

BROCADE FEDERAL SOLUTIONS

Simplified, Innovative Networks
for Federal Agencies



BROCADE FEDERAL SOLUTIONS: SIMPLIFIED, INNOVATIVE NETWORKS FOR FEDERAL AGENCIES



THE CHANGING FEDERAL IT LANDSCAPE

Mobility. Cloud computing. Virtualization. BYOD. Information technology gets more complex every minute. And yet, Federal agencies—pressed by legislation, buried by regulation, and shackled by legacy systems—will only face additional complexity going forward.

MY AGENCY IS...MEETING THE MISSION WITH LESS MONEY

Whatever your agency mission, your constituents depend on you to get it done. With less money on the table, agencies are forced to make difficult decisions about personnel and performance. In this environment, where flat is the new up, IT needs to fundamentally rethink how it delivers value to the agency mission.

MY AGENCY IS...MIRED IN MANDATES

Mandates, such as the Federal Data Center Consolidation Initiative (FDCCI) and the shared services strategy,

are everywhere. Often, meeting the conditions of one mandate creates a conflict with another. With this much complexity coming from the inside, IT needs crystal clear simplicity from the outside.

MY AGENCY IS...ANCHORED TO AGING INFRASTRUCTURE

Like old paint on a battleship, agency infrastructures are weighed down by the incremental additions of years—and decades—past. Now is not the time for one more layer of paint. Modern requirements call for radical innovation, a network transformation that empowers IT and accelerates mission performance.

INFRASTRUCTURE INDEPENDENCE?

Gartner reported that adding a second vendor to an enterprise network infrastructure will reduce capital expenditures by at least 30 percent (often more) while only minimally increasing operating expenditures.

MeriTalk and Brocade surveyed 202 Federal IT professionals and found:

- Ninety-five percent of Federal IT professionals agree there are benefits to using more than one manufacturer within IT infrastructure
- Federal IT professionals estimate they can save 20 percent of their annual budget by adding a manufacturer—which comes to \$15.8 billion in savings government-wide
- Despite the benefits, five percent of agencies surveyed state that only one manufacturer handles their entire IT infrastructure—with an additional 23 percent stating they use two or three manufacturers

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There are four key Federal technology areas that help agencies reign in budgets, meet mandates, and become more accessible to users—data center consolidation, mobility, cloud computing, and Big Data.

DATA CENTER CONSOLIDATION

FDCCI aims to close 40 percent of the Federal government's 3,000-plus data centers by the end of 2015.

BROCADE DATA CENTER CONSOLIDATION SOLUTIONS

- Simplified network architecture built on open standards-based Brocade® VCS® Fabric technology allows agencies to better leverage current investments without having to rip and replace the entire infrastructure
- Brocade Gen 5 Fibre Channel (16 Gbps) solutions—including the Brocade DCX® 8510 Backbone, Brocade 6510 Switch, and Brocade 1860 Fabric Adapter—provide the preferred storage networking protocol among data center administrators worldwide
- The Brocade ecosystem of security partners, such as McAfee and Palo Alto Networks, works seamlessly with Brocade to provide encryption key management



Consolidation can be a complex endeavor, because even as agencies are closing data centers, they're being asked to process and store more data than ever before—with fewer people to manage the remaining data centers. And, as applications go remote, bandwidth requirements go up. That means that data centers and networks need to be more efficient, without becoming overly complex.

In addition, data center consolidation is a long way off from data center optimization. The former gives you paper savings, but the latter can make a real difference in mission performance.

So how can agencies optimize data centers the right way?

- Review existing resources to determine what you can reuse and what you must replace
- Find the best way to move your data securely—and get the people and technology in place to make it happen
- Route your traffic efficiently—optimize routing over multiple paths and leverage virtual machines
- Make sure your data center is standards-based—freeing your agency to use the right manufacturer for future needs

SECURE MOBILITY

Mobility is booming—whether IT has authorized it or not. Today's government executives expect the same access to information on their mobile devices as they get in their office, and that requires

BROCADE MOBILITY SOLUTIONS

- Unique and adaptive Brocade Mobility WLAN solutions provide the scalability, availability, and security features needed to deliver enterprise-level data mobility
- Brocade Mobility solutions feature the Motorola AirDefense wireless Intrusion Prevention System (IPS), which:
 - Protects both wired and wireless networks against threats and unauthorized devices
 - Monitors network performance and troubleshoots issues
 - Helps ensure that only authorized personnel are able to access sensitive government documents

more effective networks. In addition, security concerns make mobility more complex than simply turning on a smart phone and downloading e-mail. Agency IT departments need to ensure that authorized personnel are the only ones able to access agency data, no matter where it is accessed.

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CLOUD COMPUTING

The business case for cloud computing is simply too compelling to ignore. But what does success in the cloud look like? The forecast is a bit foggy for Federal agencies. Agencies are drawn to the security benefits and control that a private cloud provides, but often balk at the investment—both budgetary and personnel—to maintain a private cloud. The public cloud has all the cost efficiencies required, but security concerns still remain.

BROCADE ETHERNET FABRICS FOR VIRTUALIZATION AND THE CLOUD

- Brocade VCS Fabric technology provides advanced Ethernet fabric capabilities, including efficient multipathing at Layers 1 to 3:
 - Multiple Layer 3 gateways, VM awareness, and network automation enable agencies to transition smoothly to elastic, cloud-optimized networks
- VCS fabrics, delivered on Brocade VDX® switches, provide the highest levels of Ethernet fabric automation, resilience, and investment protection

Agencies can remove much of the uncertainty (and complexity) by running a simple, uniform network foundation. As a large number of cloud service providers have discovered, this means networking solutions from Brocade.

Traditional Ethernet, with its rigid, hierarchical configuration simply is too inflexible to support virtualization and cloud computing. That's where Ethernet fabrics—flat, simplified networks that reduce latency to optimize performance and that self-heal to increase availability—come in.

BIG DATA

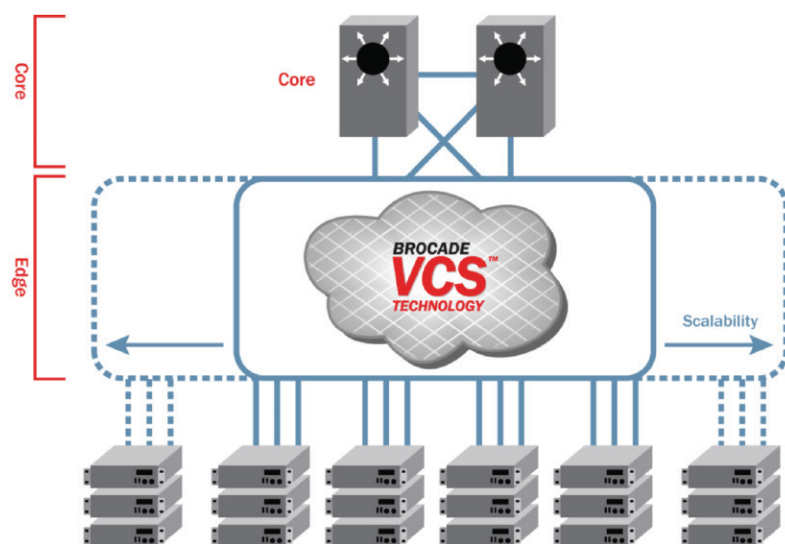
Every day, the amount of data Federal agencies collect increases exponentially. But collecting data and putting it to use are two very different things. Data is only as useful as the analytics an agency can run on it—turning data points into actionable insights that drive mission-critical decisions. That said, the volume of streaming network data is often too cumbersome for agencies to analyze.

For agencies, the first step to harness the power of data is the ability to appropriately profile different types of network traffic—including subnets. Agencies can then identify abnormalities and security threats, as well as analyze network behavior as a whole. The

ability to evaluate both streaming data-in-motion and data-at-rest will deliver the most comprehensive results—enabling agencies to make better, faster decisions.

BROCADE SOLUTIONS FOR BIG DATA

- Flat Layer 2 networks enabled by Brocade VDX switches can increase availability, scalability, manageability, simplicity, and reliability for Big Data analytics tools
- Flexible Brocade 1860 Fabric Adapters optimize network throughput for Big Data traffic
- Brocade MLX® Series routers can assist in transparently tapping into a production network without affecting performance, and can monitor traffic at line-rate across any of the 1 Gigabit Ethernet (GbE), 10 GbE, or 100 GbE ports



Brocade Virtual Cluster Switching with Ethernet Fabric

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BROCADE: SUPPORTING GOVERNMENT INNOVATION

Brocade understands the unique IT challenges of the Federal government. That's why we are committed to making our technology:

Easy: You need to focus on meeting missions. Brocade networking solutions are easy to implement and manage—because agencies should spend less time managing their IT infrastructure and more time accomplishing their mission.

Open: Trying to make a square peg fit in a round hole just takes too much time. Brocade solutions are based on open industry standards and interoperability, providing compatibility with other leading vendors represented in an agency's IT infrastructure.

Innovative: Doing the same thing over and over again and expecting different results will not solve the unique challenges Federal agencies face. That's why Brocade leverages years of experience to deliver innovative networking solutions that specifically address modern IT requirements, such as fabrics that have been successfully deployed in the storage world for more than 15 years.

Value-Oriented: Budget constraints are a reality in Federal government and beyond. Brocade places a high priority on delivering great value for cost and a strong ROI.

Incremental: While incremental updates aren't always an ideal solution, budget realities and refresh cycles often make incremental innovation easier on agency budgets than rip-and-replace solutions. Brocade solutions allow agencies to update their networks in small incremental steps as needed—reducing dependence on proprietary standards and vendor lock-in with every step.



To learn how Brocade can help your agency accomplish its most critical missions, visit www.brocade.com/federal.

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