

HP Data Center Transformation



“Our transformation was not just a technology initiative—it was an HP initiative undertaken to drive better business outcomes for the entire company. We proved that transforming our data centers can benefit the entire business. This same opportunity exists in a lot of other companies out there.”

– Randy Mott, HP Executive Vice President and CIO

Objective:

HP wanted technology to power the business, supporting significant improvements in operational efficiency, customer satisfaction, growth and profitability

Approach:

HP launched an IT transformation program with a focus on five initiatives: global data centers, portfolio management, technology workforce effectiveness, building a world-class technology infrastructure and an enterprise data warehouse

Data Center Transformation:

- 85 data centers consolidated to three data center pairs
- Platforms consolidated and standardized
- Processing power increased
- Storage capacity doubled
- Network bandwidth tripled
- Costs significantly reduced
- Each site designed for high availability, disaster recovery and business continuity

Business benefits:

- Business technology operational spending reduced from 4% to 2% of revenue
- ~60% reduction in annual energy consumption
- 50% networking costs reduction
- Faster worldwide application deployment
- Easier integration of new acquisitions
- Faster response to changing business needs
- Improved operational effectiveness and quality of service
- Improved business continuity and security

In 2005, Hewlett-Packard faced many of the same challenges its customers face in their business technology infrastructure. The company had too many individual data centers—85 in total—too much operational expense, too many systems at low utilization, and too many different processes adding to complexity and risk.

HP’s Executive Council, led by CEO Mark Hurd, decided to transform HP’s IT organization to support significant improvements in operational efficiency, customer satisfaction, growth and profitability. This was not just about technology, this was about the business—technology no longer had to serve the business, technology had to power the business.

HP’s global IT team, led by newly appointed CIO Randy Mott, understood the challenge and knew the solution would need to be game-changing, not incremental. Given the complexity of the legacy infrastructure involved, the only way to meet this challenge was to undertake an overall IT transformation initiative.

Business drivers

The transformation of HP’s technology infrastructure had to accomplish several things at once if HP was to realize its goal of true transformation and better business outcomes:

- Enable business technology to be more nimble and provide better information for better business decisions;
- Reduce technology costs significantly, while driving higher ROI on the technology investment;
- Invest more in innovation for faster delivery of new technologies, services and information;

HP's top 5 business technology initiatives



- Accommodate growth, and allow for quick assimilation of mergers and acquisitions;
- Provide for improved business continuity;
- Lower risk to the entire HP enterprise with better control of the infrastructure.

The strategy

The IT leadership team focused on consolidating and unifying disparate teams, assigning the right leadership, and then focused the entire global technology organization on five key initiatives.

First, HP required better management of its technology portfolio. It had to enable the business of technology through more strategic management of projects (and retirement of old projects).

Second, HP needed to upgrade the effectiveness of the company's IT workforce. The strategy was to create a few centers of expertise and collaboration.

Third, getting the business of technology right meant operationalizing HP's ability to consistently execute the right strategies at the right cost structures, while maintaining agility.

Fourth, HP needed one version of the truth, meaning it had to provide access to consistent company-wide data, providing clear and ready answers to any question, any time, anywhere. The solution was to

build a model enterprise data warehouse, enabling the team to retire hundreds of disparate business intelligence systems throughout HP.

And the final, and perhaps most important step, came when Mott and his team consolidated 85 data centers to next-generation global data centers (NGDC) in three geographic locations. This was true data center transformation, built on the four pillars of Consolidation, Automation, Business Continuity & Availability, and Energy & Space Efficiency.

Data Center Transformation

When considering the consolidation and transformation of an aging and complex technology infrastructure spread across the globe, the leadership team decided that the current strategy of incrementally building new data centers was not best suited to meet the business objectives. For a company of HP's size and global reach, it became apparent that a more centralized approach was needed to allow for better prioritization of technology requirements and investment.

The transformation initiative aimed to simplify, standardize and reduce the number of data centers, applications, servers and storage, and network resources across the company (Consolidation); automate routine, operational and end-to-end processes (Automation); protect the business with resilient operations (Business Continuity & Availability), and optimize the use of energy, floor space and cooling infrastructures (Energy & Space Efficiency).

This transformation radically consolidated HP's data centers from 85 to three data center pairs in three different locations. It standardized on the latest hardware, and automated many technology operations with common tools and processes. The result was next-generation data centers supporting the global business. These facilities are lights-out, 24x7 Adaptive Infrastructure environments:

- Highly automated and always-on, like every other global business activity;
- Operated by a minimum number of people, freeing up human resources to focus on innovation and other strategic activities;
- Delivered as modular systems, software and services.

“Our priorities were about getting better information for the company—so that the business executives could make informed decisions—and driving better efficiencies and applications for the business. It was about transforming IT to simplify the way we go to market, the way we support our customers, and the way we engage with and help our customers do their business.”

— Randy Mott, HP Executive VP and CIO



Business outcomes

The result for HP has been a step change in the effectiveness of the company’s business technology, enabling a significant enhancement in the business efficiency of HP as an organization. In addition to reducing complexity while adding significant capability, the new data centers provide better quality of service and business continuity. The outcome is that HP has improved the return on its technology investment by reducing costs in energy, facilities, support, networking, applications development, and legacy retirement.

The data center transformation has also served as a catalyst for reductions in the number of applications across the enterprise, which has improved business operational effectiveness. “We put ourselves on a path of being on global and common applications so that we could focus our energies on new capabilities, new functions for our business users—that is really where the fun part of business technology is,” Mott said.

“We put some aggressive goals on our people to spend 80 percent of their time and resources on development, and less than 20 on maintaining and running and supporting. The only way we could do that was to transform the data centers at the core of our technology service.”

This transformation has created global and common systems across the business, allowing easier integration of data, as well as the connection of disparate supply chains for better inventory and vendor management. The streamlined infrastructure allows faster deployment of new applications across the globe, and flexible technology to cope with changing business demands. It has also simplified the implementation of an enterprise data warehouse for better business decision-making. Overall, it provides a better alignment between business needs and technology resources.

Another vital benefit is that it will be easier for HP to integrate new acquisitions, ensuring faster value capture in the future. By moving from many high-cost technology islands to three low-cost business technology assets, HP lowered its operating costs and increased the speed of technology change across the enterprise, and can now deliver better quality of service.

“These facilities will serve as a model of the next-generation data center that HP believes represents the future of enterprise computing,” Hurd said.

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