The Public Cloud

And its Challenges
Agenda

• Why Move to the Public Cloud?
• How do I Migrate to the Public Cloud/Where do I Start?
• What Challenges do I Have in the Public Cloud?
Question:

Who Here Works for an Organization Currently Planning on Migrating to the Public Cloud?

(raise your hand)
Analysts Say:

90% Of Companies Use The Public Cloud
Question:

Why is Your Organization Planning on going the Public Cloud?

(raise your hand)
Why Move to The Cloud?

• Cost
• Speed/Agility
• Scalability
Analysts Say:

52% Due to on premise cost
On Premise Infrastructure Waste

28% Of Servers are unused

40% Of Storage is unused
Customer Example
(Large Bank on the East Coast)

• Leveraging the Public Cloud
  • Peak Processing of Transactions
  • Use Cloud Bursting
• Reduce Costs of On Prem Resources
How do I Migrate?
Where do I Start?
How do I Migrate? Where do I Start?

- Lift and Shift
- Best Guess
- Optimization/Utilization based
The Big Stall

Organizations are not prepared for migrations and experience stalls in their projects

10% ACCELERATE
Solve problem and accelerate through stall

70% PROLONG
Delay migration by 18-24 months

20% NEVER RECOVER
Abandon the migration
Migrating to Public Cloud

40%

Migrate Applications Back

**According to IDC**
Through 2020, 45% of organizations that perform "lift and shift" to cloud IaaS without proper cost optimization governance will be **overprovisioned by as much as 55%, and will overspend by 70% during the first 18 months.**

Gartner – February 13, 2018
10 Best Practices for Azure Cloud IaaS Cost Optimization
Solution

Leverage a Capacity Optimization solution that can:

- OPTIMIZE On-Premise resources and business services prior to migrating to the public cloud
- Accurately SIZE necessary public cloud instances for associated resources and business services
Cloud Migration Simulation

- Simulate Migration of a service across public and private clouds based on performance benchmarks of underlying hardware
- Optimized recommendations for instance sizes with workload comparison
  - Lift-and-shift
  - Utilization-based
- Simulation of better options within same provider
- Quickly identify projected costs for running on target cloud
- Export migration plan to pdf and excel for offline discussion
Value

- 80% Reduction in effort for application mapping
- 30% Reduction in resource usage
- 90% Reduction in staff effort to gather and analyze data
What Challenges do I Have in the Public Cloud?
What Challenges do I Have in the Public Cloud?

• Migrate (*to be or not to be*)
• Cost
• Security
• Governance
Through 2020, **80% of organizations will initially overshoot their cloud infrastructure as a service (IaaS) budgets**, due to a lack of cloud cost optimization governance or misguided upfront cloud spend commitments.
Customer Examples
(Large Technology Manufacturer)
(Company in Educational Industry)

• Spending 200-300% more than anticipated on public cloud

• Expected $3M monthly bill
  • Received a $32M bill
  • 10X what was expected
Control Spend and Budgets

*Gain visibility and control of cloud spend and budgets*

- Visibility of current and upcoming spend
- Business service views
- Dynamic cost pools
- Predictive budget management
- Budget thresholds and alerts
Cost Optimization

*Use the right resources and cost model*

- Right-size resources
- Terminate idle resources
- Maximize use of Reserved Instances
- Power scheduling
- Optimization expertise
Value

40% Reduction in cloud spend

50% Increase in staff efficiency for budget planning

75% Reduction in staff effort to analyze cloud spend
Governance

*Use cloud in a safe and efficient manner*

- Rules framework
- Automate actions
- Expertise for developing an operating model
Tesla Hackers Hijacked Amazon Cloud Account to Mine Cryptocurrency

Shared Responsibility

Identity/Access  Identity/Access  Identity/Access  Identity/Access
Data            Data            Data            Data
Application     Application     Application     Application
Network         Network         Network         Network
Physical

On-Premises    IaaS           PaaS           SaaS
Secure Cloud

Secure cloud infrastructure and native cloud applications

- Monitor
- View
- Detect
- Remediate

- Misconfigurations
- Identity & Access Management
- Containers
- Operating system
- Integration with DevOps tools
Value

One AWS account with 1,122 services

- **233** High Risk CIS policy violations
- **158** Cloud services (14%) non compliant
- **4** Remediation's completed successfully in under 10 min
In Summary

Most of you are moving to Public Cloud

• Be PREPARED
• It is complicated
• Leverage the right tools to help you manage the new challenges
• You are not alone
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