Migration To the Cloud
Using AWS
Why Cloud

Advantages of Cloud

- Resilience
- Security
- Rapid Elasticity
- Cap-ex Free
- Rapid Infrastructure
- Increased Flexibility
- Managed Infrastructure Services

5% of organizations have migrated at least half of their applications to the cloud, but that number is set to increase to 20% by the end of the year.

5% of Organizations have moved 50% of their Apps to Cloud

Based on Market surveys 2016

- 30% Moved to the cloud based on customer requirements
- 41% Moved due to industry pressures
- 52% Moved to the cloud to improve costs, productivity, agility
Challenges - interrelated

Identifying and resolve dependence of other applications, hardware, firewall, network, security etc

Ensure business continuity during the migration, test, deploy, measure ROI

Start here

Is your application ready for the cloud or does it need re-architecting?

Private /Public /Hybrid - What deployment model best fits the application

Identify the right cloud and SaaS or PaaS or IaaS

Identifying the Applications for migration best suited to take advantage of cloud
Cloud Migration Approach

Data for the Cloud
Identify the right applications for migration

Phase Approach
Plan
Deploy
Optimize

Large IT Assets
Enterprises typically have a large number of IT Assets

Plan
Cloud Assessment
Proof of Concept

Deploy
Data Application

Optimize
Leverage Cloud Architecture
Optimize Cloud Setup
# Plan Phase – Cloud Assessment

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Deploy Phase – Data Migration

**Application Data Migration**
- Migrate Fileserver systems
- Automated scripts for migration
- Backups and Tape Drives
- Evaluate options to move large sets of data to the Cloud e.g. AWS
- Import/Export

**Data Migration**
- Profile the various storage options available in your vendor Cloud
- Plan for uploading data in batches
- Analyze your datasets and databases
- Evaluate various RDBMS options in the cloud e.g. Amazon RDS
- Ensure data encryption for security
Deploy Phase – Application Migration

**Forklift Migration**
- Forklift is an approach where all the components are migrants to the cloud at the same time.
- Forklift is useful for stateless applications.
- Tightly coupled applications.
- Self-contained applications e.g. self-contained web applications, backup and archival systems, low latency web applications.

**Hybrid Migration**
- Hybrid migration is partial.
- Migration approach e.g. batch processing in cloud, application on premise, and integrate cloud application with cloud incompatible legacy applications.
Optimize Phase – Optimize Cloud Setup

Leverage Cloud Architecture
- Auto terminate under-utilized instances through AWS Auto Scale option
- Application packaging for AMI construction
- Improve efficiency of data access (e.g. caching layer through AWS Elastic Cache)

Optimize Cloud Setup
- Application Re-engineering
- Ability to restart on failure
- Separation of tiered components
- Extract stateful components and make them stateless
- Decompose relational database
Migration Use Cases & Scenarios

**Web Application Migration**
- Migration of ecommerce website with Mobile extension for creating property inventory reports of commercial and non-commercial properties with a motive of elasticity and scalability.
- AWS services recommended EC2, S3, EBS, AS, ELB, CW, RDS.

**Batch Processing App Migration**
- Log analysis and report generations with a motive of faster time to process.
- AWS services recommended EC2, EBS, S3, SQS, EMR, SNS

**Backend Process Workflow App Migration**
- Migration of Employee Performance Management System with a motive to lower the total cost of ownership, resilient solution and high availability.
- AWS services recommend EC2, S3, EBS, AS, ELB, CW, RDS.
Migration Use Cases & Scenarios

Already On Cloud

- **72%** Storage
- **74%** Web Service
- **77%** Email
Thank You

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