2017

Global Azure BOOTCAMP

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2017
Global Azure
BOOTCAMP

Hybrid IT L2H2C

Evangelos Kapsalakis
Cloud Infrastructure SSP
Microsoft

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Agenda

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Hybrid Report 2017 (*5min*)
Hybrid Networking (*10min*)
- Azure Connectivity VPN
- Azure Connectivity Express Route
- Network Performance (**Demo**)
- Network Security Groups (**Demo**)
- Wire Data (**Demo**)

Hybrid Management (*20min*)
- Service Map (**Demo**)
- Security Compliance (**Demo**)
- Management (**Demo**)
- Backup(**Demo**)
- Disaster Recovery
- Automation (**Demo**)

Identity (*5min*)
- AzureB2C

Citrix As A Service (*10min*)
- XenApp Essentials
- XenDesktop Essentials
- XenApp/XenDesktop Service

Azure Stack (*5min*)

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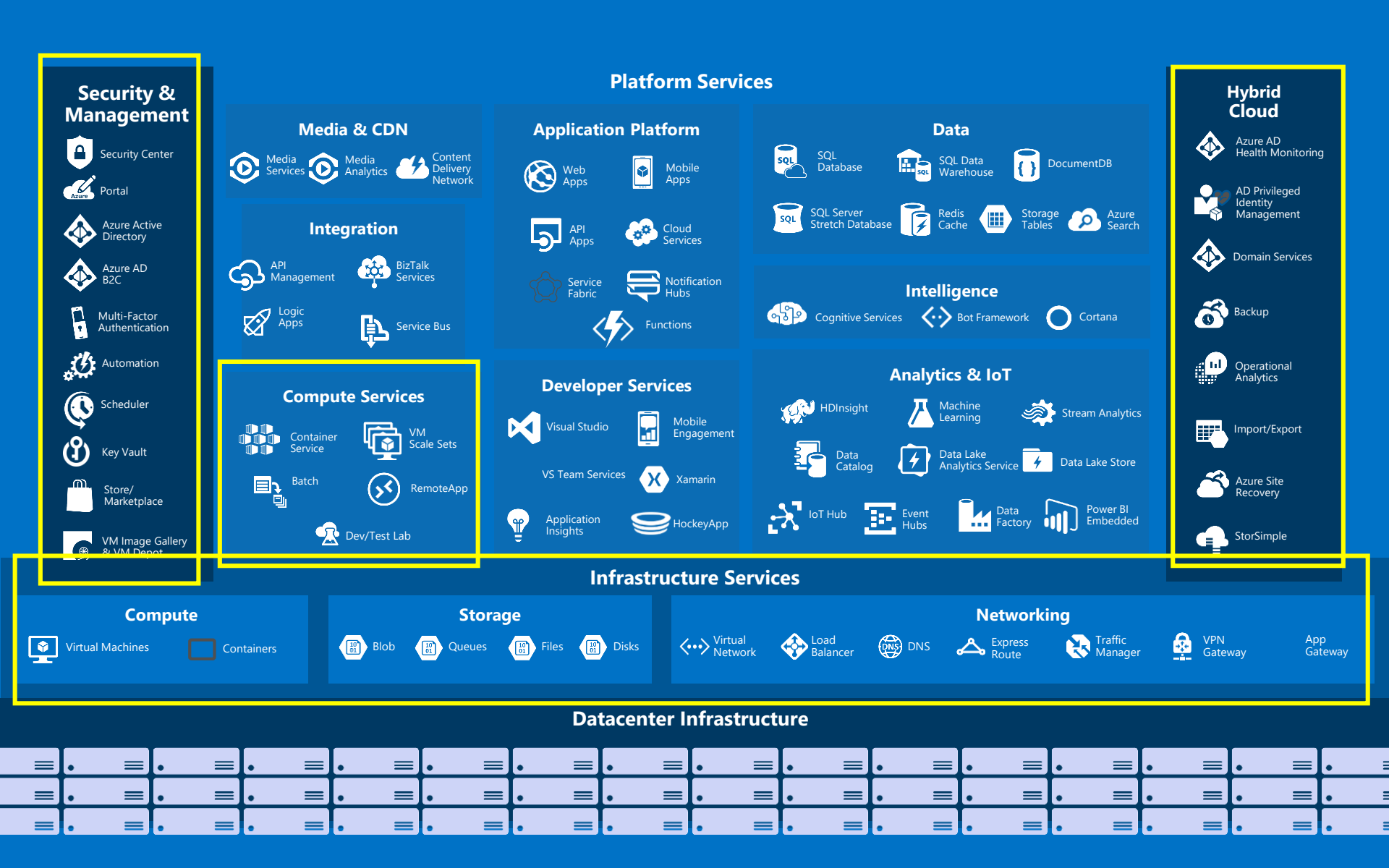
Security & Management
Security Center
Portal
Azure Active Directory
Azure AD B2C
Multi-Factor Authentication
Automation
Scheduler
Key Vault
Store/ Marketplace
VM Image Gallery & VM Depot
Platform Services
Media & CDN
Media Services
Media Analytics
Content Delivery Network
Integration
API Management
BizTalk Services
Logic Apps
Service Bus
Compute Services
Container Service
VM Scale Sets
Batch
RemoteApp
Dev/Test Lab
Application Platform
Web Apps
Mobile Apps
API Apps
Cloud Services
Service Fabric
Notification Hubs
Functions
Developer Services
Visual Studio
Mobile Engagement
VS Team Services
Xamarin
Application Insights
HockeyApp
Data
SQL Database
SQL Data Warehouse
DocumentDB
SQL Server Stretch Database
Redis Cache
Storage Tables
Azure Search
Intelligence
Cognitive Services
Bot Framework
Cortana
Analytics & IoT
HDInsight
Machine Learning
Stream Analytics
Data Catalog
Data Lake Analytics Service
Data Lake Store
IoT Hub
Event Hubs
Data Factory
Power BI Embedded
Hybrid Cloud
Azure AD Health Monitoring
AD Privileged Identity Management
Domain Services
Backup
Operational Analytics
Import/Export
Azure Site Recovery
StorSimple
Infrastructure Services
Compute
Virtual Machines
Containers
Storage
Blob
Queues
Files
Disks
Networking
Virtual Network
Load Balancer
DNS
Express Route
Traffic Manager
VPN Gateway
App Gateway
Datacenter Infrastructure

Azure hybrid capability

Hybrid **Productivity**	→	Office 365 + Office, Exchange, SharePoint
Hybrid **Business Apps**	→	Dynamics 365 + Dynamics
Hybrid **App Integration**	→	Azure Service Bus + BizTalk Server
Hybrid **Identity**	→	Azure Active Directory + Active Directory
Hybrid **Database**	→	Azure SQL Database + SQL Server
Hybrid **Management**	→	Operations Management Suite + System Center
Hybrid **Backup & DR**	→	Azure Backup + Azure Site Recovery
Hybrid **Storage**	→	Azure Storage + STORSIMPLE
Hybrid **Networking**	→	Azure ExpressRoute + VPN
Hybrid **Platform**	→	Azure + Azure Stack

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Hybrid Networking

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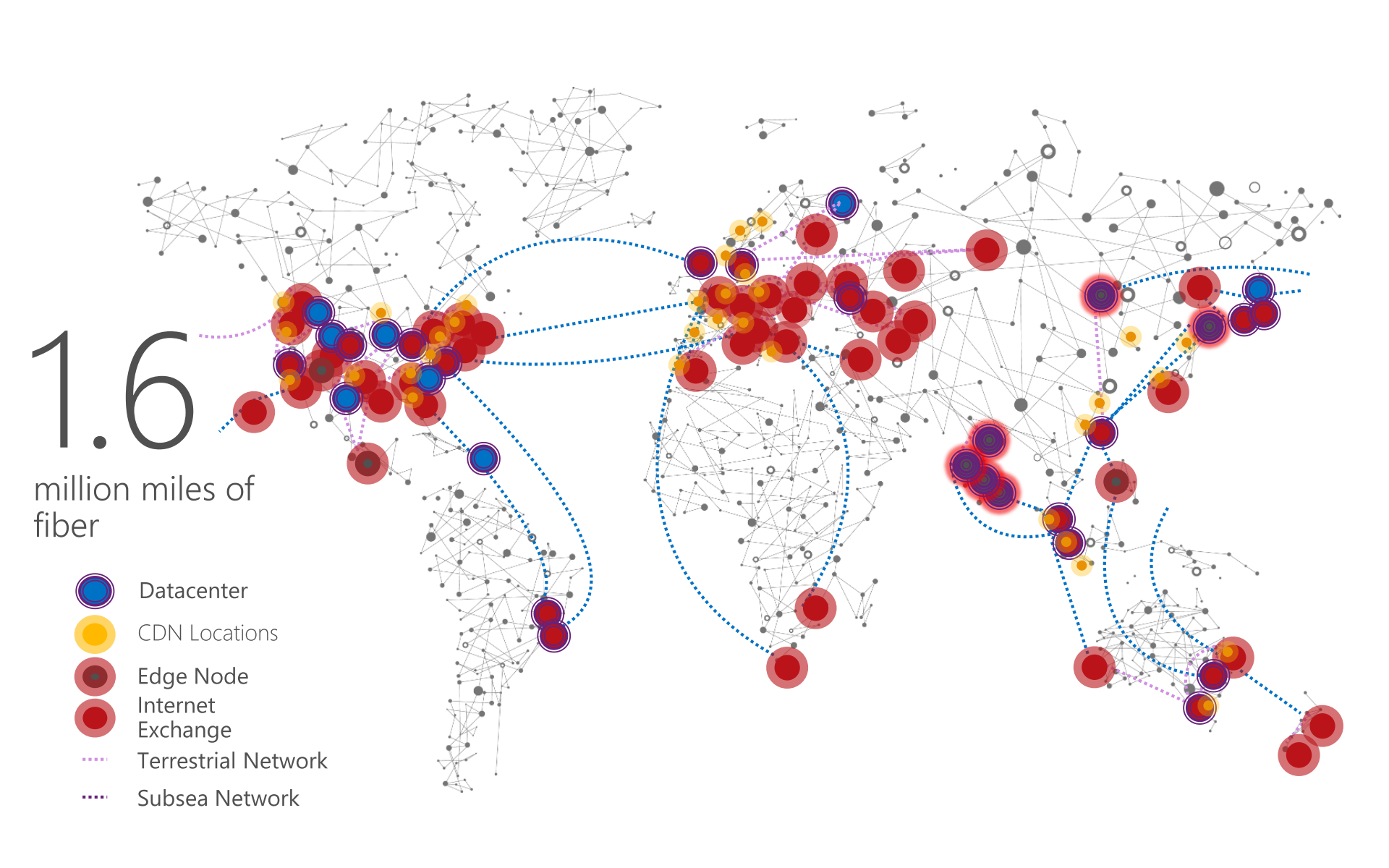
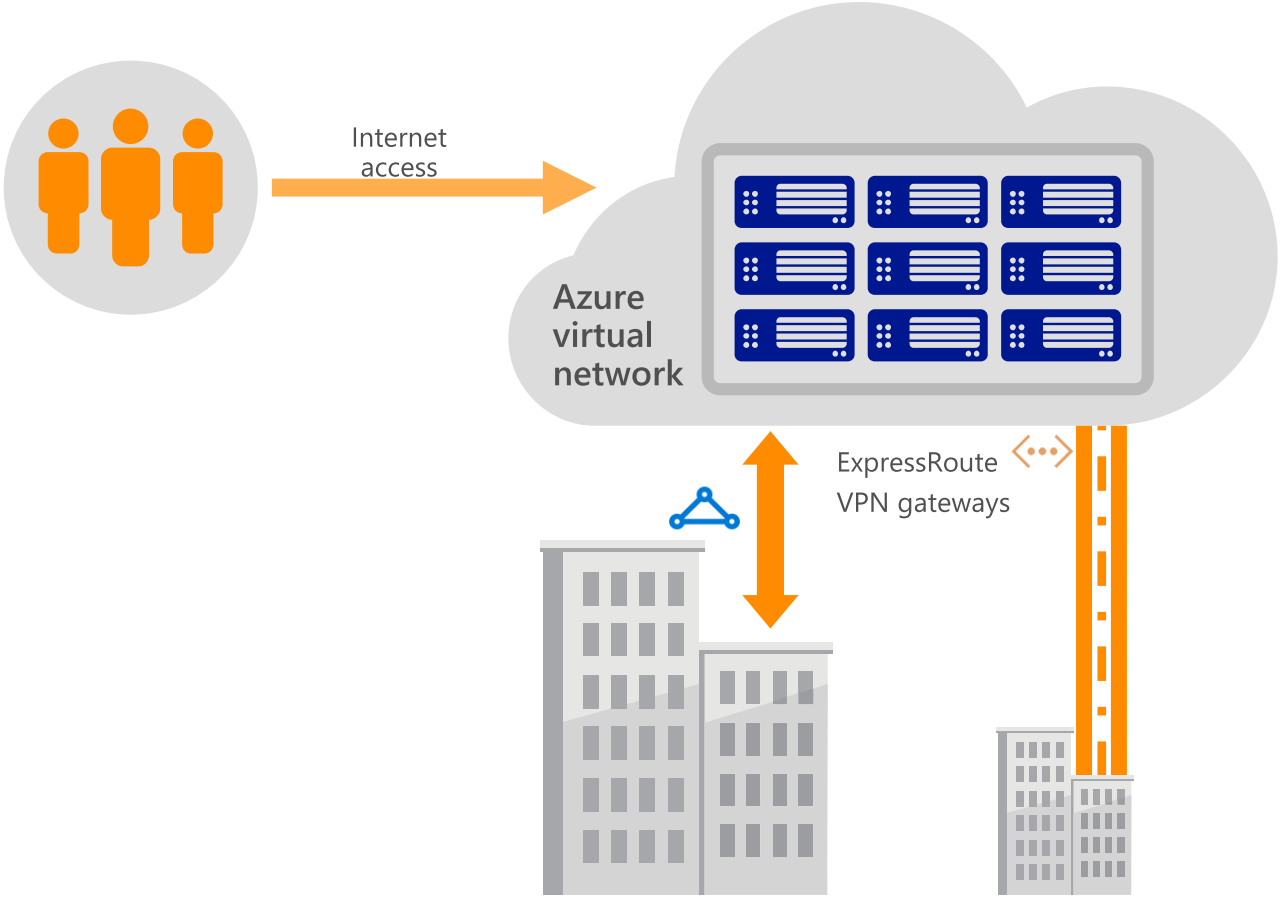

1.6
million miles of fiber
Datacenter
CDN Locations
Edge Node
Internet Exchange
Terrestrial Network
Subsea Network

Azure Networking



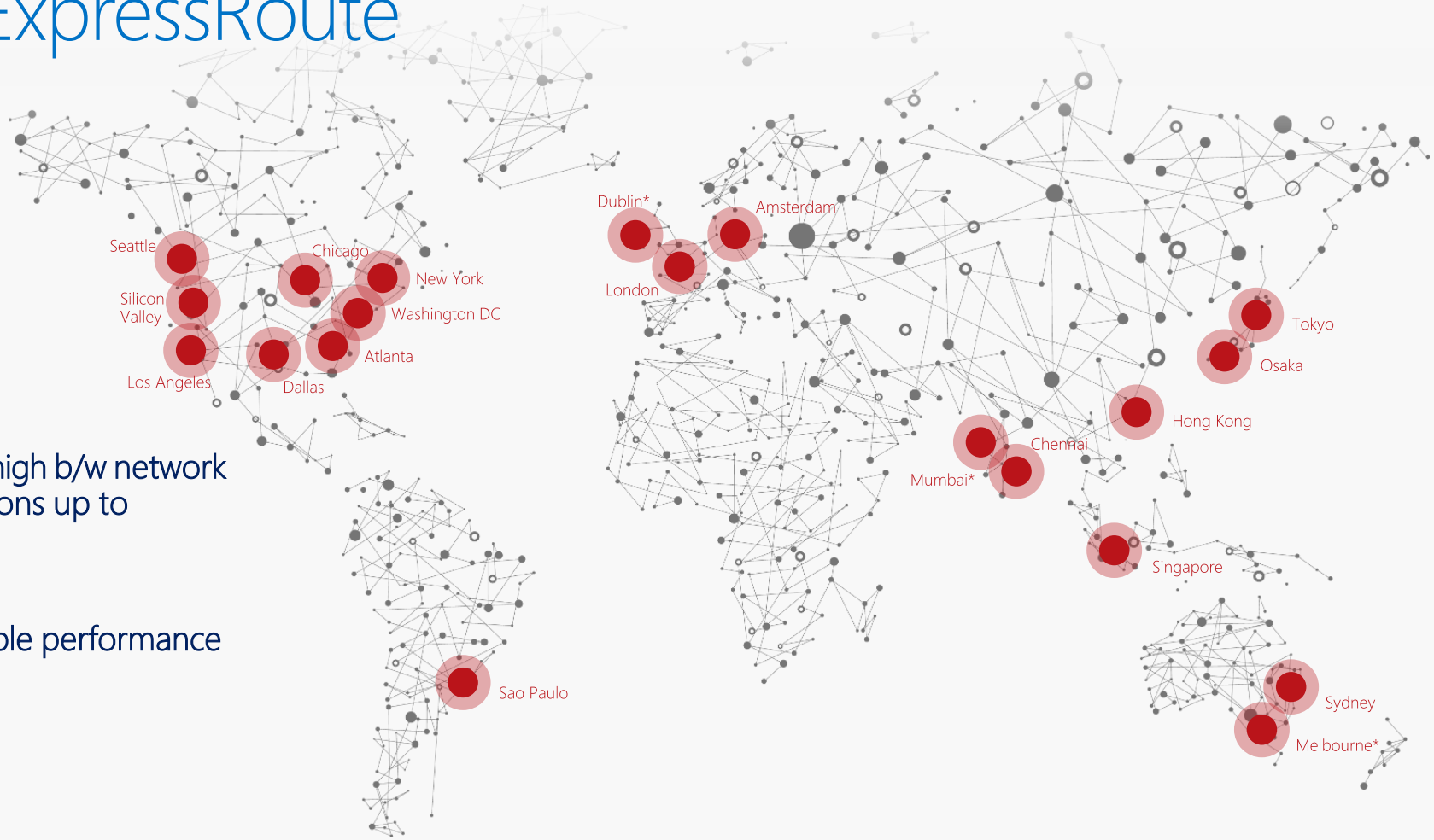
Virtual network

- Private IP addresses, Network-level isolation
- Segment with subnets and security groups
- Control traffic flow with user-defined routes

Hybrid connectivity

- Point-to-site for dev/test
- VPN gateways for secure site-to-site connectivity
- ExpressRoute for private enterprise grade connectivity
- Domain-join with on-premises

ExpressRoute

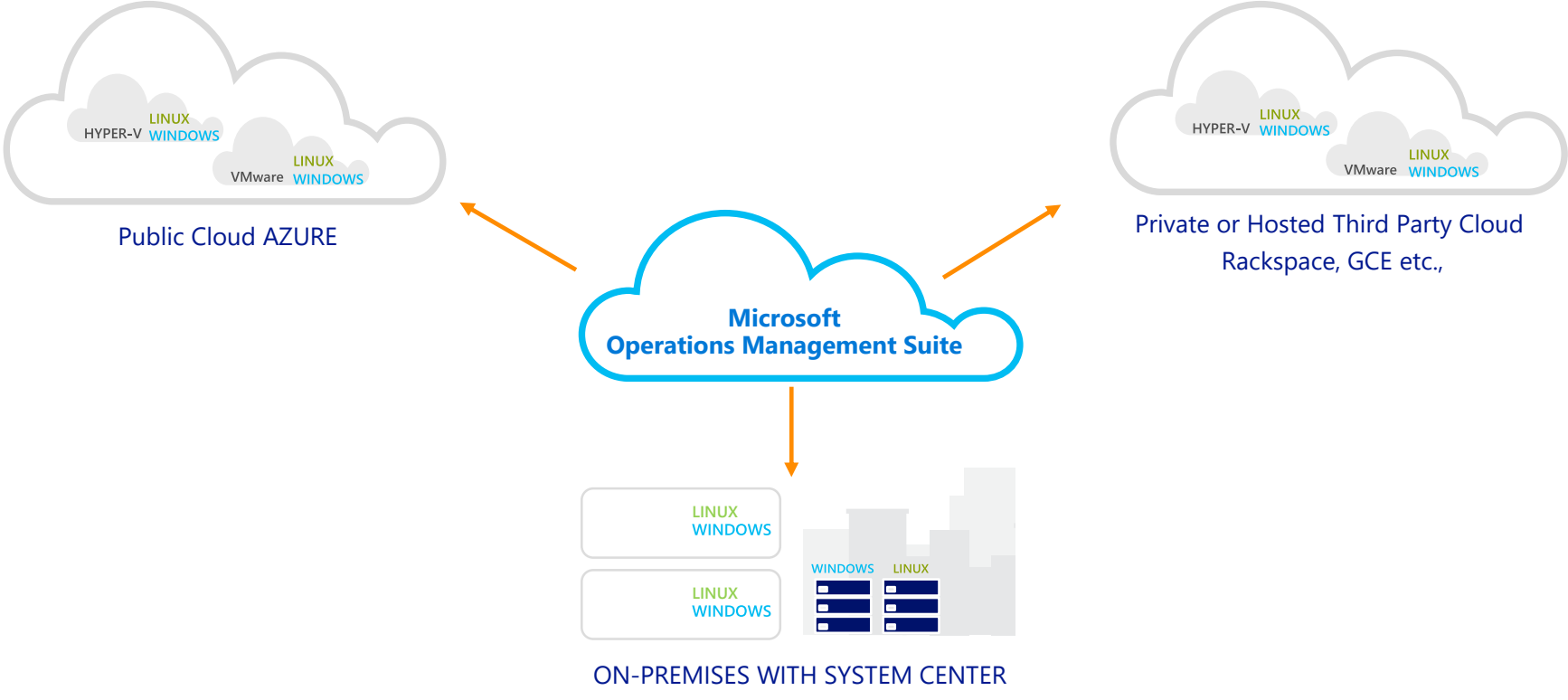


Private, high b/w network connections up to 10Gbps)

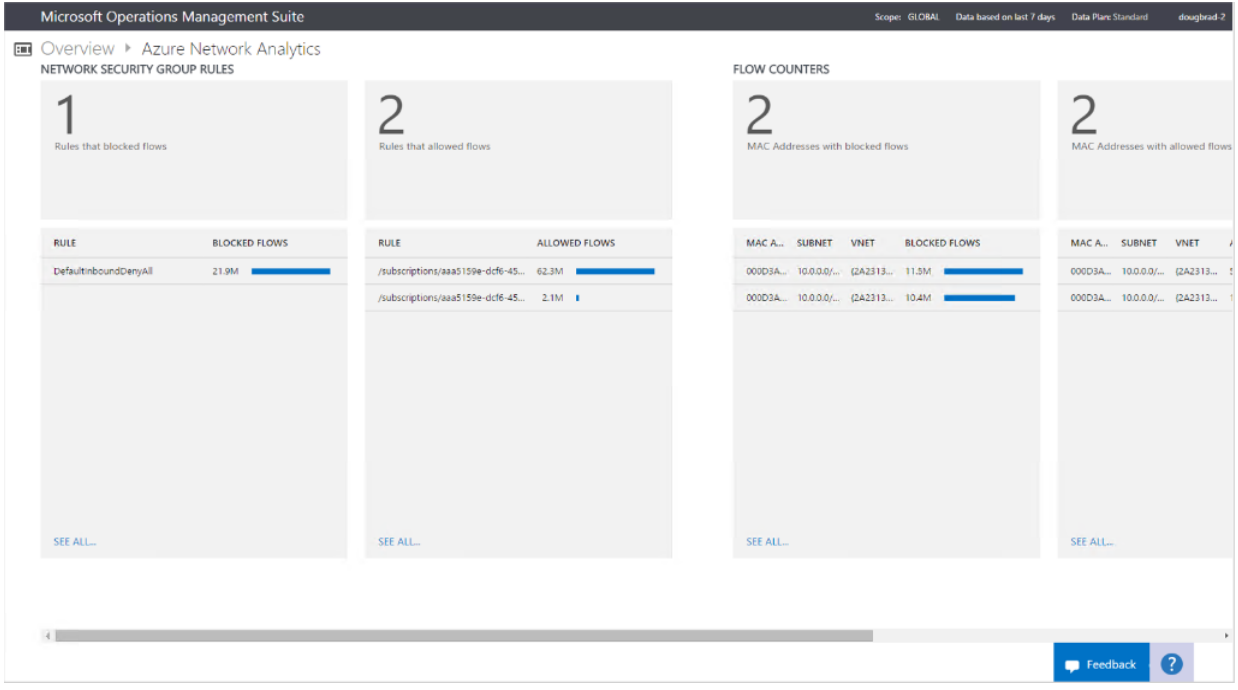
Predictable performance

Operations Management Suite (OMS)

Simplified guest and workload management anywhere (on-premises or in the cloud)



Network Analytics

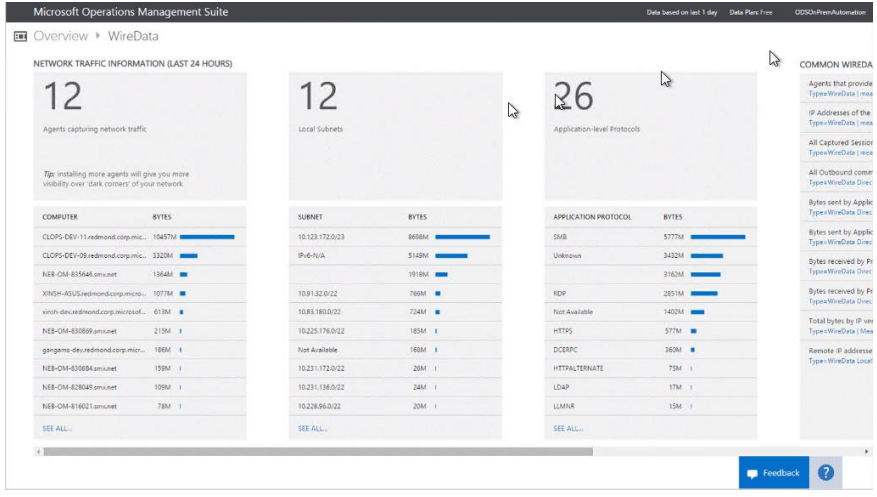


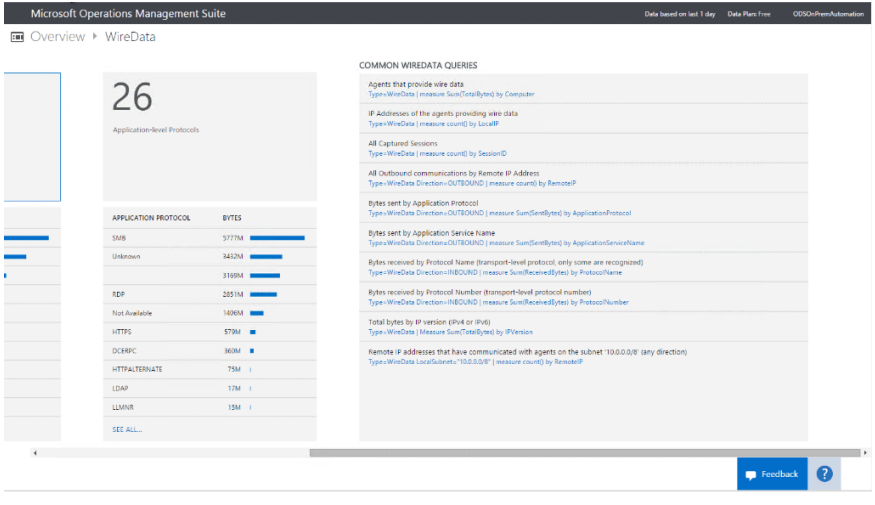
- Troubleshoot issues across your Azure networks by providing visibility into the network security rules that have been allowing or blocking flows.

Wire Data

Perform an analysis of your network traffic.

- you can look into when certain computers (IP addresses/MAC addresses) communicated with each other
- for how long, and how much data was sent
- view metadata about network traffic





Hybrid Networking Demo

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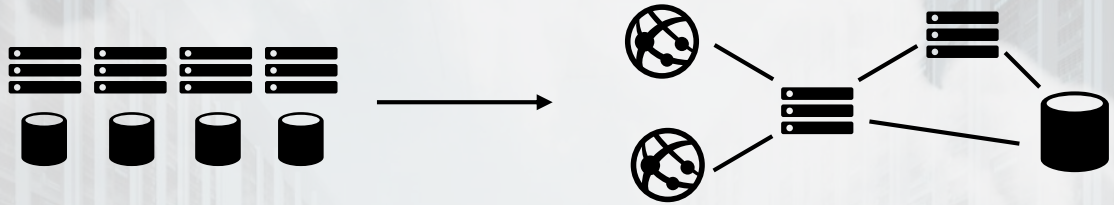
Hybrid Management

Understand where applications meet infrastructure



Discover

how infrastructure supports apps

Monitor

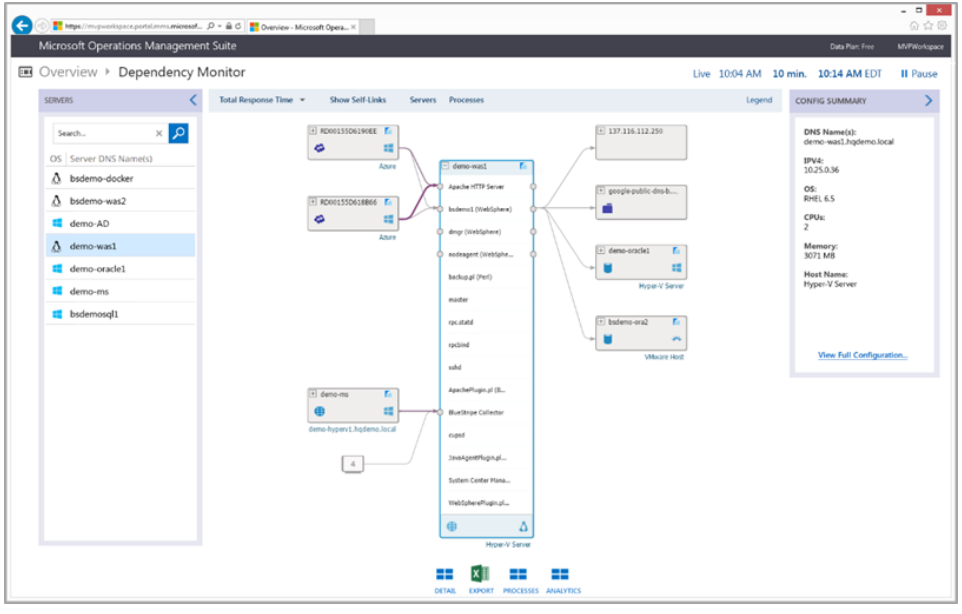
the whole distributed app in real time

Optimize

remediation of known issues

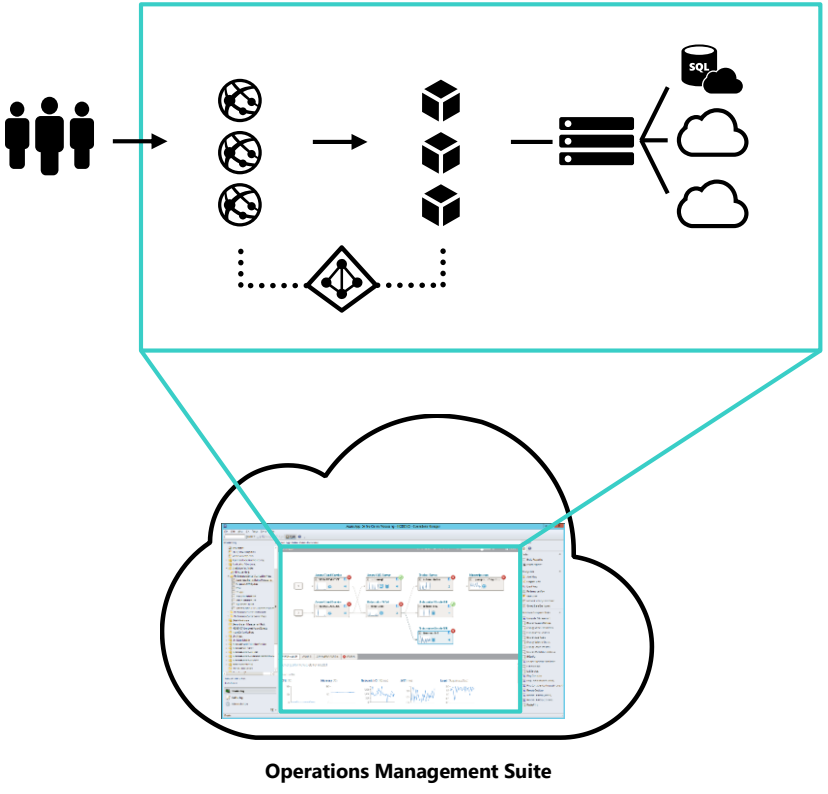
System dependency discovery

- Discover every connection with no pre-definition required
- Understand complex interactions no matter how short-lived
- See dependencies before and after migrations
- Mitigate complications of planned maintenance



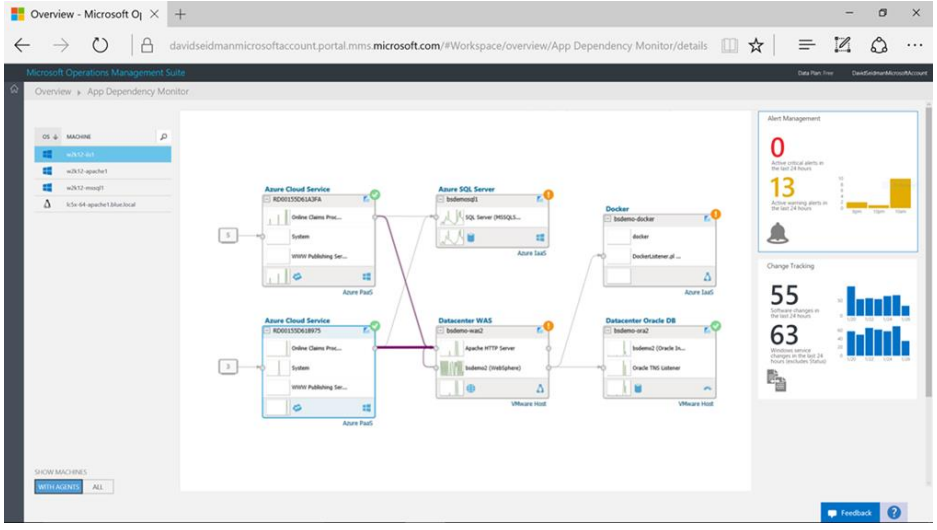
Application discovery

- Dynamic maps
- Any platform, any environment
- System Center Operations Manager Integration



End-to-end performance monitoring

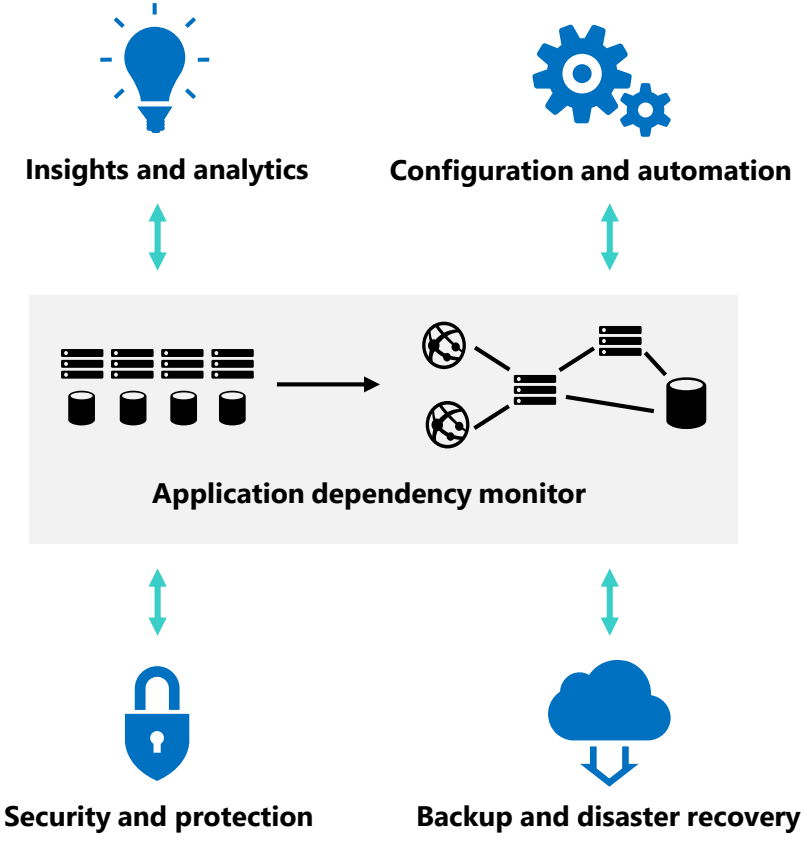
- Hop-by-hop performance monitoring
- Events and alerts filtered by application and system dependencies
- Integrated runbook tasks to accelerate remediation



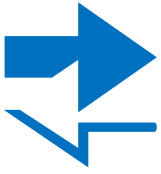
Optimize at the application layer

App-centric:

- Automation and remediation
- Monitoring and root-cause analysis
- Security monitoring and assessment
- Backup and Site Recovery



Holistic Security Posture



Cross-Platform

- Windows and Linux
- On premises, Azure, AWS
- Microsoft and 3rd party security solutions

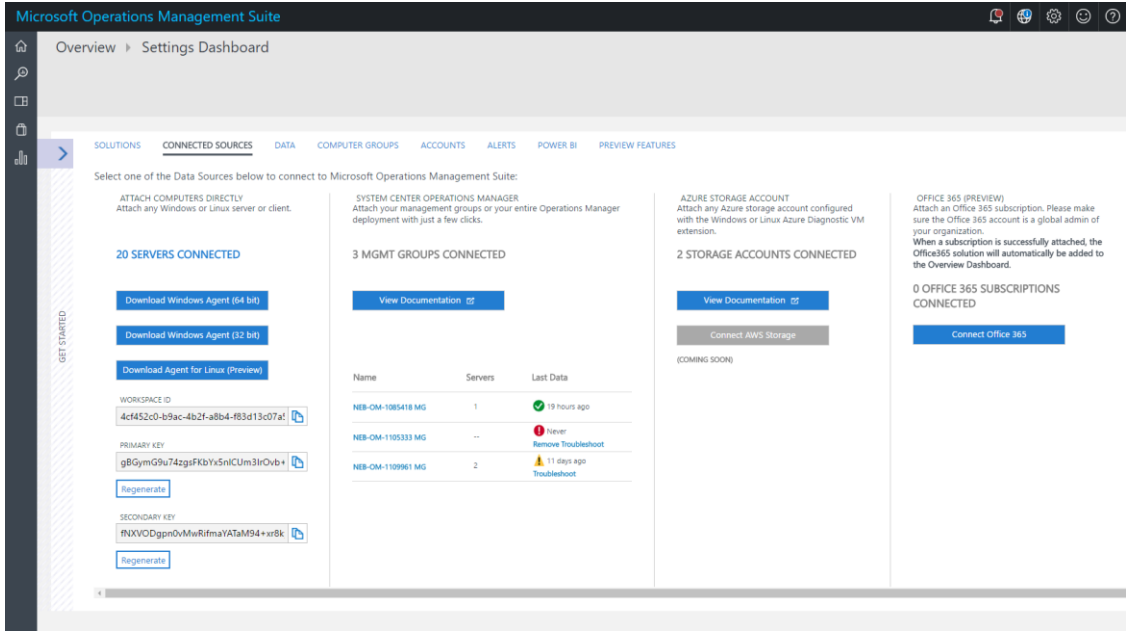
Ongoing Assessment

- Actionable security insights – network, identity, servers, …
- Prioritized notable issues

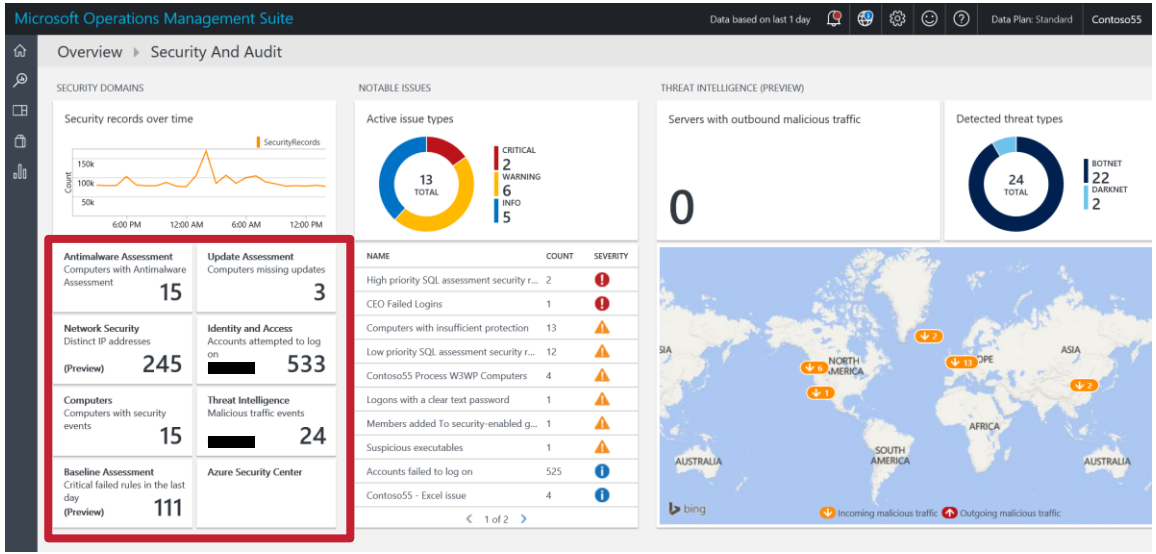
Audit

- Central collection of all security data
- Export to Excel and PowerBI or via API for reporting
- Data retention

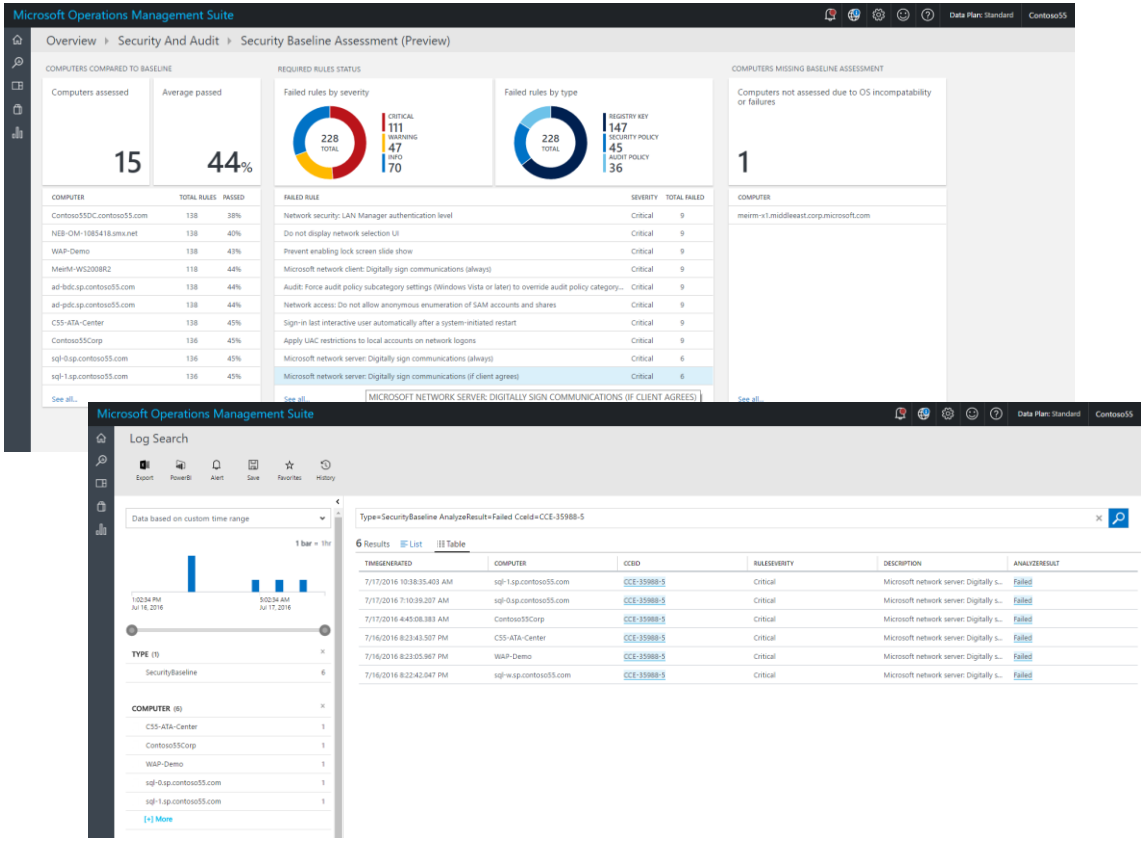
Collect security data from virtually any source



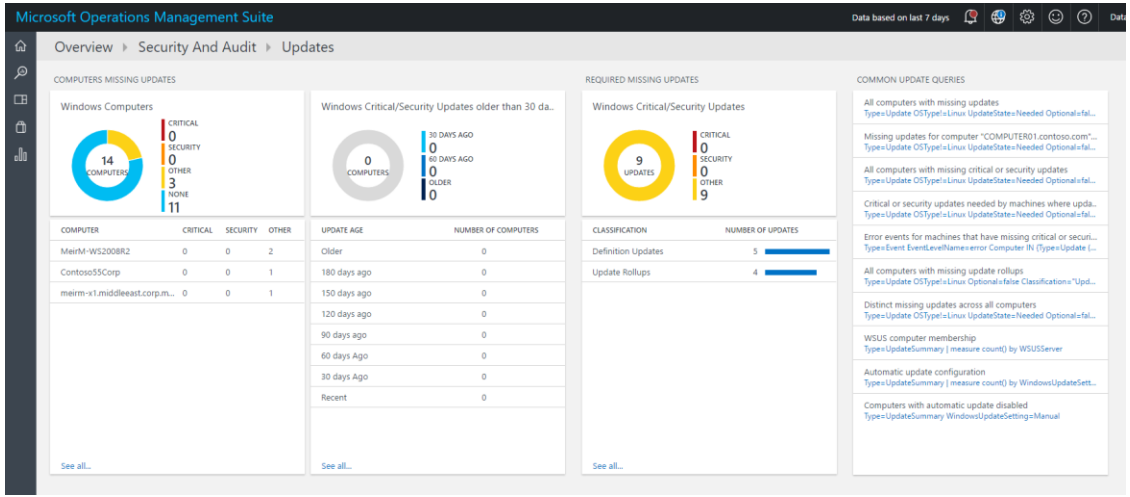
Gain insight into security domains across your IT environments



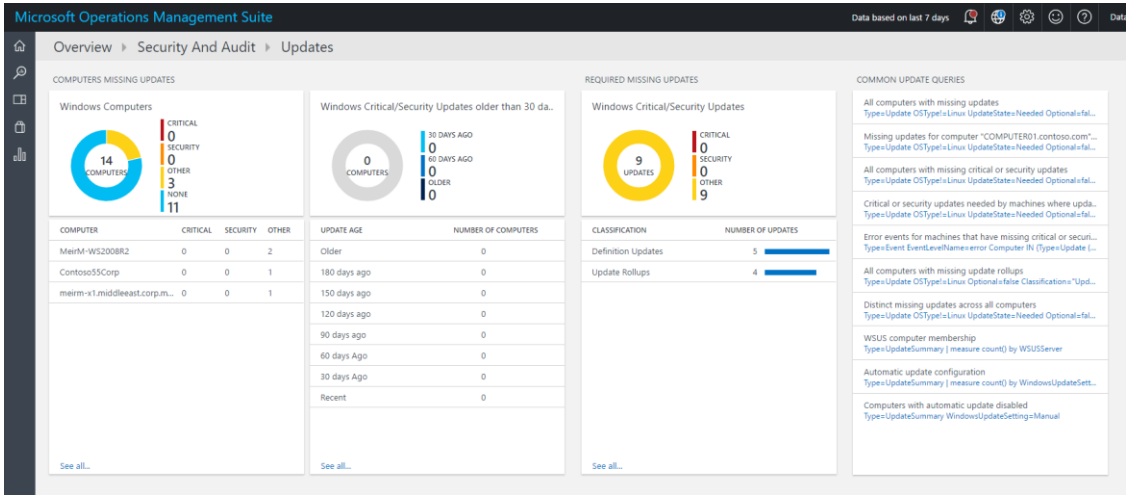
Assess the security of OS configurations against recommended baselines



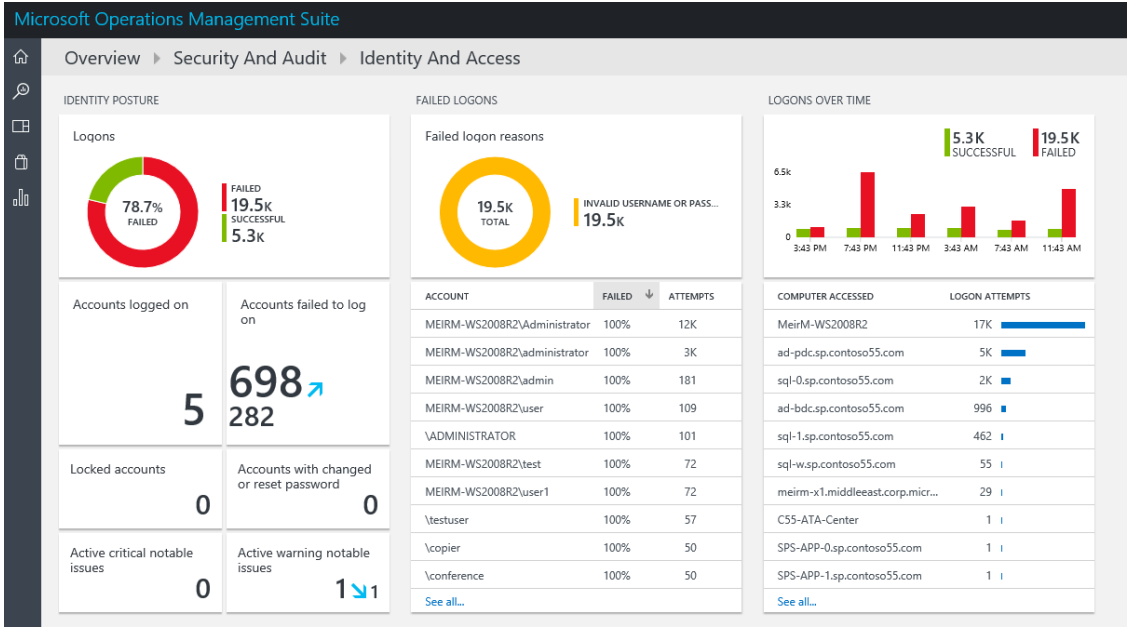
Validate that antimalware software is deployed and up to date



Ensure that systems have the latest security and critical updates deployed

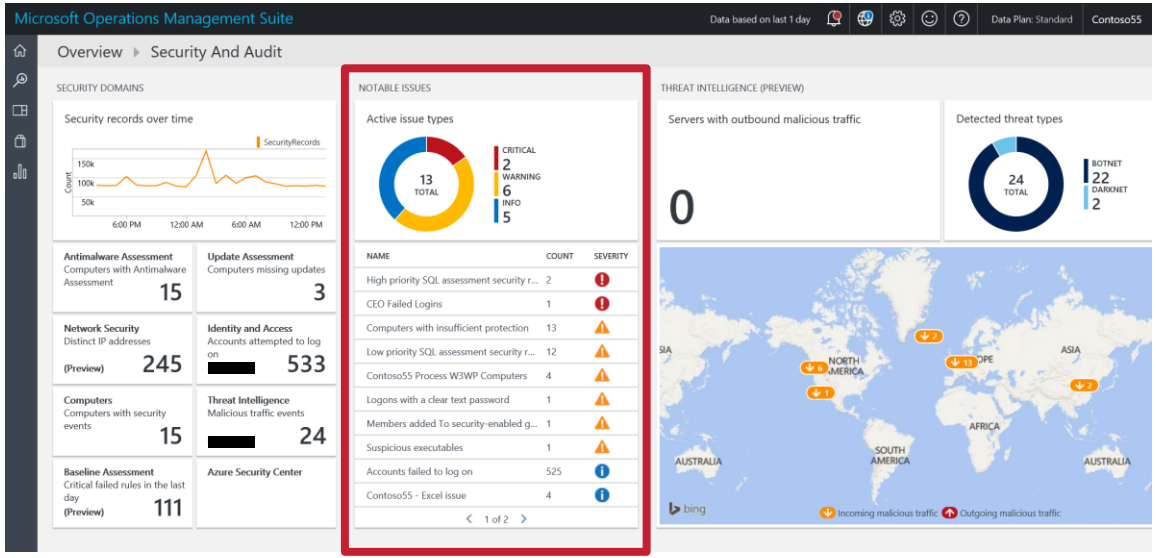


Monitor login activity for unusual access or password changes

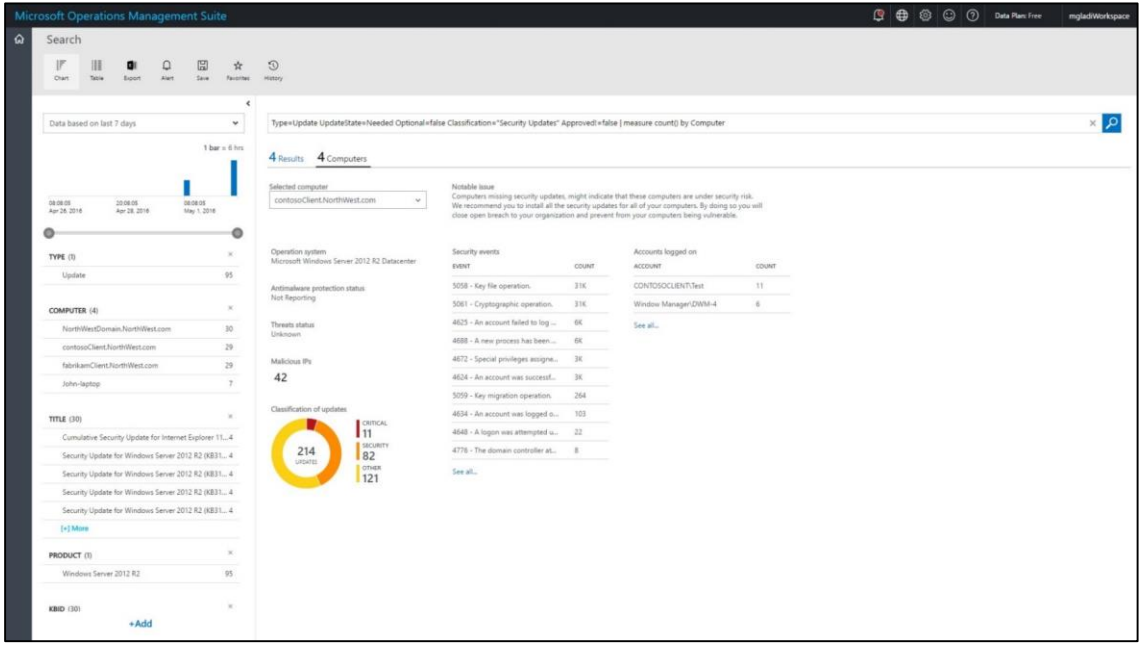


View network communication to known malicious IPs and changes in traffic patterns

Built-in and custom notable issues highlight vulnerabilities and threats

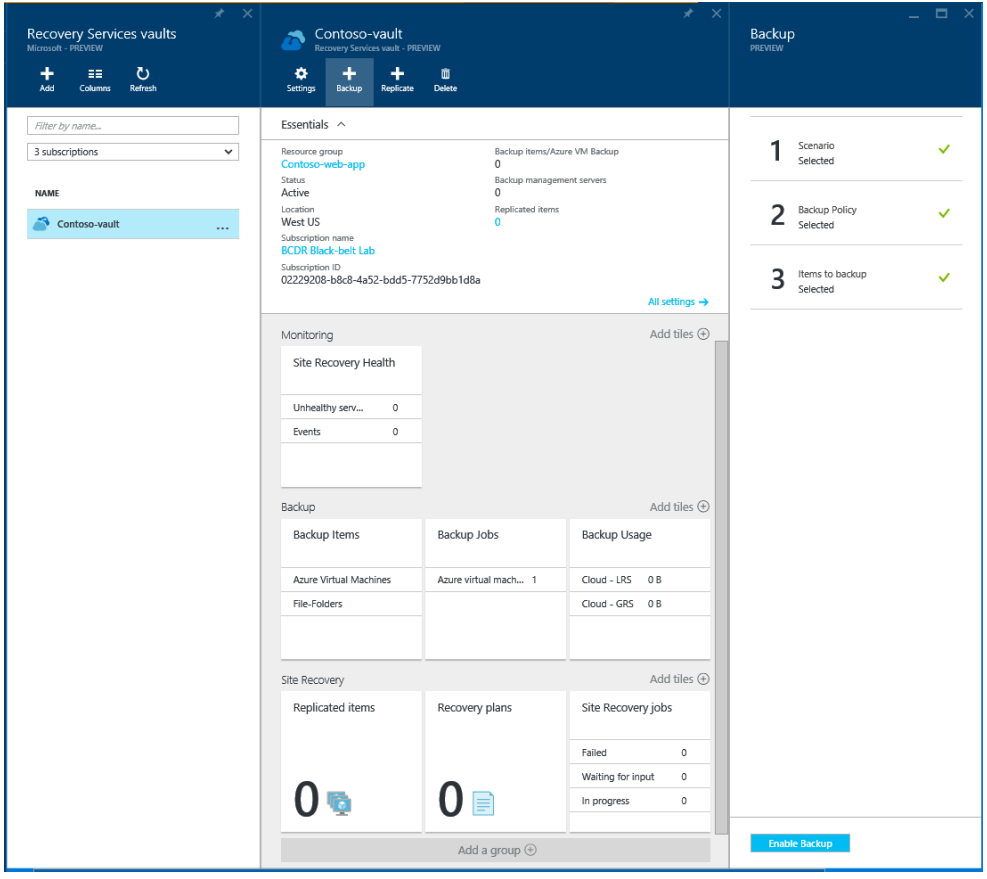


Get context into notable issues to jump start research and investigation



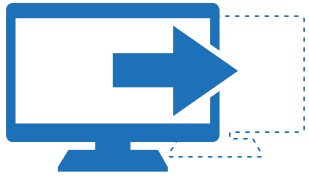
Simple management

- Choose your scenario
- Choose the retention
- Enable Backup



OMS Site Recovery technology

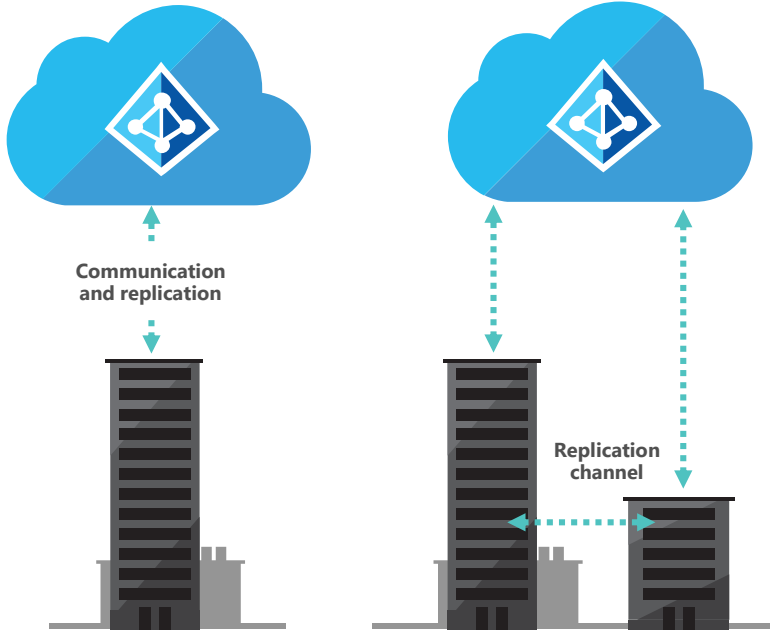
SaaS-based disaster recovery



- Automated replication and policy-based protection
- One-click orchestrated recovery
- Seamless integration with Azure services
- Remote health monitoring
- Multi-tier, application-consistent recoveries
- No-impact DR testing

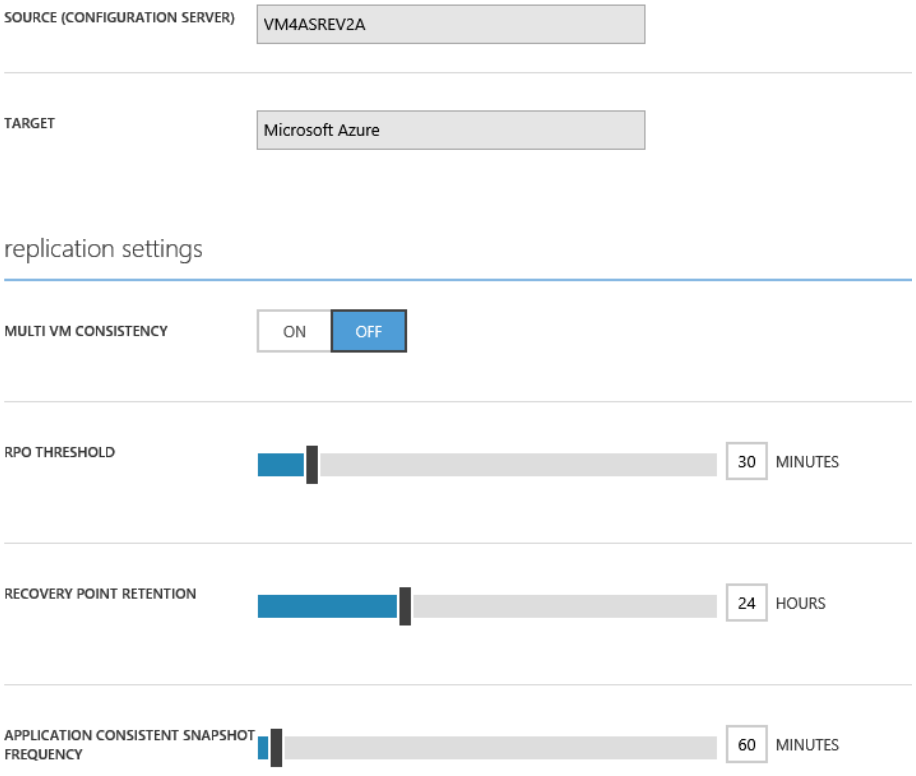
Simplified deployment

- Quick and easy
- Recovery on your terms
- SaaS-based offering



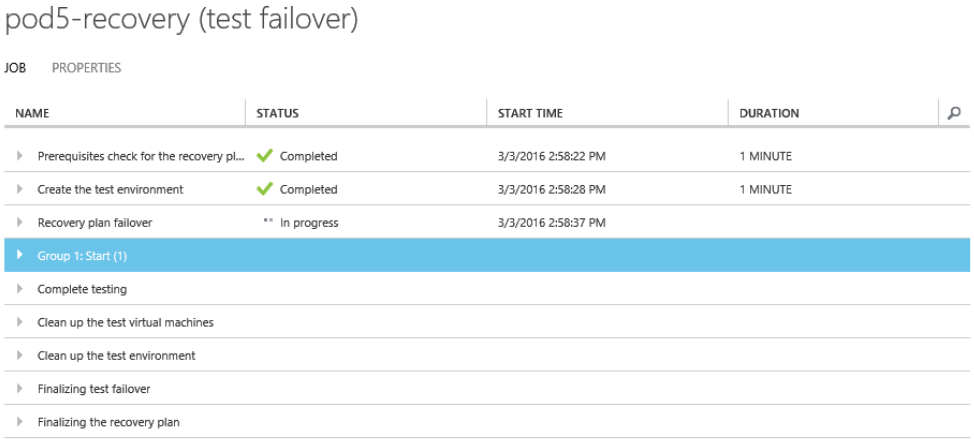
Enterprise-grade protection

- Customizable policies
- Application aware
- Multi-VM consistency



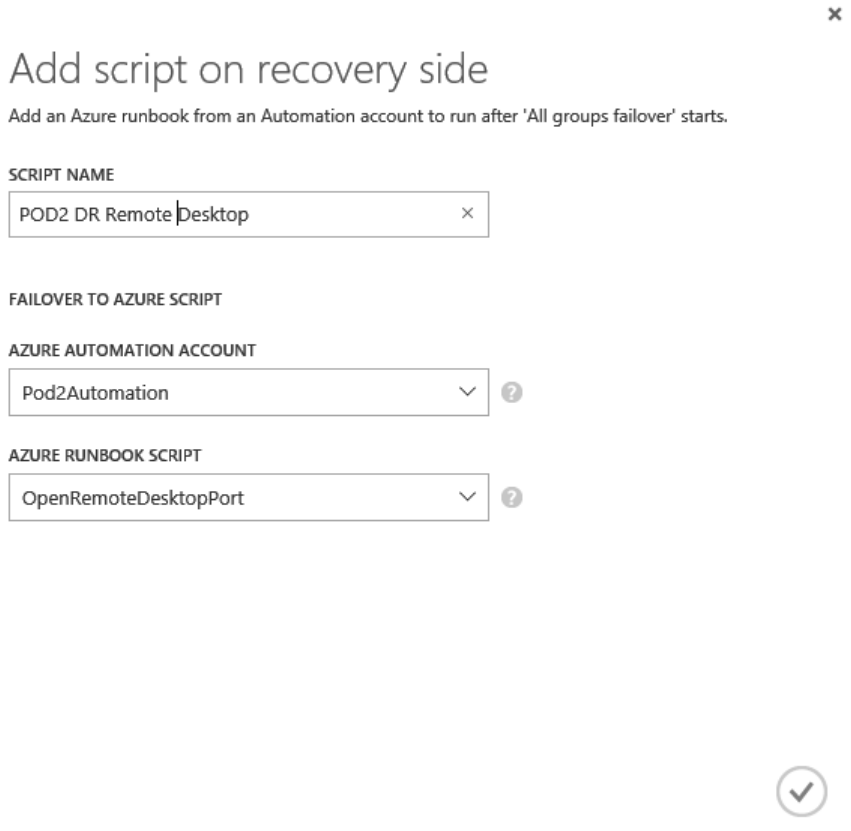
Test without impact

- Non-disruptive testing
- Verify recovery plans
- Gain peace of mind

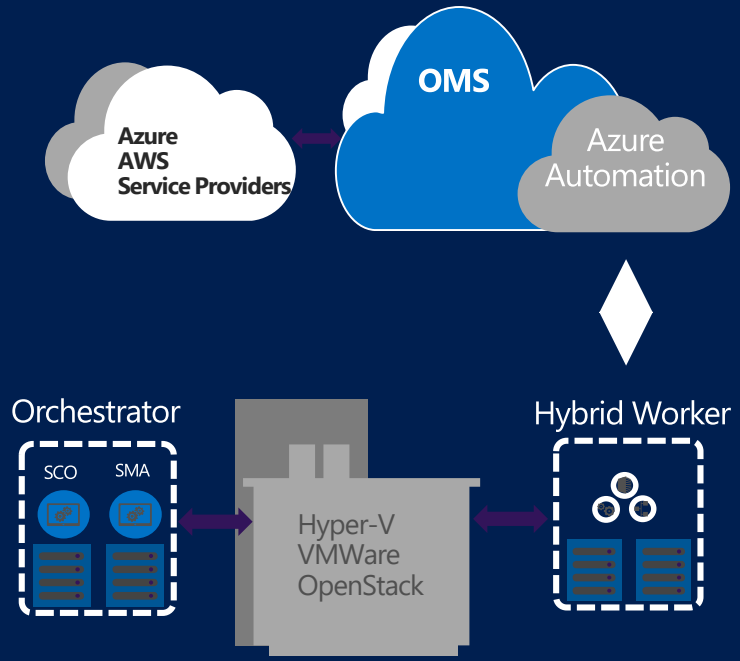


Extend your solution

- Utilize integrated Azure services
- Add automated scripting using Automation
- Connect via ExpressRoute



Azure Automation



- ✓ Manage any cloud & on prem
- ✓ Process automation & DSC
- ✓ PowerShell & Graphical authoring
- ✓ Integrate systems
- ✓ Windows & Linux

Key Features

PowerShell & PS Workflow Engines
- Use your existing PS scripts
- Checkpoint/Parallel if needed

Runbooks, Modules
- Author PS, PSWF, Graphical runbooks
- Gallery – Runbooks, modules
- Extensibility, integration

Assets
- Secure, global store for variables, credentials, …
- Schedules

Jobs
- Troubleshoot/audit via job history

PowerShell DSC
- Configurations, Pull service
- Node Management & Reporting

Hybrid Runbook Workers
- Install on any machine
- Secure, only outbound ports

Webhooks
- URL to start runbook remotely
- Integration

Reliable, highly available, scalable

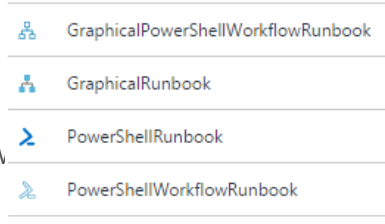
Hybrid management

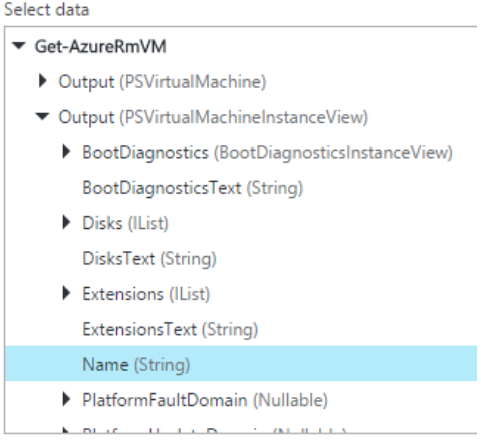
Authoring

- Graphical runbooks
  - New type of graphical runbook based on native PowerShell
  - Improvements to graphical authoring and runbook capabilities
- PowerShell ISE add-on
  - Author textual runbooks (PowerShell, PowerShell Workflow)
  - Continued improvements in response to feedback
- Start-AzureRmAutomationRunbook cmdlet
  - Added –Wait and –MaxWaitSeconds parameters
  - Parent runbook can now wait for child runbook to finish and send back output
  - Enables any runbook type to call any runbook type and get back results
- More Gallery runbooks
  - We continue to add useful runbooks to the gallery

Graphical authoring

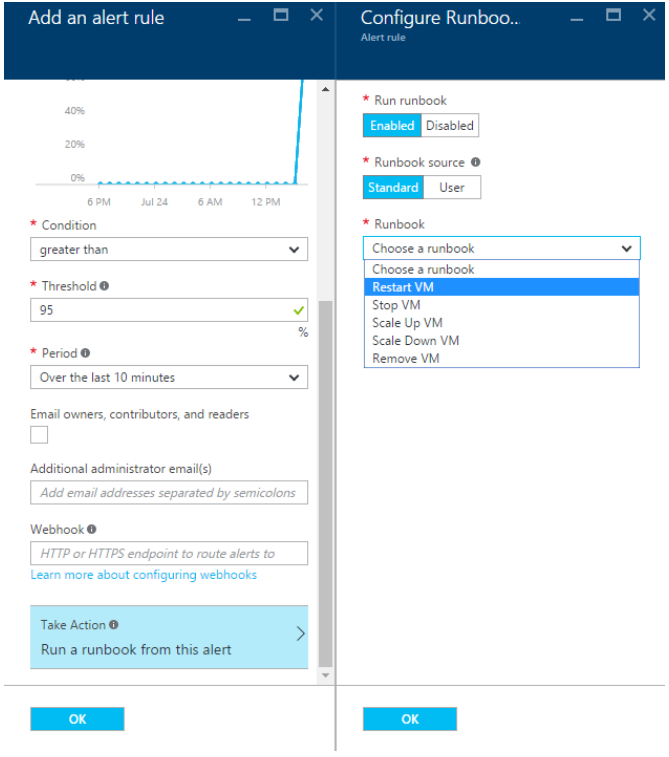
- Graphical PowerShell runbook
  - New type of graphical runbook based on native PowerShell
  - All advantages of native PowerShell over PowerShell Workflow
  - Starts fast, full objects
- Graphical authoring improvements
  - Object output properties available at design time
  - Canvas restyle for readability
  - Warnings for common design requirements
  - Error links & convert exception to error (coming soon)
- Graphical runbook SDK update
  - Release latest version of the public-preview SDK





Remediate VM alert with Automation runbook

- Integrate Automation in Azure
  - Seamlessly use Automation to manage Azure resources
- Trigger runbook from VM alert
  - Configure VM alert to start a runbook when alert triggers
  - Microsoft runbook or user runbook
  - Alert context passed to runbook
- Account creation as needed
  - Create Automation account and Run As credentials as needed for user
  - Make it seamless to get going with alert remediation



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Azure AD B2C

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Improve your connection with customers

A consumer identity and access management system needs to be:

Consumer-centric and flexible

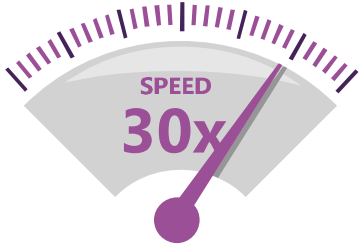
- Every customer experience needs to be a positive one
- Customizable consumer interactions
- Choice of social & local accounts

Secure and reliable

- Multiple levels of security controls
- Security reporting
- High availability—SLA

Ready for every business

- Cost-effective
- Scalable
- Global

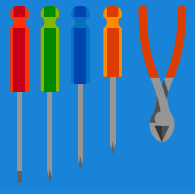


Faster speed to market

- Standards-based
- Innovative
- Flexible policy framework

Azure Active Directory B2C

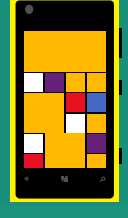
Sign up, Sign in, Password reset & other policies



Social & Local Accounts

Seamless User Experience

Multi-Factor Authentication



Protocol support (OIDC, OAuth2)

Azure AD Graph API

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Citrix on Azure

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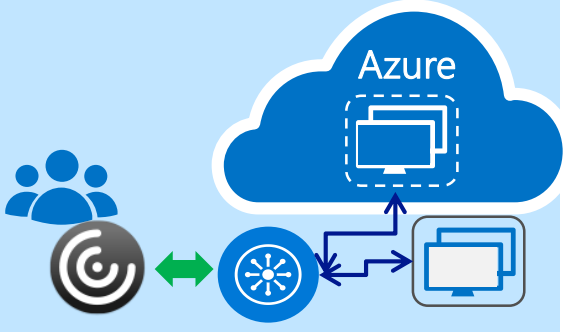
Virtual Apps and Desktops With Citrix

Extend

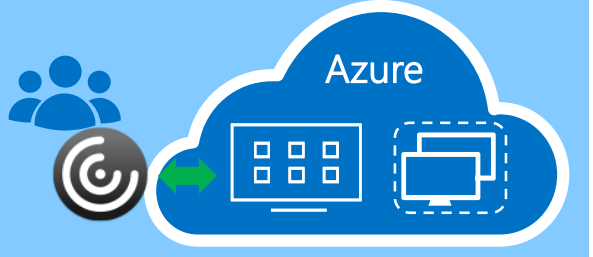


XenApp and XenDesktop management on-premises

Virtual app and desktops workloads on-premises and Azure

Managed by IT

Host

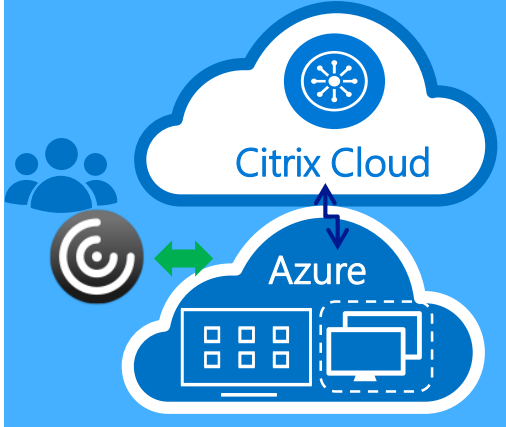


XenApp and XenDesktop management on Azure

Virtual app and desktops workloads on Azure

Managed by IT

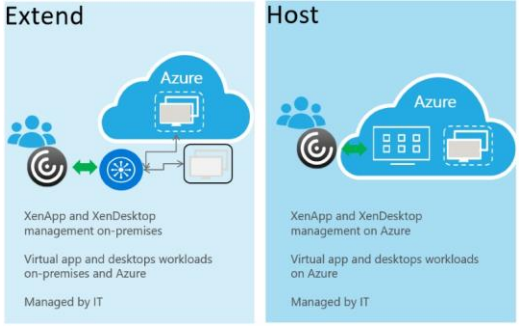
Cloud Service

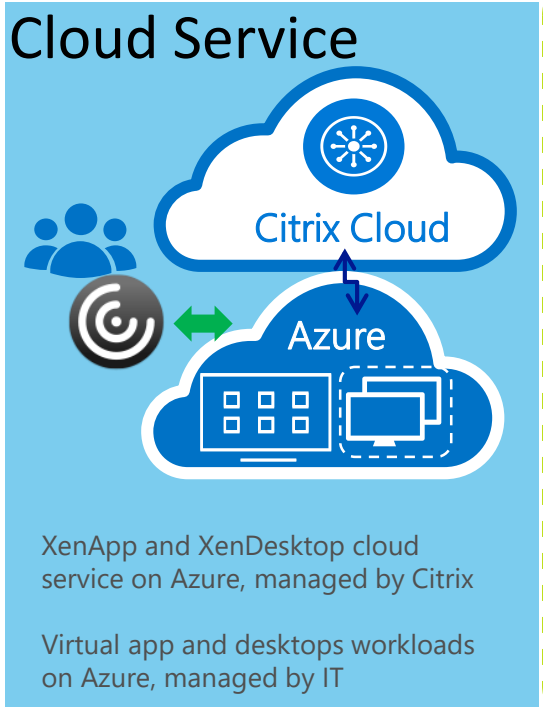


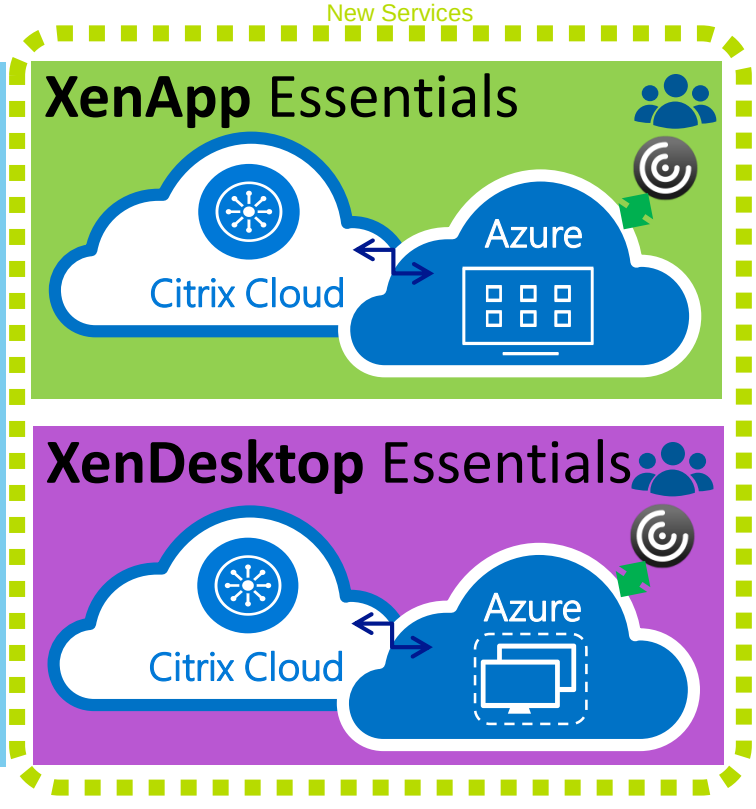
XenApp and XenDesktop cloud service on Azure, managed by Citrix

Virtual app and desktops workloads on Azure, managed by IT

Virtual Apps and Desktops With Citrix







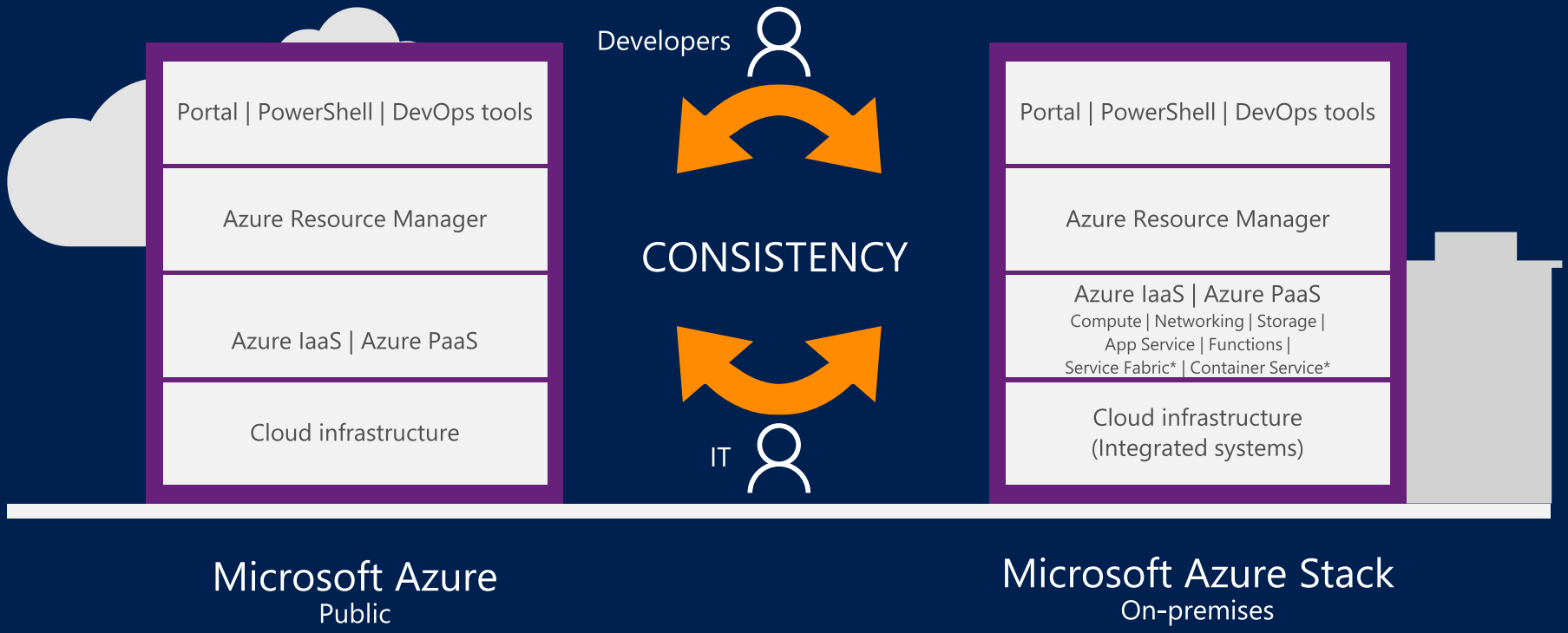
2017
Global Azure
BOOTCAMP

Azure Stack

autoexec.gr

Hybrid application innovation with Azure and Azure Stack

Truly consistent hybrid cloud platform



Azure IaaS available on-premises: beyond traditional virtualization

Virtual Machines (VM)
VM Scale Sets

Rapid deployment with automated scaling

Containers with Docker

Linux and Windows Server containers

Networking

Virtual network, load balancer, VPN gateway

Storage

Blobs, tables, queues

Above services will be available at GA. We will deliver additional Azure services through frequent updates to Azure Stack.

Azure PaaS available on-premises: Fully managed platforms for high productivity development

Azure App Service	Azure Functions	Azure Service Fabric	Azure Container Service	Cloud Foundry
Web, Mobile, and API apps	Serverless Computing	Always-on, scalable distributed applications	Robust container management	Open source platform

Azure Service Fabric and Azure Container Service will be available post-GA. Other services will be available at GA. We will deliver additional Azure services through frequent updates to Azure Stack.

One Azure Ecosystem

Work with the tools and technologies you want across Azure and Azure Stack

Most Azure Marketplace solutions work on Azure Stack without modification

https://aka.ms/cc9cf1

Thank You