

# AI platform thrives with huge data intake

## Results at a glance

- Improved issue identification and resolution
- Enhanced customer experience
- Reduced costs by 30% with data tiering
- Strengthened data analysis for improved AI functions
- Amplified cross-team collaboration



**SAMSUNG**

### SUMO LOGIC PRODUCTS

Log Analytics

### USE CASE

Digital Customer Experience

### CLOUD ENVIRONMENT

AWS

GCP

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## Challenge

The data required to deliver a great user experience kept growing, as did costs and complexity, making it difficult to meet the demands of customers.

Samsung Electronics Bixby is an artificial intelligence (AI) platform released in 2017. Bixby links to Galaxy, Samsung Electronics' signature product line, and various gadgets and home appliances in the Galaxy ecosystem. Bixby leverages the user's voice to perform daily tasks and control connected devices.

Bixby's deep-learning AI model understands the user's voice and delivers more accurate results when user data accumulates. However, as Bixby required more data per user, the amount of data to analyze and manage increased, escalating data management costs to the development team.

While the previously used cloud-based analysis system, Google Stackdriver and Google Cloud Operations supported simple search and debugging functions, the analysis team still had to go through additional processes and data format changes. There was room for improvement in producing meaningful results and enhancing customer experience, including debugging, data distribution, performance, and issue resolution.



### INDUSTRY

Electronics  
Artificial Intelligence (AI)

### ABOUT

Samsung Electronics was established in 1969 to inspire the world with innovative technologies, products, and designs that enrich people's lives and contribute to social prosperity by creating a new future. Samsung develops and produces gadgets, home appliances, and semiconductors to improve the daily lives of users through better user experiences and improving the environment with related services such as Bixby.

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## Solution

With the introduction of Sumo Logic, the overall quality and efficiency of the Bixby service operation improved, including cost-savings from astutely maintaining and managing the data. Using log analysis and machine learning to address problems faster than simple searches, Sumo Logic improves debugging and performance issue resolution, leading to high-quality service delivery.

Once up and running with Sumo Logic, the daily log ingestion volume averages 35 TB (terabytes). About 550 engineers and developers from the Samsung Electronics Bixby team use Sumo Logic; most of them are certified through Sumo Logic's learning platform.

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## Results

### Strengthening efficiency while reducing costs through a SaaS-based solution

By adopting Sumo Logic's SaaS-analytics platform, the Samsung Electronics Bixby team successfully reduced management resources by improving the flexibility of the data analysis system. The developers, in particular, rated the platform highly because it does not require any additional storage space while offering powerful functions to analyze and process various forms of logs. This lets the developers generate more diverse insights for the service.

Furthermore, data tiering offers a mix of Continuous, Frequent and Infrequent Tiers, which stores the data and provides a certain level of data access and search functions per tier. Despite the increase in the volume of logs, the tiering feature improved the efficiency of log analysis, resulting in a cost savings of approximately 30% compared to the previous solution.

#### BY THE NUMBERS

**35TB**  
average daily log  
ingestion volume

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**550**  
engineers and  
developers from  
the Samsung  
Electronics Bixby  
team use Sumo  
Logic

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**30%**  
cost savings



## Powerful functions optimize log analysis

In response to the growing need for more powerful log analysis to enhance troubleshooting efficiency and improve customer service quality, Sumo Logic was introduced based on its various features, such as, log search, query availability, audit for a logging system, and detecting and alerting functions for anomalies or any irregular situations.

The statistical and analytical functions of Sumo Logic have played a crucial role in improving service performance monitoring and streamlining the process of identifying and resolving data issues. Sumo Logic's powerful and unique queries provide quick access to simple search functions and the information on when and where similar types of problems have occurred and which software versions are affected. The developers especially acknowledged the ability to discover and analyze the root cause of issues as the most valuable strength of Sumo Logic.

“We use the Sumo Logic platform as a logging system for Bixby, and developers utilize it in debugging, developing, and managing the process of services. The powerful query feature is a competitive advantage, enabling us to quickly identify software versions with similar types of errors or issues that occur frequently, and to help identify and resolve the fundamental issue of errors, going beyond temporary actions.” said Youngjip Kim, EVP and Head of the AI Team.

**Kim added that “the platform’s capability to visualize the statistical results using Timeslice and Transpose functions provides powerful insights in the initial stage of issue analysis.”**

In addition, the exclusive team dedicated to Sumologic maximized its functionality by exploring efficient ways to use it in the development and deployment of Bixby services. As the team innovates and learns useful queries and shares within the organization, the application of the platform has improved. This results in easier access to data analysis and safer collaboration among engineers.

### CUSTOMER EXPERIENCE



In particular, Sumo Logic's powerful query functions serve as a competitive function, providing insightful results, like identifying similar errors or software versions with frequent issues.

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**Youngjip Kim**  
EVP, Head of AI Team  
Samsung



## Improved customer service and response time

Kim illustrated that enhancement of service quality and improvement in the process of issue identification and resolution are the most significant results achieved through the adoption of the Sumo Logic solution. Through the Sumo Logic solution, issues such as service outages and performance delays were identified and resolved in a shorter amount of time, enabling enhanced customer experiences.

Using Sumo Logic, the time taken for identifying and diagnosing issues significantly decreased.

The dashboard and query functions in Sumo Logic allow the developers to check customer complaints and pain points quickly and diagnose fundamental problems, resulting in a more stable service. Furthermore, the service alignment has become more evident as more stakeholders involved in developing the service, like Bixby developers, data analyzers, product managers (PM), and DevOps engineers use various analysis results and templates.

**“For the Service Development Team, it is critical to analyze the users’ pain points and tackle the issues as quickly as possible. We use Sumo Logic’s dashboard to identify the issues immediately and provide high-quality service to our users,”**  
said Kim.

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