AWS re:Invent

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PEX202

TCO analysis with AWS services and Migration Portfolio Assessment

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Agenda

Goals of TCO

What makes a good TCO analysis?

Migration Portfolio Assessment (MPA)

Tooling and integration options

Demo

What is TCO?

Transnatio   xide

Total cost of ownership

It's more than server costs

Consider people, facilities, and licensing costs

t office

Tobacco control office   Tactical combat operations

Goals of TCO

Compare on-premises current state and AWS costs

Apples to apples

Identify the "why" and intangibles
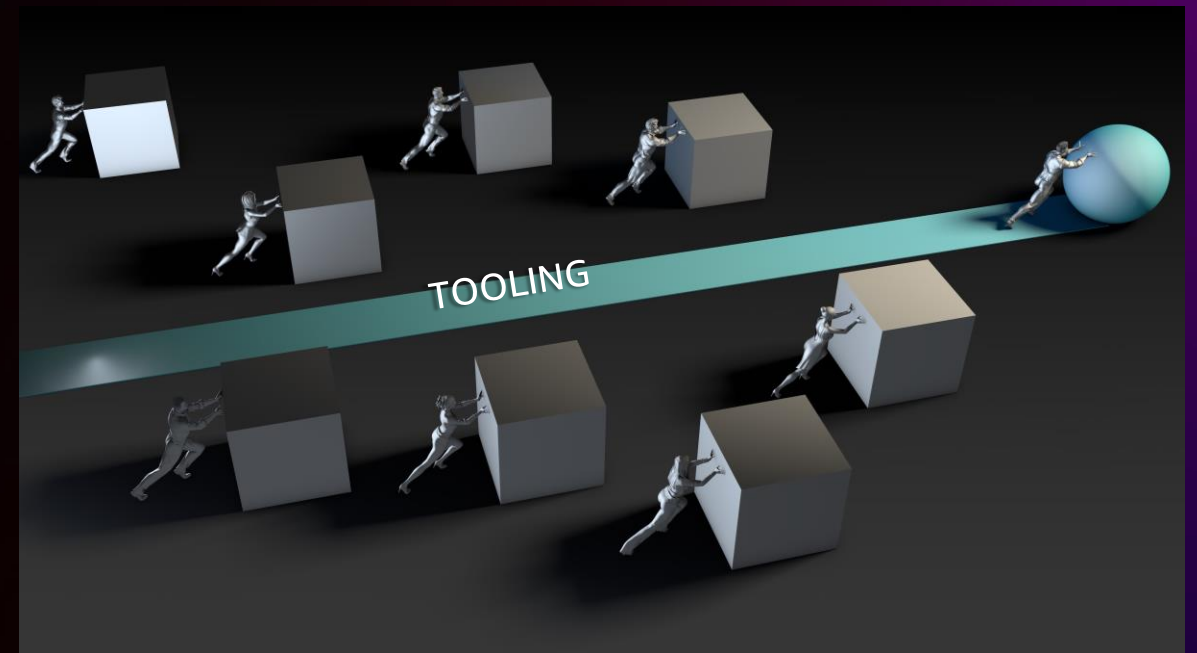
Help reach an informed decision

What makes a good TCO analysis?

INFRASTRUCTURE - COMPUTE, STORAGE, AND NETWORK

- Selection and prioritization (100s of servers)

- Architecture design

- Latest and greatest

- Right-sizing

- Right-pricing

OTHERS

- License optimization for OS and DB

- Migration Acceleration Program

TOOLING

Migration Portfolio Assessment (MPA)

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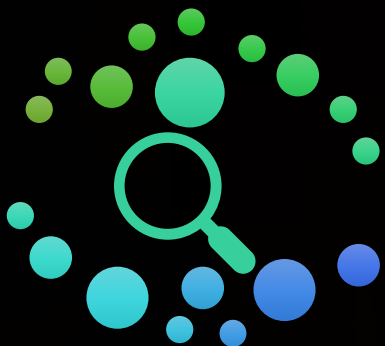
When to use

- Available to Partners and AWS

- Early assess phase for estimated TCO creation

- Mobilize phase for planning

Features

- Data normalization

- Scenarios comparison

- AWS cloud economics-based assumptions

- Strategy recommendations (R-types)

- Waves planning

- Application prioritization
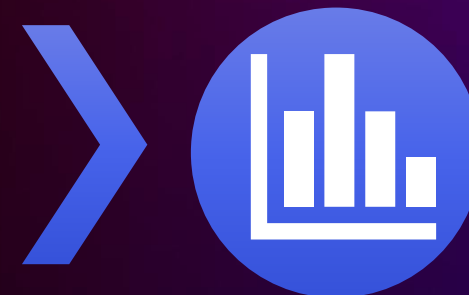
MPA workflow

Environment discovery → Data import → Data normalization → Data visualization → TCO creation

How to collect data and integrate with Migration Portfolio Assessment?

AWS Migration Hub + AWS Application Discovery Service

AWS Migration Hub

- Native AWS service

- Integrated with Application Discovery Service and Migration Evaluator

- Analyze dependencies

- Recommend migration strategies

- Automated migration factory

- AWS Migration Hub Refactor Spaces for automating modernization

- Track server and database migrations
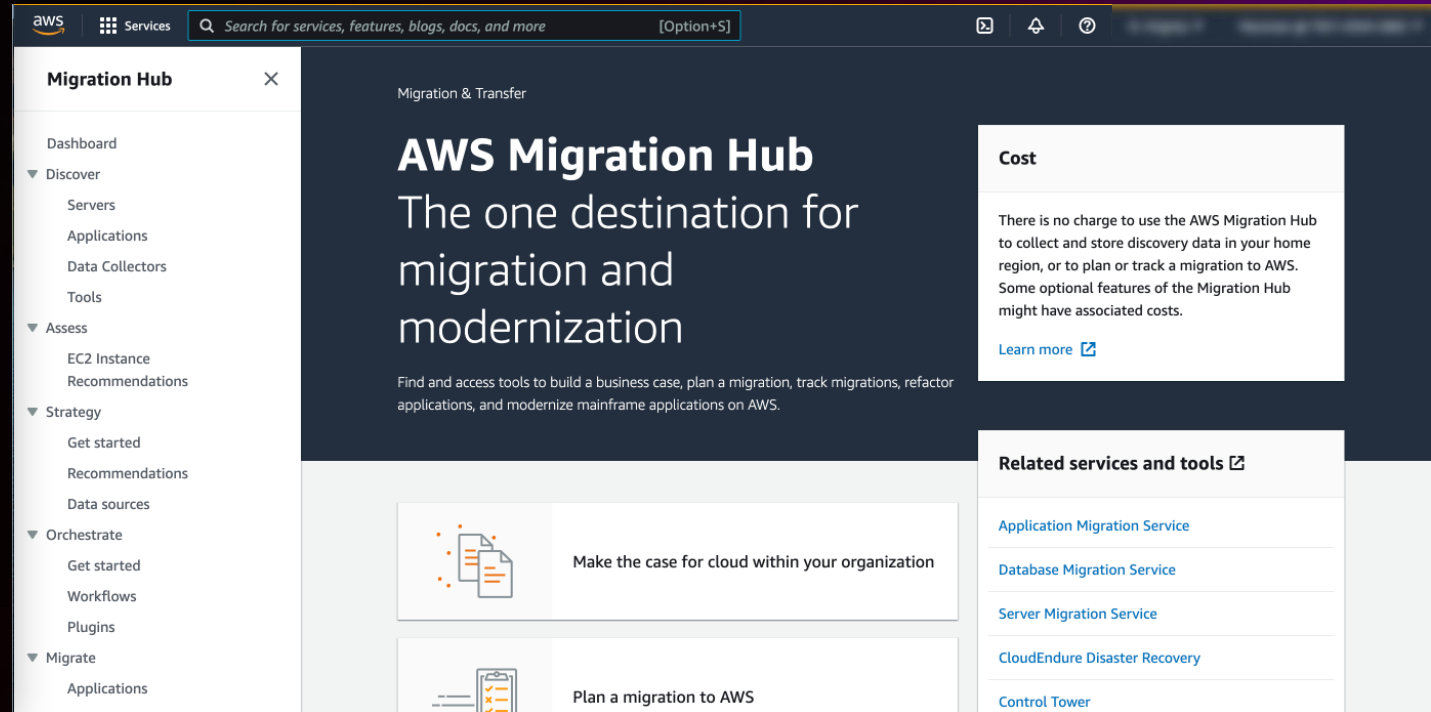
Migration Hub cost and availability

AWS Region support:
US East (N. Virginia), US West (Oregon), EU (Frankfurt), EU (Ireland), EU (London), Asia Pacific (Sydney), Asia Pacific (Tokyo)

No charge to use the AWS Migration Hub to collect and store discovery data in your home region, or to plan or track a migration to AWS

You pay for the cost of the migration tools you use and any resources being consumed on AWS; Refactor Spaces is an optional feature with costs associated

AWS Application Discovery Service

Capture and visualize system inventory, performance, and dependencies

Source environment

AWS Application Discovery Service

AWS Migration Hub

Agents (x86 servers)

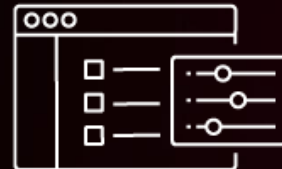**Agentless collector (vCenter)**

Import from existing sources

Encrypted data

- **Data visualization**

- **Tagging for management**

- **Create application groups**

- **Integrates with Migration Portfolio Assessment**

Integrating AWS Application Discovery Service with MPA

Application Discovery Service data collection prerequisites:

1. **Create an AWS Identity and Access Management (IAM) user for Application Discovery Service with one of these policies:**

   - *AWSApplicationDiscoveryAgentAccess*

   - *AWSApplicationDiscoveryAgentlessCollectorAccess*

2. **Get secret key and access key for this user**

3. **Install Application Discovery Service agents/agentless collector and collect data**

MPA with Application Discovery Service integration prerequisites:

1. **Create an IAM user for MPA with actions:**

   - *discovery:DescribeConfigurations*

   - *discovery:ListConfigurations*

2. **Get secret key and access key for this user**

3. **Import data from Migration Hub to MPA using the secret key and access key**

    AWS Migration Hub   Portfolio Assessment Tool

Identity and Access Management (IAM) ✕

🔍 Search IAM

Dashboard

▼ **Access management**
  User groups
  Users
  Roles
  Policies
  Identity providers
  Account settings

▼ **Access reports**
  Access analyzer
    Archive rules
    Analyzers
    Settings
  Credential report
  Organization activity
  Service control policies (SCPs)

Related consoles

IAM dashboard

Security recommendations   🔄

IAM resources   🔄

User groups	Users	Roles	Policies	Identity providers
2	2	31	6	0

What's new 🗗
Updates for features in IAM

View all 🗗

- AWS Identity and Access Management introduces IAM Roles Anywhere for workloads outside of AWS. 3 months ago
- AWS IAM now supports WebAuthn and Safari browser for multi-factor authentication with security keys. 4 months ago
- Use IAM to control access to a resource based on the account, OU or organization that contains the resource.
5 months ago
- AWS Cost Categories now supports resource and tag based access controls. 6 months ago

⌄ **more**

AWS Account

Account ID
📋 648032404637

Account Alias

648032404637   Create

Sign-in URL for IAM users in this account

📋 https://648032404637.signin.aws.amazon.com/console

Tools 🗗

Policy simulator

The simulator evaluates the policies that you choose and determines the effective permissions for each of the actions that you specify.

Web identity federation playground

Authenticate yourself to any of the supported web identity providers, see the requests and responses, obtain a set of temporary security credentials, and make calls to the Amazon S3 API using the

Spreadsheet

Integrating a spreadsheet with MPA

1. Import the spreadsheet into MPA

2. Map spreadsheet headers to MPA schema

AWS Migration Evaluator

Migration Evaluator agentless collector

- Available to AWS customers at no charge
- Installed on a new dedicated server with local admin rights
- Automatic upload of daily inventory and utilization, or
- Manual spreadsheet export

VMware

- Communicates with each vCenter

Hyper-V

- Communicates with each Hyper-V host

Bare Metal

- Communicates with each server directly through WMI, SNMP v2c/v3

- Collects network connection details

SQL Server

- Communicates with each server directly through WMI or local T-SQL

Integrating Migration Evaluator with MPA

1. Go to the Migration Evaluator console

2. Select your engagement under the My Engagements menu

3. Under the Quick Insights panel, select download details

4. Import data into MPA

MAP Tools   Customers   Inside Tools   Wikis   Embark   Salesforce   APN   Hands-On   Training   Public Speaking   TechContent   re:Invent   Overall AWS   Particular   Design Wins

Migration Evaluator

- ▼ Dashboard
  - My Engagements
- ▼ Discover
  - On Premises Data Collectors
  - Tools
  - Self Reported Files

Dashboard > My Engagements

My Engagements (3)

○		
○		
○	**reinvent 2022 mpa presentation mas-8671-mas-8672**	reinvent 2022 mpa presentation mas-8671

Engagement Details

🕐 No Engagement Selected

Frequently Asked Questions

How do I get access to an existing Migration Evaluator engagement?

Request an assessment via Assessment Central ↗, and one of our Migration Evaluator specialists will help you.

I have been added to an engagement, how come I cannot see my customer's data?

Customer data will be shared with AWS account teams after the customer provides authorization. Reach out to your customer and request that they opt into Enhanced Migration Assistance within their "My Engagements" dashboard.

That was simple! (using MPA)

Key take aways

- Many ways to get to a high quality TCO

- Look for technical and business drivers

- Use AWS tooling

AWS Migration Immersion Day
(MPA hands-on labs and more)
https://bit.ly/3fqJtWI

AWS Application Discovery Service
https://go.aws/3NrAfpI

AWS Migration Evaluator
https://go.aws/3Wl0KkE

Thank you!

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Please complete the session
survey in the **mobile app**

aws