Hybrid Multi Cloud Solutions

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Hybrid Multi Cloud Solutions

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Agenda

- Why is a Hybrid Multi Cloud

- Challenges

- Management

- Integration

- Whats next

Why Hybrid Multi Cloud

- What is a Hybrid Multi Cloud
- Disaster recovery
- Multicloud is *à la carte*
- Cost savings
- Prevent Cloud vendor lock-in

Most enterprises use Multi Cloud to avoid cloud vendor lock in
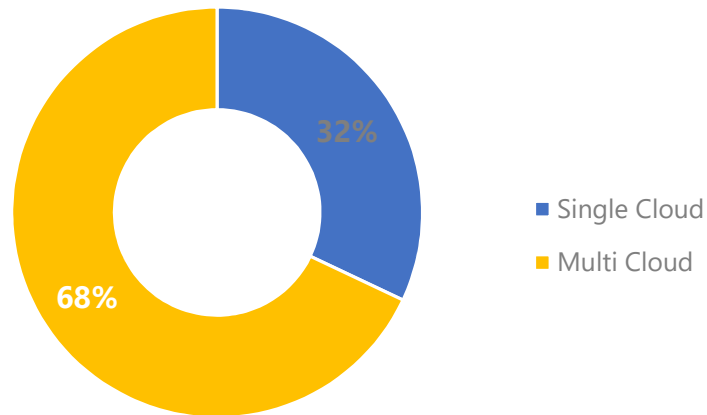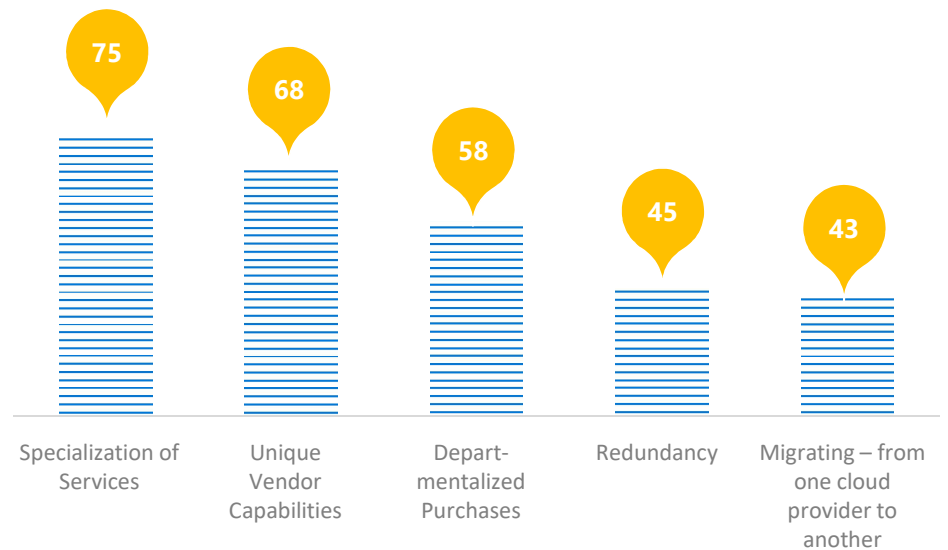
Multi Cloud motivators

Two-thirds of Enterprises strategically choose to use multiple cloud providers based on specific use cases or unique capabilities. In in-depth interviews, customers also cited avoiding vendor lock-in as a reason for multi-cloud.

Number of Public Cloud Providers Used

32%

68%

■ Single Cloud
■ Multi Cloud

Reason for Using Multiple Cloud Providers
(% of Respondents)

75	68	58	45	43
Specialization of Services	Unique Vendor Capabilities	Depart-mentalized Purchases	Redundancy	Migrating – from one cloud provider to another

Challenges

- On-premises and cloud management complexity

- Managing multiple specialty tools

- Time consuming/difficult to bring data sources into one view

- Cloud management is not so easy

- Skilled personnel is hard to find

- Emergence of shadow IT

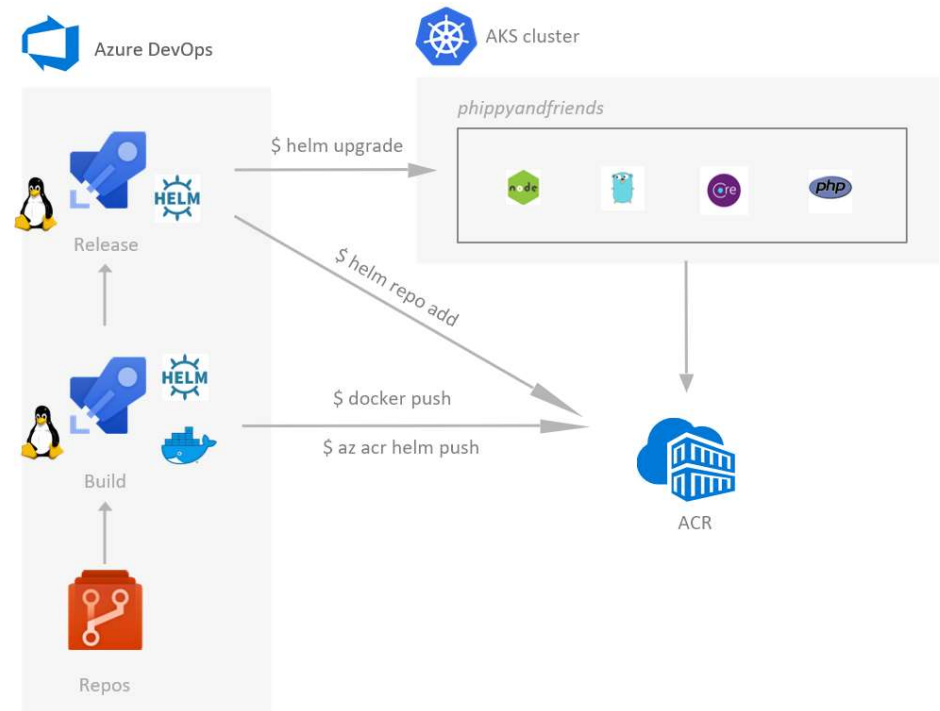- Network latency

- Single multi cloud management tool

75% of IT Buyers
believe they need new management software to address complexity

DEMO - Containers

Containers bring a new abstraction layer that fits well in Hybrid Multi Cloud environments

Think of portability and prevention of (platform) lock-in

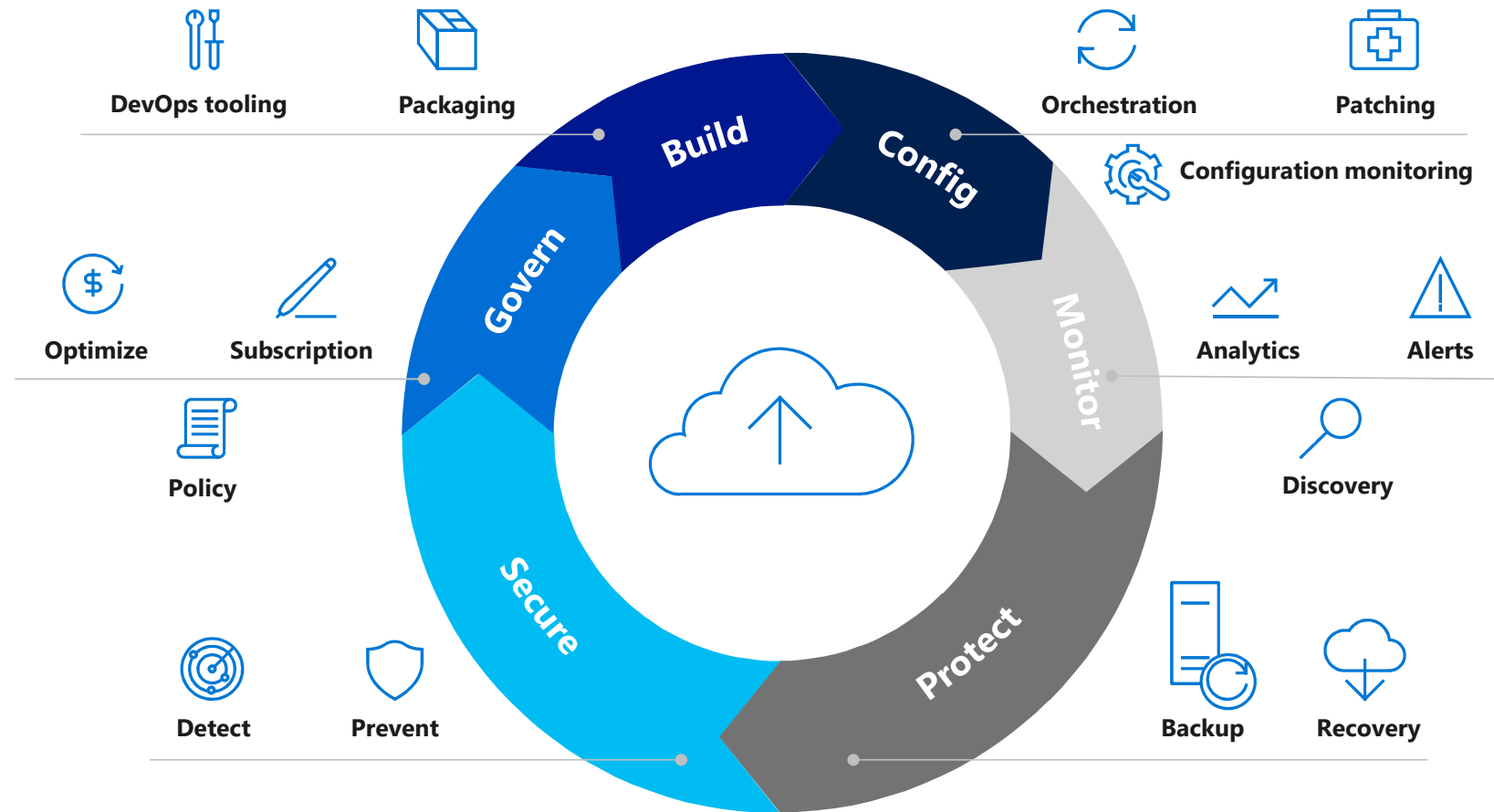Parrot is in .NET Core, CaptainKube is in Go, Phippy in PHP and NodeBrady in Node.js.

Microsoft

Hybrid
Multi Cloud
Management

Hybrid Cloud Management – a holistic approach

- DevOps tooling
- Packaging
- Orchestration
- Patching
- Configuration monitoring
- Optimize
- Subscription
- Build
- Config
- Govern
- Monitor
- Analytics
- Alerts
- Policy
- Secure
- Protect
- Discovery
- Detect
- Prevent
- Backup
- Recovery

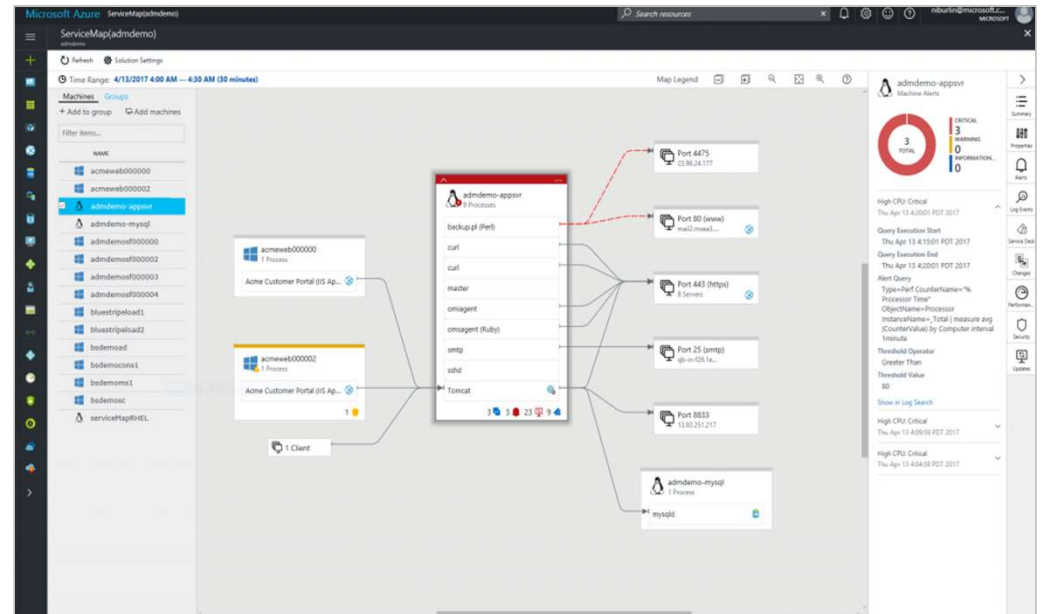# Monitoring tooling

- Log analytics

- Service mapping

- Network performance monitoring

- Office 365 monitoring

- Platform as a Service (PaaS) monitoring

Patch management

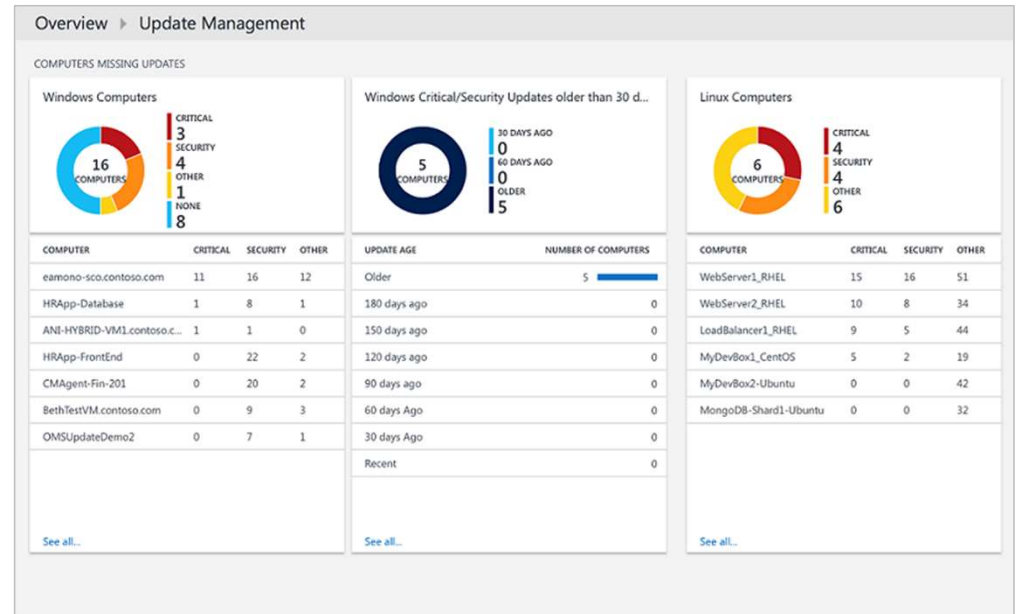Patch insights
(before, during, after, reliability, coordination)

Patch orchestration
(sequencing, pre/post steps, etc.)

Workload aware patching

Overview ▸ Update Management

COMPUTERS MISSING UPDATES

Windows Computers

16 COMPUTERS

CRITICAL 3
SECURITY 4
OTHER 1
NONE 8

COMPUTER	CRITICAL	SECURITY	OTHER
eamono-sco.contoso.com	11	16	12
HRApp-Database	1	8	1
ANI-HYBRID-VM1.contoso.c…	1	1	0
HRApp-FrontEnd	0	22	2
CMAgent-Fin-201	0	20	2
BethTestVM.contoso.com	0	9	3
OMSUpdateDemo2	0	7	1

See all…

Windows Critical/Security Updates older than 30 d…

5 COMPUTERS

30 DAYS AGO 0
60 DAYS AGO 0
OLDER 5

UPDATE AGE	NUMBER OF COMPUTERS
Older	5
180 days ago	0
150 days ago	0
120 days ago	0
90 days ago	0
60 days Ago	0
30 days Ago	0
Recent	0

See all…

Linux Computers

6 COMPUTERS

CRITICAL 4
SECURITY 4
OTHER 6

COMPUTER	CRITICAL	SECURITY	OTHER
WebServer1_RHEL	15	16	51
WebServer2_RHEL	10	8	34
LoadBalancer1_RHEL	9	5	44
MyDevBox1_CentOS	5	2	19
MyDevBox2-Ubuntu	0	0	42
MongoDB-Shard1-Ubuntu	0	0	32

See all…

Backup and recovery technologies

Create dedicated backup environments in Azure and set predetermined backup policies for rolling automated backups across cloud and on-premises infrastructure
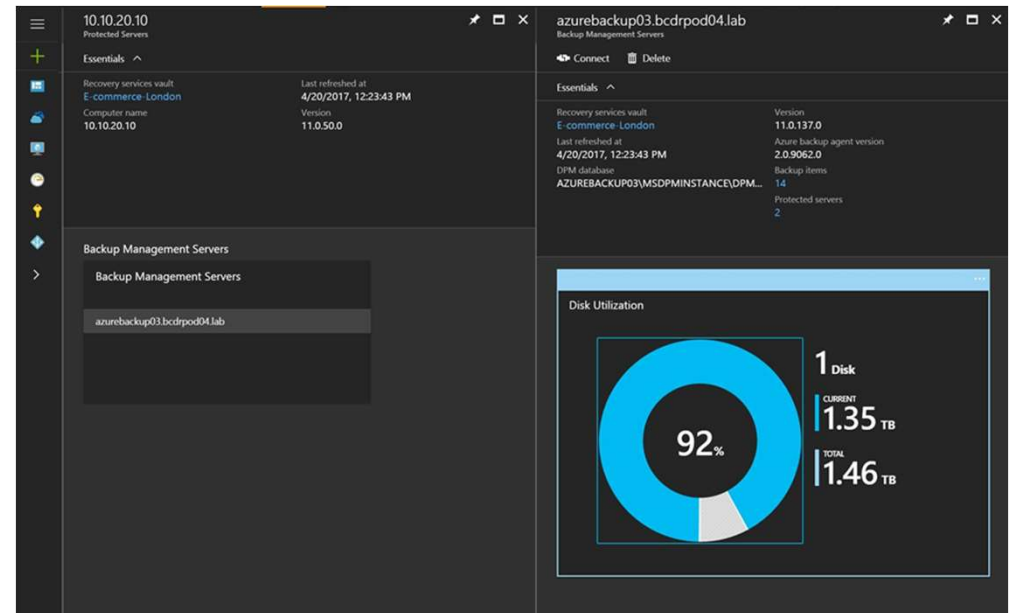
Hybrid data protection

Direct-to-cloud service
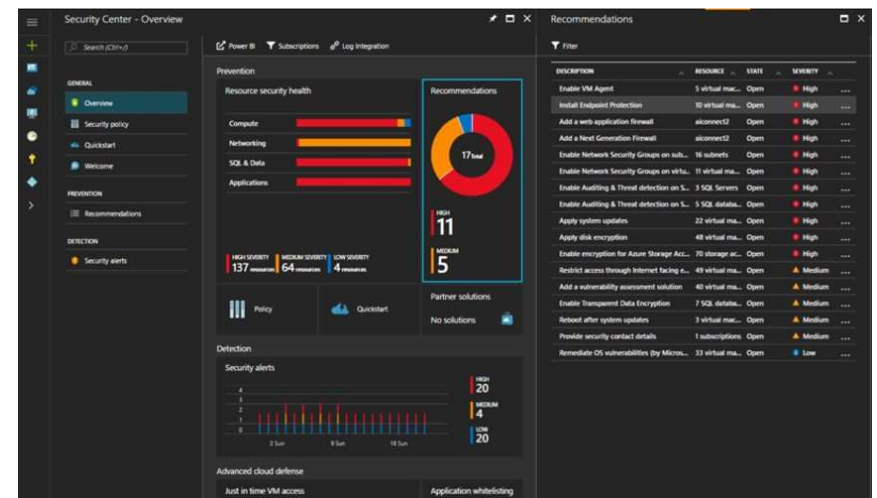
Last line of defense against ransomware

On-premises backup to Azure

Demo
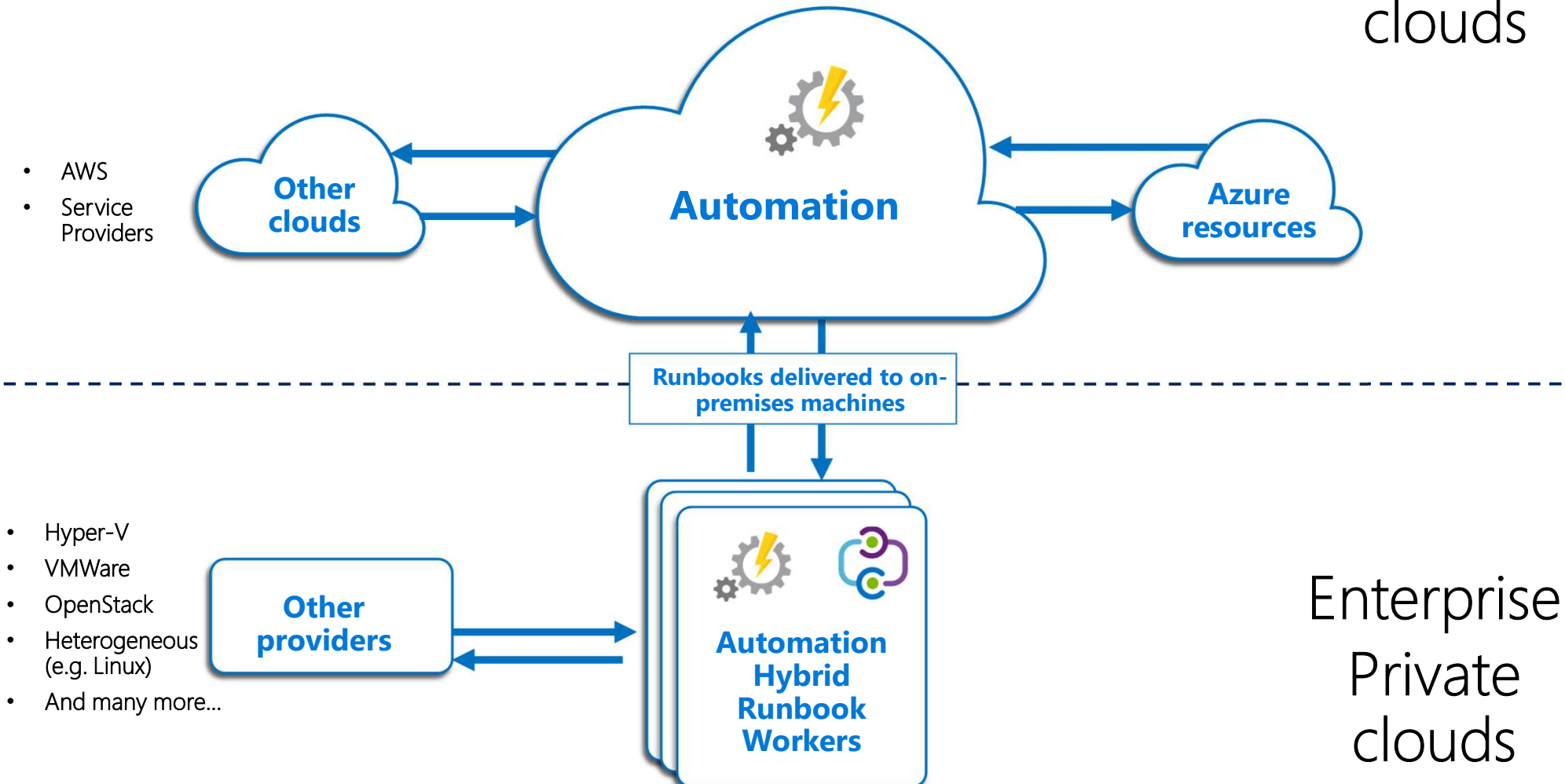
Azure Monitor & Security Center

Integration

- What is the effect on Service Providers

- How to integrate Clouds

- Combining Dev Ops and ITSM tools

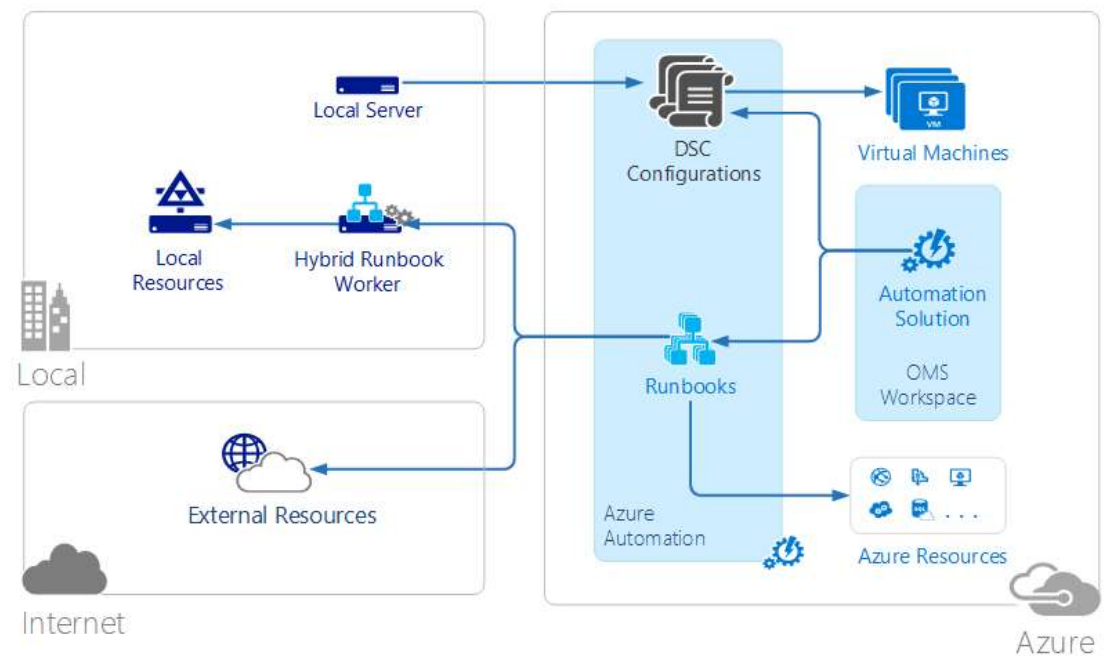Integration is one of the key features for enterprises as they want to be able to compare environments
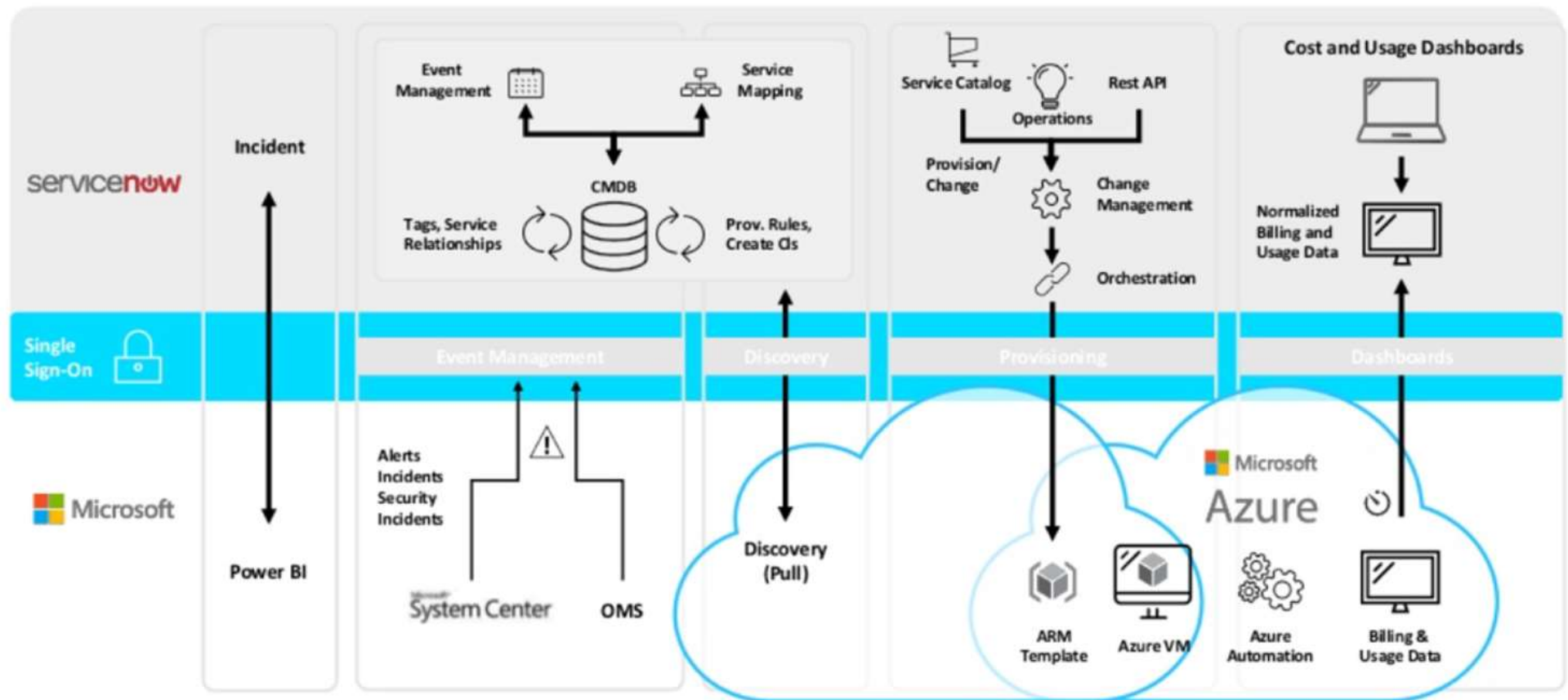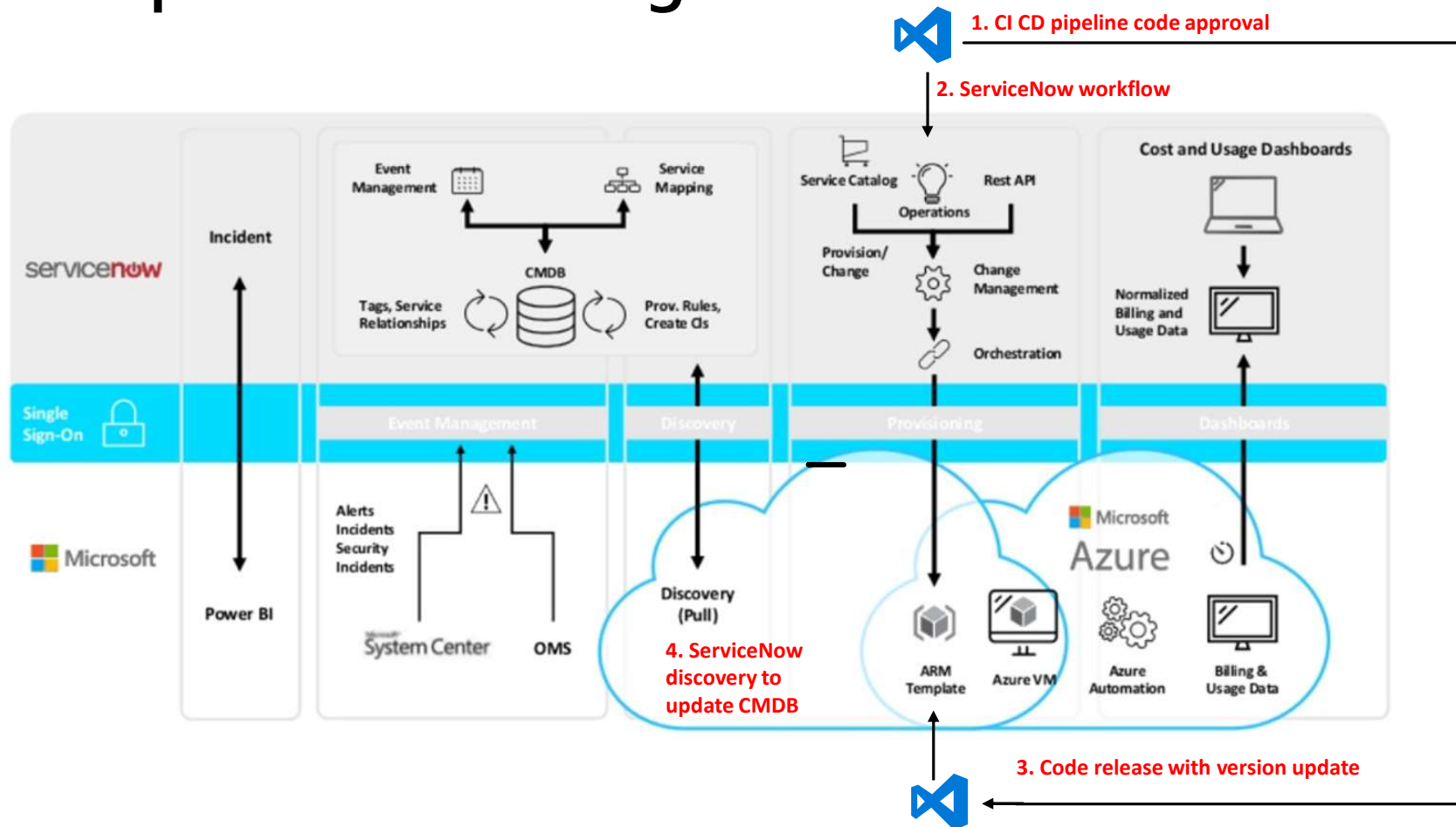
Hybrid Integration

Public clouds

- AWS
- Service Providers

Other clouds

Automation

Azure resources

Runbooks delivered to on-premises machines

- Hyper-V
- VMWare
- OpenStack
- Heterogeneous (e.g. Linux)
- And many more…

Other providers

Automation Hybrid Runbook Workers

Enterprise Private clouds

Demo

Azure Automation

Cloud and ServiceNow

Dev Ops and ITSM integration

Service provider integration

ServiceNow

Incident

Event Management · Service Mapping

Tags, Service Relationships · CMDB · Prov. Rules, Create CIs

Single Sign-On

Microsoft

Power BI

Alerts
Incidents
Security
Incidents

System Center · OMS

Event Management

Discovery

Discovery (Pull)

Service Catalog · Rest API

Operations

Provision/ Change · Change Management

Orchestration

Provisioning

Cost and Usage Dashboards

Normalized Billing and Usage Data

Dashboards

Microsoft Azure

ARM Template · Azure VM · Azure Automation · Billing & Usage Data

Azure Service Provider

Azure automation

Connect to customer subscription with SPN
- Execute management tasks based on and runbooks
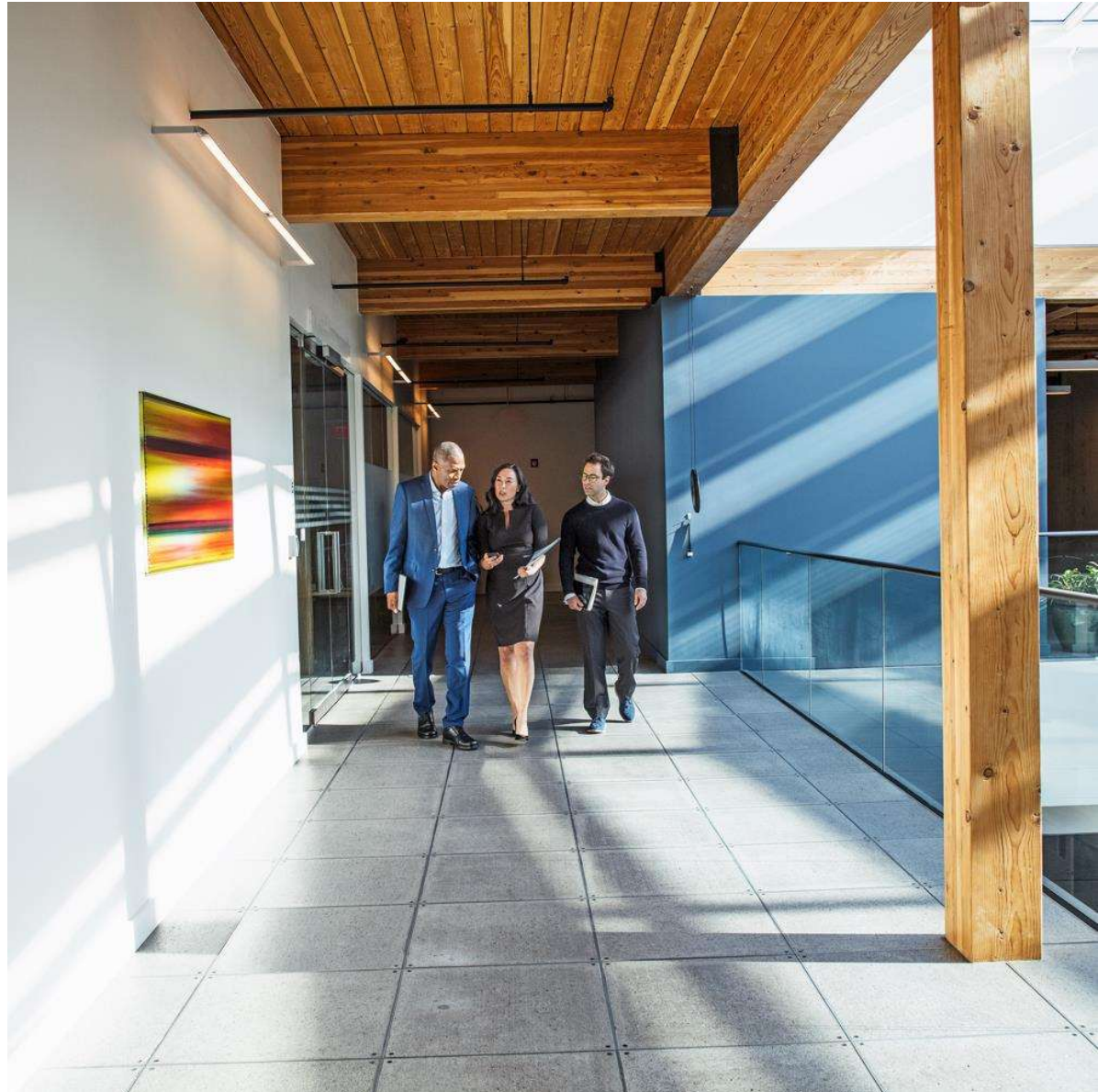
What's in the future ?

The multi cloud dream

Clouds are complex and expertise is hard to find

Large enterprises like eg Shell, Philips keep a multi cloud strategy

SMB's and smaller Enterprises will choose 1 cloud

Partners and service provider can make the difference

Why Microsoft ?

We are Multi Cloud

We are Hybrid

We embrace Open Source

We integrate with all clouds

We manage all clouds

We empower people to achieve more

Microsoft 365

Microsoft Dynamics 365

Microsoft Azure

HYBRID MULTI-CLOUD SOLUTIONS DOOR BENJAMIN TISSINK & PAUL VERBOOM

Geef jouw feedback!

- Gebruik je mobiel
  Ga naar **bit.ly/ct19hybrid**

- Of start dit op met de QR code;