

*case study*



world's first BSS migration  
to the cloud executed by  
amdocs on AWS



Migrated BSS supports digital transformation and modernization program of leading Southeast Asian media conglomerate, achieving agility, better time to market and capex expenditure reductions.

## Executive summary

A pioneering telecom and media conglomerate in Southeast Asia is the world's first communications service provider to migrate their BSS to the cloud. Planned and executed by Amdocs in partnership with AWS, the migration involved huge volumes of BSS data. The move has saved the company millions of dollars in upfront capex expenditure, and will deliver an additional 10% opex reduction over a period of five years. The project was part of a wider digital transformation program which includes, in addition to other measures, deployment of a data hub, bill presentation, identify management, user experience widgets and more, with the aim of providing an improved, personalized user experience, increased self-service adoption and greater agility.

## Background and challenges

The service provider undertook a pioneering and extensive digital transformation program that would solidify their leadership position. The program would enhance overall operations with a modern cloud-based architecture allowing them to offer digital content on the cloud.

The move to cloud was executed using the DevOps delivery model. This enabled the operator to scale down their data center footprint and cost, increase self-service adoption for both consumers and employees, provide agility and scale, improve customer experience and enable innovation and rapid introduction of changes, as well as highly personalized offers for each individual user.

Key to the project's success was the migration of business support systems (BSS) and effectively, the entire customer experience suite – representing the world's first BSS migration to the cloud. Over the course of five years since go-live, the BSS had undergone many customizations, making the migration more challenging.








In parallel, several solutions from Amdocs' cloud-native CES20 portfolio were deployed to improve the user experience and generate data insights.

## The solution

The service provider had made the strategic decision to adopt AWS as their cloud vendor and chose Amdocs as prime SI for the cloud migration project. The two companies collaborated closely to design the solution, which included re-platforming the BSS to AWS's public cloud, as well as integration with both on-cloud and on-prem apps.

During the planning stage, Amdocs mapped the IT systems and applications, determined the order of app migration and set milestones for the journey.

The implementation was based on AWS's well-architected framework, leveraging AWS-native services such as:

-  AWS Config to assess, audit and evaluate configurations of AWS resources
-  AWS Systems Manager for visibility and control of the infrastructure
-  AWS Lambda Scripting to for database backup
-  Amazon CloudWatch to visualize monitoring and operational data
-  Amazon CloudTrail for governance, compliance, operational auditing and risk auditing
-  Amazon Athena to analyze data in Amazon S3 (Simple Storage Service) using standard SQL
-  Amazon QuickSight for interactive dashboards with machine learning insights that simplified cost reporting

AWS CloudFormation templates enabled fully automated provisioning of cloud infrastructure as a code (IaC). Using these templates Amdocs was able to test, deploy and run the code in order to provision the infrastructures in an easy and reusable way. Amazon Machine Images (AMIs) were employed to speed the provisioning process. Importantly for the customer, the architecture implemented will enable future updates to BSS apps without disrupting other parts of the architecture.

The entire project was completed in just 14 months.

## Migration in numbers

In the course of the migration, the following on-prem resources were shut down:



223 virtual machines



68 switches



2 tape libraries



4 storage racks



11 security devices

These were replaced on AWS by 315 EC2 instances comprising 228 HEL/Linux instances and 87 Windows instances.

### The COVID-19 factor

COVID-19 struck just as Amdocs was finalizing the migration plan, forcing them to re-plan migration logistics at the last minute and identify innovative solutions, including enlisting the help of teams from five centers in four countries to execute the migration via remote. Thanks to well-planned, detailed rehearsals and exemplary collaboration between the customer and Amdocs project teams involving hundreds of people, the go-live was achieved on time and on budget, with nearly all employees working from remote in a highly effective and secure fashion. Amdocs' BSS then quickly went live on AWS.



### Benefits

Following the migration, the customer's entire BSS footprint was removed from their on-prem data centers and today, the vast majority of the company's apps and 25 petabytes of content are managed on the cloud.

The migration reduced the service provider's capex by millions of dollars, with an additional 10% opex reduction over the next five years. Furthermore, since the solution was already operating on the cloud prior the COVID-19 pandemic, the customer was able to scale down software license costs whilst maintaining operations, saving an additional ~\$25K per month throughout the crisis.

"It was a true manifestation of excellent team work across time zones and business units to achieve this amazing feat. This is a manifestation of the Amdocs 'can do' attitude, daring to dream and win every time."

### Business needs:

- Support customer's digital modernization program by migrating BSS to the cloud
- Innovate efficiently with speed, agility and scale
- Remove BSS data center footprint
- Apply changes quickly and easily
- Increase self-service adoption with intuitive user experience
- Enable personalized recommendations for each user

### Value delivered:

- Millions of dollars capex cost savings
- 10% ongoing cost optimization
- Shutdown of 223 virtual machines, 68 switches, 4 storage racks, 2 tape libraries and 11 security devices
- Architecture delivered enables updates to individual apps without impacting overall architecture
- Completed in 14 months
- Vast majority of customer apps on the cloud

# about amdocs

Amdocs' purpose is to enrich lives and progress society, using creativity and technology to build a better connected world. Amdocs and its 25,000 employees partner with the leading players in the communications and media industry, enabling next-generation experiences in 85 countries. Our cloud-native, open and dynamic portfolio of digital solutions, platforms and services brings greater choice, faster time to market and flexibility, to better meet the evolving needs of our customers as they drive growth, transform and take their business to the cloud. Listed on the NASDAQ Global Select Market, Amdocs had revenue of \$4.1 billion in fiscal 2019. For more information, visit Amdocs at [www.amdocs.com](http://www.amdocs.com).

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