



Success Story.

Multiple Data Center Migration And Consolidation To Azure

About the Client

The customer is a globally diversified energy and related technology company specializing in engineering and complex specifications related to the industry. A NASDAQ listed company with approx. \$ 400 MN in 2016, the customer is renowned for innovative problem solving for challenges in environmental air pollution control, energy, and fluid handling and filtration

Business Challenge

Decades of growth and geographic expansion, and several M&A's along the way had created an IT infrastructure sprawl, with data centers spread across countries, each running their own standards and subsidiary specific configurations, and some being managed in-house while others were outsourced to specialists.

The customer's CIO office decided to rationalize and consolidate the data centers in the cloud for better standardization, oversight, optimizations and cost efficiencies. The customer wanted to create a consolidated data center hosting framework that was secure and flexible enough to accommodate differences in requirements across multiple business units.

Infogain Solution

Infogain helped the customer with comprehensive and end to end services. The entire project was divided into four parts. Microsoft Azure IaaS was chosen as the ideal platform for consolidating the data centers.

ASSESSMENT AND PLANNING

Infogain's cloud experts initiated an automated discovery process across the data centers using our proprietary and in-house developed EnSight tool to inventory compute instances, VM's, workloads, applications and databases. The tool also captured resource utilization to right-size Azure compute requirements for capacity and performance. The assessment phase included a detailed understanding and documentation of standards followed at different data centers, key business drivers that shaped the IT policies, in-house vs 3rd party managed practices, etc.

UNIFIED IT & DATACENTER FRAMEWORK DESIGN

With the data gathered from the assessment and planning phase, Infogain Azure IaaS experts built a blueprint for a unified IT framework for migrating and managing the data centers. The unified framework included considerations for:

- Unified Networking platform
- Unified Citrix environment
- Common security, authentication and firewalls
- Device and application management
- Storage, backup & DR, and availability
- Governance and management

The design also included building an Azure roadmap and cost analysis

PROOF OF CONCEPT

A POC phase was necessary for the client to understand how the new environment would work and to minimize risks with respect to few key challenges including:

- Latency issues stemming from connectivity to remote locations
- Disparities in networking types connecting to Azure IaaS

The PoC phase involved deploying sample Azure workloads and demonstrating connectivity across network types and locations. Latency issues were addressed in the PoC by connecting sample workloads from the DC's to the IaaS instance.

MIGRATION

Data centers were migrated one by one over a period. Using experience drawn from hundreds of Azure migrations, the team leveraged mission-built tools, structured repeatable processes and proven best practices to move the data centers to Microsoft Azure with minimal risk and downtime. Each data center migration involved:

- Provisioning of VM's and compute resources, networks, connectivity, virtual appliances and security
- Configuration of identity and access management, security, storage, backup & disaster recovery
- Implementing high availability, auto scale, load balancing, traffic management, failover-failback and automation
- Migration of workloads, containers, applications and data

Each data center migration presented their own unique challenges and complexities, however Infogain Azure experts could move the data centers within committed timelines. Azure Site Recovery (ASR) and Powershell scripts were leveraged for the migration and data movement.

CONSOLIDATION

Each new data center migration brought about the flexibility and robustness of the unified framework design and its ability to accommodate data centers across size, connectivity and network types, specific policies etc.

While accommodating the uniqueness in data centers driven by business needs, the unified framework provided the clients IT team to have a bird's eye view of the infrastructure, performance, health, and security measures of all sites from a single interface.

Technologies Used



ASSESSMENT

EnSight (in house tool)



MIGRATION

ASR, Powershell scripts



PLATFORM

Azure IaaS

Client Benefits

SIMPLER DATACENTER MANAGEMENT

Migrating the data centers to a single Azure IaaS environment within a unified framework significantly reduced the complexity involved in managing the data centers. For the first time, a centralized IT team could be constituted to oversee the management and upkeep of the data centers as opposed to local team working with local vendors and by passing corporate IT rules and policies.

COST EFFICIENCIES

Leverage efficiencies of scale and a single data center hosting contract brought about significant cost savings. Savings in time for the IT and finance teams in negotiating yearly contracts with various vendors was a bonus.

CENTRALIZED ENFORCEMENT OF RULES AND POLICIES

The client could easily enforce companywide IT rules and policies for the first time, as opposed to significant team spent interfacing with IT managers responsible for disparate data centers. Rules and policy changes could be made from a single interface and cascaded to all the data centers.