Microsoft | Readiness Planning Guide

Environmental Readiness

Compliance

Network Readiness

Authentication & Authorization
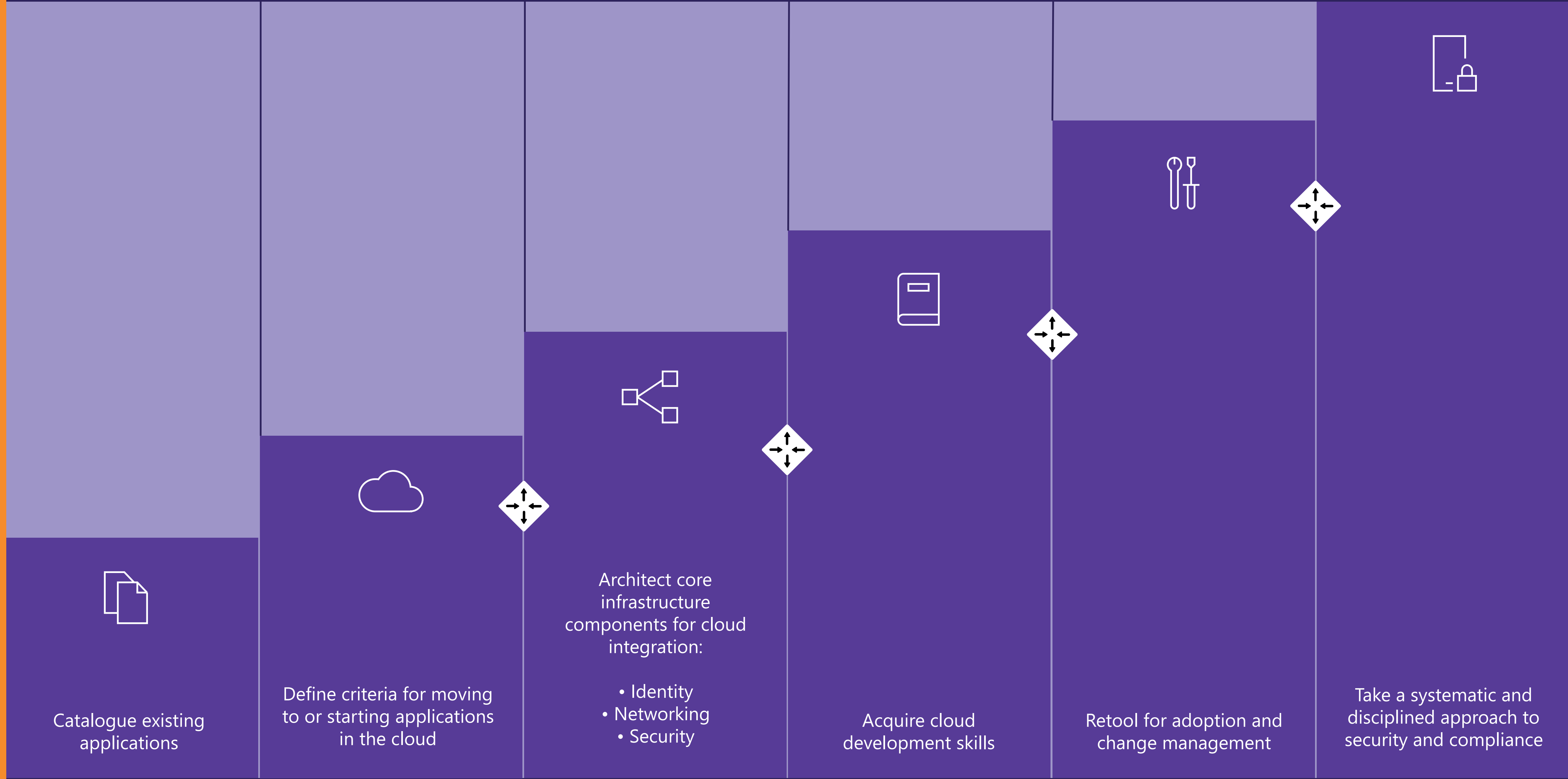
Azure Readiness

Office 365 Readiness

Partner Engagement

Emerging strategies
What we learn from enterprise organisations that are further ahead.

Environmental Readiness

Catalogue existing applications

Define criteria for moving to or starting applications in the cloud

Architect core infrastructure components for cloud integration:

• Identity
• Networking
• Security

Acquire cloud development skills

Retool for adoption and change management

Take a systematic and disciplined approach to security and compliance
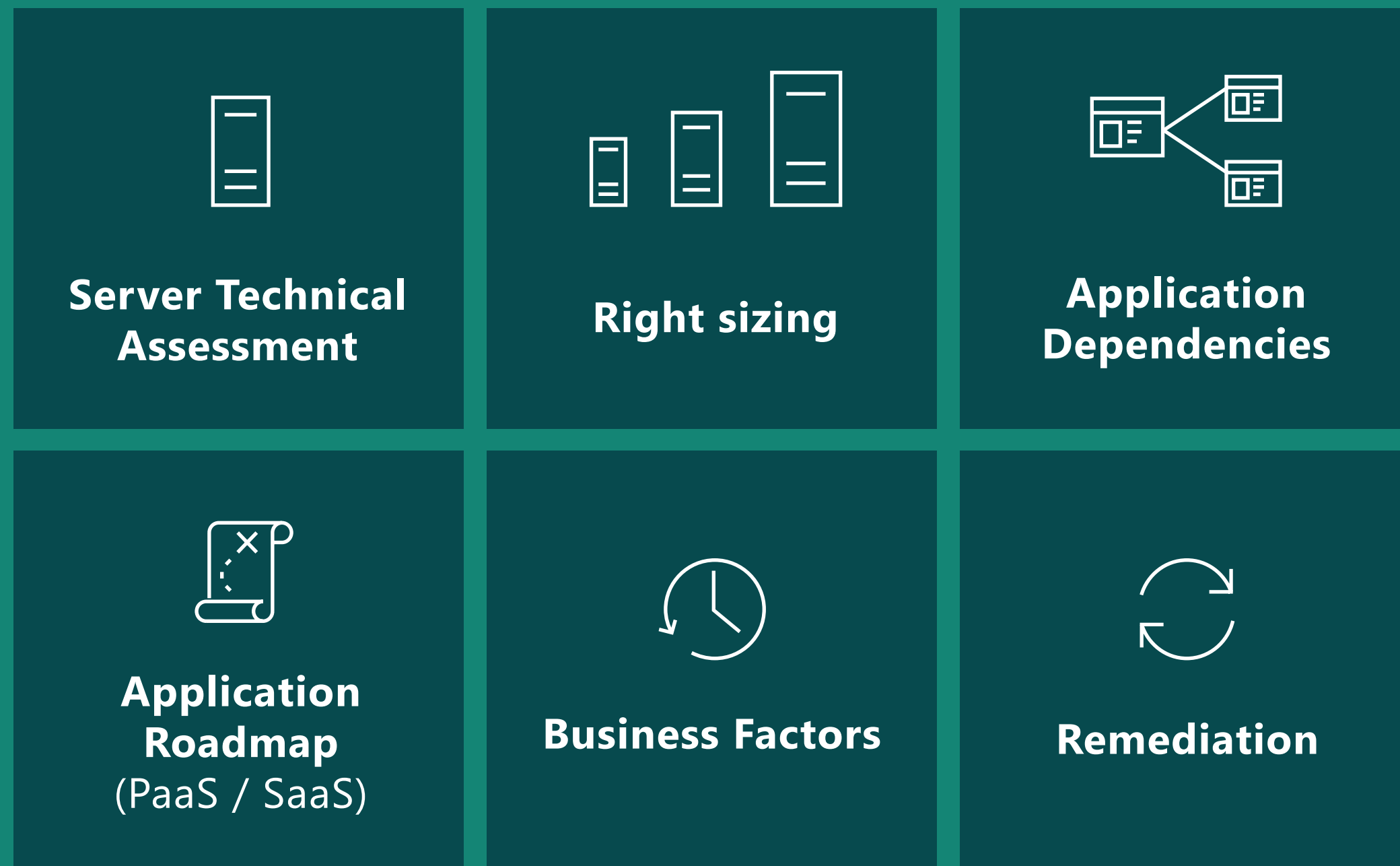
# Assessing Applications for IaaS

Application Assessment Framework

- Identify Technical Blockers
  - Hard Blockers
  - Potential Blockers
- Evaluate Servers Against Blockers
- Remediate Potential Blockers

Environmental Readiness

Application Assessment
Application Decision Framework

Server Technical Assessment	**Right sizing**	**Application Dependencies**
Application Roadmap (PaaS / SaaS)	**Business Factors**	**Remediation**

→ Drives Azure IaaS migration decisions

IaaS Migration Roadmap
Azure IaaS (Rehost)

Move Application to Azure

Hybrid Deploy
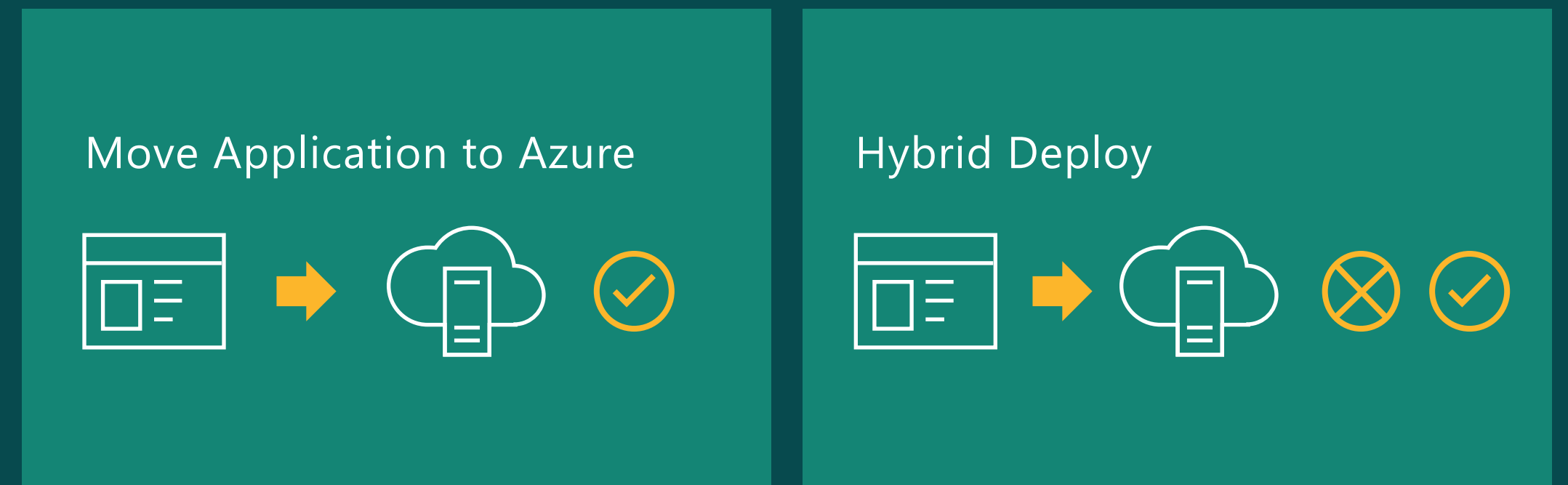
On-Prem IaaS (Retain / Retire)

Application Remains On-Prem
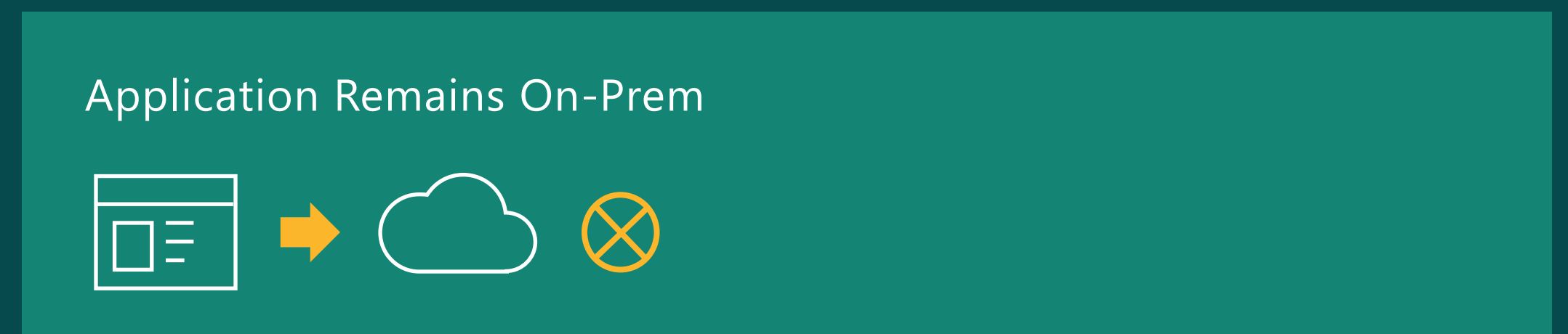
IT Cloud Migration Principles

Environmental Readiness
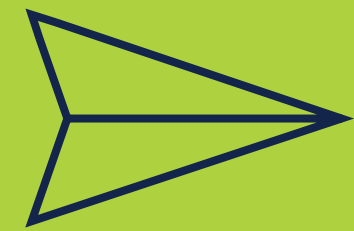
Go Fast

- Fail fast

- Manage your Plan of Record (POR)

Push the Boundaries

- Architect "net new" for PaaS/SaaS

- Refactor legacy apps for PaaS/SaaS

- Build your POR to enable cloud capabilities

- Think "Experience"

Make Data-Driven Decisions

- Manage your costs

- Use telemetry

- Understand your blockers

Simplify

- Retire, retire, retire

- Aggressively right size

- Review frozen and cold servers weekly

- Clean up CMDB data

Communicate to Succeed

- Communicate customer and stakeholder impacts

- Share learnings and best practices

Cloud IT Skill Evolution and Development
Skill Development Roadmap

Environmental Readiness

|	Technical Development			Learn & Collaborate		Contribute & Apply	
Action	By reading or listening	By taking a course or doing a hands-on lab	By doing an exam	By attending an immersion experience	By participating in a community	By Teaching or Helping	By doing a job
Format	Online courses and online documentation	In presence courses, forums or conferences	Certification, exams or accreditation	Hands on training Boot and Dev Camps	Communities	Online, on the job or in their local technical groups	Developing a production solution
Programs & Motions	Microsoft Docs	Azure Learning	Certifications	Boot and Dev Camps	Microsoft Technical Communities	Microsoft Cloud Workshops	GitHub Ignite Online
	Online courses	Massive Open online Courses (MooCs)	Hands-on Lab (virtual)	Enterprise Cloud Strategy Document			

Data Sovereignty

The Data Sovereignty, provisions of PoPI.

Can I lawfully store my data outside South Africa?

We are often asked whether cloud services are in any manner restricted under the data sovereignty provisions of PoPI and consequently whether a customer may store their data outside of South Africa. All too often we hear from customers that PoPI seeks to strictly enforce data sovereignty and prevent offshore data flows.
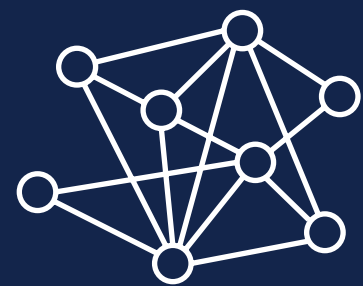
What is Data Sovereignty?

In its simplest form data sovereignty describes the legal principle that information (generally in electronic form) is regulated or governed by the legal regime of the country in which that data resides. With cloud computing, and specifically the public cloud aspect thereof, data that users generate in most instances resides on servers outside the legal or territorial border of the users' country of residence. This means that the data of an individual becomes subject to a foreign legal regime.

Data Sovereignty
What does PoPI say about Data Sovereignty?

Compliance

For the purpose of those resident within the borders of the South Africa, what does PoPI say about data sovereignty? Section 72 of PoPI regulates transfers of personal information outside the Republic and therefore broadly determines the issue of "data sovereignty".

Section 72 of PoPI provides the following (below is a summary of Section 72. For the full version for Section 72, please see end of this article*):
72. (1) A responsible party in the Republic may not transfer personal information about a data subject to a third party who is in a foreign country unless any ONE of the following conditions/considerations exist —

    (a) the third party who is the recipient of the information is subject to a law, binding corporate rules or
        binding agreement which provide an adequate level of protection that reflect the principles of PoPI
    (b) the data subject consents to the transfer;
    (c) the transfer is necessary for the performance of a contract between the data subject and the
        responsible party;
    (d) the transfer is necessary for the conclusion or performance of a contract concluded in the interest
        of the data subject; or
    (e) the transfer is for the benefit of the data subject.
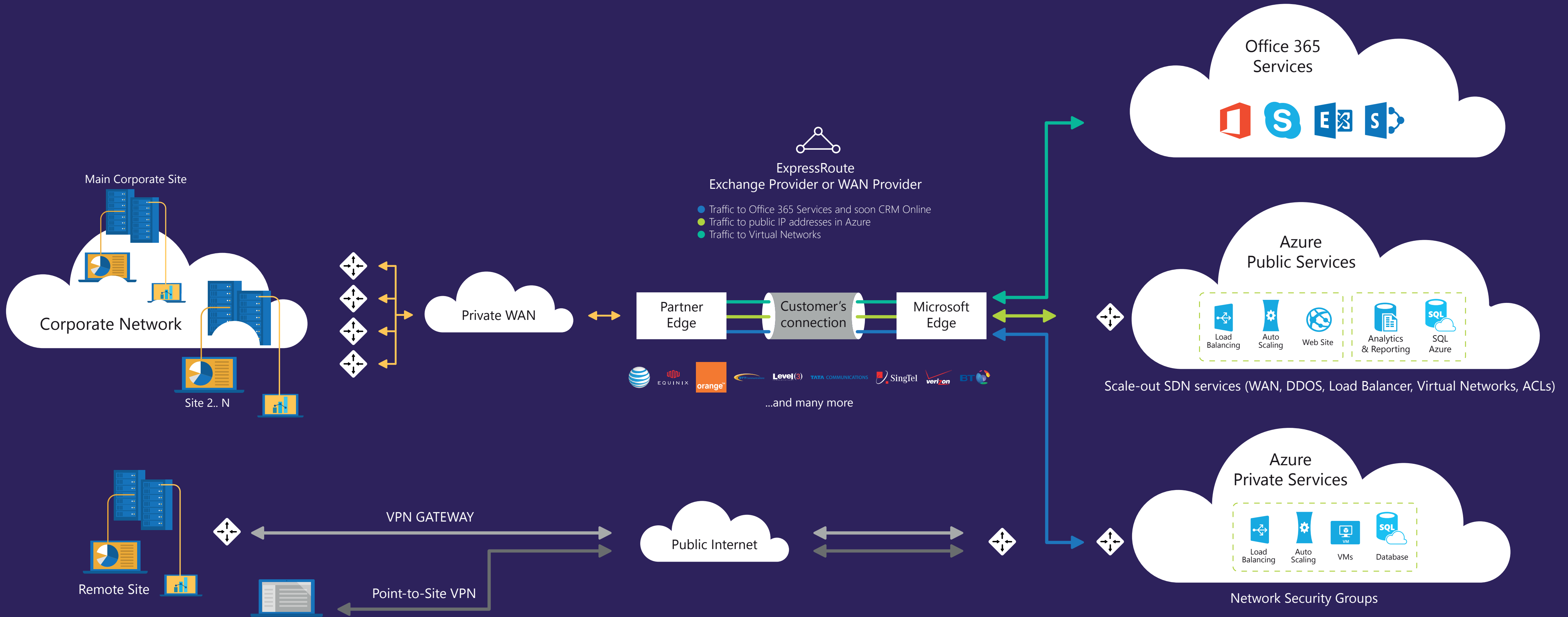
It therefore follows that PoPI does not broadly prohibit the transfer of data outside of South Africa. On the contrary, (i) we find that PoPI narrowly concerns itself only with personal information and (ii) further, and more importantly, regulates HOW personal information may lawfully be transferred internationally. Simply put, section 72 does not prohibit cross-border data flows, rather it acts as an enabler and protector of personal information by providing a set of five (5) conditions (considerations) which a Responsible Party needs to apply and which seek to protect a data subject's personal information as it moves offshore. Of course, if none of the five (5) conditions are met, a Responsible Party may not transfer a data subject's personal information outside of South Africa.

Assess your GDPR compliance

Microsoft TrustCenter

Networking

Network

Main Corporate Site

Corporate Network

Site 2.. N

ExpressRoute
Exchange Provider or WAN Provider

- Traffic to Office 365 Services and soon CRM Online
- Traffic to public IP addresses in Azure
- Traffic to Virtual Networks

Private WAN

Partner Edge — Customer's connection — Microsoft Edge

EQUINIX orange Level(3) TATA COMMUNICATIONS SingTel verizon BT

...and many more

Office 365 Services

Azure Public Services

| Load Balancing | Auto Scaling | Web Site | Analytics & Reporting | SQL Azure |

Scale-out SDN services (WAN, DDOS, Load Balancer, Virtual Networks, ACLs)

Azure Private Services

| Load Balancing | Auto Scaling | VMs | Database |

Network Security Groups

Remote Site

VPN GATEWAY

Public Internet

Point-to-Site VPN

Backend Connectivity
- ExpressRoute for private enterprise grade connectivity
- VPN Gateways for secure site-to-site connectivity
- Point-to-site for dev/test

Front-End Access
- Dynamic/Reserved Public IP addresses
- Direct VM access, ACLs for security
- Load balancing
- DNS services: hosting, traffic management
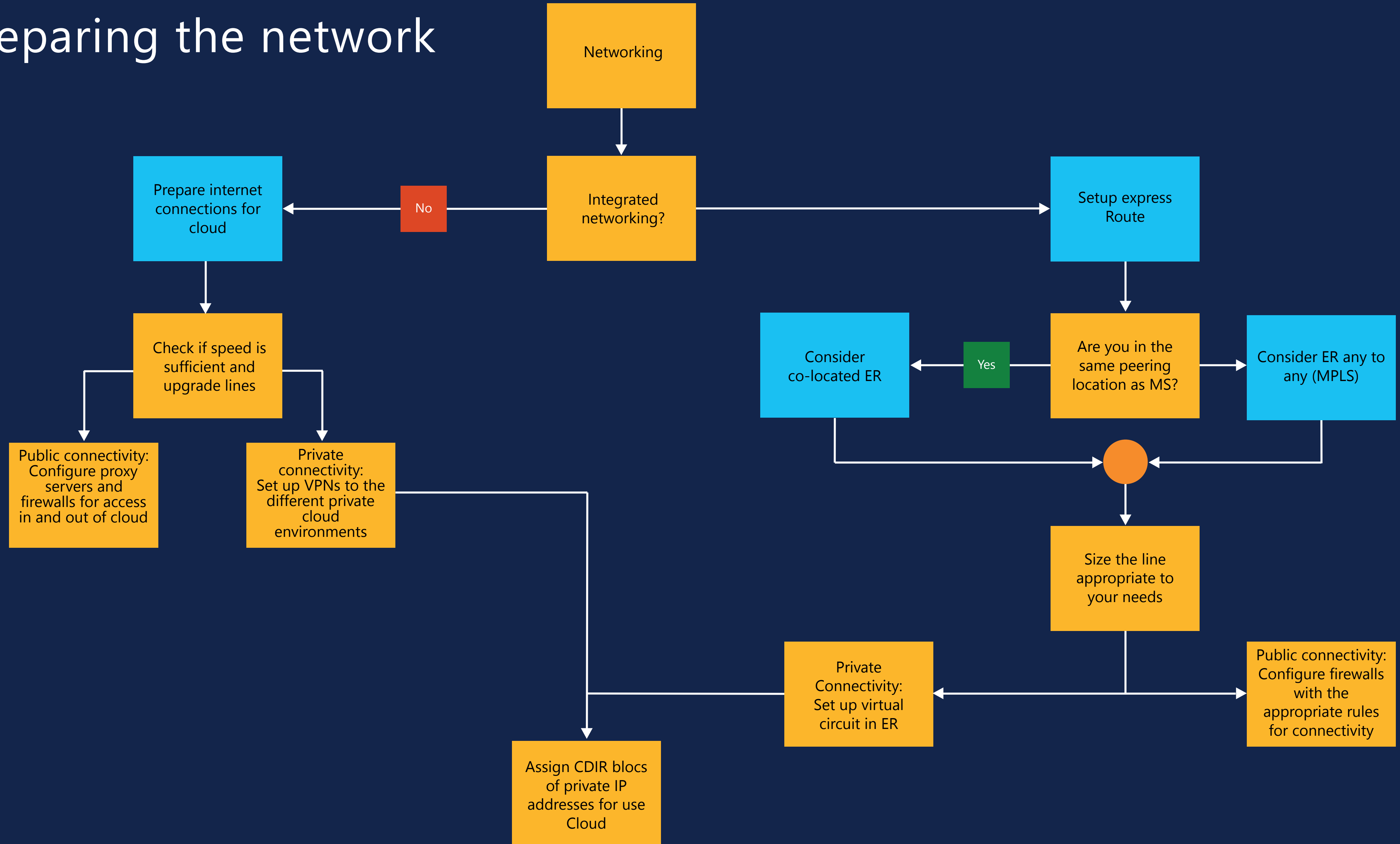- DDoS protection

Native Azure security
- Network Isolation
- Network Security Groups
- User Defined Routing
- Network Virtual Appliance

Virtual Network
- "Bring Your Own Network"
- Segment with subnets and security groups
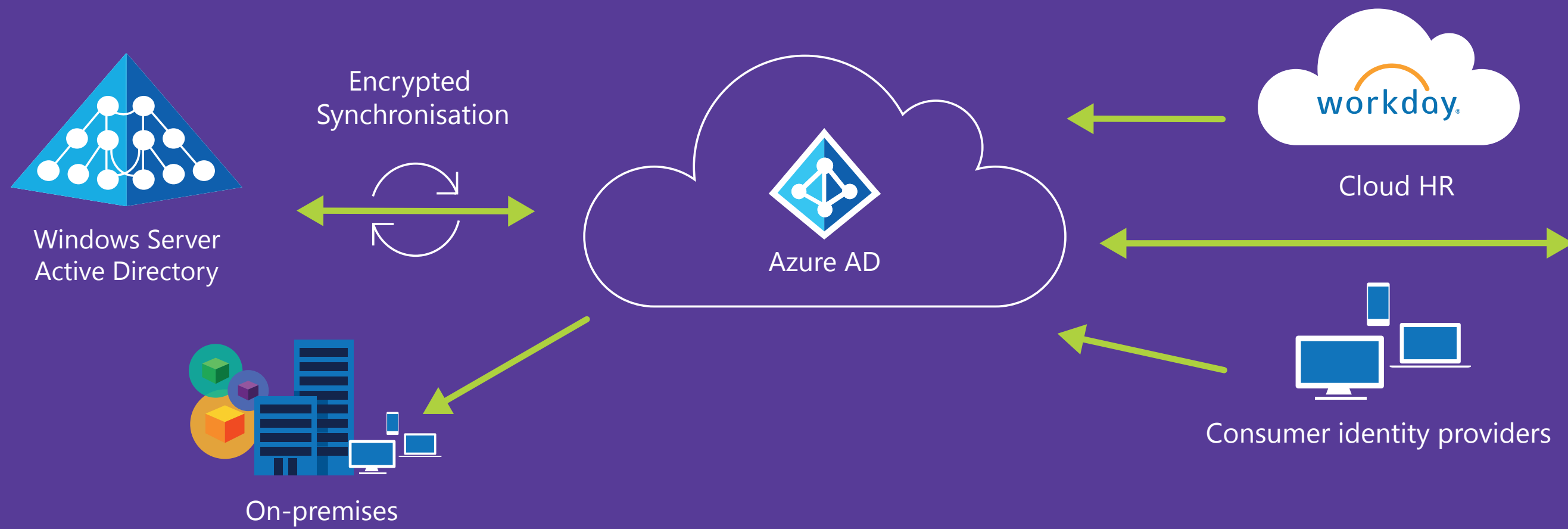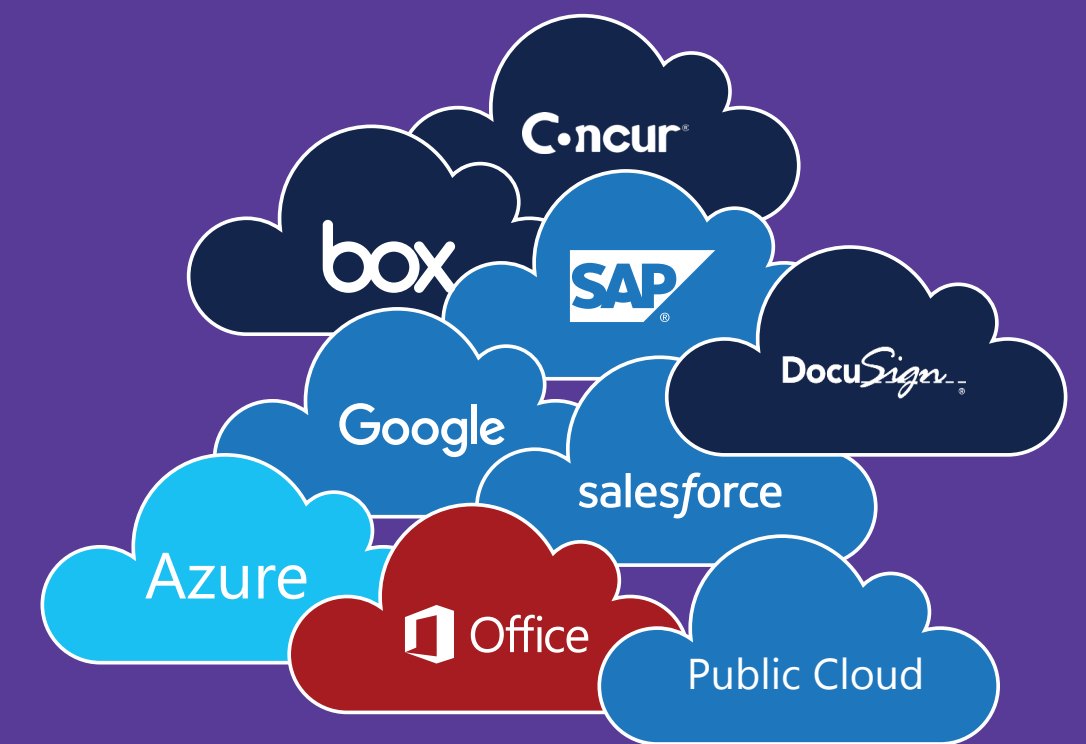- Control traffic flow with User Defined Routes

Preparing the network

Network

```
Networking
   │
   ▼
Integrated networking?
```

No ← Integrated networking? → Setup express Route

Prepare internet connections for cloud

Setup express Route

Check if speed is sufficient and upgrade lines

Are you in the same peering location as MS?

Yes ← Are you in the same peering location as MS? → Consider ER any to any (MPLS)

Consider co-located ER

Public connectivity: Configure proxy servers and firewalls for access in and out of cloud

Private connectivity: Set up VPNs to the different private cloud environments

Size the line appropriate to your needs

Private Connectivity: Set up virtual circuit in ER

Public connectivity: Configure firewalls with the appropriate rules for connectivity

Assign CDIR blocs of private IP addresses for use Cloud

RBAC/Identity & Access Management
Microsoft Azure Active Directory

Authentication & Authorisation

Windows Server Active Directory

Encrypted Synchronisation

Azure AD

On-premises

workday
Cloud HR

Consumer identity providers

Standards Bases Integration:
• OAuth2 & OpenID Connect
• SAML
• WS-Federation
• REST based Graph API
• SCIM
• FIDO

Concur
box
SAP
DocuSign
Google
salesforce
Azure
Office
Public Cloud

Public Cloud, Your Apps, 2500+ popular SaaS apps

Identity Driven Security

Multi Factor Authentication

Actions

Conditions
☑ Location (IP range)
☑ Device state
☑ User group
☑ Risk

👍 Allow access
🛡 Enforce MFA per user/per app
⛔ Block access

Office 365
Microsoft Azure

On-premises Applications

Azure Active Directory Identity Protection (PREVIEW)

• Brute force attacks
• Leaked credentials
• Suspicious sign-in activities
• Infected devices
• Configuration vulnerabilities
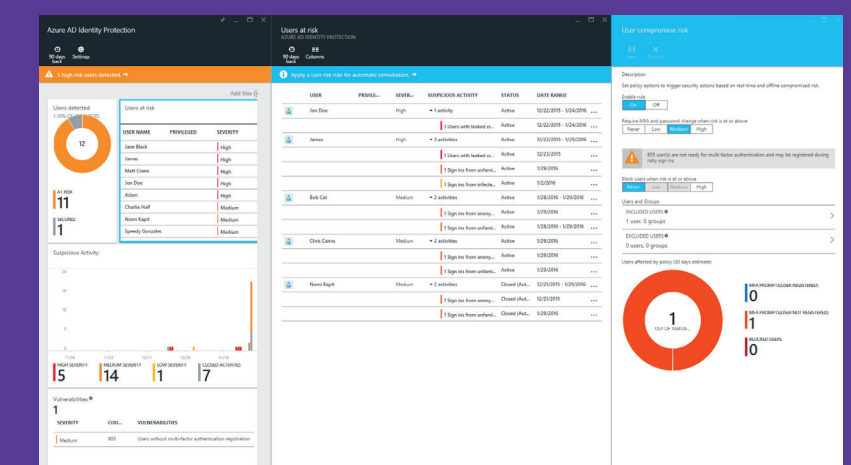
• Consolidated view to examine suspicious user activities and configuration vulnerabilities
• Remediation recommendations

NOTIFICATIONS, ANALYSIS, REMEDIATION, RISK-BASED POLICIES

CLOUD APP DISCOVERY

PRIVILEGED IDENTITY MANAGEMENT

Things to consider
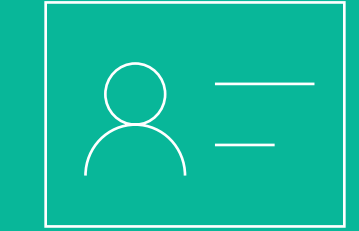
Authentication & Authorisation

Synchronise on Premises Directory

Password Sync vs Federation

Multifactor Authentication

Identity Managers to Sync Roles

Extend AD - DCs into Cloud
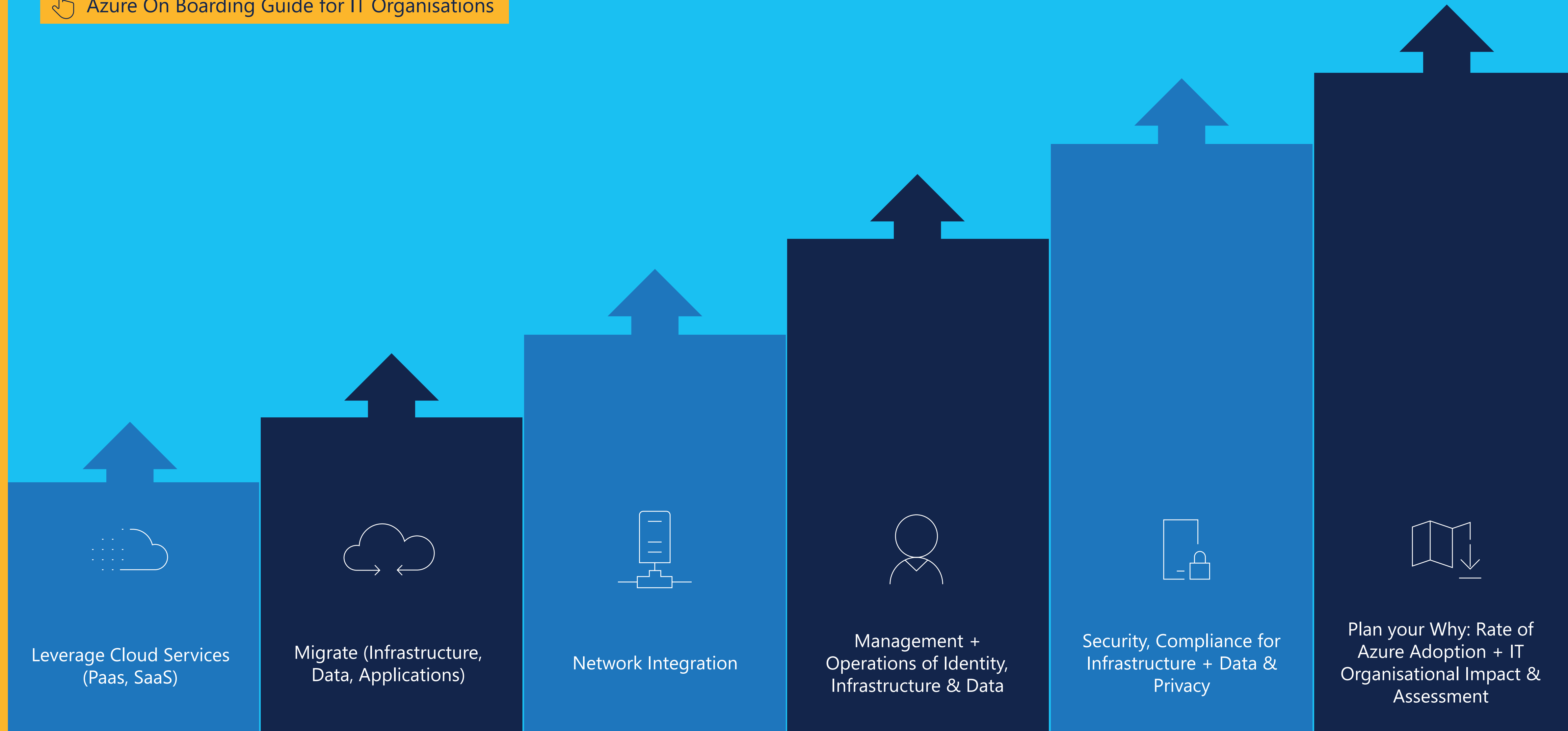
Azure AD Directory Services

Cloud Roles

Azure Readiness Plan

Azure On Boarding Guide for IT Organisations

Leverage Cloud Services (Paas, SaaS)

Migrate (Infrastructure, Data, Applications)

Network Integration

Management + Operations of Identity, Infrastructure & Data

Security, Compliance for Infrastructure + Data & Privacy

Plan your Why: Rate of Azure Adoption + IT Organisational Impact & Assessment

Azure

Office 365

Moving to New Office 365 GEO

- In-Geo data residency for core customer data (Exchange mailboxes, SharePoint site content, files within OneDrive)
  We introduce no unique capabilities, features or compliance certifications with the new data centre geo

- Data residency not default for existing customers

- Recommendation: customers to take no action!!

Request to move data:

- Request in admin portal within enrolment window (90 days)
- Take up to 24 months
- Back-end service operation
- Adhere to SLA - No service disruption - nothing that customers need to prepare for or to monitor
- All users moved – trial tenant to test

Migrating to Azure with Partners: Customer Questions

Partner Engagement

- What are the cost savings / TCO if I move to Azure?

- Which applications should I move – and what is the recommended sequence?

- Will you build my entire environment on Azure or can part of it remain on-prem/private cloud?

- Will you take care of architecture changes in order to meet the reliability, scalability, and availability requirements?

- Will you the Partners ensure that my data and processes respect regulatory compliance?

- Show me how you plan to manage and monitor my application in the cloud?

- What are my risks? Where will Microsoft help you?

A simpler approach to migration from Partners

Partner Engagement

Discover

- Automated workload and data discovery
- TCO and ROI analysis
- Recommendation reports

Migrate

- Effortless app, virtual machine, and workload migration to Azure
- Convert existing .NET applications to containers
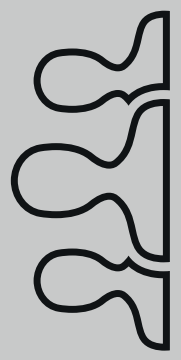- Your choice of Azure database destination
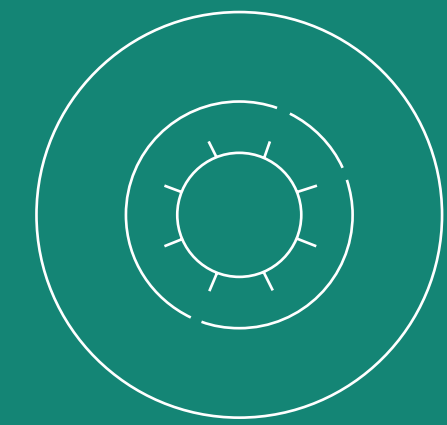
Optimise

- Continual health, performance, and cost management
- Access to advanced features in data services
- Application analysis for optimal PaaS migration

Free Cloud Migration Assessment
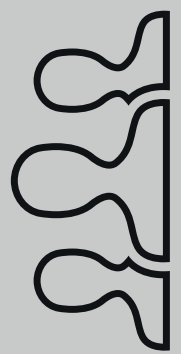
Azure Partner Pathfinder

Programmatic framework delivered by Partners, to help Customers chart their path to Azure

Partner Engagement

Complementary Workshop

Pitch customer value of migrating workloads and apps to Azure

Partner Commitment:

- Partner led workshop
- Identify business/IT needs, priorities and constraints
- Discussion Azure TCO and potential ROI of migration

Microsoft Gives:

- Qualifed Leads (Select Partners)
- (Decks, whitepapers, demand gen assets)
- Azure everywhere

Complementary Assessment & POC

Assess environment and generate proposal for modern cloud infrastructure

Partner Commitment:

- Using assessment tools (Cloudamise/Velostrata), identify lift & shift and apps to migrate and those requiring refactoring
- Deliver assessment report, TCO an detailed migration plan
- Business case for customer migration
- Proof of concept if desired

Microsoft Gives:

- Cloudamise licenses to perform assessment. Licences are FREE for more than 20 VMs,
- Proposal Templates
- Azure CSP POC Credit ($5K per month, up to 2 months)

Co-Fund Migration

Seamless migration managed by partner

Partner Commitment:

- Partner performs the migration to Azure, and provides managed services thereafter

Microsoft Gives:

- Microsoft Azure migrate tool
- End customer investment funding (10:1 ROI required)
- Technical help desk (CSP only)
- Rich cloud solution provider channel incentives (consumption, customer adds)
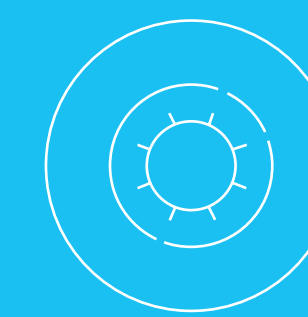
Optimisation & Management

Optimise costs, performance and manage services thereafter

Partner Gets:

- 👆 Free Azure cost management licenses (Cloudyn) for optimisation and provide managed Services

Intelligent Cloud Investments for and through Partners
Intelligent Cloud (IC) Investments

Partner Engagement

	Envision	Proven Value	Commit	Onboard	Realise Value
Intelligent Cloud Infra/Apps & Data ECIF Funding investment in our customer by utilising Partner and Microsoft Consulting Services (MCS) to help customers drive net new revenue and consumption. Requirements: Recommended 10x ROI; Must drive new Azure Consumed Revenue or new SQL revenue on-premise scenarios & Azure Data Services on consumed revenue.	✓	✓	✓	✓	✓
Safe Passage Provides assets and support to identify, accelerate and win intelligent cloud competitor migrations in Relational Database, Data Warehousing, Advanced Analytics, Datacenter Transformation IaaS. Requirements: No requirements, but some of the programs within Safe Passage do have requirements.	✓	✓	✓	✓	✓
Azure Access PoC Free Azure sandbox to support customer or partner proof-of-concept (includes Azure Passes and Azure Sponsored accounts). Requirements: Please check with your Microsoft contact for requirement details.		✓			
Azure Everywhere Partner-led engagements to implement low-friction Azure workloads or to increase consumption in existing workloads. Requirements: Non-high potential customers, consuming >$5k/month; Customers with an active consumption engagement that will drive consumption above $5k/month; Minimum of 1:10 ROI.		✓	✓	✓	✓
Azure Credit Offer (ACO) Free Azure Credit ("free consumption") for existing and new Enterprise Agreement (EA) customers. Requirements: Please check with your Microsoft contact for requirement details.			✓		
FastTrack for Azure Production deployment services of strategic Azure solutions (Azure 10) for end customers to drive Azure Consumed Revenue and Azure Customer Adds. Requirements: Available only in specific regions. Please check with your Microsoft contact for more requirement details.				✓	✓
Microsoft Azure Planning Services (AZDPS) Helps customers understand what Microsoft Azure can do for their business and identify projects that are best suited for this public cloud offering. Requirements: Software Assurance customer with available Deployment Planning Services (DPS); Must also align with existing DPS scenarios.				✓	

⚠️ **PLEASE READ:**

These are investments that partners can leverage subject to meeting investment requirements, funding availability, and Microsoft discretion.

Partners must go through their Microsoft contact to request the investment.