Establish a new style of IT

HP Converged Infrastructure Solutions
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Increased pressure to deliver instant results

Every 10 to 15 years, a tectonic shift re-shapes IT. Moving from mainframes to client/server and to Internet computing altered the way you purchased, built, consumed, and delivered technology. Now, once again, the landscape is shifting as we see the rise of mobility, social networking, big data, and cloud computing. Two-thirds of the workforce will soon own smartphones, and 40 percent will be mobile, adding to the management complexity brought about by the BYOD (bring your own device) phenomenon. Big data raises questions as to how IT will be able to manage structured and unstructured data sets that are too large to process using traditional data processing applications. Add to this picture an unpredictable global economy, scaled-back IT resources, aging infrastructures, and a growing pressure to deliver results instantly, and it’s easy to see that IT is at a critical juncture.

Many IT professionals are coming to the realization that their legacy architectures just can’t accommodate new business demands, such as supporting new cloud delivery models or taming the explosion in human information. Needing to evolve or transform their data center operations, organizations have launched virtualization and cloud projects. These initiatives have delivered many of the promised benefits, such as improved service delivery and application workload handling. However, a plan is needed as there have also been a few downsides, such as increased management complexity and, in some cases, higher operational costs.

**Status quo IT is no longer an option**

A legacy IT architecture perpetuates silos and complexity through an overload of products and tools that lack interoperability. A business and its applications and services can’t run in silos, and neither can IT. Furthermore, a rigid infrastructure makes it difficult to innovate in the ways a business needs to compete. The traffic flow from the data center to the user in the campus or branch can be impeded by such rigidity and require dozens of disaggregated manual management applications that introduce delays and errors. The undesired result is often business-crippling network downtime.

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**Every 10 to 15 years, a tectonic shift comes along in our industry**

disturbing the status quo, fundamentally changing how technology is consumed, purchased, and delivered.

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**The New Style of IT:**

- Is a new style of business, powered by IT
- It is being driven by trends in cloud, security, big data, social networking and mobility
- And spans devices, infrastructure, software and services
- The New Style of IT promises more benefits, such as: lower cost, greater agility, simplicity, and speed
In addition, a monolithic infrastructure fosters an unfortunate spending imbalance, in which IT organizations spend 70 percent or more of their resources on operations, fire drills, and activities that only serve to keep the lights on. Unfortunately, that doesn't leave much in the way of budget and resources for innovation and delivering essential services needed to fuel sustainable growth and meet new revenue and profit goals. IT is severely strained, with accelerating business demands and a changing landscape on one end and, on the other, internal constraints such as complexity, capacity, and cost. With IT at a real breaking point, status quo is no longer an option.

Convergence is the solution
The most widely accepted approach for solving these legacy data center constraints is IT convergence. In simple terms, infrastructure convergence optimally brings together server, storage, networking, facilities, and management in order to achieve interoperability that utilizes common resource pools based on a common platform.

But in order to fully obtain the benefits of convergence, such as greater efficiency, innovation, agility, lower costs, and reduced complexity, you need to do more than simply integrate existing silos. If you step back and look beyond the technology, it’s necessary to ask, “What do I really need to achieve and what do I want from a converged infrastructure?” Most IT professionals would say they need their vendors and partners to provide an infrastructure that’s easier, faster, and a better customer experience from end to end. And that they want to preserve their current investments, and avoid a rip-and-replace option.

You want a solution where everything just works together and it’s elegant, application-centric, and instant. You plug it in, and it all works. Deployment, provisioning, updates, migrating workloads, rolling out critical business applications—you want these in a few simple clicks. In this paper, we’ll discuss what the next wave of convergence will look like, and what it will mean for your business and IT strategies. We’ll look at how HP converged infrastructure solutions are raising the bar yet again to help modernize the data center.

Converged Infrastructure creates a strong foundation moving forward
Backed by years of focused engineering, R&D investments, and decades of data center experience, HP Converged Infrastructure solutions are making data centers simpler, more flexible, more efficient, and less expensive to operate. Convergence has helped businesses accelerate time to application and business value and increase their investment in innovation. A converged infrastructure not only brings together server, storage, and networking resources into resource pools, but it unifies management tools, policies, and processes so resources and applications can be managed in a holistic, integrated fashion. Security is built in, tightly integrated to offer better protection from sophisticated security threats at the perimeter and within the interior of the business. And convergence brings together power and cooling management capabilities, so systems and facilities work flawlessly together.

3 “Converged Infrastructure: Attitudes and Acceptance,” a commission study conducted by Forrester Consulting on behalf of HP and Intel, December 2011.
As an HP customer, you benefit from the collaborative impact of our large global ecosystem of over 4,500 global HP AllianceOne members and partners who make our convergence solutions portfolio one of the most comprehensive in the world. Private industry and public sector customers are using HP solutions as their foundation for today and for the future New Style of IT. It is their blueprint for a modern architecture that’s integrated by design from the ground up.

“HP Converged Infrastructure technologies are increasing our capacity to produce state-of-the-art CG animation—great storytelling combined with stunning visuals. And that’s what audiences expect.”

—Derek Chan, Head of Technology Global Operations at DreamWorks Animation SKG

**HP assists you in every step of your convergence journey**

When you adopt HP Converged Infrastructure solutions, you obtain a level of agility that’s repeatable, easy to scale, and flexible, so you can change or deploy resources in real time. We protect you by observing intellectual property in all areas and by supplying you with an infrastructure that’s tied closely to applications. You benefit from faster time-to-value with prepackaged, integrated systems for applications, cloud, big data, and virtualization. Software-defined solutions can be applied within your data center, your entire server, software, storage, networking, facilities, and management infrastructure. And because it’s an HP solution, it’s been crafted to fit seamlessly into your organization.

To make your convergence journey smooth, we provide comprehensive consulting and support services in partnership with certified partners. From planning through implementation, these services help you simplify IT management, optimize future technology upgrades, improve ROI by maximizing IT investment flexibility, and ensure that you obtain the best results and experience. HP offers excellent solutions to maximize the value and usage of your current systems to evolve and build your new modern converged infrastructure solution. HP’s use of an open standards and heterogeneous approach integrates across all domains. A common management platform is delivered via world-class HP services.
Minimizing costs is also a key benefit. We help you save on your IT spend, so you can do much more with much less. We speed application deployment, simplify management, and support service-level agreements (SLAs) to achieve error-free and dynamic provisioning of dynamic provisioning of capacity for virtualized workloads. By freeing up resources, we help mitigate your risks, and transform the economics of your data center to spark innovative solutions. Maximum ROI is achieved through virtualization initiatives and an IT foundation that helps with cloud computing implementation. You can move as much as 50 percent of your resources from operations into innovation projects. By maximizing IT resource investments, we can help cut unplanned downtime by 97 percent.

“Our decision was easy because there is no other product in the market comparable to HP CloudSystem. Also, because it is based on the leading HP Converged Infrastructure approach, this gave us a single vendor solution to simplify implementation and support.”

—Lubomir Pinkava, CTO, Casablanca INT

Establish a New Style of IT with HP Converged Infrastructure

For IT to move up to the next level, we know you need even more from convergence. We brought the infrastructure together as part of our first-generation convergence solutions. It was an important first step in the evolution and modernization of the data center, campus and branch office. Our next step is to deliver an improved end-to-end experience in which it becomes easier to support and align your business, while deftly handling your daily operations. Our goal is to make it simpler, faster, and less costly for your IT infrastructure to deliver any workload, anywhere, any time to accelerate time to application and business value.

Your new experience is elegant, app aware, and instant. To reach this next level, it’s critical to re-think the nature of your infrastructure. We believe the optimal platform for the modern data center is frictionless, software defined, and intelligent. HP’s Converged Infrastructure solution has been redesigned to incorporate these key converged platform characteristics:

• Frictionless infrastructure—fully integrated, pre-tested to deliver optimal performance and ease of use, across the lifecycle. An all-inclusive foundation platform enables an ecosystem of value added capabilities. It’s application-aware with integrated application and cloud support and fully automated and orchestrated to feature one-touch, non-disruptive updates. It reflects our commitment to “everything just works together.”

• Software-defined technologies—a new paradigm is emerging, one that holds the promise of minimizing and even eliminating many of the manual “human middleware” interventions required for provisioning. As workloads in the future are expected to fluctuate heavily due to business demands, the new software-defined technologies are part of the converged infrastructure to apply business logic to systems behavior. It features a programmable, open, and unified interface to deliver dynamic and rapid deployment of applications based on load and business demand. It is extensible to third-party technologies.

• Intelligent infrastructure—converged, intelligent platforms optimize investments in IT facilities, infrastructure, and people, and reduce costs and increase efficiency. It represents best-in-class innovation combined with sustainable, efficient use of resources, space, and energy. Programmatically, it dynamically adds capacity or handles workloads easily from one location to another. The underlying platform is secure, smart enough to understand how to proactively automate, self-regulate, and monitor power, cooling and capacity so you achieve greater efficiency and cost and resource savings.
“HP, with its Converged Infrastructure solution, was the only vendor who delivered a solution that could continually offer us the most current technology available across each element of the IT stack and integrate it all under a common management umbrella.”

—Vito Forte, CIO, Fortescue Metals Group

New HP Converged Infrastructure solutions

The comprehensive HP convergence portfolio serves to better handle the challenges you face today as well as those in the future. The following three components of the next-generation convergence platform deliver an elegant, end-to-end experience:

Converged Systems
A Converged Systems platform forms the building blocks for the new style of IT. It offers best-in-class infrastructure platforms engineered to deliver integrated systems experiences, and a solid foundation for virtualization, cloud, and application-optimized workloads.

HP’s next-generation Converged Systems platform is built on industry-leading HP products: market-leading blades, 3PAR StoreServ—the fastest-growing storage SAN solution—and SDN (software-defined networks) OpenFlow-enabled switches. The latest innovations, like dynamic caching, intelligent orchestration, and HP Flat SAN connect help solve the intractable problems of a siloed infrastructure, providing faster service delivery, higher application performance, and dramatic reductions in material, power, and operating costs.

Converged Management
Converged Management is the central nervous system for the data center. It delivers integrated app-aware infrastructure lifecycle management capabilities and a single pane of glass to help modernize IT, so it’s simpler, faster, more powerful and efficient, and serves up role-specific views to different IT stakeholders.

Converged Management will enable you to quickly view and manage your servers, storage, network, as well as power and cooling. An easy-to-use dashboard provides a graphical view of the entire data center, and offers timely push notifications, easy-to-use workflow templates and comprehensive search capabilities.

Converged Services
Converged Services starts with built-in platform services and APIs, and extends to lifecycle services around consulting, support, outsourcing, training and certification, financing, and asset management. New consulting services provide converged infrastructure services when and where they’re needed. Platform services assist you in developing cloud-ready APIs. Professional services for consulting, outsourcing, and support issues are available, as are skill-building and certification services to help with training needs. HP also helps meet financial service requirements with end-to-end leasing and lifecycle asset management.

Converged Infrastructure consulting and support services offer a simplified, proactive, and personalized experience for a converged infrastructure environment, and they ensure a smooth transition from a traditional, siloed, product-focused IT infrastructure to a converged infrastructure.

HP Converged Infrastructure solutions transform your data center into one that’s fully automated, agile, and seamless. Your Converged Infrastructure becomes a foundation for your cloud, big data, and virtualized data center requirements. Pre-packaged systems arrive from HP fully optimized and integrated. Provisioning applications is fast and easy, and performed in minutes vs. days, weeks, or months. Your systems automatically scale, based on demand. One-touch live updates are proactive, as recommended by your systems. You’re now ready to seamlessly burst to the cloud, migrate workloads, and manage your entire data center with ease, and at the speed of thought.
Why HP?

HP is the only partner that can bring market-leading IP across each of your key domains for data center, campus and branch office domains—servers, storage, networking, and management. We bring convergence DNA to each solution in order to deliver the optimal customer experience across the entire lifecycle.

And unlike others that are rigid and lock you in, HP is committed to providing open solutions that protect your investments in heterogeneous environments. The creation of a complete ecosystem around convergence ensures you receive value from leading software vendors and other hardware partners. HP delivers the best of both worlds, the optimal balance between a fully integrated stack that maximizes performance vs. a more heterogeneous solution that maximizes current infrastructure and investment.

More than two decades of experience and knowledgeable people play an important role in assisting you as you evolve or transform your data center to a converged infrastructure. Our comprehensive services make HP the trusted strategic partner for organizations of any size and industry. We offer everything from consulting, strategy, deployment, outsourcing, and facilities design to financial services—the most comprehensive services portfolio to help with your convergence journey.

Getting started

It’s time to say goodbye to status quo IT. HP Converged Infrastructure solutions help you overcome the inflexibility and high costs created by IT sprawl, allowing you to shift more resources to innovation and strategic initiatives. HP Converged Infrastructure solutions have been designed to make your data center simpler, more flexible, more efficient, and less expensive to operate. Only then will your IT infrastructure be positioned to deliver any workload, anywhere, anytime to accelerate time to application and business value.

Whether you’re just getting started in the convergence conversation, or you’re well underway with creating a converged infrastructure, we have the right solutions for you. To learn more about HP Convergence solutions, we offer these valuable workshops:

**HP Data Center Transformation Experience workshop**
Learn how to achieve stakeholder buy-in and build a transformation roadmap. Consolidate, standardize, and automate—changes to the economics of IT through a step-by-step plan.

**HP Converged Infrastructure Capability Model (CI-CM) workshop**
Evaluate your IT organization across four domains: Technology, IT Processes, Culture and Staff, and IT Operations. Develop a robust, high-level infrastructure roadmap, based on your business.

Learn more at
hp.com/go/CI