MULTI-CLOUD DRIVEN PRODUCT TRANSFORMATION AT SCALE FOR A GLOBAL INFORMATION SERVICES PROVIDER
The client is an American-Dutch provider of information services and solutions for health, risk and compliance, finance, legal, tax, and accounting sector professionals.

The client has industry verticals as business units, which serve GRC, tax and accounting, legal and regulatory, and health segments. The units are in a horizontal business structure and are responsible for business assurance, efficient operations, and IT transformation. The IT arm, traditional data center, and legacy infrastructure support over $5 billion worth of business.

**Client overview**

In FY19, the client embarked on a major cloud transformation program to deliver a seamless, customer-focused, end-to-end digital experience. This transformation required the client to integrate agility, innovation, insights, speed, and efficiency into its technology platforms, services, and operations. Completing this cloud transformation journey successfully was pivotal to deliver superior digital capabilities.

The customer operated and managed 250+ data centers, hosting 1,000+ interdependent business applications in a very complex tech infrastructure. The objective of the multi-cloud strategy was to move the applications to Azure and AWS, and build a robust services infrastructure that could enable its business units to consume cloud services in a pre-defined standard template format.

**The key issues were:**

- Too many data centers and the existing legacy infrastructure posed a security and maintenance risk.
- Distribution of workloads among data centers lacked scalability.
- Unavailability of standard templates to consume cloud services across the organization.
- Lack of automation (excluding very few areas).
- Lack of technical bandwidth and required skills to execute the program amid time constraints.
Business challenges

01
The primary challenge was to migrate services immediately from key data centers before the expiry of contracts by the end of 2020. Even a single day’s delay would have resulted in significant financial implications running into millions of dollars.

02
For the first time ever, such a large program was planned for services that should run on robust delivery processes to deliver over 100 releases through 3000 story points within an aggressive time-box duration. Flawless coordination of a large team of over 80 people scattered around seven countries and six time zones added to the overall complexity.

03
Services spanned across multiple technology domains such as cloud infra, networking, security, compute, data, and workplace technology—requiring domain experts and SMEs from multiple towers of the client Global Business Services (GBS) division.

04
The scope of the project was to build a team of engineers with multi-cloud experience as applications would be migrated to both AWS and Azure, and it needed similar services on both platforms. Since engineers usually possess expertise in one technology, it was a daunting and steep learning curve to overcome.

05
Resilience across cloud providers (multiple clouds) as services needed to provide resilience against region failure within a CSP and CSP failures.
Solution highlights

- Strategically planned, hypothesis-based program execution: The program started with a pilot of four services to test the process assumptions and set up the agile delivery framework. The successful completion of the pilot refined the model, gave confidence, and set the groundwork for the full-fledged program execution.

- The broad approach was to build a catalog of standards-based services that can be consumed by applications in an ‘IT-as-a-Service’ model. Continuous improvements, self-service request automation, and infrastructure as code were the key design principles.

- We developed all the services in a plug-and-play model integrated with ServiceNow, where requests were placed for any service and, zero manual effort was needed to process and provision the request.

- Enforcement scripts were automated in the ADO pipeline, helping the operations team handle the cloud's incompatible resources.

- Automated service health dashboard to show the real-time health of the deployed services in both clouds: AWS and Azure.

- Process: Agile framework and DevOps.

- Technology used: Azure AWS, PowerShell, and Python.

Key services
used during the implementation

- Virtual data center
- File share
- Firewall services
- Database
- Secure file transfer
- Backup and restore
- Site-to-site VPN and client-to-site VPN
- Bulk Email Relay
- Data storage
- Data storage
- Virtual data center
- File share
- Firewall services
- Database
- Secure file transfer
- Backup and restore
- Site-to-site VPN and client-to-site VPN
- Bulk Email Relay
- Data storage
- Data storage
- Virtual data center
- File share
- Firewall services
- Database
- Secure file transfer
- Backup and restore
- Site-to-site VPN and client-to-site VPN
- Bulk Email Relay
- Data storage
- Data storage
Client benefits

01
Improved customer experience and faster time to market across the enterprise. Today, the client only needs to focus on the service configurability and not worry about infra management, compliance with the client standards, Disaster Recovery, backup, etc.

02
Significant savings were made on manual efforts using Infrastructure-as-Code for provisioning and configuration. For example, deploying a virtual data center now takes 5 minutes against 4 hours earlier. A fully functional Bulk Email Relay service now requires 30 minutes against 8 hours of setup time earlier.

03
One-click automated workflow takes care of the end-to-end service request life cycle and removes any need for manual follow-ups.

04
Enforced 100% compliance with the client security, network standards, and policies embedded in service architecture.

05
40x faster data center deployment through automation & virtualization.

06
Continuous learning, adaptability, and improvements have refined the existing IT delivery framework to support the delivery of 50% more services as compared to the initial baseline.

About Mindtree

Mindtree [NSE: MINDTREE] is a global technology consulting and services company, helping enterprises marry scale with agility to achieve competitive advantage. “Born digital,” in 1999 and now a Larsen & Toubro Group Company, Mindtree applies its deep domain knowledge to 260 enterprise client engagements to break down silos, make sense of digital complexity and bring new initiatives to market faster. We enable IT to move at the speed of business, leveraging emerging technologies and the efficiencies of Continuous Delivery to spur business innovation. Operating in 24 countries across the world, we’re consistently regarded as one of the best places to work, embodied every day by our winning culture made up of over 27,000 entrepreneurial, collaborative and dedicated “Mindtree Minds.”

To learn more about us, visit www.mindtree.com or follow us @Mindtree_Ltd