendor Services can help you control and cope with change. For managing these events on a large scale, HP offers a proven method for transformation: service management consulting. Within this framework, you choose the right mix of powerful services and solutions to transform the way your organization delivers technology services, and you also receive IT service management guidance from HP. Our method leverages the HP Service Management Framework to enable your IT organization to consistently deliver services in a way that balances performance, quality, and cost. Based on HP methodologies, industry best practices, and international standards, this framework coordinates people, processes, and technology within the service management system.

HP Integrated Multivendor Services also include standardized modules for handling moves, adds, and changes to the IT infrastructure. Options range from performing hardware or software upgrades all the way up to fully managed technology refresh projects. Because change has more far-reaching effects than just the actual hardware and software, HP can also provide other services related to change and asset management. In fact, HP Services professionals can leverage state-of-the-art tools, techniques, and methodologies to help you make the most of your inventory and asset management initiatives. Some change-related examples include:

- **Asset management in the face of change:**
  HP Services can help you tighten control over key IT assets from acquisition to retirement. In addition to capturing inventory, our asset management services give you a complete and accurate picture of your configuration. And they can help dynamically track and manage changes to ownership, users, location, capital costs, date of purchase, incremental costs, and financial status.

- **Streamlined contract and invoice management:**
  We can help reexamine, aggregate, consolidate, and, if appropriate, renegotiate your contracts with other vendors. And as changes occur—for example, when items are moved, added, or removed from your environment—we make sure those contracts and their related invoices are brought up to date to reflect them.

On a smaller scale, you may simply require HP’s Change and Configuration Management Services. Our expert consultants work with you to design, implement, and continually improve best-in-class processes to control and manage changes within your IT environment.
Problem 5: Getting Virtualized Without Vulnerability

Virtualization is becoming more and more popular. But here’s a remarkable fact from Gartner: Despite all the hoopla surrounding virtualization, only about 20 to 30 percent of workloads are actually running on virtualized servers today. And at most companies, the virtualization percentage isn’t changing much. That’s because virtualization has its own set of problems.

First, virtualization can encourage network complexity and server sprawl. Instead of the old paradigm of “one server, one app,” you now have perhaps 10 applications running on one physical server; that means the consequences of a single hardware failure can be magnified many times over. In addition, locating the real source of a problem can be a nightmare in a virtualized environment.

Because of these issues and others like them, virtualization in many companies is limited to testing or R&D. It rarely finds its way into production environments and is hardly ever running mission-critical applications.

What to do
But these problems can be solved. And mainstreaming virtualization in your data center is another place where a primary service vendor and third-party expertise can prove invaluable. Equipped with special tools, and with lots of experience in virtualization technologies, third-party experts can help your business-critical applications make the labor-intensive move into virtualization. Such support can help transform your infrastructure into one that makes optimum use of the virtualization technology, with a strong emphasis on business agility and achieving SLAs. And once you have your virtual environment set up and running, you can throttle back on third-party involvement or end it altogether. Or you may want to continue the engagement with comprehensive proactive and reactive support for both your critical physical and virtual assets alike.

Where to go
HP Integrated Multivendor Services can help you manage the complexity of virtualization and mitigate risk, using techniques like proactive monitoring that help avoid problems before they occur. What’s more, HP offers mission-critical support for the VMware, Microsoft Hyper-V, and Citrix XenServer hypervisors, right along with our mission-critical support for the rest of the data center. Such support will go a long way toward convincing the CEO that virtualization can indeed be used for business-critical computing. And by simplifying the management of your virtualized multivendor environment, our support professionals can help you reduce associated costs, too.

Problem 6: Reaching Paradise in the Private Cloud

After virtualization, the next logical next step in IT solution development is the private cloud, or even a public-private or hybrid cloud. Cloud computing is the next nirvana, the promised land—and in many companies it’s no longer just a future vision but reality. However, this reality can present challenges, especially as cloud solutions begin to span multiple platforms, multivendor environments, and various operating systems.

Creating a private cloud involves making pools of resources available to users, to be checked out when needed—kind of like a lending library. Think how flexible and efficient such a system could be to your business. You use only the computing power and other resources you need, and only for as long as you need them. The resources themselves might come from...
a company’s private, in-house cloud. Or they might even be supplied by a public cloud such as Amazon Web Services, or by a combination public-private or hybrid cloud.

And while virtualization is one of the key technologies that make this happen, it’s not the only one. In addition to the aforementioned issues with virtualization, cloud computing comes with its own potential pitfalls. Private clouds are often closed “cloud in a box” environments that don’t scale well, forcing large capital investments when capacity limits are reached. Meanwhile, public clouds, depending as they do on shared resources, encourage cloud sprawl with the attendant risk to data security and the dangers of inviting regulatory scrutiny and the risk of not meeting internal SLAs.

**What to do**

But these problems can be solved. And one way to get started is by engaging a primary service vendor. Equipped with expertise and tools, and with lots of prior experience in virtualization technologies and cloud computing, this vendor’s experts can help, especially with the labor-intensive move to virtualizing business-critical applications.

**Where to go**

HP’s services and solution expertise extends across the entire data center—including cloud computing. In fact, HP support can help you configure and operate your converged infrastructure, whether based on a private or a hybrid cloud, while ensuring that cloud computing will help achieve your business objectives safely and securely. Our monitoring services can keep tabs on cloud resources, and our education services will enable your own staff to become knowledgeable as well.

One service to consider is HP CloudStart. HP CloudStart enables you to reduce provisioning times by up to 80 percent: in less than 30 days after initial hardware installation and start-up, your cloud is up and running. What’s more, HP CloudStart is customizable and can be integrated with legacy applications for an easier evolution to cloud services. Besides CloudStart, other cloud services include:

- **HP Cloud Consulting Services for CloudSystem**, which provide the roadmap, design, and implementation services that help your organization implement HP CloudSystem
- **HP Cloud Roadmap Service**, a service that helps develop a strategic cloud architecture, conducts a gap analysis, and provides a comprehensive roadmap for cloud adoption and integration
- **HP Cloud Design and Implementation Services**, which can provide architectural analysis and validation, generate a detailed design and bill of materials, and even perform planning and implementation

These are all examples of the many cloud-focused multivendor support services you can get from HP.
HP INTEGRATED MULTIVENDOR SERVICES FOR YOUR DATA CENTER

<table>
<thead>
<tr>
<th>HP Integrated Multivendor Service options include:</th>
<th>What this option does for you:</th>
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<tbody>
<tr>
<td>Service Management</td>
<td>Reduces complexity for supplier management, call management, contract management, inventory management, and tailored invoicing. Offering includes single-source service management solutions, including improved service management processes and a simplified vendor management interface. You get:</td>
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<td>• Service delivery management simplification</td>
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<td>• Reduced cost of service support for the data center</td>
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<td></td>
<td>• Service transformation through introduction of ITIL service management best practices</td>
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<td></td>
<td>• Improved service quality</td>
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<td></td>
<td>• Reduced number of suppliers</td>
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<tr>
<td>Networking Services</td>
<td>Provide proven networking consulting, integration, and support services.</td>
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<tr>
<td>Mission Critical Partnership</td>
<td>Provides assessment, proactive and reactive services and monitoring, service improvement planning, ongoing operational service management support, and ongoing reassessment for your mission-critical environment. Optional SAP enhancement adds proactive SAP support.</td>
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<tr>
<td>Software Technology Services</td>
<td>Provide installation, implementation, or virtualization. Services include software support from basic to business critical.</td>
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<tr>
<td>Cloud Consulting Services</td>
<td>Provide cloud services or access to them. Services can help you build a private, internal cloud.</td>
</tr>
<tr>
<td>Critical Facilities Services</td>
<td>Improve compute performance and availability, help maximize data efficiency, and cost-effectively transform your data center. Service solutions include data center management, power, and cooling services solutions.</td>
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<tr>
<td>Insight Remote Support</td>
<td>Provides remote monitoring, diagnosis, and problem resolution.</td>
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<tr>
<td>Virtualization Services</td>
<td>Help you realize the benefits of virtualization more quickly, with expert services targeting client, storage, and server technologies.</td>
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<tr>
<td>Integration &amp; Technical Services</td>
<td>Address diverse operational continuity tasks that span the data center lifecycle, from strategy consulting to assessment to deployment and ongoing maintenance.</td>
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WHY HP

Whatever the source of your data center problem—budgetary, staffing, performance, or uptime—outside support from HP can make a real difference. With HP as your partner, you’ll be on your way to making virtualization production-ready, enabling support solutions for cloud computing, or simply getting the greatest return on your hardware and software investment. Contact us today and learn more about how HP Integrated Multivendor Services can help solve your data center problems.

www.hp.com/services/multivendor

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