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## Customer Success Story

### Nebraska Methodist Health System

#### Company Profile:

Regional not-for-profit healthcare organization with over 10K employees delivering primary and specialty health services through 4 major hospitals and over two dozen clinics and urgent care facilities in Nebraska and Iowa.

#### Challenge:

Remove manual tools and processes, and upgrade a failing open source solution for central network discovery, visibility, configuration, software updates, polling and device backups.

#### Solution:

Infoblox NetMRI Network Change and Configuration Management (NCCM) for network equipment and device inventory, software and system updates, continuing security audits, issue resolution, network policy and enforcement and reporting.

“Working with Empowered Networks is great. We’ve had a dedicated team that’s always available and ready to help.” – *Tim Bertino, NMHS Sr. Network Engineer*

#### Summary:

Nebraska Methodist Health System (NMHS) hospitals and clinics deliver the full resources of their regional health care providers, educators and support services to communities throughout Nebraska and western Iowa to ensure that patients always have the BEST CARE they need when and where they need it.

To support service delivery, NMHS managed IT operations through an open source network change and configuration management (NCCM) tool for device management, software updates, backups and compliance. However, with a small IT staff and the growing demands of expanding regional hospitals, two dozen urban and rural clinics, and supporting healthcare services, it was increasingly difficult to keep the on-premises open source solution running. Keeping network gear updated was a priority, along with polling and configuration backups. Systems and devices are operationally and geographically distributed, making them harder to manage from a discovery, visibility, upgrade, audit and performance perspective. NMHS needed a more reliable device inventory, software update and deployment

## Benefits:

- Improved network device discovery, visibility and control
- Automated upgrade processes
- Device compliance validation, security and lifecycle management
- Operational policy enforcement and best practice deployment and management
- Compliance and audit validation
- Regulatory reporting for audit and compliance

engine, policy enforcement and reporting solution to ensure security, performance and regulatory compliance. NMHS decided to evaluate the Infoblox NetMRI with Advisor solution and started a comprehensive Proof-of-Concept (PoC) with Infoblox partner Empowered Networks. NMHS wanted to streamline network operations, elevate device and network visibility and simplify management for greater efficiency. They also needed to ensure network endpoints met security and regulatory requirements, improve device upgrade processes and quickly detect and resolve open audit findings.

After a successful PoC, Empowered Networks deployed Infoblox NetMRI with Advisor to discover and load the network device inventory into the NetMRI database. NetMRI provided visibility, simplified and automated device updates, management and workflows, supplied device alerts, improved policy enforcement, and enabled audit and compliance to save costs associated with managing regionally-dispersed network assets.

## The Challenge:

NMHS is a not-for-profit regional health care system delivering healthcare over several hundred square miles with plans for future expansion. To meet growing demands, NMHS needed to maximize network effectiveness and efficiency without adding additional IT staff to service distributed locations. However, device visibility, configuration and backups were a growing challenge. NMHS relied heavily on manual spreadsheets for device inventory and code-level tracking which was often error-prone, tedious and time-consuming. Data was only as good as the last manual update. Without fully automated discovery, there was no single-source-of-truth for their network database, and they could not trust their data for further automation to improve efficiency and save cost. Without visibility, techs often relied on guesswork to connect and configure cables, ports, switches, firewalls and other devices. They did not have network alerts to signify device, policy or compliance issues. It was challenging to know which switch ports were assigned to which devices. Further, IT needed to define a unified network configuration policy, set configuration rules for switches and software code compliance, and automatically engage an enforcement engine to identify non-compliant devices for prioritization and remediation. NMHS also needed a more efficient way to see end-of-life (EoL), end-of-service (EoS) and Product Security Incident Response Team (PSIRT) notifications to take corrective action and avoid service and security vulnerabilities.

## The Situation:

To address these issues, NMHS engaged Empowered Networks to start a comprehensive Infoblox NetMRI Proof-of-Concept (POC). NMHS wanted to be confident that NetMRI would solve all of their requirements and concerns.

Empowered Networks dedicated a support team and initiated a client assessment process to identify project scope, gather requirements, determine device inventory, capture network data, perform analysis, prioritize and remediate issues and provide reporting. The PoC lasted 12 months (SteveB and RonW, please confirm and provide any additional details associated with the POC or NetMRI engagement) and proved to meet all of NMHS's requirements and concerns.

## The Solution:

Empowered Networks deployed Infoblox NetMRI to automate and streamline NMHS's network management functions, delivering a better management experience and many operational advantages:

- Network Auto-Discovery and IPAM Sync: NetMRI automatically discovers, displays and synchronizes multi-vendor infrastructure, IP addresses, end hosts, network constructs (L2 physical data, L3 logical data, routes, VLANs, virtual forwarding and routing) and topologies with current and historical information through a single control plane.
- Change Management: NetMRI manages change tasks with powerful but simple methods for encoding change logic. NetMRI's automatic change detection saves considerable time and delivers historical views, side-by-side comparisons and configuration searches.
- Configuration Analysis: NetMRI auto-detects and audits network updates, receives detailed analysis, and performs configuration backup, search, and date/time stamp correlation of network problems. Analysis and alerts on network performance, configuration and issues saves time and speeds resolution.
- Change and Configuration Automation: NetMRI enables and embeds variable-based jobs and scripts, customizable templates, scripting (CCS, Perl and Python), user-based role access control and job scheduling for further time-saving automation.
- Switch Port Management: NetMRI tracks free, available and unused ports. It also provides provisioning, remediates compromised endpoints, monitors connected wired and wireless end-hosts, and supports capacity planning.
- Policy and Compliance Management: Another helpful provision is automatic, continuous real-time and historical tracking of network changes against multiple security policies. Embedded compliance rules, best-practice templates, violation detection and remediation tools further assist in resolving conflicts.
- Automated Failover: NetMRI provides redundancy and resiliency for data center collectors and appliances to support network availability requirements.

## About Empowered

Empowered Networks optimizes core networking, security and compliance for many of the world's largest companies. Our dedicated team makes applications, networks and services more agile, more visible, and more dependable. For over 20 years, we've been driving positive business outcomes that translate directly to your bottom line.

- Advisor Notifications: NetMRI Advisor automates continuous device security and lifecycle management, eliminates device vulnerabilities, supplies immediate, real-time PSIRT, CVE (Common Vulnerability and Exposure) and policy violation alerts, reduces security and compliance issues, provides contextual EoL and EoS insights, identifies obsolete devices and enables multi-vendor reporting and visibility.
- Reporting: Finally, the single-click, pre-built and customizable executive and granular reports, filtering, on-demand, scheduled and role-based access enables IT management the visibility to see and share network information across the ecosystem.

### The Result:

Empowered Networks leveraged Infoblox's NetMRI's NCCM solution to provide NMHS with discovery and visibility for all of its network devices. The solution is enabling NMHS to streamline its software and device update process and efficiently manage device configurations without adding IT headcount. It's also helping NMHS define and implement network and device policy, set, track, get alerts and prioritize and remediate non-compliant, EoS and EoL devices. Further, out-of-the-box reports are enabling better network insights, audit support, issue resolution and control. Most importantly, NetMRI is helping NMHS remove many manual network management processes, replacing them with greater automation and control. According to Tim Bertino, NMHS Sr. Network Engineer, "Working with Empowered Networks is great. We've had a dedicated team that's always available and ready to help. They've been excellent in helping us deploy NetMRI. One of the big benefits is the network configuration polling and backup. It's also been a huge visibility tool. There are a lot of out-of-the-box alerts that inform us about issues that we might have otherwise never seen. Moving away from spreadsheets to automation has been a huge time savings." NetMRI is saving money, improving efficiency, and allowing time for more critical assignments. Most of all, it's enabling Tim and the NMHS team to deliver what's most important — BEST CARE services to their communities and patients.