

Configuration Management is the "Cornerstone" of IT Utilization

SoftBank Achieves Significant Improvement in the Efficiency of its Complex IT Infrastructure Management with Device42 Automation

Interviewees:

- **Mr. Takayori Maeda**
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- **Mr. Kenichi Yamane**
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- **Mr. Yoshitaka Suzuki**
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INTRODUCTION

SoftBank has long been aware of the importance of IT configuration management across its tens of thousands of servers. However, leveraging an in-house management tool was not feasible as the cost of running and maintaining the systems were too high, and they were not always able to properly determine the status of the systems. To address these issues, SoftBank was introduced to Device42 by Aby3 Secure System. By combining the four areas of their IT management practices: CMDB (Configuration Management Database), ITAM (IT Asset Management), DCIM (Data Center Infrastructure Management), and IPAM (IP Address Management), into a single platform on Device42, SoftBank achieved improved operational efficiency and TCO reduction by approximately 25%.

ADOPTING DEVICE42 TO STREAMLINE COMPLEX IT INFRASTRUCTURE MANAGEMENT

SoftBank's mission is to provide their IT services promptly, and to enhance their corporate value. Especially in recent years, under their "Beyond Carrier" growth strategy, they have been proposing a series of innovative services that surpasses the traditional telecom business model.

Their company IT infrastructure is planned, designed and built by the IT Infrastructure Department within the IT Infrastructure Management Division of the Corporate IT HQ (hereinafter referred to as "IT Infrastructure Dep."), which is responsible for a broad range of servers, storages, in-house data center facilities, and over 100 network sites including the head office. The IT Infrastructure Development Department under the IT Infrastructure Management Division (hereinafter referred to as "IT Infrastructure Development Dep.") develops systems such as infrastructure setting automation.

SoftBank is a combined corporation of SoftBank Mobile, SoftBank BB, SoftBank Telecom, and Ymobile. Until about 10 years ago, each company managed its own IT infrastructure using spreadsheets. However, this method became challenging after the number of managed servers reached over 10,000. In response, SoftBank migrated the data from spreadsheets to a database and developed an in-house system to register the server data through a web interface.

"Since around 2015, we have developed and used an in-house system to auto-collect the configuration information of servers, but its maintenance cost a lot of man-hours. Systemization of the four areas: CMDB, ITAM, DCIM, and IPAM has been developed in parallel, but each area faced various issues", said Mr. Maeda, Acting Department Manager of IT Infrastructure Dep.

SoftBank's in-house CMDB had limitations with real-time detection of OS versions and system status of various servers, and only about 70-80% of the data could be collected automatically. Their IPAM also had issues of inconsistency due to data renewal failure and mistakes made from manual input.

Kenichi Yamane, Section Chief of the Infrastructure System Development Section, IT Infrastructure Development Dep. says "Data inconsistency was found when we inspected in detail. That led us to question the credibility of the entire information, which would cost the increased man-hour to check the data. We aimed to improve the management quality by integrating the data well and by automating the process."

SoftBank started a project to revamp its IT infrastructure management system in 2019. They came across Device42 while considering various options including in-house development based on open source and introducing other commercially available configuration management tools.

Device42 was the only product that covered all four areas of CMDB, ITAM, DCIM, and IPAM, in a single solution.

"Device42 offered a wide range of features including support for on-premises, public cloud, and containers. We felt confident that the product would keep up with new technologies," said Mr. Yamane.

APPROXIMATELY 25% COST REDUCTION WAS ESTIMATED AFTER A PRODUCT PROOF OF CONCEPT

Upon selecting Device42, SoftBank conducted a proof of concept (POC), collected configuration information from thousands of servers, created operational scenarios tailored to their business operations, and attended training and workshops with support provided by Aby3 Secure System.

Based on the initial evaluation, SoftBank calculated the cost-saving. Mr. Yamane said: "Even with the added Device42 license cost, we estimated 25% cost reduction over 5 years with reduced in-house development cost and man-hour for operation. We also believed that the data quality improvement can be achieved at the same time." SoftBank also expected that system integration would reduce the man-hours required by duplicate management systems efforts, and that they can invest that time back into high-value tasks.

The full-scale implementation was divided into two migration phases: Phase 1 for CMDB and Phase 2 for DCIM, ITAM, and IPAM.

The migration Phase 1 was completed after confirming there is no difference between the configuration information obtained through their old system and data detected from their managed devices via Device42. At that stage, around 20,000 devices were targeted.

In Phase 2, SoftBank's engineers exported data from their old system for the migration. During this phase, Aby3 Secure System offered solutions for areas that seemed inefficient compared to their old operation method. The migration was complete after one month of old and new systems running in parallel, and then at this point, about 50,000 devices were managed using Device42.

Yoshitaka Suzuki the Department Manager of System Department #3 at Aby3 Secure System said: "Some processes took several days to detect the configuration information, but adjusting task arrangements and load balancing with Device42 improved the efficiency and as a result, these tasks could be completed during night time."

CONFIGURATION MANAGEMENT IS THE "CORNERSTONE" OF IT/DIGITAL UTILIZATION

Device42 enables CMDB, ITAM, DCIM, and IPAM, on a single platform, and can consistently manage the lifecycle of an enterprise IT system. The customizable management items allow users to adjust to their own business needs. The product has been chosen by more than 1,000 organizations worldwide and across 60+ countries including most of the U.S. governmental organizations

Mr. Suzuki explained: "Regardless of the size of the organization, many customers seem to be facing challenges in infrastructure configuration management. Not only does it cost a lot of man-hours, but it also poses a security risk in that it delays addressing vulnerabilities due to poor configuration management."

In addition to annual maintenance updates, checking for vulnerabilities, and dealing with OS bugs, the constant tasks in IT infrastructure management include understanding the impact of a device going down. The motivation behind SoftBank's decision to introduce Device42 was to eliminate these man-hours spent on trivial tasks and invest time in more valuable activities.

Mr. Maeda said: "In my experience of managing networks for over 10 years, I remember having to create correspondence tables for management many times. I consider all these to be wasted man-hours. Even when we automate the configuration process, if the configuration information is unclear, we would have to determine each time if a device is configured correctly. Therefore, I believe that configuration management is the 'cornerstone' of our business. The majority of infrastructure operation and management is related to configuration management. If the quality of the configuration information is low, all other operations are affected."

After laying the foundation of its IT infrastructure management by leveraging Device42, SoftBank has reduced cost by 25% and dramatically improved management quality through data integration. Mr. Yamane said, "The degree of information utilization within the company has greatly improved, as the ratio of automatic management has increased from 80% to 95%. We used to receive complaints when configuration information was not available, but now with more accurate data available, complaints have significantly reduced. The fact that we are now able to grasp the status of devices on-site and make plans is a very significant achievement."

SoftBank achieved automated configuration management and now aims to streamline the process further by collecting more information. They expect the emergence of a tool that supports not only server configuration information but also storage configuration and usage, and automatic inventory of data center facilities. To meet those requirements, Aby3 Secure System will work on providing its original solution that integrates with Device42.

Regarding Aby3 Secure System's support during the migration project, Mr. Maeda commented, "There were times when persistent negotiation between Aby3 and Device42 was required so our feature request could be addressed. Aby3 helped us fill the gap between our old system and Device42. We hope that they continue to acknowledge the delicate needs of Japanese customers to improve the product value of Device42 in our market."

To learn more, call +1 (844) 424-2422 or visit

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