Next Generation Data Center: A Proven Model for High Performance in Federal IT

accenture

High performance. Delivered.

The fundamental premise of Accenture Next Generation Data Center is to help federal agencies realize optimal advantage from the latest data center technologies to address their pressing IT infrastructure needs.

The Office of Management and Budget announced the Federal Data Consolidation Initiative in February 2010 with a focus on reducing data center footprints, costs and redundancy and promoting consolidation, efficiency and sustainability. In June 2010, President Obama released a Presidential Memorandum calling for federal agencies to eliminate unnecessary federal real estate including "common asset types such as data centers."

The president wrote, "...Over the past decade, the private sector reduced its data center footprint by capitalizing on innovative technologies to increase efficiencies. However, during that same period, the Federal Government experienced a substantial increase in the number of data centers, leading to increased energy consumption, real property expenditures, and operations and maintenance costs."[1]

Learning from the private sector

As the memorandum notes, the private sector has set the pace for data center transformation. Corporate CIOs have consolidated their companies' infrastructures, cut IT expenditures, automated processes to streamline the provisioning and configuration of servers and applications, and leveraged more efficient managed services data center models. These efforts have delivered critical outcomes for high performance, including lower costs, improved efficiencies, reduced data center footprints and better control of complex technical environments.

[1] Presidential Memorandum: Disposing of Unneeded Federal Real Estate, June 10, 2010, The White House, Office of the Press Secretary.

Following a model for change

The federal government can draw on these private sector practices. Agencies must evolve aging siloed architectures into new managed services operations models that allow them to both extract and demonstrate value from their IT infrastructures while sustaining cost reductions that can be reinvested to support mission imperatives.

Accenture Next Generation Data Center is such a solution. Much more than data center rationalization or application hosting, this solution brings true transformation for high performance, giving agencies the agility to respond more quickly, accurately and reliably to today's unpredictable demands. Proven, scalable and cost effective, Next Generation Data Center leverages commercial innovation to deliver services quickly and support information sharing and IT growth.

Advancing with innovation

Based in the strength of Accenture's global data center experience—and our unmatched ability to align commercial data center innovation with a deep understanding of the federal government—Next Generation Data Centers make the most of the latest technologies. They help the federal government provide quality services quickly with a seamless transition to enable collaboration and sustained cost, time and resource savings. This solution means that organizations can support their efforts to:

- Virtualize all layers of the technology stack to logically pool data center resources.
- Optimize resource sharing across applications.

- Use provisioning techniques to allocate virtualized infrastructures, applications and services to improve "time to implement."
- Leverage a service-oriented infrastructure with automated IT processes that enable auto-provisioning based on capacity and service-level objectives.
- Create an integrated operations framework that is proactive, predictive and can drive changes in the IT environment.
- Manage IT-enabled processes and integrated applications as business services rather than as discrete technology components.
- Remotely engineer, manage and operate the common computing and storage environment.

Accenture Next Generation Data Center is built on the concept of having multiple data and delivery center nodes that work interchangeably. This model leverages the strength of Accenture's own Global Delivery Network—a network of 50 delivery centers equipped with the most advanced information technology and the most secure infrastructure in the industry today.

Every delivery center is linked with every other delivery center to ensure business continuity. This multi-node approach offers data center operations that mitigate risk, scale quickly, enable redundancy, integrate enterprise management processes and preserve mission continuity with proactive failover solutions.

Enabling flexibility and scalability with virtualization

This architecture uses virtualization of storage, networks and servers. By maximizing virtualization—or applications-based capabilities—an organization's architecture is more flexible and instantly scalable. Elements can be transferred across hardware in response to demand without disrupting the entire architecture.

Virtualizing the architecture also makes it easier to balance capacity against need. Capacity can be allocated in rapid response to demand as opposed to owning and maintaining hardware and employing systems administrators for the maximum anticipated capacity. This way, federal agencies can stay ahead of floods of information during an international incident and smoothly scale back in periods of relative stability.

Virtualization also lowers the cost of ownership—utility computing and virtualization software enable use of excess capacity on servers to handle demand growth and load surges. This solution also takes advantage of provisioning techniques to allocate virtualized infrastructures, applications and services. Automated IT processes trigger provisioning of IT assets based on capacity and service-level objectives. The system's monitoring capability also identifies little-used, inefficient servers that could be retired or possibly archived as virtual images for later use.

Supporting availability as a tier three data center

Using leading methods for redundancy and failovers, a tier three data center provides a level of 99.986 percent availability and permits concurrent maintainability for all facility components. If an element fails or is taken out of service for repair, other elements cover the loss and no outage is experienced. Key tier three components include power, cooling, communications, floor and ceiling, and fire suppression.

Providing continuity of operations with multiple nodes

By separating delivery center and support sites, Accenture's multi-node approach provides vital insurance against breaks in continuity of operations—lowering both the risk and impact of attack. The multi-node approach enhances the ability to recover quickly because one element of the node acts as backup recovery for another. This capability can also be scaled to add delivery center nodes where and when agencies need them.

Delivering near "lights-out" capability

Accenture's solution keeps the data service center separate from the delivery center. By keeping the service center functionality separate from the data center, the data center can operate in a near "lights-out" condition. Only a handful of people are required at the data center to rack and patch new equipment.

Reflecting experience, capabilities and approaches unique to Accenture, the Next Generation Data Center is a complete, fine-tuned managed services data center solution that meets the requirements of today's federal agencies.

To learn more about Accenture Next Generation Data Center, contact Matt Fahle at matthew.r.fahle@accenturefederal.com or +1 571 414 5728.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 211,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$21.6 billion for the fiscal year ended Aug. 31, 2010. Its home page is www.accenture.com.

12458647