

# CASE STUDY

## BUILDING A ROBUST, SCALABLE SOFTWARE-DEFINED DATA CENTER SOLUTION FOR A NATIONAL UTILITIES PROVIDER



### CLIENT OVERVIEW

A major utilities and power company serving over 4 million customers faced rising operational costs due to growth and inefficiencies across its infrastructure. The company needed an IT infrastructure solution designed to streamline operations and optimize resources while ensuring continued scalability and security.

### SOLUTION

3SG Plus helped the customer implement a Software-Defined Data Center (SDDC) solution using Nutanix and VMware technologies. Our solution was designed to provide a flexible, scalable infrastructure for the utilities provider. Nutanix hosts were optimized for performance, enabling the company to create and scale clusters as needed to meet evolving business demands.

Remote Office/Branch Office (ROBO) configurations were deployed to ensure consistent, high-performance infrastructure across the organization, regardless of location. The solution also included a secure Cisco network, Palo Alto firewalls for robust cybersecurity, and the hardening of both Linux and Windows servers.

To further enhance performance, 3SG Plus prepared the infrastructure for Oracle Real Application Clusters (RAC) deployments and integrated Splunk and Commvault for real-time data monitoring, backup, and recovery. WiFi security audits and surveys were conducted for remote offices to identify and resolve vulnerabilities, while a comprehensive Disaster Recovery/Business Continuity (DR/BC) plan was developed to ensure operational continuity during adverse situations.

Additionally, InfoBlox was configured for DNS and DHCP management, streamlining network administration and improving performance. This strategic approach ensured a unified, secure, and scalable IT environment capable of supporting future growth.

## RESULTS

- Unified technology platform eliminating fragmented applications and data access points
- Streamlined security protocols reducing attack surfaces and improving overall security
- Significant efficiency gains in management, cost reduction, and operational performance
- Maximized investment in business applications, reducing inefficiencies and redundancies
- Improved scalability to handle future growth and evolving business needs
- Enhanced disaster recovery capabilities, ensuring swift recovery with minimal downtime
- Strengthened remote office capabilities, ensuring a unified experience regardless of location

## CHALLENGES ADDRESSED

- Inconsistent infrastructure and systems across remote offices and field stations
- Complex security landscape with multiple systems hindering access and creating vulnerabilities
- High operational costs due to inefficient infrastructure optimization
- Underutilized business and infrastructure applications resulting in redundancies
- Limited scalability and flexibility to accommodate business growth
- Lack of disaster recovery and business continuity planning

## BENEFITS

- **Scalable Infrastructure:** The SDDC architecture enables seamless scalability, supporting future growth without significant hardware investments.
- **Streamlined Security:** Palo Alto firewalls and unified security protocols reduced vulnerabilities and ensured compliance with modern standards.
- **Optimized Application Performance:** Nutanix hosts and ROBO configurations delivered consistent performance across locations, reducing latency.
- **Improved Data Management:** Splunk and Commvault enabled real-time monitoring, backup, and recovery, with a solid DR/BC plan ensuring minimal disruption.
- **Simplified Network Administration:** InfoBlox for DNS and DHCP management reduced administrative overhead and improved network response times.
- **Lower Operational Costs:** Virtualization with Nutanix and VMware optimized resource use, eliminating redundancies and reducing maintenance expenses.