



Cloud Migration Challenge: Migrating 40,000 Servers to a Private Cloud

EXECUTIVE SUMMARY

- ✓ **Company:** Multinational Investment Bank and Financial Services Company
- ✓ **Industry:** Financial Services
- ✓ **Solution:** Core + Software Lifecycle Management + Application Dependency Mapping + Resource Utilization

HIGHLIGHTS

- ✓ **Pilot project migrated approximately 4,000 servers**
- ✓ **Using Device42 saved 2,320 man-hours or \$350K of loaded labor cost**
- ✓ **Projected savings for the entire project is approximately \$5M which represents an ROI of 294%**

About the Company

A provider of investment banking and financial services, the company is organized into four core businesses: personal banking, corporate banking, wealth management, and investment management. The company was looking to migrate from its premises-based infrastructure to a private cloud while simultaneously conducting a technology refresh. As part of the refresh, the company wanted to upgrade to the latest version of VMware, moving from KVM and older versions of VMware and Xen.

Migration Challenges

The company wanted to migrate their existing infrastructure to a private cloud, but before the migration could begin, they had to first discover and understand all their servers in the environment. That was a great challenge because they have over 40,000 servers in production. Consequently, the company understood the migration would have to take place in phases.

The first phase, the pilot, was focused on discovering just 4,000 servers. It was estimated that the pilot project, if done manually or utilizing traditional methods, would have consumed over 4,000 man-hours for a single snapshot. And that snapshot would have had to be repeated throughout the production life cycle resulting in very high labor costs. As the engagement rolled into later phases, it was estimated that it would require over 40,000 man-hours (19.2 man-years) or over \$6.7M to discover the entire environment.

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The Solution

The principle challenge was asset discovery. To address the challenge, the company engaged Device42 to utilize its asset discovery capability. Device42 quickly discovered the servers using 1) network device discovery; 2) subnet discovery; 3) vCenters discovery; and 4) targeting by application.

In addition to asset discovery, application dependency mapping (ADM) and resource utilization (RU) capabilities were also used to ensure intelligent migration while reducing business application risks.

Implementation

The project was divided into three phases, with phase 1 and 2 finishing by December 2019 and phase 3 beginning in January 2020. The Device42 modules used in the project were 1) Core; 2) software lifecycle management; 3) ADM; and 4) RU. In addition, Device42 deployed 11 remote collectors in geographically-dispersed data centers. The main appliance required 20 core CPUs, 96 GB of RAM and 400 GB of storage for the pilot project.

Results

In the pilot project, Device42 discovered 8,000 servers and that information was used to migrate approximately 4,000 servers. The pilot project required approximately 2,320 man-hours of effort. It is estimated that the pilot project, if done manually or utilizing traditional methods, would have consumed over 4,000 man-hours for a single discovery. Using the Device42 platform, the pilot saved 1,680 man-hours. That translates to an estimated \$283K at a loaded labor cost of \$350K per man-year, and the pilot finished in half the time. In addition, Device42 will continue to discover any changes across the environment in the future resulting in additional savings.

As the engagement rolls into the later phases, it is estimated that it would have required over 40,000 man-hours (19.2 man-years) and over \$6.7M to discover the entire environment. The Device42 platform costs \$1.7M, which represents a potential ROI of 294%.

There was a slight learning curve to understanding how all the many parts of Device42 worked together but, after a bit of use, that was quickly overcome. Device42's immensely helpful support team always had an answer or a quick fix for customizations we needed."

Device42 Solution Benefits

Discovering an environment of this size is infeasible using traditional methods. Not only is it expensive and time consuming, there are additional problems as well including the following:

- Manual discovery is mistake prone
- Spreadsheets as a collection mechanism are not scalable
- It only provides a single snapshot
- It does not detect and collect changes in the environment

The pilot project clearly demonstrated the value of Device42 discovery capabilities. The ability to deliver a faster time to value (TTV) was critical for the company's migration efforts. Device42 reduced the TTV by 50% in the pilot project. Device42 also significantly reduced the required labor to provide the discovery results and will continue to deliver an ROI of nearly 300% in phase 3 of the project.

Device42 automation delivers a more consistent user experience, removing errors associated with manual data collection. Results are delivered faster and with less errors. As a financial institution, the company must adhere to strict governance and compliance requirements. A key component to governance and compliance is having a comprehensive view of IT assets. Device42 provides that intelligence and keeps that intelligence up to date.