DeLaval

Delaval
leading dairy manufacturer
deployed 'AWS Landing Zone'
for centralized monitoring and faster
deployment of applications on the cloud

YASH
Technologies
More than what you think.

Delaval is a world leader in dairy products and farming machinery. Founded more than 100 years ago, it has over 15 factories worldwide with revenue exceeding €1 billion. They provide integrated solutions designed to improve dairy procedures, production, animal welfare, and overall quality of life.

Revenue:
€1 Billion

Headquarters:
Europe

Employee Count:
4000+

Business Background

- Delaval is a leading dairy equipment manufacturer who supplied products across the globe.
- The equipment were periodically serviced by the technicians on the dairy farms.
- An unexpected equipment failure on the farm often required their immediate attention due to the perishable nature of the dairy products.
- They wanted to proactively monitor the farm equipment, across the globe, with sensors and take action to mitigate equipment failures.
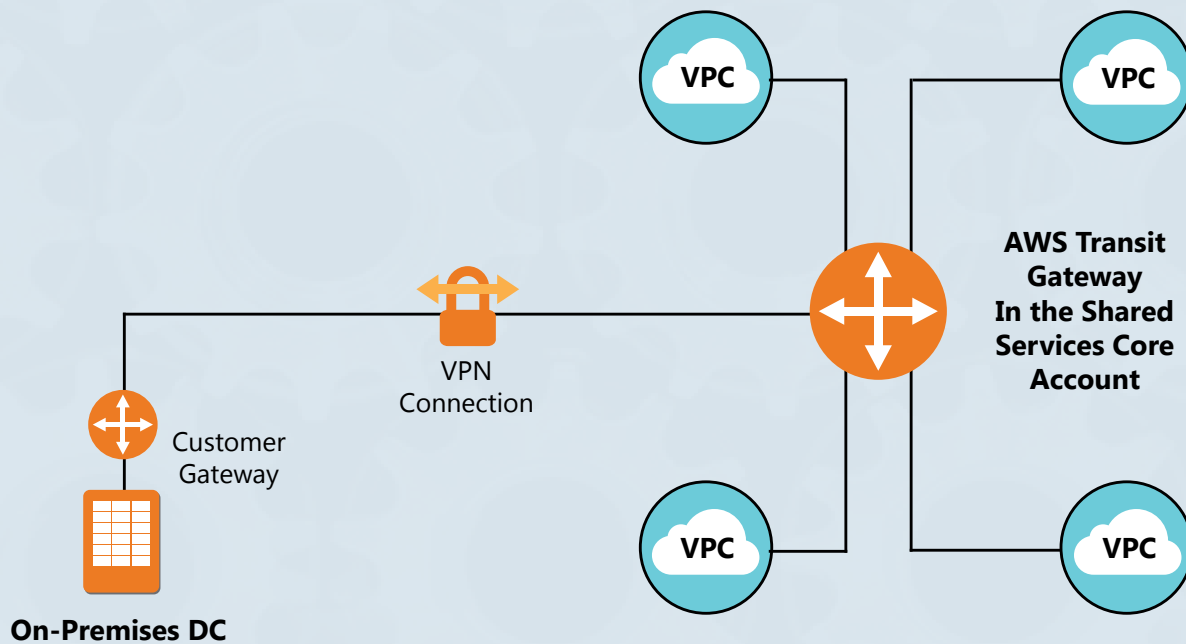
Business Needs

- Delaval wanted to host all the IoT sensor data and associated 'Data Analytics' platforms on the cloud.
- Their management initially preferred to understand the Application cloud migration strategy, as a part of their digital roadmap journey, and pave the way to migrate all their existing on-premise applications in the long run.
- The management preferred centralized monitoring of all their applications.
- They required simplified network architecture where all new applications easily 'landed' on the cloud with minimal intervention and maximum automation.
- Delaval required a 'landing zone' that was scalable, consistent and had good repeatability, as the size of the cloud grew.
- Required strong access controls with a single-sign-on feature for applications, accounts, tools, etc.
- The managers wanted their 'proof of concepts' (PoC) to cost as low as possible.
- The management wanted dashboards to monitor infrastructure metrics and the maintenance costs associated with each application.
- Establish an infrastructure (code) pipeline to centrally and automatically rollout infrastructure changes across the accounts.

Solution

- YASH consultants analyzed the requirements and architected 'AWS Landing Zone' for a safe landing of all their applications on the cloud.
- AWS landing zone provided the infrastructure foundation and security baseline and, their needs in 6 weeks.
  - Considered many design decisions scenarios – number and type of accounts (Root, Core and Product Accounts); User access; Log aggregation; & network architecture
  - Deliberated organization structure, team roles, billing needs, and security compliance parameters
  - Assessed the existing landscape and checked the dependencies and compatibility of applications before the cloud migration
  - Those applications which were incompatible had to be re-architected
- The consultants modified the AWS Landing zone scripts to automatically and centrally provision individual accounts for every application to be migrated to the cloud.
- The customized landing zone scripts automatically provisioned multiple accounts with centralized controls for network access, security, and access management.
- Deployed 'Jira,' as ticketing and project management tool, and integrated it with the communication channel – slack.
- Have created virtual private clouds (VPC)for different environments – production, QA, Dev.

- De-mystified the on-premise to cloud network connectivity with a simplified central 'Transit hub' on the cloud that was easily managed and monitored.
- The central 'transit hub' acted as a gateway for communication between the accounts on the cloud and also with on-premise systems.
- Centralized the alerts and notification mechanism and integrated with messaging platforms for various AWS services like 'Guard Duty'.
- Single-sign-on had been implemented for all the accounts and tools, and also integrated the solution with 'Active Directory (AD)'.
- Utilized 'AWS lambda' (serverless architecture) for all 'Proof-of-Concepts' (PoCs), that required no EC2 server instances.
- Created DevOps pipeline in 'Shared Services Account' to automatically deploy the code from multiple accounts.
- Deployed 'Cloudwatch' dashboards, set up playbooks, and alarms for infrastructure metrics monitoring.
- Defined the spend limits for the AWS accounts to be suspended when their cloud resources usage exceeds the threshold limits.
- Established an infrastructure (code) pipeline to automatically rollout the infrastructure changes across the accounts.

Centralized DevOps Services

```
CICD Pipeline          CICD Pipeline          CICD Pipeline
For Application         For Team               For IoT
```

Shared Services Account

AWS Transit Gateway In the Shared Services Core Account

VPC

VPC

VPC

VPC

VPN Connection

Customer Gateway

On-Premises DC

Benefits

- Automated the provisioning of accounts and decreased the landing time on the cloud by more than 90% for newer applications.

- Centralized monitoring of infrastructure with alert and notification mechanisms had simplified maintenance and support needs.

- Deployment of 'Infrastructure-as-code' had ensured repeatable configurations for all accounts and also automatically rollout infrastructure changes with DevOps principles.

- Demystified the complex network with a simplified 'Transit hub' that allowed central monitoring.

- A distinct billing for every account on the cloud brought greater accountability.

- Deployment of PoC's using AWS Lambda serverless concepts allowed Delaval to pay only for the run time and not for storage.

- Active security measures and access control mechanism provided a secure environment.

- Centralized the CICD (DevOps) pipeline for product accounts.

- The centralized network architecture had avoided sprawl and made the security measures consistent.

For more information contact YASH today at info@yash.com or visit www.yash.com

About YASH Technologies

YASH Technologies focuses on customer success. As a leading technology services and outsourcing partner for large and fast growing global customers, the company leverages technology and flexible business models to drive innovation and value throughout its customer's enterprise. YASH customer centric engagement and delivery framework integrates specialized domain and consulting capabilities with proprietary methodologies and solution offerings to provision application, infrastructure and end user focused Right-Sourcing services. YASH is a SEI CMMI (Level 5) and an ISO 9001:2015 certified company with U.S. and India headquarters and regional sales and development offices globally with customers spread across 6 continents.

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