APAC Solution Assessment Offerings

September 2020

Agenda

Introduction to AOC

Azure Starter Offer

Delivery Approach and Methodology

Deliverables

Introduction
to AOC

APAC Assessment Operation Center (AOC) as an enabler of Digital Transformation

AOC will enable us to bring assessments at scale for our customers cloud transformation journey. AOC's focus is to drive impact with every customer, helping them with data on existing infrastructure, security threats and migration options to support their business strategies. With an emphasis on value-added assessments for cloud enablement and consumption, AOC is based on three main pillars:

ONE scalable assessment engine across APAC driving cloud migration

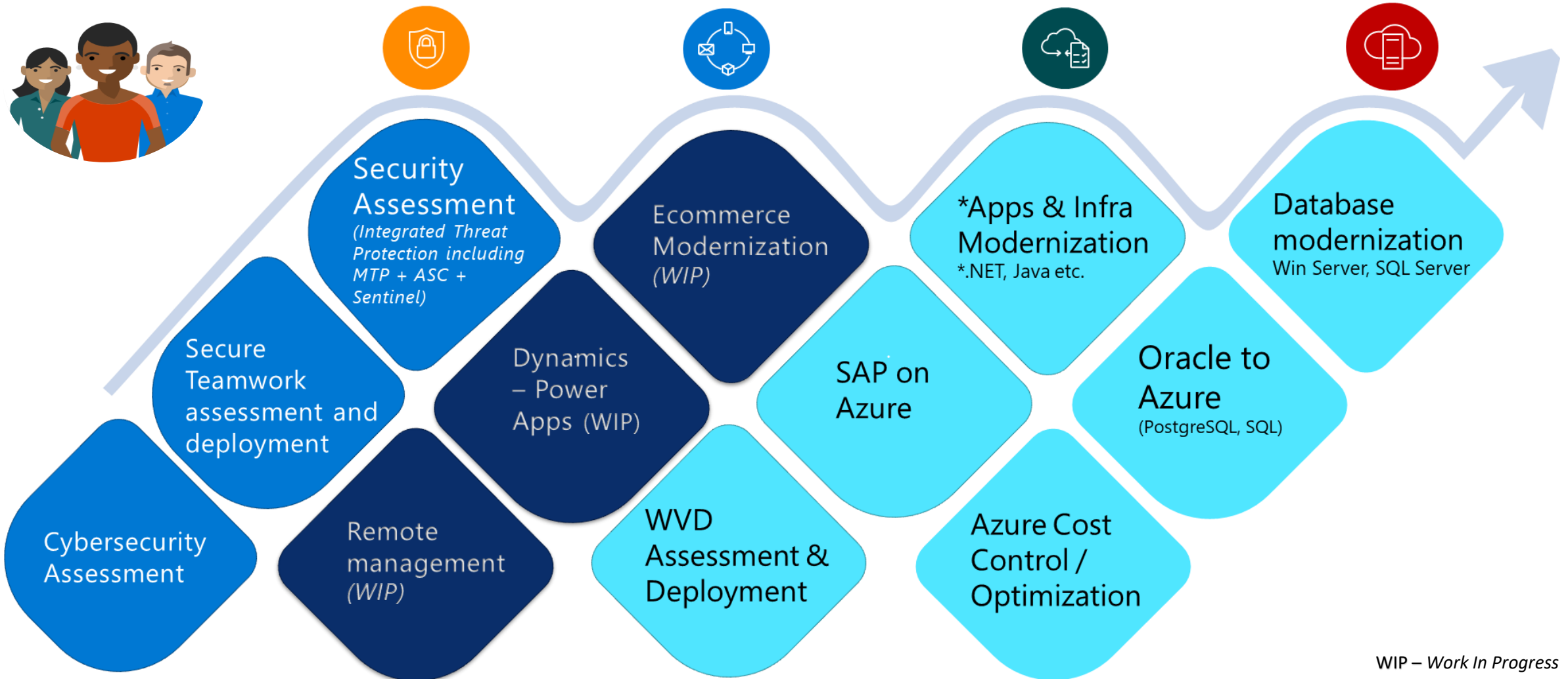**Learn** and **improve** assessments with customer urgency for cloud migration

End to **end** footprint from assessment to migration with process efficiencies

To enable the APAC AOC to scale out to as many customers as possible, we are wanting to work with Microsoft migration partners, by providing partners with licenses for ISV tools to assist with discover and assess phase of a customer's migration journey.

Various Solution Assessment Engagement Types for every customer

Helping customers gain cost efficiency on Investments while growing Cloud adoption.

Security Assessment
(Integrated Threat Protection including MTP + ASC + Sentinel)

Secure Teamwork assessment and deployment

Cybersecurity Assessment

Dynamics – Power Apps (WIP)

Remote management (WIP)

Ecommerce Modernization (WIP)

WVD Assessment & Deployment

SAP on Azure

*Apps & Infra Modernization
*.NET, Java etc.

Azure Cost Control / Optimization

Oracle to Azure
(PostgreSQL, SQL)

Database modernization
Win Server, SQL Server

WIP – *Work In Progress*

Azure Starter Offer (ASO)

One Stop Shop for ALL Azure Related Nominations

Priorities and Sales Play for FY21 – Apps, Data and AI

■ Immediate Crisis focus areas

■ Cost Savings focus areas

Migrate existing apps to Azure and optimize

- ■ Windows & SQL Server
- ■ Linux & OSS DBs
- SAP on Azure
- ■ ■ Windows Virtual Desktop
- ■ Hybrid Cloud Solutions

MIGRATE

INNOVATE

ENABLE

Innovate with new apps and modernize existing apps

Modernize .NET apps with App Service, Azure SQL DB ■

Cloud native app with AI, Kubernetes, Azure Cosmos DB / PostgreSQL

Analytics & AI ■

Specialized Areas

Applications: IoT, Mixed Reality, Gaming

Infrastructure: Azure VMware Solutions, HPC, Advanced Networking ■ ■
Azure Sentinel ■

Enable customers for successful cloud use

■ Cloud Adoption Framework | ■ Well-Architected | ■ Skills building

■ Developer engagement | ■ ■ DevOps with GitHub

APAC Assessment Operation Center (AOC) as delivery at scale engine

Envison | **Validate** | **Commit** | **Onboard** | **Realized Value**

1

Azure Public Events
Azure On-Demand Webinars
Azure Immersion Workshops / In-A-Day Workshops

2

NOMINATE FOR AZURE STARTER OFFER

Apps & Infra

4

Nominate	OR	Azure Migration Program (Incl. FTA)
Nominate	OR	Analytics & AI Accelerate Program
Nominate		FastTrack for Azure (FTA) + ECIF

Migrate

Infra | Data | Apps

Microsoft ♥ Open Source

Supported Scenarios

- Windows Server
- Linux Server
- Windows Virtual Desktop (WVD)
- Azure VMware Solution
- App Modernization
- - e.g.) .NET App Migration
- SQL Server
- OSS Databases

Criteria

>$5k/month

2 **Nominate to Azure Starter Offer**

AMP Criteria:
- Azure Expert MSP
- Co-Sell Prioritization + Advanced Specialization

ASO Migrate Criteria:
- Co-Sell Prioritization

AZURE ACCELERATE

ASSESS

3

Cloud Solutions Team

- Solution Assessments
- Cloud Financial Planning & Analysis

Azure Accelerate package

PILOT

3

Partner Led Migration Pilot

Funded Pilot for migration of your first Virtual Machines, Databases or Applications with a Azure Expert MSP OR Azure Certified Partner OR Microsoft Services

AZURE MIGRATE PROGRAMS

DEPLOY

5

Partner Led Migration Deployment

Funded production Azure deployment funded through the Azure Starter Offer - Migration deployment done by Azure Expert MSP OR Azure Certified Partner OR Microsoft Services

SKILLING

6

Enterprise Skilling Initiative

Discounted Customer Certification training via Auldhouse

Access to exclusive virtual instructor led advanced courses.

Personalized Customer Learning Portal

CRITERIA
Average spend >5K ACR / Month over 3 months

END CUSTOMER INVESTMENT FUNDING (ECIF)
Available for EA For All Segments / Available for CSP except for SoE and PS
(ECIF CSP for Commercial max $50k)

ECIF* - Ent/PS = 10:1 | SMC/SMB = 5:1 | AI Workloads = 2:1

*subject to program approval, terms and conditions

We will help the customers to kick-start their Cloud migration journey

The **Azure Starter Offer (ASO) Migrate** is designed to provide customers with **FREE** assessment and first migration to Azure. Data-based recommendations will be developed utilizing modern tools to collect and analyze the full customer deployed software and hardware.

The program includes assisted migration **assessment** across your environment to create a consolidated migration analysis, including total cost of ownership (TCO) analysis, infrastructure, database and application modernization recommendations and/or **first migration** of your first virtual machines, database or application with our certified Azure partners. Optionally, we can also provide **Business Value Analysis** to strengthen cloud migration business case/Cloud financial planning.

This exercise will give you better understanding of key insights below.

Up-to-date Infrastructure landscape
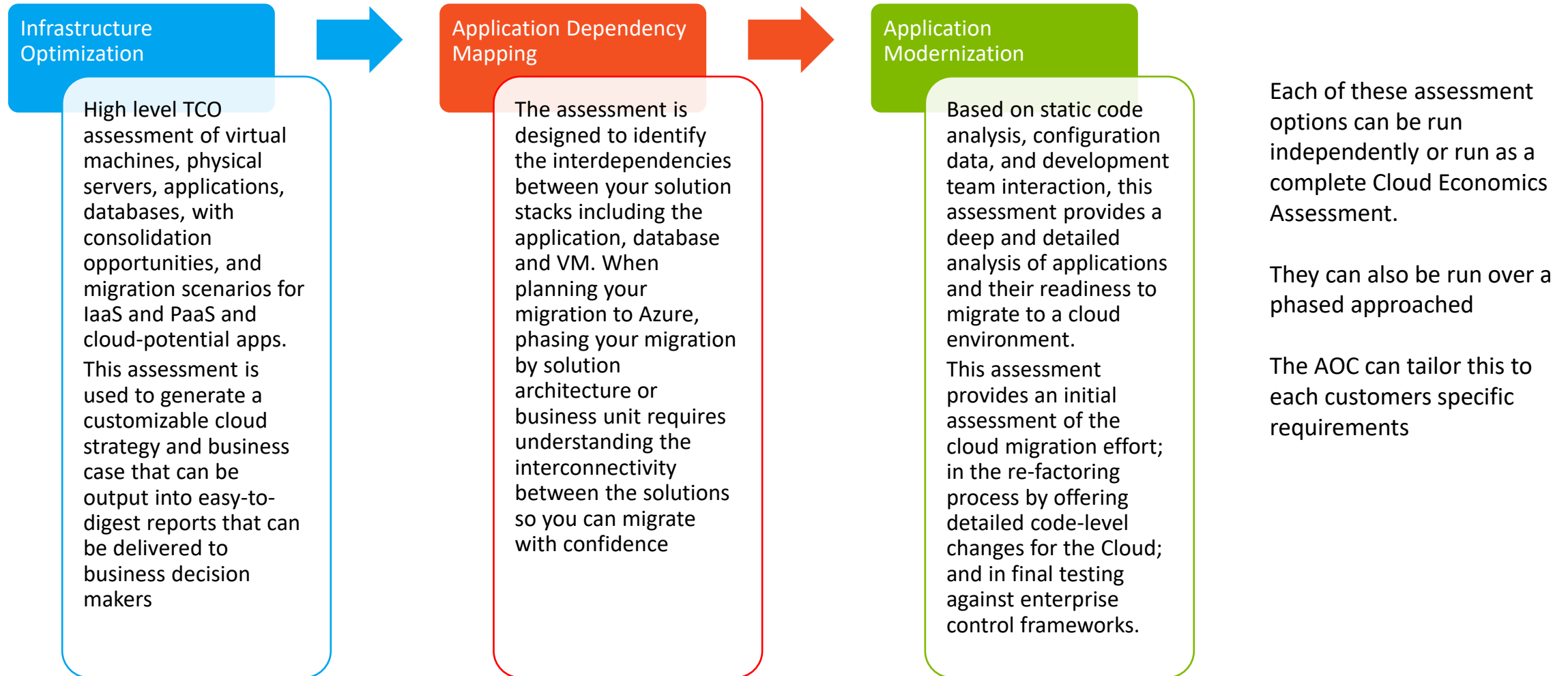
Cloud readiness

Azure total cost of ownership (TCO)

Cloud migration roadmap

Assessment

Pilot

ASO Migrate Assessment Options

Infrastructure Optimization

High level TCO assessment of virtual machines, physical servers, applications, databases, with consolidation opportunities, and migration scenarios for IaaS and PaaS and cloud-potential apps.

This assessment is used to generate a customizable cloud strategy and business case that can be output into easy-to-digest reports that can be delivered to business decision makers

Application Dependency Mapping

The assessment is designed to identify the interdependencies between your solution stacks including the application, database and VM. When planning your migration to Azure, phasing your migration by solution architecture or business unit requires understanding the interconnectivity between the solutions so you can migrate with confidence

Application Modernization

Based on static code analysis, configuration data, and development team interaction, this assessment provides a deep and detailed analysis of applications and their readiness to migrate to a cloud environment.

This assessment provides an initial assessment of the cloud migration effort; in the re-factoring process by offering detailed code-level changes for the Cloud; and in final testing against enterprise control frameworks.

Each of these assessment options can be run independently or run as a complete Cloud Economics Assessment.

They can also be run over a phased approached

The AOC can tailor this to each customers specific requirements
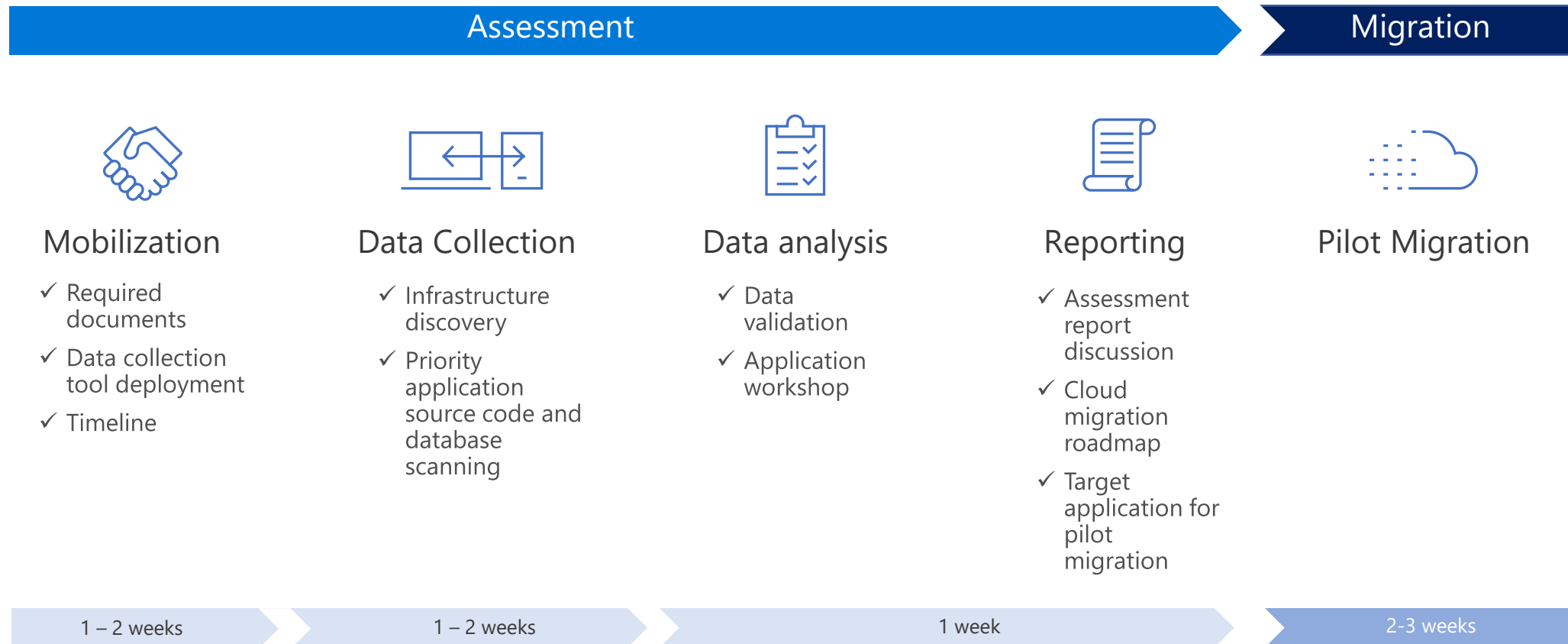
Assessment

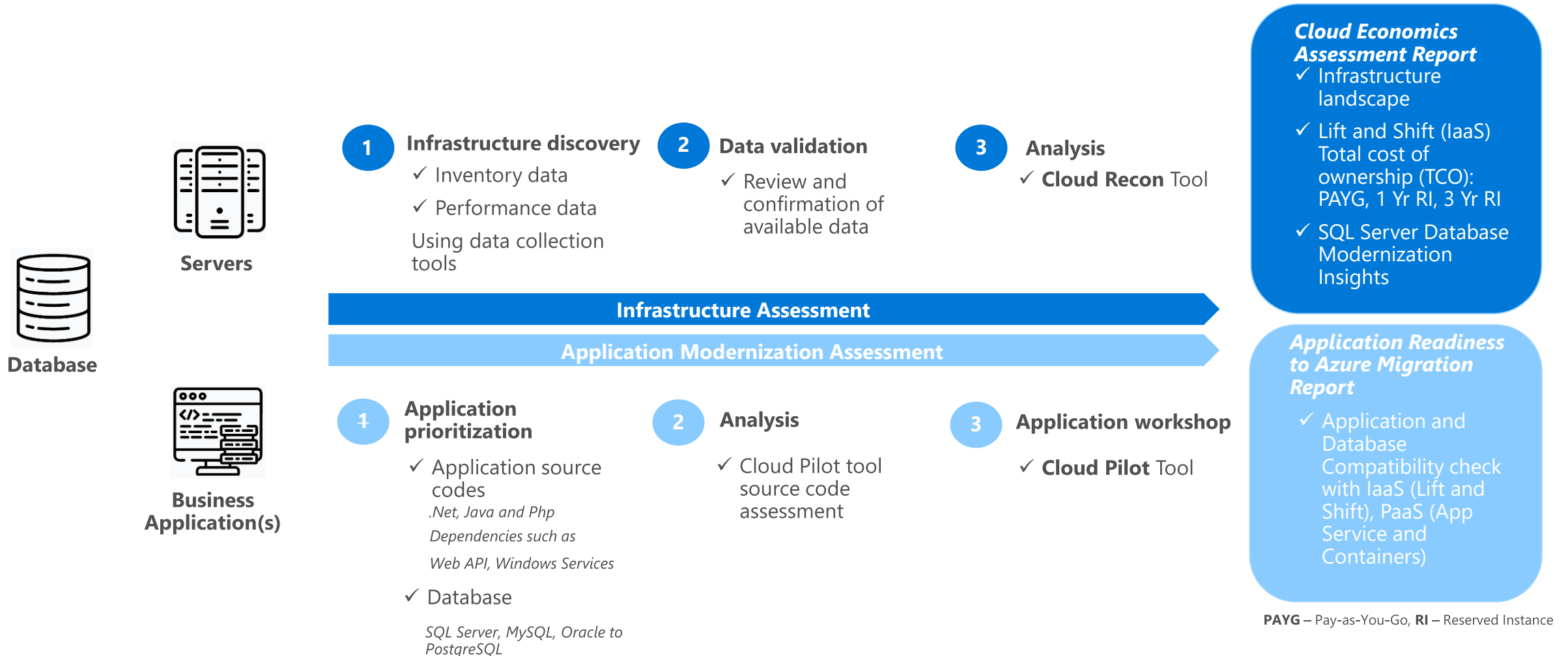**Pilot**

Approach and methodology

We will work with the customer to have a better understanding of their IT infrastructure and applications

A collaborative five phased engagement delivery approach .

Assessment				Migration

Mobilization

✓ Required documents
✓ Data collection tool deployment
✓ Timeline

Data Collection

✓ Infrastructure discovery
✓ Priority application source code and database scanning

Data analysis

✓ Data validation
✓ Application workshop

Reporting

✓ Assessment report discussion
✓ Cloud migration roadmap
✓ Target application for pilot migration

Pilot Migration

1 – 2 weeks	1 – 2 weeks	1 week	2-3 weeks

Key activities during data collection phase

Our team will perform baselining of your IT infrastructure to have an up-to-date view of your environment.

Database

Servers

Business Application(s)

Cloud Economics Assessment Report
- ✓ Infrastructure landscape
- ✓ Lift and Shift (IaaS) Total cost of ownership (TCO): PAYG, 1 Yr RI, 3 Yr RI
- ✓ SQL Server Database Modernization Insights

1 Infrastructure discovery
- ✓ Inventory data
- ✓ Performance data

Using data collection tools

2 Data validation
- ✓ Review and confirmation of available data

3 Analysis
- ✓ **Cloud Recon** Tool

Infrastructure Assessment

Application Modernization Assessment

1 Application prioritization
- ✓ Application source codes
  .Net, Java and Php
  Dependencies such as
  Web API, Windows Services
- ✓ Database
  SQL Server, MySQL, Oracle to PostgreSQL

2 Analysis
- ✓ Cloud Pilot tool source code assessment

3 Application workshop
- ✓ **Cloud Pilot** Tool

Application Readiness to Azure Migration Report
- ✓ Application and Database Compatibility check with IaaS (Lift and Shift), PaaS (App Service and Containers)

PAYG – Pay-as-You-Go, **RI** – Reserved Instance

We will leverage various tools to discover customer IT estate
All ISV tools are funded by Microsoft and provided to Partners and Customers.

Movere

- Passive Agent
- Cloud based
- Supports inventory and performance discovery – Windows , Linux, VMWare and SQL Servers
- Scan can be targeted
- Collects SQL and Database information

Azure Migrate

- Cloud based
- Supports inventory and performance discovery – Windows , Linux
- Requires SQL scrips to collect SQL and Database information

MAP Toolkit

- Agentless
- On-premise
- Supports inventory and performance discovery – Windows , Linux, SQL, Oracle, etc.
- Does not collect NetStat data needed for Application Dependency

Cloud Recon

- Cloud based
- TCO Calculation
- Lift&Shift, SQL MI, PaaS options
- Costing for
  - Pay as You Go,
  - 1yr Reserved Instance,
  - 3yr Reserved Instance.

Application Dependency

- Cloud based
- Using NetStat data from Movere or Azure Migrate to map out application and database interdependencies

Cloud Pilot

- Cloud based
- Application source code analysis
- Application and Database readiness for Lift&Shift, PaaS or SaaS

Need to install console in the environment		No installation required	No installation required	Installation required

Discovery Tools
All Assessment Options
(choose most suitable tool depending on Assessment options)

Data Analysis Tools

Infrastructure	Application Dependency	Application Modernisation

Tool driven data collection approach

To enable the APAC AOC to scale out to as many customers as possible and assist with discover and assess phase of a customer's migration journey.

Assessment	Discovery	Discovery/ Analysis/ TCO				App Modernization		Security Analysis	
	MAP	Azure Migrate	Movere	Cloudamize	UnifyCloud CloudRecon	CAST	UnifyCloud CloudPilot	Block64	CSAT
Data & Infrastucture Migration		✓	✓	✓	✓			✓	
Application Modernization						✓	✓		
SAP on Azure		✓							
Azure Foundations		✓	✓	✓					
Azure Cost Optimization			✓						
Azure Express	✓		✓		✓			✓	
Workplace Modernization	✓			✓				✓	
Cybersecurity Assessment								✓	✓
Teams Assessment								✓	✓
Contract Optimization	✓								

Leverage
a tool in all Assessments

Grow
1st party tool footprint

Continue
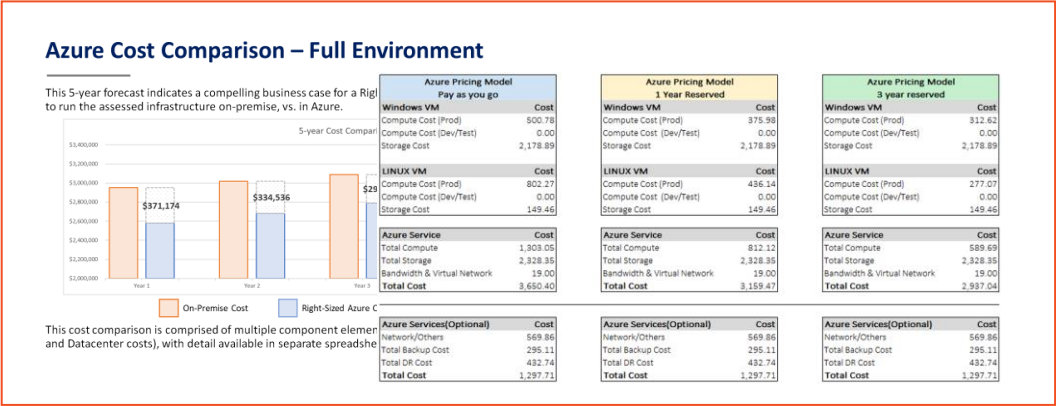Framework agreement with select ISV & identify co-sell opportunities
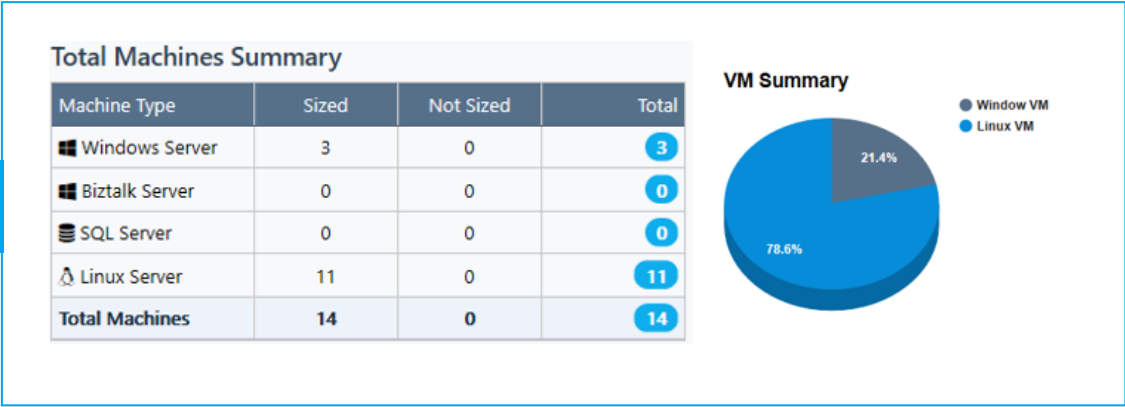
Deliverables

Our engagement will provide valuable insights the customer

Data collected during the *"Assess and Discover"* phases along with the additional customer inputs will be the basis for the development of the final report.
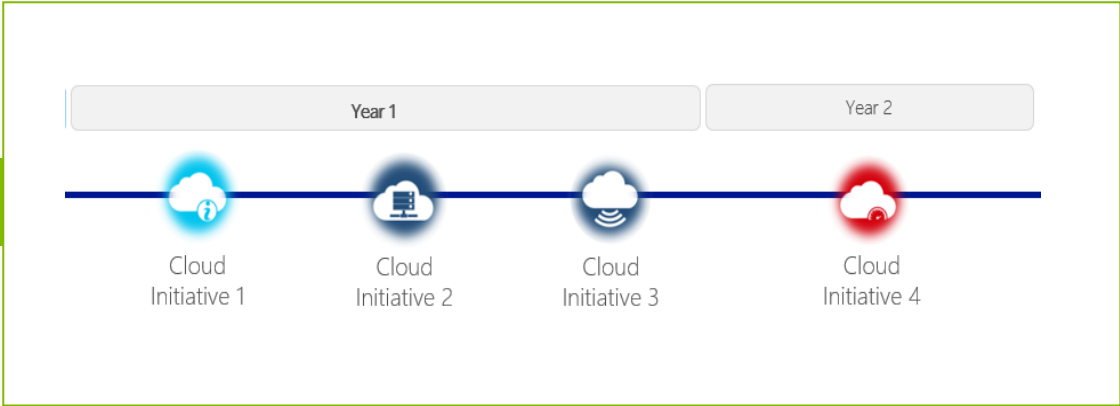
Up-to-date Infrastructure Landscape and Cloud readiness

Total Machines Summary

Machine Type	Sized	Not Sized	Total
Windows Server	3	0	3
Biztalk Server	0	0	0
SQL Server	0	0	0
Linux Server	11	0	11
Total Machines	**14**	**0**	**14**

VM Summary
- Window VM
- Linux VM

21.4%
78.6%

Total Cost of Ownership *(Lift & Shift, Data Platform Modernization Opportunities)*

Azure Cost Comparison – Full Environment

This 5-year forecast indicates a compelling business case for a Right to run the assessed infrastructure on-premise, vs. in Azure.

5-year Cost Comparison

$371,174 $334,536 $29...

On-Premise Cost   Right-Sized Azure C...

This cost comparison is comprised of multiple component elements and Datacenter costs), with detail available in separate spreadshe...

Azure Pricing Model Pay as you go		
Windows VM		Cost
Compute Cost (Prod)		500.78
Compute Cost (Dev/Test)		0.00
Storage Cost		2,178.89
LINUX VM		Cost
Compute Cost (Prod)		802.27
Compute Cost (Dev/Test)		0.00
Storage Cost		149.46
Azure Service		Cost
Total Compute		1,303.05
Total Storage		2,328.35
Bandwidth & Virtual Network		19.00
Total Cost		**3,650.40**
Azure Services(Optional)		Cost
Network/Others		569.86
Total Backup Cost		295.11
Total DR Cost		432.74
Total Cost		**1,297.71**

Azure Pricing Model 1 Year Reserved		
Windows VM		Cost
Compute Cost (Prod)		375.98
Compute Cost (Dev/Test)		0.00
Storage Cost		2,178.89
LINUX VM		Cost
Compute Cost (Prod)		436.14
Compute Cost (Dev/Test)		0.00
Storage Cost		149.46
Azure Service		Cost
Total Compute		812.12
Total Storage		2,328.35
Bandwidth & Virtual Network		19.00
Total Cost		**3,159.47**
Azure Services(Optional)		Cost
Network/Others		569.86
Total Backup Cost		295.11
Total DR Cost		432.74
Total Cost		**1,297.71**

Azure Pricing Model 3 year reserved		
Windows VM		Cost
Compute Cost (Prod)		312.62
Compute Cost (Dev/Test)		0.00
Storage Cost		2,178.89
LINUX VM		Cost
Compute Cost (Prod)		277.07
Compute Cost (Dev/Test)		0.00
Storage Cost		149.46
Azure Service		Cost
Total Compute		589.69
Total Storage		2,328.35
Bandwidth & Virtual Network		19.00
Total Cost		**2,937.04**
Azure Services(Optional)		Cost
Network/Others		569.86
Total Backup Cost		295.11
Total DR Cost		432.74
Total Cost		**1,297.71**

Cloud Migration Plan and Pilot migration for one application

Year 1	Year 2

Cloud Initiative 1   Cloud Initiative 2   Cloud Initiative 3   Cloud Initiative 4

*All deliverables presented above are for **illustration** purposes only. Final output may vary.*

Our engagement will provide valuable insights the customer (cont'd)

Our engagement will provide valuable insights the customer (cont'd)

IT landscape | Windows Server

A total of # Windows Server's and # Linux Server's have been identified. **75%** of total **20** hardware servers are 5 years or older. **60%** Windows Servers are in End Of Life Support and **25%** in Extended Support Mode

Windows Server OS Technology Distribution

Windows Server 2019, 2, 1%
Windows Server 2016, 27, 14%
Windows Server 2003, 65, 34%
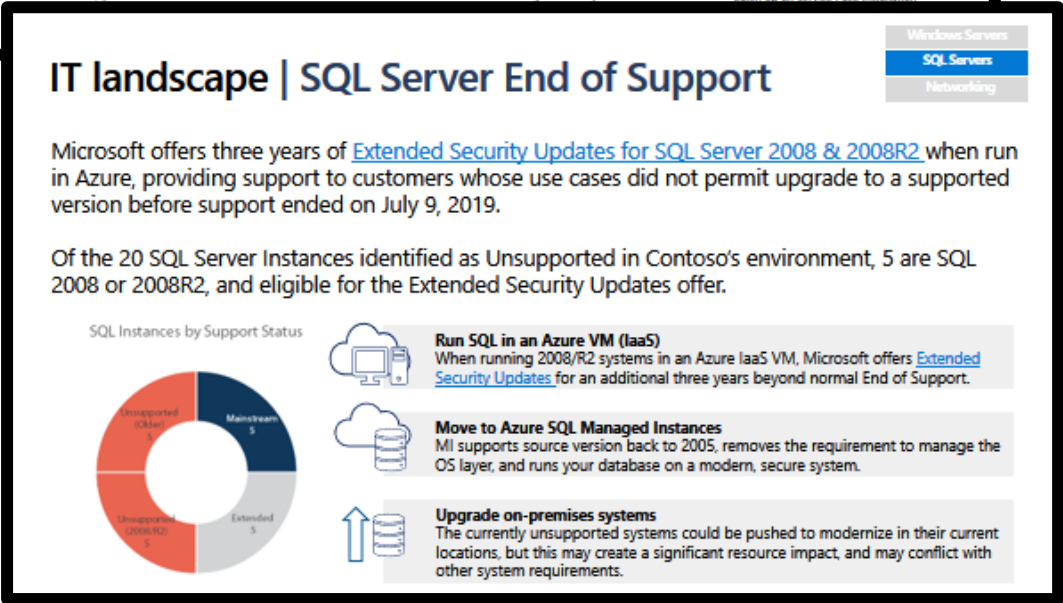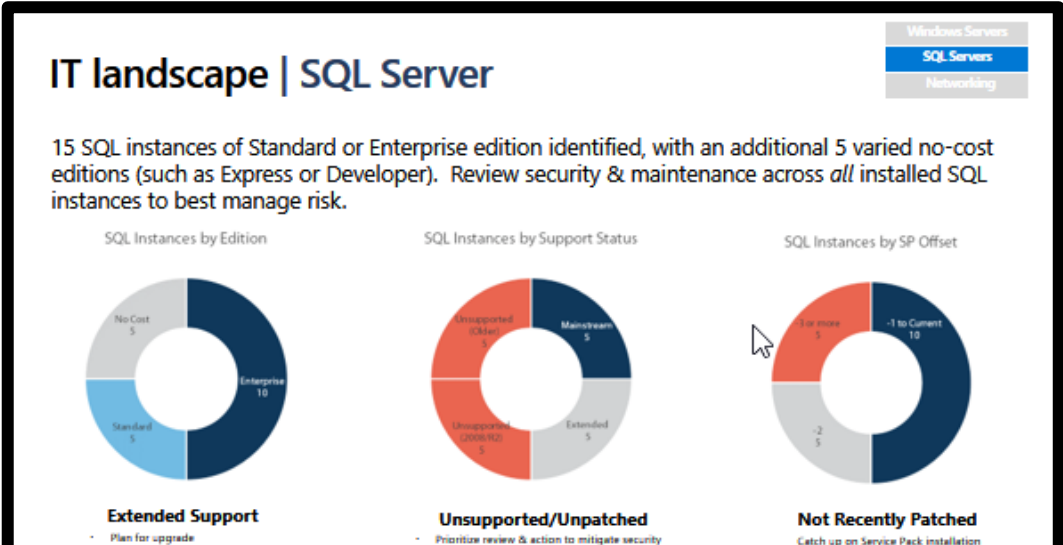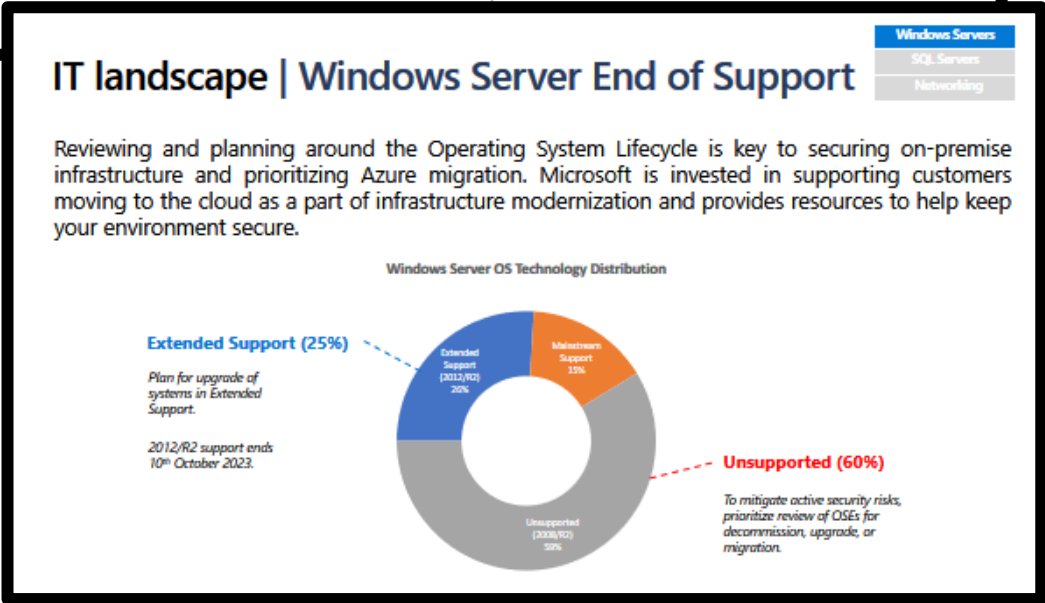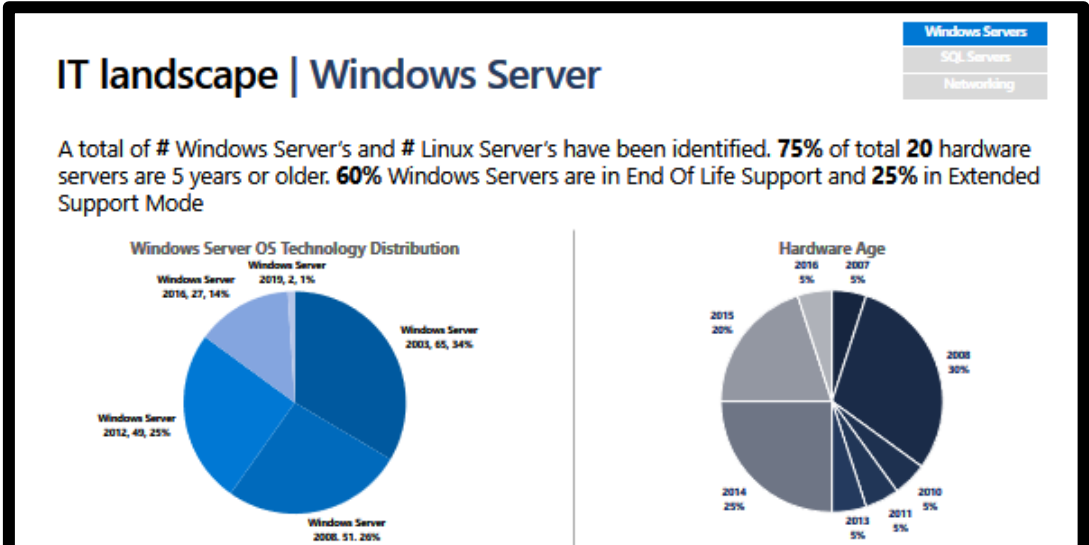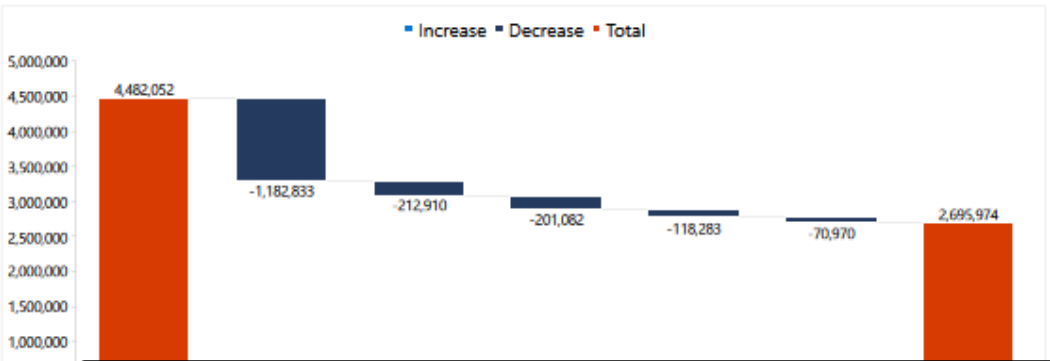Windows Server 2012, 49, 25%
Windows Server 2008, 51, 26%

Hardware Age

2016 5%
2007 5%
2015 20%
2008 30%
2014 25%
2010 5%
2013 5%
2011 5%

IT landscape | SQL Server

15 SQL instances of Standard or Enterprise edition identified, with an additional 5 varied no-cost editions (such as Express or Developer). Review security & maintenance across *all* installed SQL instances to best manage risk.

SQL Instances by Edition
No Cost 5
Enterprise 10
Standard 5

Extended Support
- Plan for upgrade

SQL Instances by Support Status
Unsupported (Older) 5
Mainstream 5
Unsupported (2008/R2) 5
Extended 5

Unsupported/Unpatched
- Prioritize review & action to mitigate security

SQL Instances by SP Offset
-3 or more 5
-1 to Current 10
-2 5

Not Recently Patched
- Catch up on Service Pack installation

IT landscape | Windows Server End of Support

Reviewing and planning around the Operating System Lifecycle is key to securing on-premise infrastructure and prioritizing Azure migration. Microsoft is invested in supporting customers moving to the cloud as a part of infrastructure modernization and provides resources to help keep your environment secure.

Windows Server OS Technology Distribution

Extended Support (25%)
Plan for upgrade of systems in Extended Support.

2012/R2 support ends 10th October 2023.

Extended Support (2012/R2) 20%
Mainstream Support 15%
Unsupported (2008/R2) 55%

Unsupported (60%)
To mitigate active security risks, prioritize review of OSEs for decommission, upgrade, or migration.

IT landscape | SQL Server End of Support

Microsoft offers three years of Extended Security Updates for SQL Server 2008 & 2008R2 when run in Azure, providing support to customers whose use cases did not permit upgrade to a supported version before support ended on July 9, 2019.

Of the 20 SQL Server Instances identified as Unsupported in Contoso's environment, 5 are SQL 2008 or 2008R2, and eligible for the Extended Security Updates offer.

SQL Instances by Support Status
Unsupported (Older) 5
Mainstream 5
Unsupported (2008/R2) 5
Extended 5

Run SQL in an Azure VM (IaaS)
When running 2008/R2 systems in an Azure IaaS VM, Microsoft offers Extended Security Updates for an additional three years beyond normal End of Support.

Move to Azure SQL Managed Instances
MI supports source version back to 2005, removes the requirement to manage the OS layer, and runs your database on a modern, secure system.

Upgrade on-premises systems
The currently unsupported systems could be pushed to modernize in their current locations, but this may create a significant resource impact, and may conflict with other system requirements.

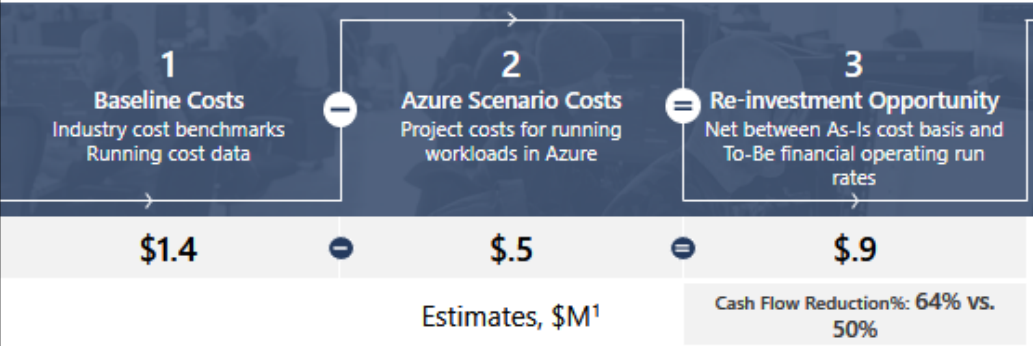# Our engagement will provide valuable insights the customer (cont'd)

Example: Cost impact of potential savings levers
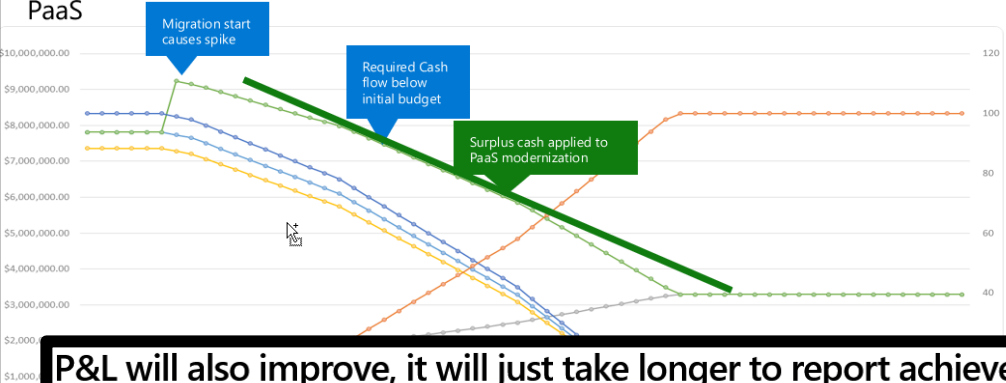
Reducing IT cashflow (cloud consumption offers)

Migrating ~196 compute instances will generate 64% in conservative estimated annual cash flow reduction relative to base spend

Original Objectives

1 Baseline Costs	2 Azure Scenario Costs	3 Re-investment Opportunity
Industry cost benchmarks Running cost data	Project costs for running workloads in Azure	Net between As-Is cost basis and To-Be financial operating run rates
$1.4	$.5	$.9

Estimates, $M[1]
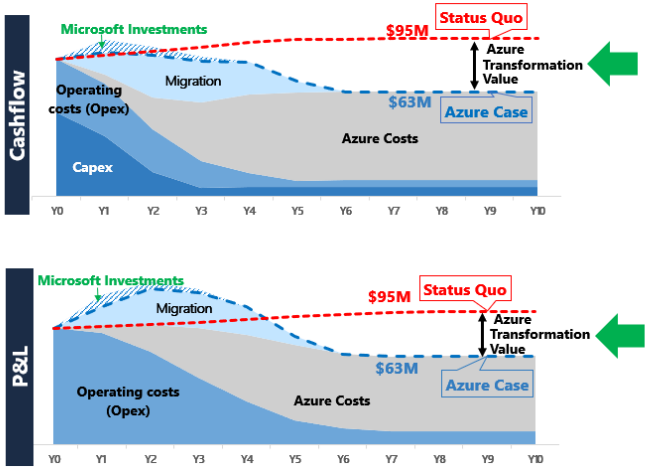
Cash Flow Reduction%: 64% vs. 50%
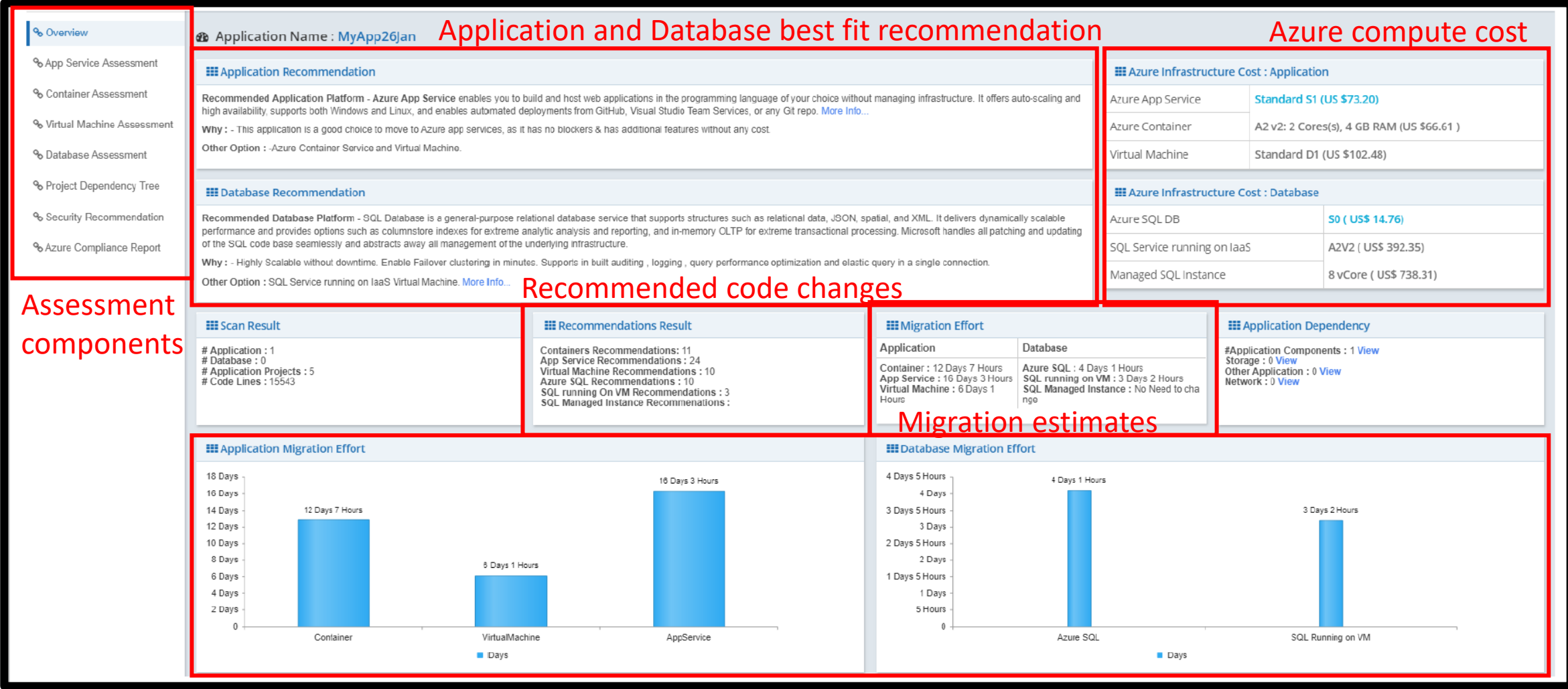
Timeline & reinvestment

Lift & Shift will free up cash flow, can be re-invested to modernization e.g. SQL PaaS

P&L will also improve, it will just take longer to report achieved savings due to old server depreciation (sins of the past)
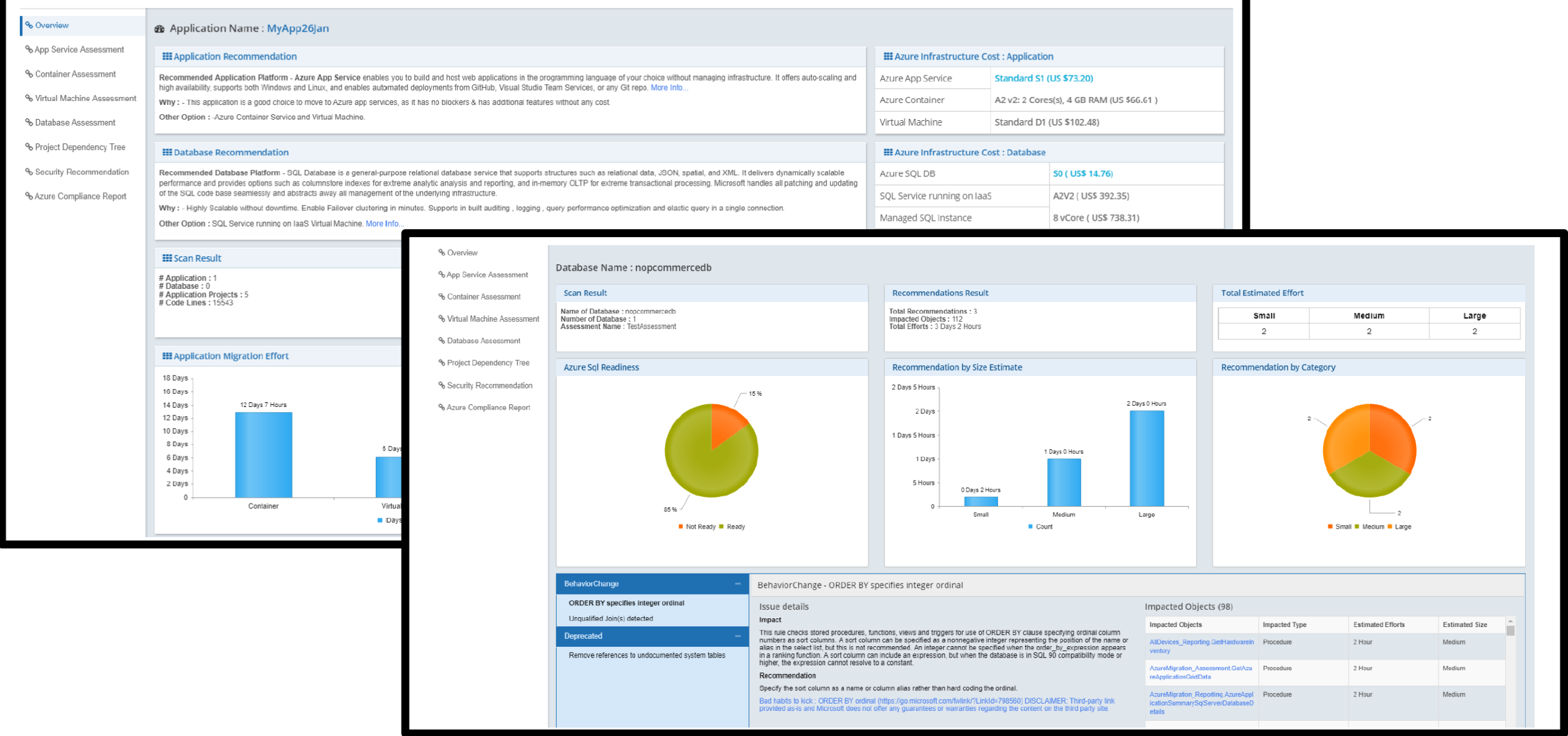
Our engagement will provide valuable insights the customer (cont'd)

Assessment components

- Overview
- App Service Assessment
- Container Assessment
- Virtual Machine Assessment
- Database Assessment
- Project Dependency Tree
- Security Recommendation
- Azure Compliance Report

Application and Database best fit recommendation

Application Name : MyApp26Jan

Application Recommendation

Recommended Application Platform - Azure App Service enables you to build and host web applications in the programming language of your choice without managing infrastructure. It offers auto-scaling and high availability, supports both Windows and Linux, and enables automated deployments from GitHub, Visual Studio Team Services, or any Git repo. More Info...

Why : - This application is a good choice to move to Azure app services, as it has no blockers & has additional features without any cost.

Other Option : -Azure Container Service and Virtual Machine.

Database Recommendation

Recommended Database Platform - SQL Database is a general-purpose relational database service that supports structures such as relational data, JSON, spatial, and XML. It delivers dynamically scalable performance and provides options such as columnstore indexes for extreme analytic analysis and reporting, and in-memory OLTP for extreme transactional processing. Microsoft handles all patching and updating of the SQL code base seamlessly and abstracts away all management of the underlying infrastructure.

Why : - Highly Scalable without downtime. Enable Failover clustering in minutes. Supports in built auditing , logging , query performance optimization and elastic query in a single connection.

Other Option : SQL Service running on IaaS Virtual Machine. More Info...

Azure compute cost

Azure Infrastructure Cost : Application

Azure App Service	Standard S1 (US $73.20)
Azure Container	A2 v2: 2 Cores(s), 4 GB RAM (US $66.61)
Virtual Machine	Standard D1 (US $102.48)

Azure Infrastructure Cost : Database

Azure SQL DB	S0 (US$ 14.76)
SQL Service running on IaaS	A2V2 (US$ 392.35)
Managed SQL Instance	8 vCore (US$ 738.31)

Recommended code changes

Scan Result

Application : 1
Database : 0
Application Projects : 5
Code Lines : 15543

Recommendations Result

Containers Recommendations: 11
App Service Recommendations : 24
Virtual Machine Recommendations : 10
Azure SQL Recommendations : 10
SQL running On VM Recommendations : 3
SQL Managed Instance Recommenations :

Migration Effort

Application	Database
Container : 12 Days 7 Hours	Azure SQL : 4 Days 1 Hours
App Service : 16 Days 3 Hours	SQL running on VM : 3 Days 2 Hours
Virtual Machine : 6 Days 1 Hours	SQL Managed Instance : No Need to change

Application Dependency

#Application Components : 1 View
Storage : 0 View
Other Application : 0 View
Network : 0 View

Migration estimates

Application Migration Effort

Database Migration Effort

Our engagement will provide valuable insights the customer (cont'd)

APAC Solution Assessment Leads

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