

Empowering Wadhvani AI with seamless cloud migration

**WADHWANI AI**

Client profile

Wadhvani Institute for Artificial Intelligence, an independent nonprofit, leverages advanced technologies like artificial intelligence and machine learning to tackle challenges in public health, agriculture, education and infrastructure.

To increase the scale of their initiatives, Wadhvani AI required a secure and efficient cloud infrastructure. Since they are a nonprofit organization, optimizing costs is crucial.

NTT DATA identified an opportunity to assist in their migration journey by offering a seamless transition to Google Cloud. With a deep understanding of Google's native tools, NTT DATA provided a future-proof solution that minimized operational disruptions, ensuring the client could scale their AI-driven efforts globally with confidence.



Partnering with NTT DATA transformed our cloud migration experience, delivering a seamless transition with expert guidance, tailored solutions and unparalleled support.”

Abhishek Kumar, Associate Director — Engineering, Wadhvani AI

20%

reduction in cloud costs

39

apps migrated within 3 months

Business need

Securely migrate applications to Google Cloud Platform

Wadhwani AI faced a serious challenge. They had to migrate almost 40 different applications from across their seven organizational units — hosted across multiple accounts — to Google Cloud. The migration needed to be executed with precision to ensure the new cloud infrastructure maintained the highest standards of security and compliance.

A key concern was establishing a robust landing zone that followed Google Cloud Platform's (GCP's) best practices — and aligned with Wadhwani AI's existing security protocols and policies. A smooth migration without compromising data integrity or operational continuity was essential, as was meeting the stringent regulatory requirements associated with their global partnerships. The complexity of transitioning these critical applications, coupled with the need to maintain alignment with existing landing-zone policies, added another layer of complexity to the process.

Overcoming these challenges required expertise in cloud architecture, in-depth knowledge of cloud environments and a comprehensive strategy for mitigating risks and ensuring compliance.

Solution

Consolidated infrastructure and enhancing security

Within three months, we successfully consolidated the accounts of seven organizational units into a single GCP organization. This included migrating 39 applications, leveraging GCP's folder structure and project hierarchy to streamline resource management, permissions assignment and cost monitoring. To implement the landing zone, we employed Terraform for infrastructure as code (IaC) and automated deployments using Jenkins pipelines.

Security was enhanced through identity and access management, virtual private cloud firewall rules, Cloud Armor for protection from distributed denial of service (DDoS) attacks and a security command center for real-time threat monitoring. Additionally, we implemented Twingate's zero trust network access for secure, restricted remote access, replacing traditional virtual private networks.

For the migration process, we performed a comprehensive assessment, migrating data using services like Velostrata and Storage Transfer, while validating and testing the new environment for performance and security. Monitoring and logging were handled through Stackdriver, with custom alerts set up for key metrics. We also established cost controls through GCP's billing tools — with budget alerts to prevent overruns — and deployed custom scripts to automate backups across virtual machines. The migration resulted in a scalable, secure and operationally efficient infrastructure for Wadhwani AI's AI initiatives.

Outcomes

Secure and scalable cloud infrastructure for AI initiatives

Migrating to the cloud is a complex journey that demands extensive technical expertise, meticulous planning and precise execution. NTT DATA, as a seasoned cloud partner, offers the critical support needed for a successful migration. Our deep understanding of cloud platforms, combined with our proven methodologies, enabled us to guide Wadhwani AI through every phase of the migration process. Leveraging our expertise, they benefited from a seamless transition, minimizing downtime and avoiding common pitfalls.

NTT DATA tailors solutions to address specific business requirements, ensuring optimal scalability, security and efficiency. Our partnership helps accelerate time to value and reduced risk, making NTT DATA the ideal ally for navigating the intricacies of cloud migration.

Highlights:

- **20% reduction in cloud costs**

Our migration services delivered reduced cloud costs by nearly 20%.

- **39 apps migrated in 3 months**

Our large-scale migration was completed fast, moving 39 applications in just 3 months.

- **Improved operational efficiency**

The infrastructure setup was fully automated, resulting in streamlined processes and reduced manual intervention.

- **Enhanced security**

Google Cloud security best practices were implemented, along with additional security measures tailored to the specific requirements of the Wadhwani AI team.

- **Automated infrastructure setup**

The landing zone, including staging and production environments, was set up using Terraform, enabling easier infrastructure management through code instead of manual processes.

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