

Georgia System Operations Sees 100% Performance Improvement with Champion's VMware Health Check

GSOC uses offering to analyze its virtual infrastructure for optimum efficiency



Highlights:

INDUSTRY

Electric Utility

CHALLENGE

GSOC was experiencing performance bottlenecks associated with its virtual infrastructure, causing slow response times for business applications and virtual machines.

SOLUTION

Champion provided a VMware Health Check to examine GSOC's environment and procedures according to IT industry best practices to ensure optimal configuration and consistency.

ENVIRONMENT

- Eight VMware ESX Servers hosting more than 150 virtual machines
- One VirtualCenter
- One NetApp™ Storage System
- HP/Brocade Network Switches

RESULTS

With Champion's VMware Health Check and Assessment, GSOC is experiencing the following benefits:

- 100% performance improvement with regard to its applications, virtual machines, backups and hardware
- Added flexibility for future upgrades or expansion
- Reduced hardware costs
- Increased productivity

Georgia System Operations Corporation (GSOC) is an electric utility serving suburban and rural Georgia as the system operator that controls and monitors electric generation, transmission and distribution assets owned by sister companies Oglethorpe Power Corporation and Georgia Transmission Corporation; their member-owners, Georgia electric membership corporations; and other customers.

GSOC adopted virtualization in its IT environment five years ago to support its growth requirements and reap the benefits of moving to a virtual environment. Since migrating from physical to virtual, as the environment grew, they saw overall performance degrade. Business applications were sometimes sluggish, virtual machines were slow in response, and the company's systems were not running up to par. Even GSOC's internal staff was starting to doubt the move to virtualization when faced with these setbacks.

"We knew these issues weren't a result of virtualization per se. We just needed to pinpoint the underlying issues and make the necessary adjustments for an optimal environment—all while adhering to IT industry best practices," commented Ivan Kahn, Manager of Technology Systems for GSOC. Kahn continues, "When you do not have in-depth, in-house skills for a large deployment, you need to engage outside expertise to make sure the configuration and implementation run smoothly." To help with the current performance challenges, GSOC partnered with Champion Solutions Group, an expert in virtualization and a VMware VIP Premier Partner.

A VMware Health Check Sheds Light

As part of Champion Solutions Group's Virtualization service offerings, GSOC was recommended a VMware Health Check to leverage Champion's technical and virtualization expertise.

This was accomplished through an assessment of their current environment and procedures according to best practices to ensure optimal configuration and consistency. Following a time-tested methodology, the Champion team first held a workshop to review best practices pertaining to configuration, operations, and usage of virtual infrastructure using ESX and VirtualCenter. The session enabled GSOC's staff to ask questions, validate assumptions, and leverage the team's expertise.

Kahn confirmed, "The experience provided our team with valuable insight into our current VMware infrastructure, along with a way to make best-practice improvements."

The assessment phase included a detailed audit of GSOC's current VMware Infrastructure configuration, operations, and usage. Champion analyzed its VMware farm, consisting of eight ESX Servers hosting more than 150 virtual machines, one VirtualCenter console, one NetApp™ storage system, and HP/Brocade Network Switches to ensure they conform to current best practices with regard to performance, redundancy, stability, and operational procedures.

The observations gathered through the environment inspections and interviews were collectively examined to produce a Virtual Infrastructure Health Check Report Card and detailed recommendations. "Champion's approach not only ensures their methodologies subscribe to virtualization best practices related to redundancy, high-availability, performance and administration, but also provides empirical data that will afford GSOC predictable performance, scalability, redundancy and operation with their current and future Virtual Infrastructure," commented Champion's Lead Engineer for GSOC.

"We got exactly what we needed and then some. Champion's VMware Health Check offering went beyond the basic tune. Champion's in-depth findings and recommendations gave us the foundation to make our environment more robust, ensure virtualization compliance with best practices, and enable us to scale for future growth." — Ivan Kahn, Manager, Technology Systems - GSOC

A training session took place for the teams to review the findings and discuss Champion's diagnosis for GSOC's IT environment. While there were no glaring issues, GSOC was pleased to see how the report detailed all components of their virtual environment and clearly stated the corresponding suggestions. "We got exactly what we needed and then some," said Kahn. "Champion's VMware Health Check offering went beyond the basic tune. Champion's in-depth findings and recommendations gave us the foundation to make our environment more robust, ensure virtualization compliance with best practices, and enable us to scale for future growth."

Key Benefits:

Performance – After implementing Champion's recommended changes, GSOC yielded 100% performance improvement — having gone from limited performance to optimum performance with applications, virtual machines, backups, and hardware.

Flexibility – Champion's VMware Health Check gives GSOC the added flexibility to plan for its future IT requirements. While the recommendations focus on addressing current issues, they also provide a roadmap for future upgrades or expansion.

Cost Avoidance – GSOC is now getting more out of less by saving on hardware. The report indicated hidden potential with regard to the company's server environment. GSOC is now able to get more servers out of each VMware ESX host instead of investing in additional hardware.

Productivity – There is no longer internal resistance to the virtualized environment. GSOC can better focus on its core business and perform tasks quicker due to improved IT performance.

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