

Cloud Transformation for Applications for Azure



**Operational
Excellence**



**Trust &
Compliance**



**Customer
Experience**



**Business
Reinvention**

Agenda

- ▶ Offer presentation: "Cloud Transformation for Applications for Azure"
- ▶ References

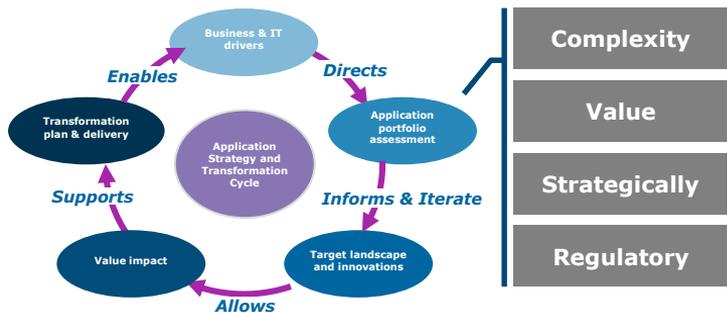
1

Offer presentation: "Cloud Transformation for Applications for Azure"

Atos delivers a full end-to-end service chain for each phase of your Cloud Transformation journey to ensure business confidence and end-user satisfaction

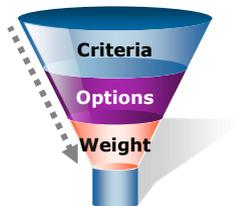
1

Strategy & Application Classification



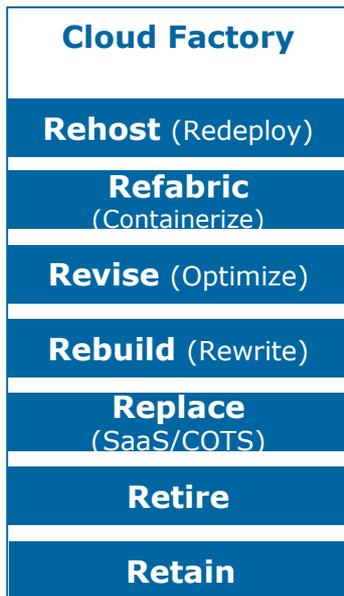
2

Decision Factory



Assess - Shape

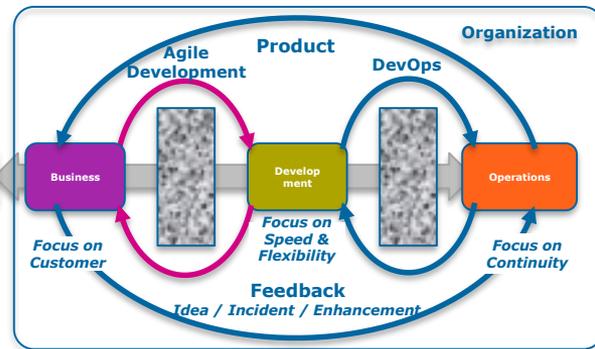
3



Compose - Transform

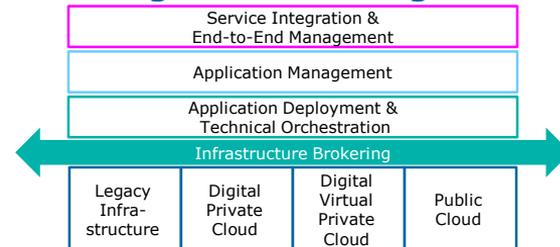
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DevOps / Continuous Delivery



5

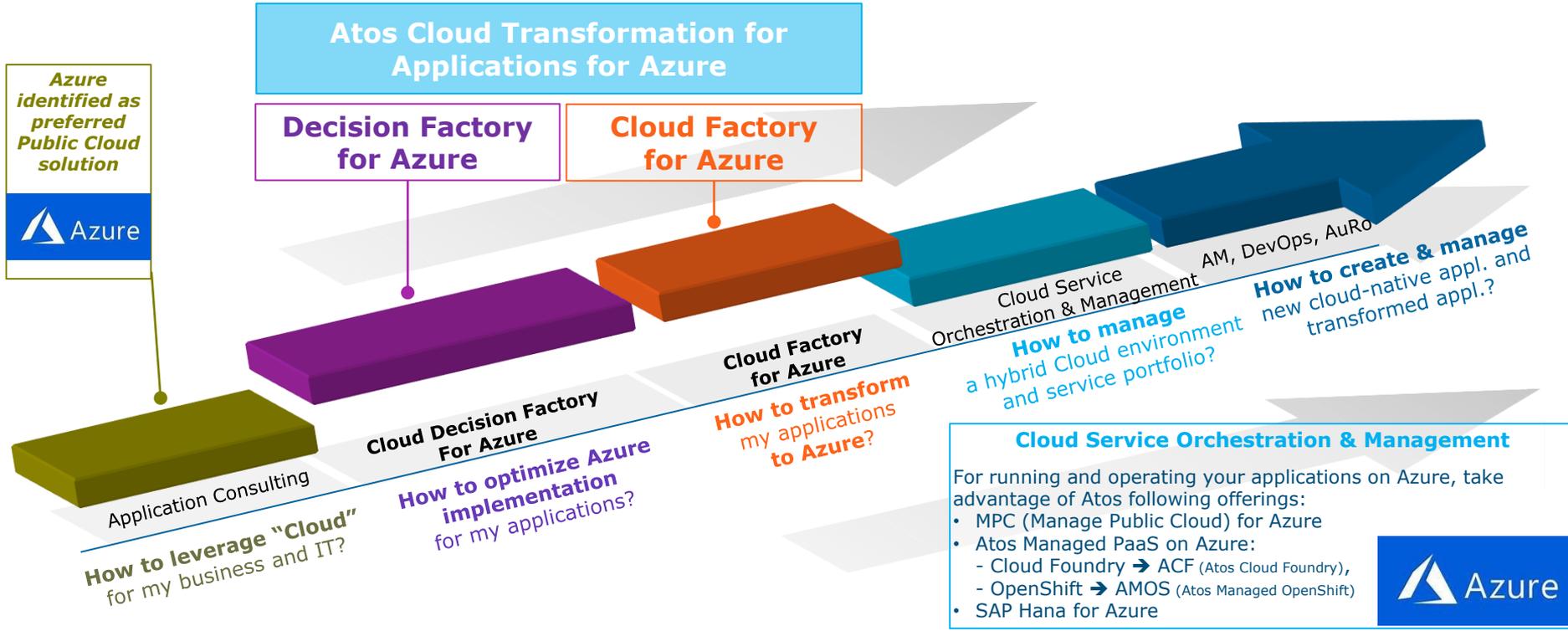
Integration & Management



Orchestrate - Manage

Atos Cloud Transformation for Applications for Azure

2 decisive phases in customer Cloud Journey



The Atos Decision Factory for Azure outcome ensures the success of the Cloud Factory to enable more value for money

Strategic Drivers

Business & IT Drivers

Governance and Change Management

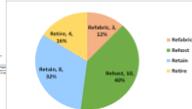
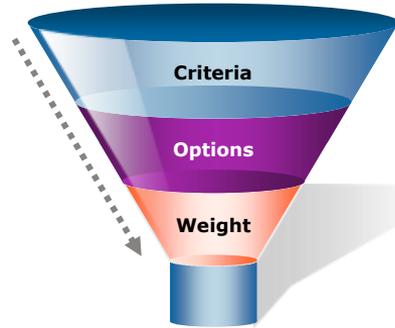
Cloud Strategy & establish joint Technical Design Authority (with partners)

Define classification criteria

Azure identified as preferred Public Cloud solution



Decision Factory (Cloud readiness assessment)



RECOMMENDED* CLOUD PROVIDERS *In order of preference

CLOUD PROVIDERS	STATUS	PREFEREN CE	REASON
MS Azure	✓	1 st	Public Cloud
AWS	✓	1 st	Public Cloud
CIS	✓	2 nd	Private Cloud
DPC	✓	2 nd	Private Cloud



wave 1



wave 2



wave 3

Cloud Factory

Rehost
(Redeploy)

Refabric
(Containerize)

Revise
(Optimize)

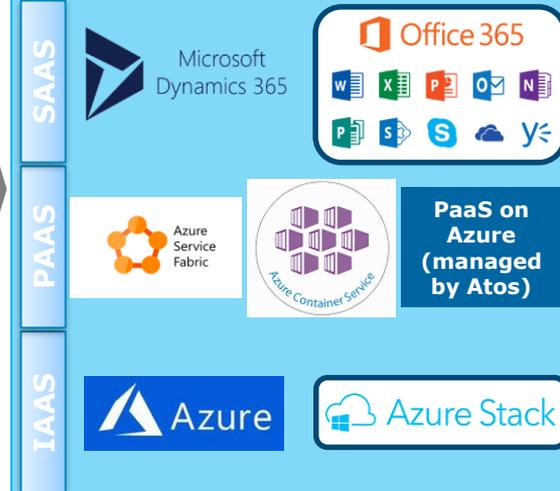
Rebuild
(Rewrite)

Replace
(SaaS/COTS)

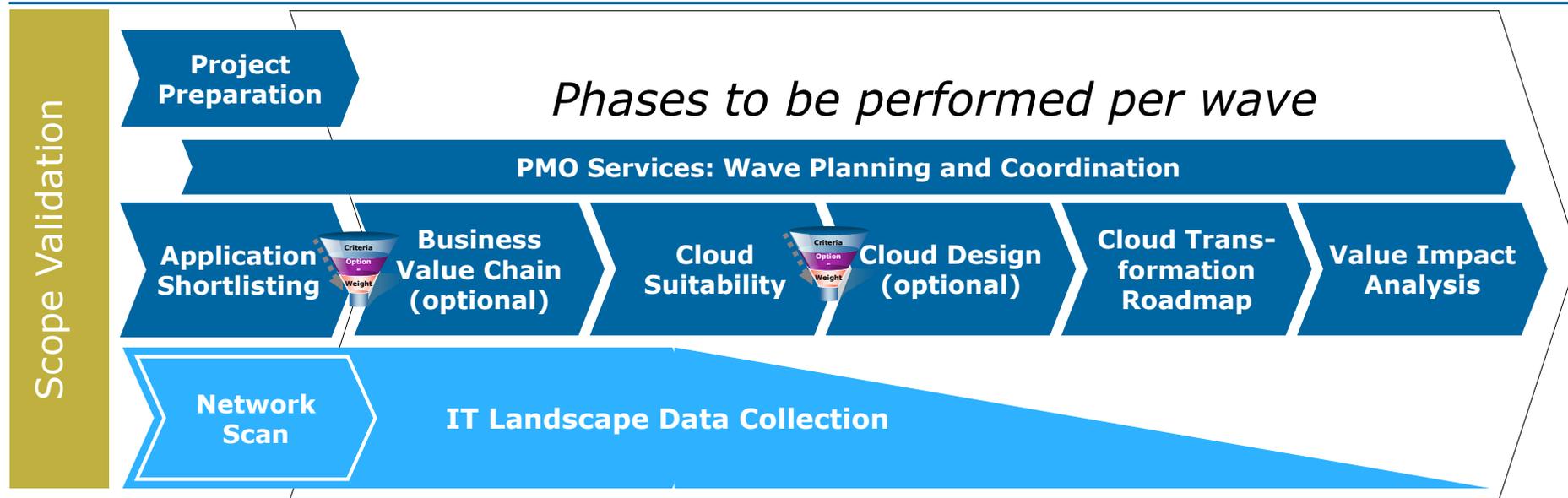
Retire

Retain

Azure Cloud



Atos Decision Factory directs and supports your focus & invest on the most appropriate applications reducing TCO and adapting rapidly to changing markets



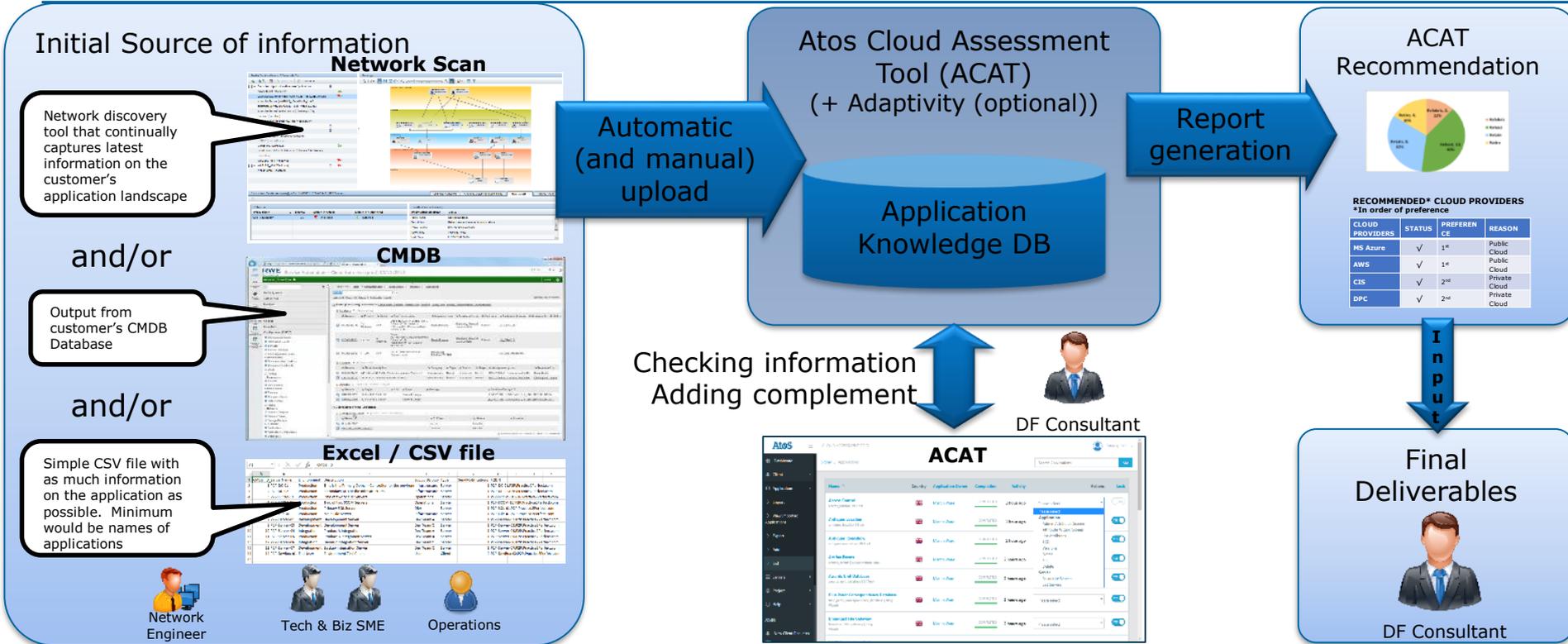
Thanks to **Atos Decision Factory for Azure:**

- Accelerate decision and schedule of your journey to the cloud
- Optimize Azure Cloud adoption and usage
- Demonstrate the quantifiable business value of your Application Transformation

- *Transformation path recommendation per application*
- *Transformation roadmap & Business Case per wave*
- *80 apps within 8 weeks*

IT Landscape Data Collection

To capture as much information as possible from the customer's application landscape



Final report's Scope and Level of Detail will be aligned to fit into Customer's Transformation Journey

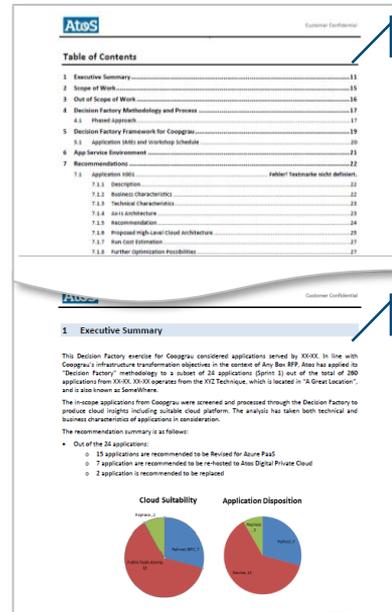
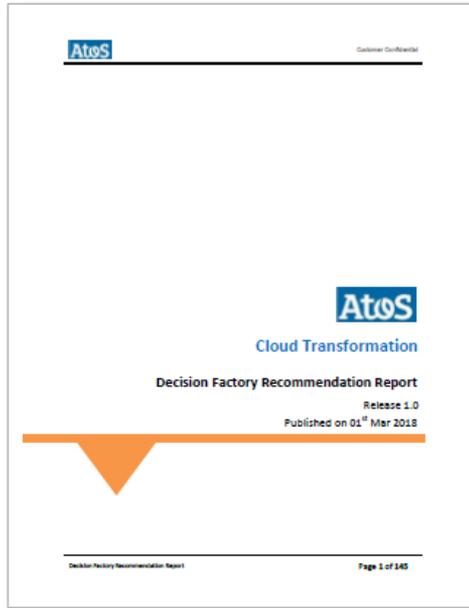
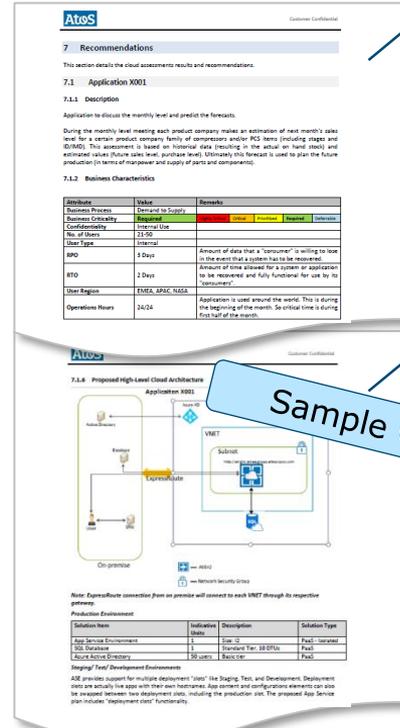


Table of Contents

Executive Summary



Recommendation (per app)

Sample Output

High level cloud architecture

Atos Cloud Assessment Tool

Detailed Analysis issued per Application

Sample Output

Acat

APPLICATION ATTRIBUTES

Platform	Database	Operating System	Middleware	H/W Architecture	Authentication
• Java/ J2EE	• PostgreSQL	• Red Hat Linux	• JBoss	• 64-bit x86 based	• Enterprise Authentication

Other Attributes	
Web Application Application Type	Less than 1,000 Number of Users
5-10 yrs Application Age	Internal Internal/External
Availability & Performance Service Level Monitored	Virtual Infrastructure
Non-Cloud Infrastructure Environment	USA Country
Can be placed in approved public datacenters Data Confidentiality Requirement	International Geographic Scope
Little or No variations Workload Variation	High – Extreme low latency or real time sensitive Latency Sensitivity
Internal Development Development Responsibility	Medium – Intermittently fluctuating I/O Intensity
No data residency requirements Data Residency	Vertical Scaling for all tiers Scalability
Yes Source Code Available	Middleware Version Dependency
Less than 15 Minutes Recovery Point Objective	1 Hours - 4 Hours Recovery Time Objective
No Compliance Compliance Requirement	Yes Enterprise Authentication
...	...

PUBLIC CLOUD

CLOUD SUITABILITY

"Application 2" is a web application having "Data Confidentiality Requirements suggesting that it can be placed into public data centers hence the recommendation to host it in Public Cloud

RECOMMENDED* CLOUD PROVIDERS

*In order of preference

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MS Azure	✓	1 st	Public Cloud
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DPC	✓	2 nd	Private Cloud

BENEFITS

Cost Savings	✓
Scalability & Agility	✓
Time to Market	✓
Support for DR & BC	✓
Business Growth	✓

REFABRIC

APPLICATION DISPOSITION

KEY CONTRIBUTING FACTORS

- Virtual Infrastructure
 - Bespoke web application for which source code exists – suitable for PaaS
 - Implementation Characteristics (Linux/Unix, JAVA/J2EE, JBoss)
 - Contracted SLA (Performance and Availability)
 - Data confidentiality &
 - Data Residency requirements
 - *Recovery Point Objective – Less than 15 minutes
 - Latency Sensitivity
 - *Enterprise Authentication
- This is a WEB application either developed internally or through an external entity. The source code of this application is also available. Furthermore, the programming language(s)/ platform(s) used to build this applications are supported by one or more PaaS platforms listed above. Hence, the recommendation to REFABRIC and host it on a container PaaS platform to gain maximum benefits from the cloud transformation.
 - Public cloud not only makes it cost-effective to do Disaster Recovery in the cloud but also makes it easy, secure and reliable synchronous replication of data across multiple availability zones can help achieve RPO of less than 15 minutes.
 - The need to centrally control access to data and applications is becoming ever more vital to organizations owing to escalating security and privacy concerns. Application 2 already features "Enterprise Authentication" making it suitable for "Public Cloud" deployment

Atos Cloud Assessment Tool

Server Move Group Planning

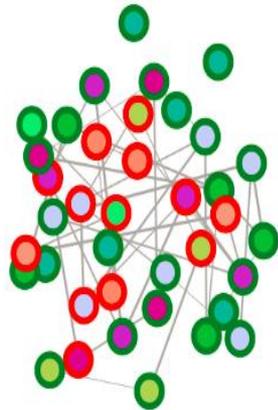
Wave planning 3

Move Group Size : 200 GB

Infrastructure View / Application View

■ Production ■ Development

- Select none
- All Move Group
- Move Group 1
7 Servers | 193 GB
[View Details](#)
- Move Group 2
5 Servers | 134 GB
[View Details](#)
- Move Group 3
5 Servers | 116 GB
[View Details](#)
- Move Group 4
4 Servers | 51 GB
[View Details](#)
- Move Group 5
4 Servers | 79 GB
[View Details](#)
- Move Group 6
2 Servers | 86 GB
[View Details](#)
- Move Group 7
3 Servers | 84 GB



All Groups

Wave planning 3

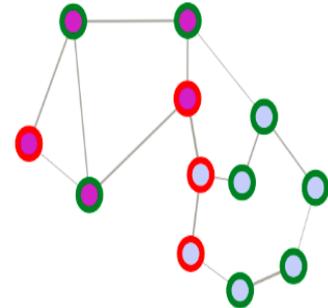
Move Group Size : 200 GB

Sample Output

Infrastructure View / Application View

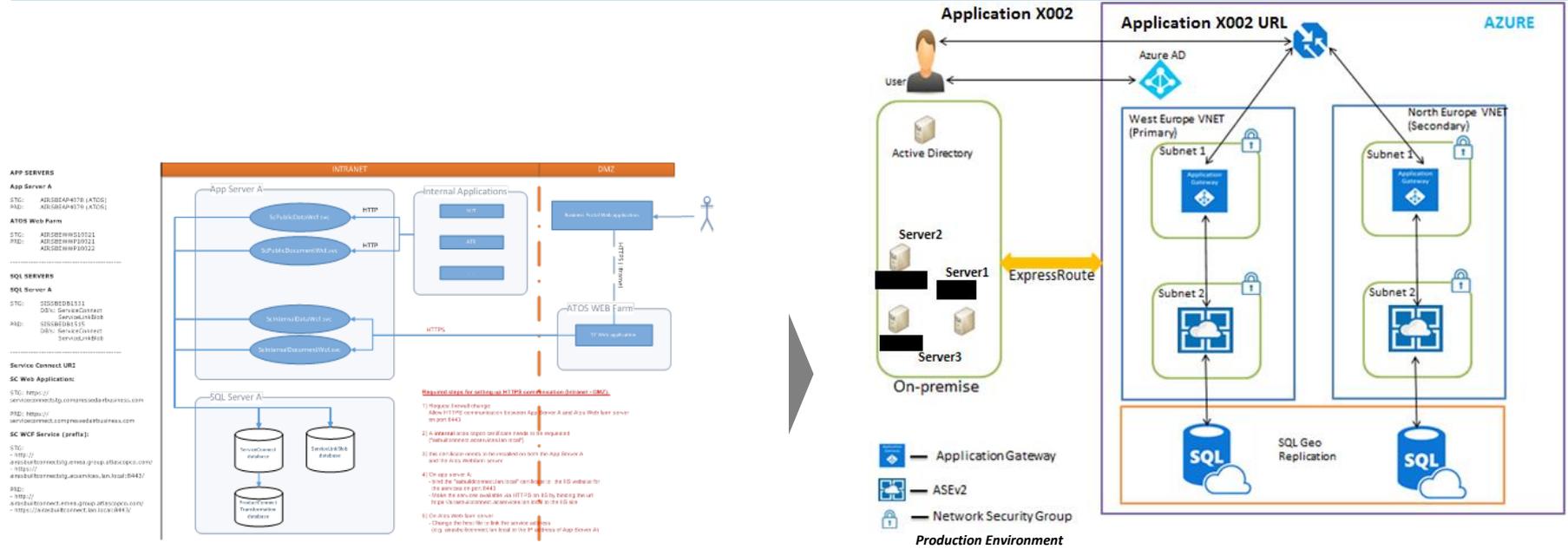
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- Move Group 7
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One Group

Cloud Design Design the optimal cloud architecture to support the business and technical requirements of each existing application



Atos recommends the application to be "Revised" for App Service Environment. The recommendation is substantiated by high level technical feasibility, cloud architecture and IaaS run cost estimation.

Atos Cloud Factory for Azure

Execute Transformation

Business Mapping
Business application roadmap, operational demands, multi-channel strategies, KPI, demographics, regulation, security,....

Cloud Strategy
Target platforms & delivery models, application landscape architecture, network, scalability & elasticity, service architecture, orchestration,....

RECOMMENDED* CLOUD PROVIDERS
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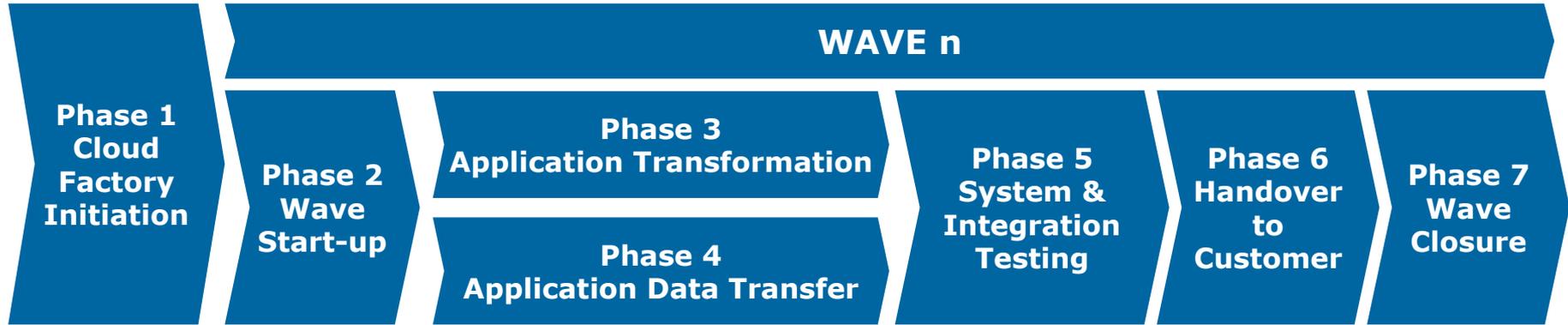
Atos

The **Cloud Factory** deploys a suite of capabilities to execute the transformation of the portfolio wave and handover to application management.

- ▶ **Rehost** – Redeploy physical/virtual workloads (servers) to a hybrid cloud
- ▶ **Refabric** – Move containers including application packages (.NET, java) to a new platform
- ▶ **Revise** – Optimize parts of the architecture and code to benefit from the new platform characteristics (e.g. scalability, performance, ...)
- ▶ **Rebuild** – Rebuild the application on the new platform, either by reinstalling and reconfiguring or discarding code and re-architecting the application to achieve maximum benefits from new platform characteristics
- ▶ **Replace** – Discard an application and use commercial software delivered as an installable solution or as a SaaS service.
- ▶ **Retire** – Shut down and remove an application
- ▶ **Retain** – Keep an application on its current platform without any change; review the commercials

Atos Cloud Factory for Azure ensures great reliability and minimized risks

Planning and executing transformation waves



Atos Cloud Factory for Azure makes you benefit from best

- Skills and Knowledges in Azure Cloud Migration
- Practices and Methodology developed by Atos from years
- Accelerators and Automation in Transformation



2

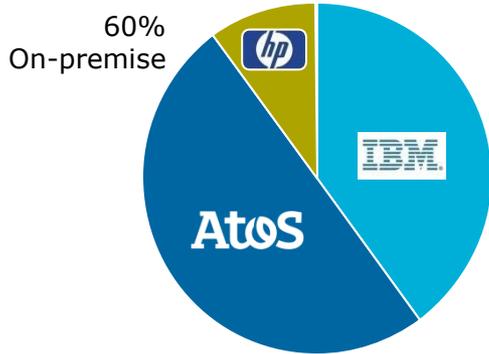
References

Customer Case Study 1 – A large European manufacturer

Cloud First Strategy: agile – cost effective – pay per use

Increased performance for more than **1.000 applications, 7.500 workloads & 3.000 databases** by utilizing **fully managed** and **demand driven** IT services

From ...

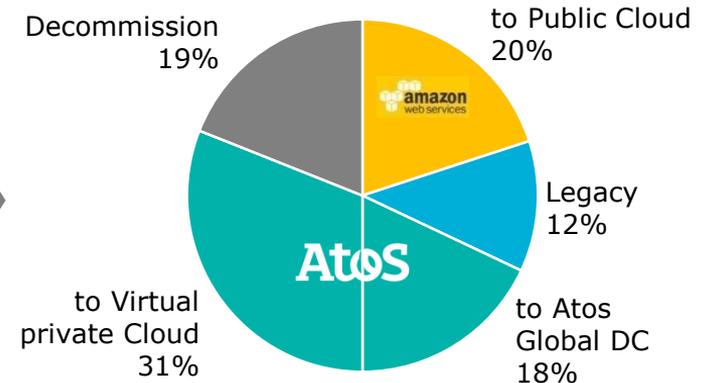


Global DCO environment



- ▶ Infra Decommission: 20%
- ▶ Data Archive: 65%

To ...



Global Hybrid Cloud environment

The transformed Datacentre environment leads to reduced cost – increased flexibility – refreshed infrastructure

Customer Case Study 1 – A large European manufacturer

From traditional to the largest hybrid cloud deployed in the industry

Moving of over **10,000 workloads to Cloud** to one of the largest hybrid cloud deployments in the industry.

- ▶ Hybrid cloud comprises of Public Cloud (e.g. AWS) and 21 Private Cloud instances across Europe and Americas.
- ▶ Workloads migrated at a rate of over 1,000 VMs per month.
- ▶ Delivered within a fully Secure and Managed Services framework highly competitive to Public Cloud rates.
- ▶ ITSM through single service “pane of glass” Atos Technology Framework 2.0 for cloud orchestration.
- ▶ 100% backup using dedicated appliances and 30% DR to a paired data center.
- ▶ Pay as you go model providing the Client a **cost savings of 32%**.

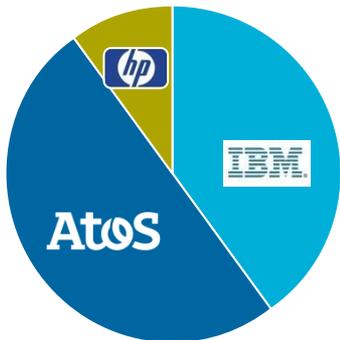


Customer Case Study 2 – A leading consumer electronics company

From traditional to full hybrid model: agile – cost effective – pay per use

Increased performance for more than **5,500 workloads & 2,500 databases** by utilizing **fully managed** and **demand driven** IT services

From ...

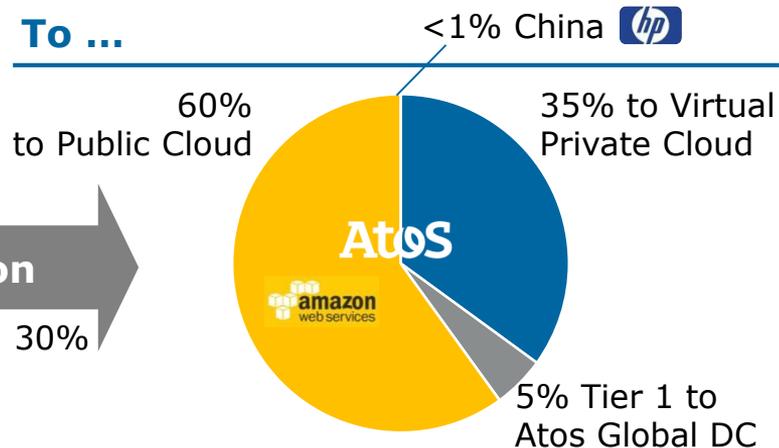


Global DCO environment

To ...

Transformation

- ▶ Infra Decommission: 30%
- ▶ Data Archive: 65%



Global DCO environment

The transformed DCO environment leads to reduced cost – increased flexibility – refreshed infrastructure

Customer Case Study 2 – A leading consumer electronics company

Increase performance for >1,000 IT applications /
5,500 Workloads and empty 140 local DCs

Key Benefits

- ▶ **End to end hybrid cloud** management service creating one of the largest cloud eco-systems available
- ▶ Self-service portal with entitlements and approval workflows customizable by customer and cloud provider
- ▶ **Full support for infrastructure and application workloads**
- ▶ **Full hybrid service orchestration and automation leveraging ServiceNow**
- ▶ **Full support for DevOps and Bi-modal delivery**
- ▶ Insight and optimization of usage and opportunities for improvements

From ...

- ▶ "Data Centers" in local sites
- ▶ "Break-Fix" support with **unplanned business interruptions**
- ▶ **Complex supply chain for new IT demand**
- ▶ **Legacy infrastructure in a wide variety of unsupported versions**
- ▶ **Not Scalable** (physical machines)
- ▶ Pay for capacity you reserve
- ▶ Reporting "after the fact"
- ▶ **High "security" risks**
- ▶ Power consumption / CO₂



To ...



- ▶ "Always On" Cloud combined with local compute capabilities
- ▶ SLA based and managed services: **Private and Public**
- ▶ Self Provisioning, consumer driven
- ▶ Modernized infrastructure using standard commodities
- ▶ Scalable up and down (Virtual machines)
- ▶ Pay only for what you use
- ▶ "Real time" visibility to usage & performance
- ▶ Low "security" risks
- ▶ CO₂ reduction (60%)

Customer Case 3 - Olympic Games – Key statistics

Equivalent to a business of **200,000 employees**, addressing four billion customers, operating 24/7, in a new territory, every two years



Customer Experience



4BN

worldwide viewers



37

competition venues
with complete IT
infrastructure



23,000

media



10,500+

athletes



Trust & Compliance



300,000+

accreditations



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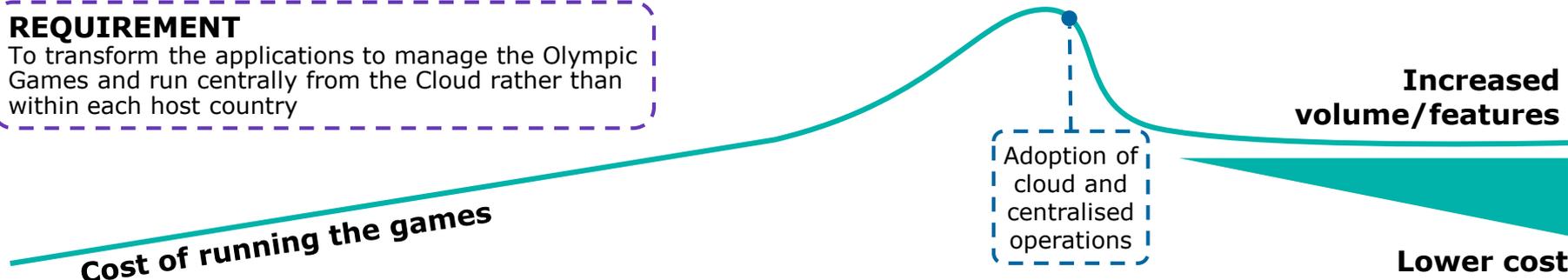
IT security impact

Digital Transformation for the Olympic Games

Application transformation from legacy to the multi-cloud

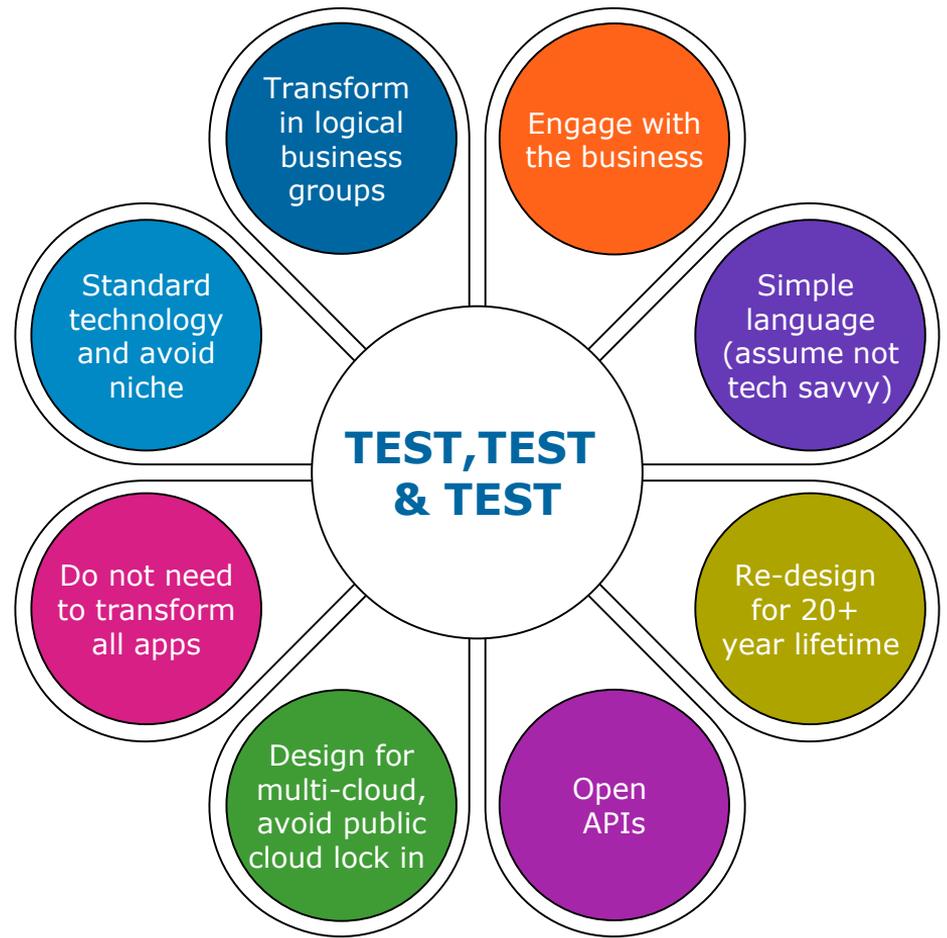


REQUIREMENT
To transform the applications to manage the Olympic Games and run centrally from the Cloud rather than within each host country



Digital transformation for the Olympic Games

Atos' lessons learned to move to the hybrid cloud



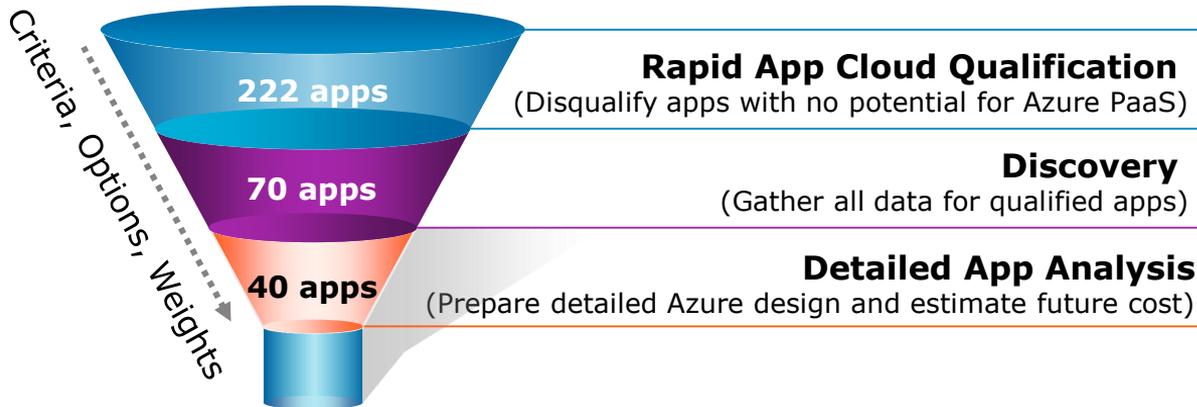
Customer Case 4 - Decision Factory for Globally Acting Manufacturer of Construction Equipment

Executed with Atos Belgium +
Offshore team

Per application pricing

Agile approach in execution

Between December 2017 and
May 2018



Microsoft Azure PaaS

App Service



Mobile Apps



Logic Apps



Web Apps



Customer Case 5 – AMOS using Azure Stack PaaS @ Leading European Aerospace Company

- ▶ 18 months intense collaboration between Red Hat and Atos and investment from both sides has enabled Atos and Red Hat to provide Atos Managed Openshift (AMOS).
- ▶ In close and fruitful partnership with Microsoft and Red Hat, Atos is able to deliver this leading edge project & service:
- ▶ Largest multi-country Microsoft Azure Stack deal led by a Global System Integrator (GER, FR, Iberia)
- ▶ Creates a new Atos Secure Private Cloud blueprint ready to be replicated
- ▶ Largest Red Hat new name deal in 2018
- ▶ First deployment of the new OpenShift 3.10 (AMOS currently on 3.9)
- ▶ Largest Red Hat Storage and Red Hat OpenShift integrated solution

Customer Case 6 – Atos Azure DevOps Factory for transnational Food and Drink Company

Objectives

- ▶ Enforce proper **governance of Azure** to ensure **cost control** and **compliance with security** and **architectural standards**.



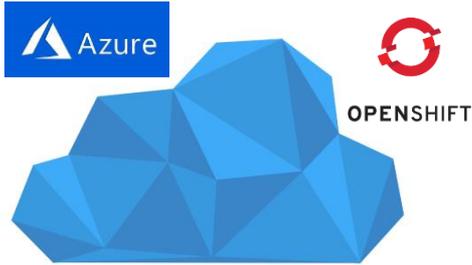
- ▶ **Support DevOps for Azure development**



Solution

- ▶ Azure Environment provisioning is restricted to a **pre-defined set of Azure architectures** compliant with security and architectural standards.
- ▶ **E2E automation:**
 - **Project provisioning** in VSTS
 - **Environment provisioning** in Azure
 - Generation of **technical architecture documentation**
 - Generation of **build & release definitions**
 - **CI/CD** integrating **code quality control, unit & functional testing** in SonarQube

Customer Case 7 - Multi Cloud Transformation for a F100 Customer : Openshift and Azure Migration Factory



Workload	Pricing
	\$
	\$\$
	\$\$\$\$

Business Challenge

Platforms across x86, RISC, Mainframes. Long provisioning lead time (4+ weeks)

High Operating costs and Vendor dependence reducing Time to market

Different application owners by LOB and no centralized approach to modernization

Solution

Established Openshift, Azure reference architecture

Reviewed as-is architecture to do a fitment and migrated applications to the right reference architecture

Set-up a centralized migration factory to offer mass migration capabilities with repeatable higher migration efficiencies and standardization

Differentiators

Applications were migrated to the Cloud in a factory model driven by SyntBots® for Cloud – Syntel’s automated cloud migration tool

“SyntBots helped us with the initial assessment of all the remediation work needed to migrate the application without issues.” – Customer Sponsor

Value Delivered

37% TCO Reduction, 97% Faster Provisioning

40+ % Faster migration, 90% Reduction in SME time

Workload based Enterprise wide flexible pricing model

Service Offerings

DC modernization, Tech Stack Standardization
Cloud Native enablement, Cloud Factory Model

Deal Journey

Proactive pitch across multiple Unit CIO organizations leading to consolidated factory approach

More than 250+ applications migration till date

Thank you

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The Atos logo is displayed in white, bold, sans-serif capital letters. The letter 'o' is stylized with a white dot in the center, resembling a target or a bullseye. The background of the slide features large, overlapping circular shapes in various shades of blue.