



Case Study

Enabling NTT COMWARE's Ambitious Cloud Transformation





About the Client

NTT COMWARE CORPORATION (hereinafter, NTT COMWARE) is a systems integration specialist headquartered in Tokyo. It's a subsidiary of NTT Group, whose current market capitalisation is among the Top 10 largest telecommunications companies globally in 2023 (CompaniesMarketCap). NTT Group also holds a prominent position at #56 in the Global 2000 list, as recognised by Forbes. Most of NTT COMWARE's business involves serving the wider group of NTT companies.

When NTT COMWARE Corporate Strategy Planning Department embarked on an ambitious cloud migration and modernisation program as part of its digital transformation initiative, specialist support was needed. Amdocs Cloud PSO was appointed to aid the transition via cloud consulting and engineering services along with training and mentoring.

Outcomes of the engagement include:

- Modernising and future-proofing NTT COMWARE's existing architecture to leverage cloud benefits.
- Building strong foundations in Azure and empowering internal teams to embrace cloud capabilities.
- Achieving tangible business benefits, such as reduced time to market, cost savings, increased productivity.
- Cloud-native architectures and automated infrastructure provisioning

with scalable, extendable, and reusable 'one-touch deployment' frameworks.

- Agile and DevSecOps practices implemented, along with the build of a data mesh platform for enhanced autonomy and ownership.

Challenge: Cloud Goals Required Full Overhaul of Legacy Systems

The scale and complexity of NTT COMWARE's cloud transformation demanded specialist expertise in cloud technologies and project management. As part of its cloud journey, the company had set three overarching technical goals: to halve maintenance costs, to reduce development time by half, and to enable cross-use of data domains by different business units. The architecture of internal systems hadn't changed since the company's launch in the 1990s and an extensive modernisation was required to ensure success.

Amdocs Cloud PSO was engaged to support the migration and modernisation based on our depth and breadth of cloud experience along with our global reach. We combined strategic consultancy and engineering services with more specialist activity requiring deep technical knowledge.

Solution: Cloud-Native Infrastructure and Architecture Boost Capabilities

The journey began with a discovery and assessment initiative exploring NTT COMWARE's vision, mission, current situation, and target total cost of ownership. Armed with knowledge surrounding the company's existing IT strategy, operating model, security model, processes, and tech stack, we formulated a comprehensive cloud migration strategy. This included selecting Azure as cloud vendor then devising security framework and infrastructure patterns, with governance and compliance controls tailored to NTT COMWARE's specific needs and circumstances. Individual applications were also earmarked for Rehosting, Replatforming or Refactoring as appropriate.

From here, we built and deployed reference architecture implementations for services including Azure Kubernetes Services, Azure Function App, Azure Logic App, and Virtual Machine Utilities. Scalable and customisable, these reference architectures bring significant business value. They accelerate the migration process while embedding design and implementation best practices surrounding security, compliance, monitoring, and observability. We also automated infrastructure provisioning using Terraform scripts with Infrastructure as Code (IaC) deployments.

Technical aspects of our solution detailed with consulting and advisory services rooted in the latest best-in-class standards and procedures for a secure, compliant, and effective migration. Alongside this, our Cloud PSO SWAT Team executed a training and enablement program. This encompassed best practices, recommendations, demos, experiments, and hands-on workshops

for NTT COMWARE users who will play a part in the ongoing cloud transformation journey.

Specific requirements for data modernisation demanded specialist input from an Amdocs Cloud PSO data practice team. We needed to decentralise data, structuring it by domain to facilitate a more joined-up approach between data producers and data consumers. There was also a need for better agility, enabling teams to experiment or to pivot quickly based on data-led business insights. Achieving these goals required a fully automated, scalable data platform.

Our novel solution used federated governance in a data mesh architecture. Initially, we focused on the identification and development of data use cases that would support the strategy. Understanding the type of data involved, who used it, and how it was used was central to our approach.

The Data Mesh Platform

Organising the data in domains with a clear ownership structure, the data mesh platform connects producers with consumers and uses the 'data product' concept to support decision-making. The platform's functionalities include authentication, monitoring and account services; audit and compliance services; network, security, and data protection design; and data partitioning. It supports management and analytics dashboards used by different teams according to their role and domain.

Data Analytics Foundations and Workloads

We implemented various Azure services to support the data mesh functions. These included Microsoft Purview as a unified data governance solution to reference raw data and data products, with features such as a data catalogue and data

lineages. Azure Data Factory was used for the data ingestion pipelines, and data processing templates were based on Azure Databricks and Azure Data Factory. Databricks SQL Warehouses were used as the query layer to serve data products such as reports and dashboards. Yellowfin BI clusters were integrated with Microsoft Active Directory for the dashboard infrastructures.

Outcome: Cost, Performance, and Productivity Benefits

Together, the infrastructure developments and data mesh platform move the needle on NTT COMWARE's modernisation ambitions as it seeks to foster high-growth opportunities. We've facilitated cross-use of data domains by different business units, ensuring more agility and better speed to business insights with data. The engagement also enabled accelerated development and reduced maintenance costs through cloud engineering – accelerators, smart one-touch deployment solutions, automated provisioning, release quality engineering and cloud-native solution blueprints.

In line with our commitment to excellence, we are actively striving to achieve a 15%-25% higher performance in each area than standard benchmarks. Some of these benchmarks are derived from sources such as Gartner and Forrester reports. Below were the initial tangible outcomes planned (but not limited to) during this engagement of SWAT and Data Mesh, out of which some had already been achieved successfully and others are well on track to be accomplished in the coming phase.



50% reduction in time to market with CI/CD leveraged for custom tools.



55% cost savings achieved by registering on-prem machines as self-hosted agents (plus 50% savings on the cost of virtual machines).



60-70% increase in productivity following automation of tasks such as tag management.



90% improvement in code quality, meaning fewer deployment failures.



75% reduction in Mean Time To Recover.



60% time saving on the proof-of-concept development cycle.

NTT COMWARE recognizes the value via well-defined success metrics and achieving maximum ROI by partnering with Amdocs Cloud PSO. The partnership goal with this engagement is to make NTT COMWARE "future-ready", transform them from "Telco" to "TechCo", and enable them with capabilities to build new revenue models & generate business growth opportunities globally.

About Amdocs

Amdocs' purpose is to enrich lives and progress society, using creativity and technology to build a better connected world. Amdocs and its 27,000 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.

For more information, visit www.amdocs.com.



About Sourced

Sourced Group an Amdocs Company (Sourced) is a global cloud consulting firm with over a decade of experience in enterprise cloud transformation, specialising in 'at scale' cloud migration and DevOps enablement for highly regulated and adjacent industries. We work with some of the world's largest and most security-conscious organisations, and understand that a mature cloud transformation journey can be complex, and that there is no 'one-size fits all' approach. Our expertise stems from banking and financial services, telecommunications, as well as airlines and other highly regulated industries.

For more information, visit www.sourcedgroup.com.