

Take the “scale-right” approach to optimize the ROI from IT

Picking the right servers, storage systems and management software is essential to successful IT consolidation initiatives. In the past, either scaling up (bigger, faster servers) or scaling out (more servers) would have been the answer. But one platform does not fit all needs. Scaling right means picking the scale-up or scale-out approach—or combination of the two—that best fits each situation. With this strategy, you are not locked into a single platform or a single vendor—instead, you can choose the optimal mix of technologies to provide the greatest ROI for your company.

When you scale right, you can mix and match Intel® architecture-based blades and rack servers. You can deploy powerful RISC servers based on the IBM® POWER™ architecture or even host hundreds of smaller servers on a single mainframe. IBM storage systems support all of these types of servers, providing shared access to enterprise data. When you choose the best mix of technologies to handle each workload, you are indeed optimizing the return on your IT investment.

Why IBM?

Unlike Dell, Sun and HP, only IBM provides a full range of open platforms that help you scale right, in the right way. And IBM platforms are centrally managed by uniform systems management software that can also incorporate legacy systems from other vendors.

And with its unparalleled industry-specific expertise, IBM can help you transform IT in ways that have a far-reaching effect on your enterprise. By taking a comprehensive view of IT operations, IBM can help you turn your IT infrastructure into an agile operation that truly delivers strategic advantages to your enterprise.

Four key benefits of scaling right with IBM are:

- *Managing growth effectively by migrating to a flexible IT environment that can scale as your business grows and provide the performance you need, when you need it*
- *Reducing complexity to enhance staff productivity and mitigate risk*
- *Ensuring a resilient infrastructure that helps boost the ability of IT to support strategic business initiatives*
- *Addressing critical requirements for high availability, disaster recovery, security and service management*

Pick the best solution from a portfolio of options

Scaling right means pairing your applications with the infrastructure that can best support that workload. It is akin to using the right tool to get the job done. To maximize the return from your work efforts, consider including storage as well as servers into your consolidation plans. Large servers that host many virtual machines can help you scale up, giving you benefits such as reduced equipment needs, streamlined administration and reduced footprint and power consumption. But if scaling out is your goal, consider hosting the application on space-and energy-efficient blade servers.





Many companies have benefited from IT consolidation. One example is **Farchioni Olii**, the world's fourth-largest producer of extra-virgin olive oil. "We needed a stable, flexible infrastructure that could accommodate our planned growth and the introduction of new applications," says Andrea Violetti, head of IT at Farchioni Olii. "It was particularly important to have a solution that would be easy and cost-effective to manage, to enable us to focus on the real issues rather than on routine maintenance. By choosing to consolidate all our major systems to IBM System i5™ servers, we have achieved very close integration, which is helping us to streamline production processes and reduce operational costs." To see the entire story, visit ibm.com/systems/migratetoibm/casestudies

Scaling right—employing the best servers for the job—does not imply added complexity from having several types of servers in the data center. In fact, just the opposite can be true when you use IBM Director software, a uniform management platform designed to manage multiple IBM servers as well as legacy HP, Sun and Dell systems. Thus, the IBM scale-right approach offers simplified systems management and greater automation of administrative tasks. Freed from spending time on routine maintenance, your IT staff can focus more on projects that are truly strategic to your business.

Optimize your success by choosing a vendor that offers a complete solution

When you decide to explore a scale-right initiative, you can optimize the speed and success of the projects by working with IBM. The IBM Systems family includes the industry's most scalable portfolio of server and storage systems—an integrated product line that can match a broad range of application and data requirements.

Respond to growth with a flexible IT environment that can scale as needs change

Because IBM offers a broad range of scalable servers and storage systems, you have access to the best array of choices that can flex as your needs change—on a quarterly, monthly or even immediate basis. IBM Systems

include some of the highest-performing servers in the world. And the modular and cost-efficient scale-up servers within the IBM System p™ and high-end IBM System x™ product lines support UNIX®, Linux® and Microsoft Windows® operating systems. Only IBM Systems deliver the flexible and highly scalable capacity, speed and mixed workload throughput to support the world's largest, most complex workloads.

Blade servers offer an attractive scale-out form factor for many applications. The IBM BladeCenter® family includes both RISC and x86-based blades, which allow you to consolidate UNIX, Linux and Microsoft Windows systems together under a common IBM BladeCenter infrastructure (including power, cabling, network interfaces and SAN interfaces).

In other cases, large 8-way x86-based rack servers, such as System x, can provide your company with a more attractive total cost of ownership than blade servers because the rack servers have the ability to host large numbers of virtual machines.

Flexible, responsive IBM Systems have the headroom to accommodate more work without requiring your company to change platforms. For example, with System p, Capacity on Demand (COD) options let you scale processing power and memory up and down as business needs fluctuate, with minimal disruption to your company's operations.



Aviza Technology, a leading semiconductor company, solved reliability and performance challenges by moving their Oracle e-Business Suite workloads to IBM System x and Systems Storage. According to Dale Spencer, vice president of information technology and corporate services, “IBM System x has exceeded our expectations around reliability and performance. We may end up with three or four tiers at some point, and this equipment lends itself to that.”

To learn more about Aviza’s experience moving from Sun servers to IBM System x, visit ibm.com/systems/migratetoibm/casestudies

Aviza Technology has first-hand experience with the benefits of moving to IBM servers and storage. The company designs, manufactures, sells and supports advanced semiconductor equipment and technologies for the global semiconductor industry. Aviza had been running Oracle E-Business Suite (EBS) v11.5.10 on Sun Solaris-based servers, but end-of-life issues began affecting the company’s ability to meet its service and availability goals. Aviza needed a cost-effective way to resolve the reliability issues while also boosting performance and enabling new levels of flexibility across the company’s global IT infrastructure. To meet these goals, the company chose IBM System x3850 and System x3950 servers with the high-end IBM X3 chipset, both running Red Hat Enterprise Linux® 4, along two IBM System Storage N5200 systems for 9.6 TB of data storage for production and test environments.

Aviza’s finance group saw a significant reduction in the time required for monthly cost roll-ups. What used to take from 8 to 18 hours to run, now takes less than 4 hours. According to Dale Spencer, vice president of information technology and corporate services, “IBM System x has exceeded our expectations around reliability and performance. We may end up with three or four tiers at some point and this equipment lends itself to that.”

Improve agility and responsiveness

Virtualized storage goes hand in hand with server virtualization. With a virtualized infrastructure, your IT staff can quickly respond to changing user needs—changes can be made to physical systems without disrupting ongoing operations. The IBM SAN Volume Controller provides industry-leading features and performance to create virtualized storage composed of both IBM and non-IBM storage systems. In addition, the IBM Information Lifecycle Management solutions include tiered-storage software and services to optimize storage utilization and minimize power costs.

Thus, server and storage virtualization combine to improve ROI and simplify data center management. IBM provides complete virtualization solutions, while other system vendors often need to integrate hardware and software from multiple vendors. The IBM “share everything” virtualization strategy provides tighter integration, better security and greater control while driving up equipment utilization rates.

With a scale-right infrastructure, your IT organization is in a better position to support important new initiatives because it can respond more quickly to demands. Your IT staff can provision new servers, storage, applications and test systems in hours instead of weeks, and equipment downtime can become transparent to ongoing operations.



When **MSTC Limited**, a leading Indian importer of scrap metal, asked IBM Business Partner Web Development Company, Ltd., (WDC) to upgrade its infrastructure to improve the availability and scalability of its online auction services, WDC recommended moving the entire infrastructure to IBM technology using System p servers, IBM TotalStorage®, IBM software and Linux. “The solution required hardware, software and networking—and only IBM can provide all of these components,” says Rahul Sharma, executive director of WDC. “The benefits of partnering with IBM as a single solution vendor are huge—the client not only gets the best performing solution available, but also greater success during the project phase and a quick rollout.” To learn more about MSTC Limited’s experience, visit ibm.com/systems/migratetoibm/casestudies

Improve resiliency

A simplified infrastructure also makes it easier to adopt new cost-effective business resiliency options that can transform the responsiveness of IT to business needs. Server and storage virtualization management tools practically eliminate planned and unplanned downtime. Administrators can quickly provision new servers and storage to prevent equipment problems from affecting operations. You can shift work to other physical devices so that your IT staff can perform maintenance without disrupting operations.

IBM Systems can help you quickly recover from equipment or software problems, even when a disaster hits the data center. An unexpected benefit of consolidating is that you have less equipment to replicate for disaster recovery, thus reducing your equipment, space and administration costs at backup sites.

IBM Systems have the resiliency needed for the high-availability services essential to mission-critical online systems servicing a worldwide audience. BladeCenter and System x servers are the only x86 servers with the ability to “call home” (place service calls for themselves without customer user intervention), while the IBM System Storage DS4000 platform is the only midtier open systems storage platform with the same ability.

Reduce complexity and enhance staff productivity

A key benefit of consolidating your IT infrastructure is the simplification of systems management. IBM offers an end-to-end approach that encompasses hardware (servers and storage), software, systems and enterprise management tools, as well as services to help you implement these tools across multisite and multi-vendor environments. IBM Systems Director tools can help automate many previously manual processes, greatly improving IT responsiveness to changing user requirements. You can use IBM Systems Director tools to manage both IBM and non-IBM systems.

Virtualized IBM Systems can also help you reduce administrative complexity, so that you can speed up the introduction of new services within your organization. IBM Virtualization Manager simplifies virtualization management for BladeCenter, System x and System p, helping improve the productivity of IT administrators. Virtualization Manager also simplifies management of VMware, Zen and Microsoft Virtual Server environments—providing you with a single console that links management for your company’s physical and virtual resources.



One of the biggest benefits of IT consolidation is energy savings. **Voith AG**, a large German engineering and manufacturing firm, saved 70 to 80 percent of the energy cost and 30 percent of the software cost when they consolidated on IBM POWER5™ processor-based servers. According to Gerhard Müller, systems engineer at Voith, “The ability to simply turn on more processors as and when we need them was a key factor in our decision for the IBM System p5™ platform—it is a versatile architecture which is perfect for a growing business like Voith.” To learn more about Voith’s experience with server/storage consolidation, visit ibm.com/systems/migratetoibm/casestudies

Improve availability, disaster recovery, security and service management

Having a scale-right infrastructure can help your IT organization protect against downtime and security threats by ensuring that adequate resources are always available to critical applications. As a leader in delivering automated availability, security and systems management technologies, IBM is well positioned to help you deliver computing resources when and where you need them. With automation and centralized control, you can streamline routine administrative tasks so that your IT staff can focus less on running the systems and more on supporting the business.

In the System p family, mainframe-inspired reliability, availability and scalability features help to reduce the cost of planned and unplanned downtime by up to 59 percent compared to Sun and HP, providing more computing resources to users.¹

IBM: A trusted partner

Unlike competing systems vendors, IBM has a clear vision of what it takes to scale right and transform your infrastructure. What’s more, IBM product offerings are backed with extensive end-to-end services—from consulting, strategy and planning to deployment and integration. And thanks to the expertise gathered over thousands of engagements at the IBM Migration Factory, migrations to IBM equipment are predictable and low-risk. All of these capabilities make IBM a trusted partner that can help you get the most out of your IT initiatives.

And you can also expect IBM to continue working on the IT challenges your company will face as it grows. IBM continues to make significant advances in the technology underlying its systems, leading the technology industry in patents issued for the fifteenth year in a row. From basic research to applications of technology in its systems, IBM is awarded more patents annually than all of its competitors combined. This high level of innovation provides direct advantages to your company by helping you deploy IT systems that best meet the needs of your business—today and in the future.



For more information

To learn more about scaling right with IBM, contact your IBM representative or visit

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Route 100
Somers, NY 10589

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¹ "Impact of IBM System p Server Virtualization," Transforming the IT Value Equation with POWER6 Architecture. International Technology Group, May 2007.

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