Demystifying the Microsoft Cloud

"Controlling Costs in Azure"

July 12th, 2018

BENNETT ADELSON

Actual Photo of Richard Broida Working in Azure Test Environment



Azure Poll

Knowing Where You Are In Your Azure Journey

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Two Target Audiences

"There are 10 types of people in this world, those who understand binary and those who don't"

Agenda



Azure Governance Tools



Account/Enterprise Agreement

Organizing Azure Accounts and Subscriptions

And Deciding Who Pays For Them

Setting up Azure accounts and subscriptions to meet organizational needs

Ways to acquire Azure accounts

The role of administrators and owners

Creating subscriptions based on organizational size and structure

Selecting Azure regions to host organization resources

Leveraging Azure resource groups

Understanding Azure Pricing Models



Account Provisioning



Azure Administrative Roles

Enterprise Azure Roles

	Enterprise Admin	Department Admin	Account Owner	Service Admin
Account Rights	 Top Level Account Add/Managed Enterprise Admins, Department Admins Add & Associate Accounts to Enrollments View usage & costs for all Accounts & Subscriptions No Limit to Account Numbers 	 Edit Department Name & Cost Center Manage Department Admins Add/Managed Accounts to Enrollment & Departments View Charges if enabled by EA 	 Add Subscriptions Update the Service Admin & Co-Admin for an Individual Subscription View usage data for Accounts View Charges if enabled by EA Default Service Admin for newly added Subscriptions 	 Access and Manage Azure Assets Administrator Access to All Azure Objects No Access to EA Portal
Tool	Enterprise Portal ea.azure.com		Account Portal account.windowsazure.com	Azure Mgmt Portal portal.azure.com

Organizing an Azure Governance Hierarchy

Organizing hierarchies around organizational structure

- By Department
- By Business Function
- By Geography

Ways to create hierarchies

- Subscriptions
- Resource Groups

Tags

Organizing an Azure Governance Hierarchy



Deploy, manage, and monitor all the services for your solution as a group

Repeatedly deploy your solution throughout its lifecycle and have confidence that your resources are deployed in a consistent state.

Apply access control to all resources in your resource group.

Use JavaScript Object Notation (JSON) to define the infrastructure for your solution.

The JSON file is known as a Resource Manager template.

Define the dependencies between resources so they're deployed in the right order.

Simple name-value pairs you assign to individual resources and resource groups

Tags appear in billing statements and can be used in Azure REST APIs to sort, group, and filter usage data

Same tag can appear in multiple subscriptions and resource groups

Up to 15 tags per resource

Monitoring & Predicting Azure Costs

Azure Cost Estimation Tools

- Using the Azure Cost Calculator
- Using the Azure Usage API & RateCard API



Auditing and Predicting Costs with Azure Usage and Rate Card APIs

- **Understand Azure spend during the month**: Use the combination of the Usage and RateCard APIs to get better insights into your cloud spend during the month. You can analyze hourly and daily usage and charge estimates.
- Set up alerts: Use the Usage and RateCard APIs to get estimated cloud consumption and charges, and set up resource-based or monetary-based alerts.
- **Predict bill**: Get your estimated consumption and cloud spend, and apply machine learning algorithms to predict what the bill would be at the end of the billing cycle.
- **Perform a pre-consumption cost analysis**: Use the RateCard API to predict how much your bill would be for your expected usage when you move your workloads to Azure. If you have existing workloads in other clouds or private clouds, you can also map your usage with the Azure rates to get a better estimate of Azure spend. This estimate gives you the ability to pivot on offer, and compare between the different offer types beyond Pay-As-You-Go, like Monetary Commitment and Monetary Credit.
- **Perform a what-if analysis**: You can determine whether it's more cost-effective to run workloads in another region or on another configuration of the Azure resource. Azure resource costs might differ based on the Azure region you're using. You can also determine if another Azure offer type gives a better rate on an Azure resource.

Control Access & Cost With Azure Roles

Controlling Which Users Can Incur Costs

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Role Based Access Control

Azure Policies

Auditing & Limiting Resource Usage

Manage what resources or configurations are available at the subscription, resource group or resource level

Examples

- Supported Regions
- Naming Conventions
- Supported Services
- Supported SKUs
- Tag requirements

Azure Policies: Resource Locks

Use to protect critical resources from accidental modification, as in production



Identify your organization's governance weaknesses

Develop a clear governance plan that works for your organization

Define who has access, how much access, & control spend

Understand what you're spending and why

Automate your governance process to make it easier

Continually look for ways to improve your governance plan

Work with an experienced Azure partner where you need help

Bennett Adelson's 8 Practice Disciplines

Architecture & Development

A regional leader in custom enterprise solutions from analysis and architecture design through execution and development.

B

Business Intelligence

Gain insight into your data and tap into skills that span the range of the BI landscape, from Self-Service BI to Enterprise BI to Big Data.

A

Advanced Infrastructure

Delivering world class public and private cloud implementation and migration services across a wide range of industries and technologies, such as Office 365 and Azure.

Connected Systems

Connect discrete systems to make business operations and partner interactions more agile.

Information Worker

Delivering enterprise collaboration, and internet commerce solutions in the cloud, on premises, and in hybrid environments.

User Experience

Engage all aspects of a user's interactions with your brand, company, products and services across all devices.



Mobility Solutions

Helping clients create and execute a mobile strategy to reach and interact with their customers on any device at any time.

Dynamics Solutions

Delivering solutions that centralize and manage customer interactions with a "Business Center" that is mobile ready and cloud-enabled.

Thank You!



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