

# Was ist eigentlich mit System Center?! - On-Premises Management in Zeiten von Azure



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MVP Azure | MVP Cloud & Datacenter Mgmt

# About me

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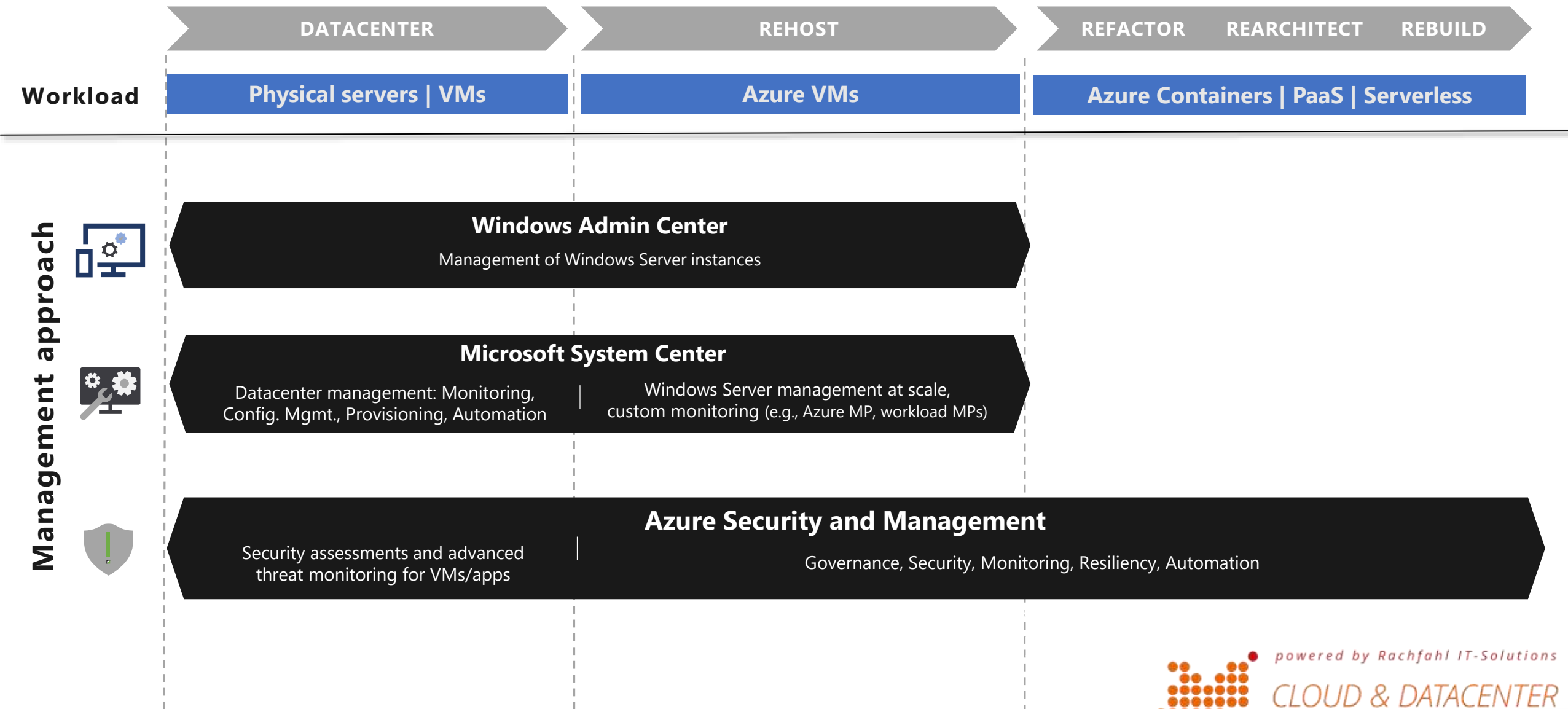


# Agenda

- System Center - Status Quo
- SCVMM
- SCOM
- SCDPM
- SCO / SCSM
- Conclusion

# System Center - Status Quo

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# System Center - Status Quo



First choice for  
datacenter management

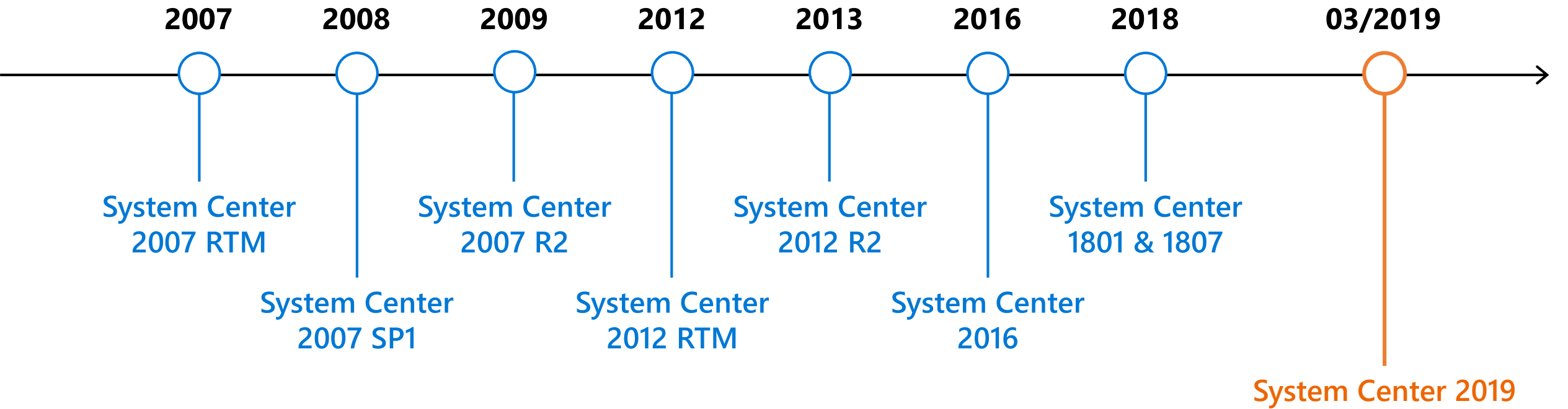


Light up management for  
Windows Server vNext



Integration with Azure

# System Center - Journey



# System Center - Overview

## Provision, deploy

Provision fabric, deploy and manage VMs, and deploy multi-tier apps



VMM

## Configure

Configure, patch and update clients and servers



CM

## Monitor

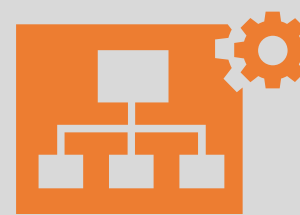
Monitor physical, virtual and cloud infrastructure and workloads in real time



OM

## Automate

Automate management tasks using graphical and scripting tools



SCO/SMA

## Protect

Backup private clouds, physical machines, clients, and server applications



DPM

## Self-service

IT process management and self-service



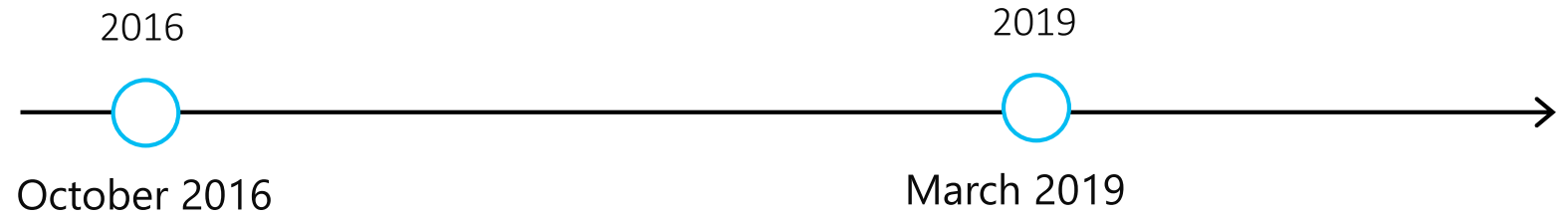
SM



# System Center - Releases

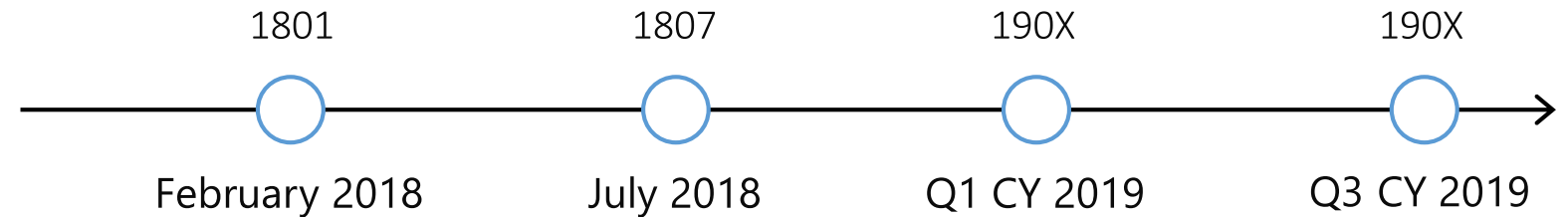
## Long-Term Servicing Channel (LTSC)

- 2–3 years - vNext
- 5 years mainstream support + 5 years extended support
- Focus on Windows Server LTSC support



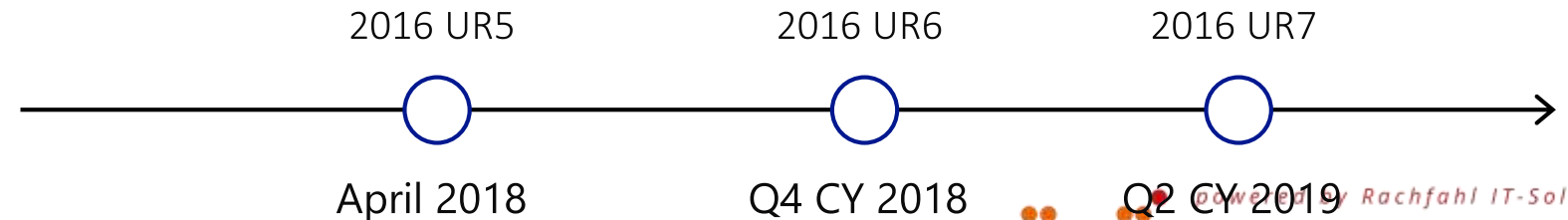
## Semi-Annual Channel (SAC) releases

- Every 6 months
- 18 months support
- New features requested by customers



## 2016 Update Rollups (UR) for 2016 LTSC

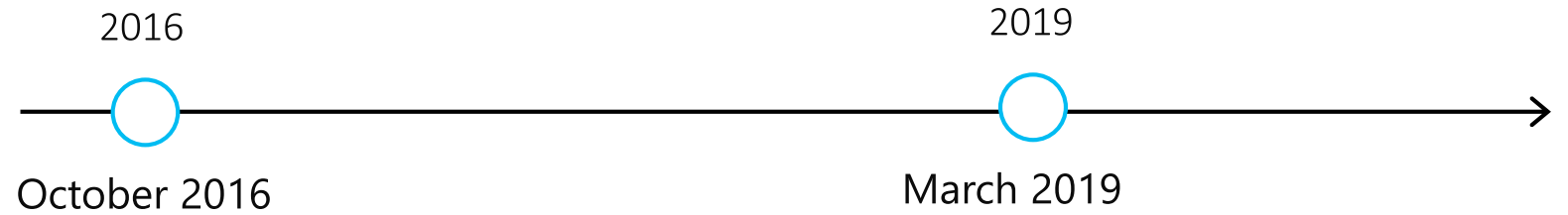
- Every 6 months
- Bug fix releases



# System Center - Releases

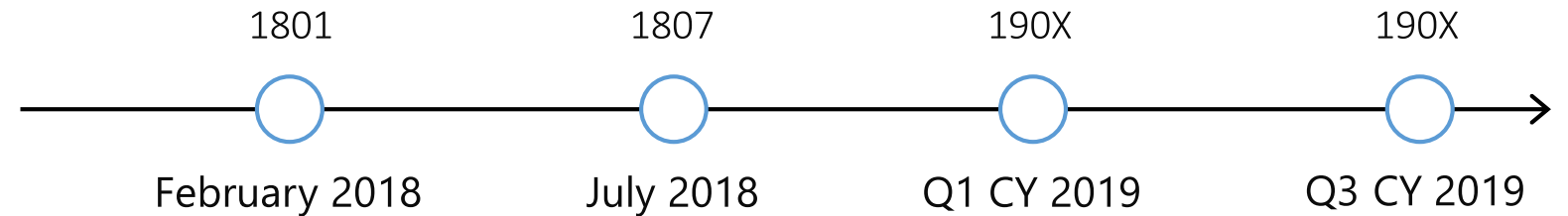
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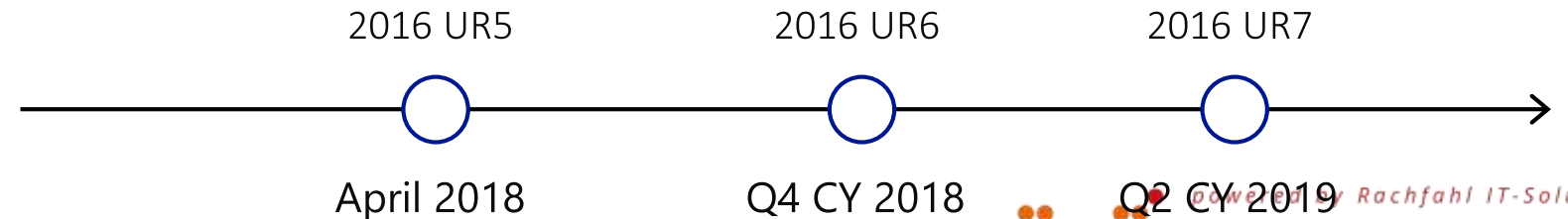
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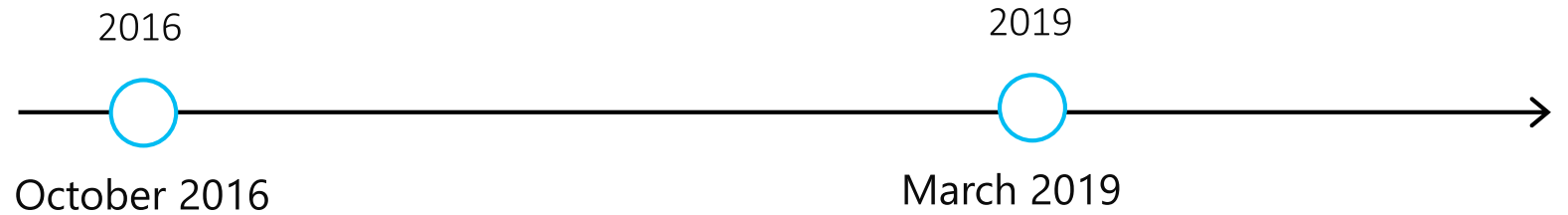
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# System Center - Releases

## Long-Term Servicing Channel (LTSC)

- 2–3 years - vNext
- 5 years mainstream support + 5 years extended support
- Focus on Windows Server LTSC support



Most of our customers use Long Term Servicing Channel (LTSC) like System Center 2016 to run their data center infrastructures. LTSC provides five years of mainstream support and five years of extended support – with Update Rollups (UR) providing the incremental fixes and updates. From talking to customers, we learned that LTSC works better for most System Center deployments as the update cycles are longer and more stable.

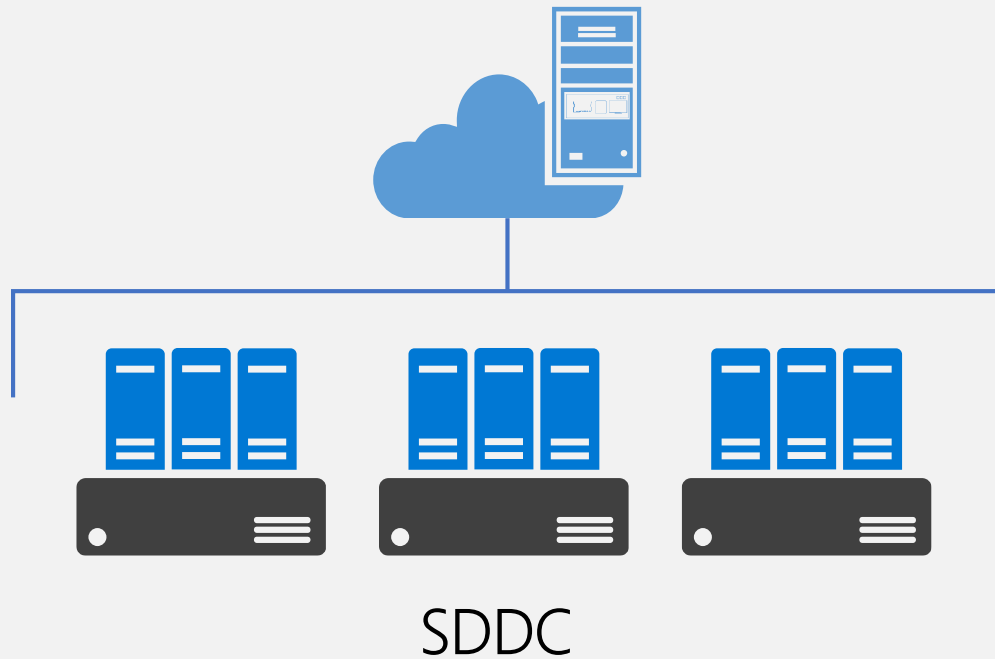
Based on the learnings, we will start to focus our resources on innovation plans for System Center in LTSC releases and stop SAC releases. System Center 2019 will support upgrades from two prior SAC releases so customers running System Center 1801 or System Center 1807 will be able to upgrade to System Center 2019; just as System Center 2016 can be upgraded to System Center 2019.

# DEMO - System Center Attention

# Virtual Machine Manager

# VMM 2019

Virtual Machine Manager  
VM and cloud management



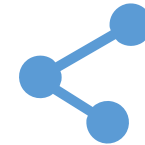
## Compute

Support V2V migration from VMWare 6.5,  
Nested Virtualization



## Storage

Upgrade and patching of S2D clusters,  
Storage Optimization, Storage Health



## Networking

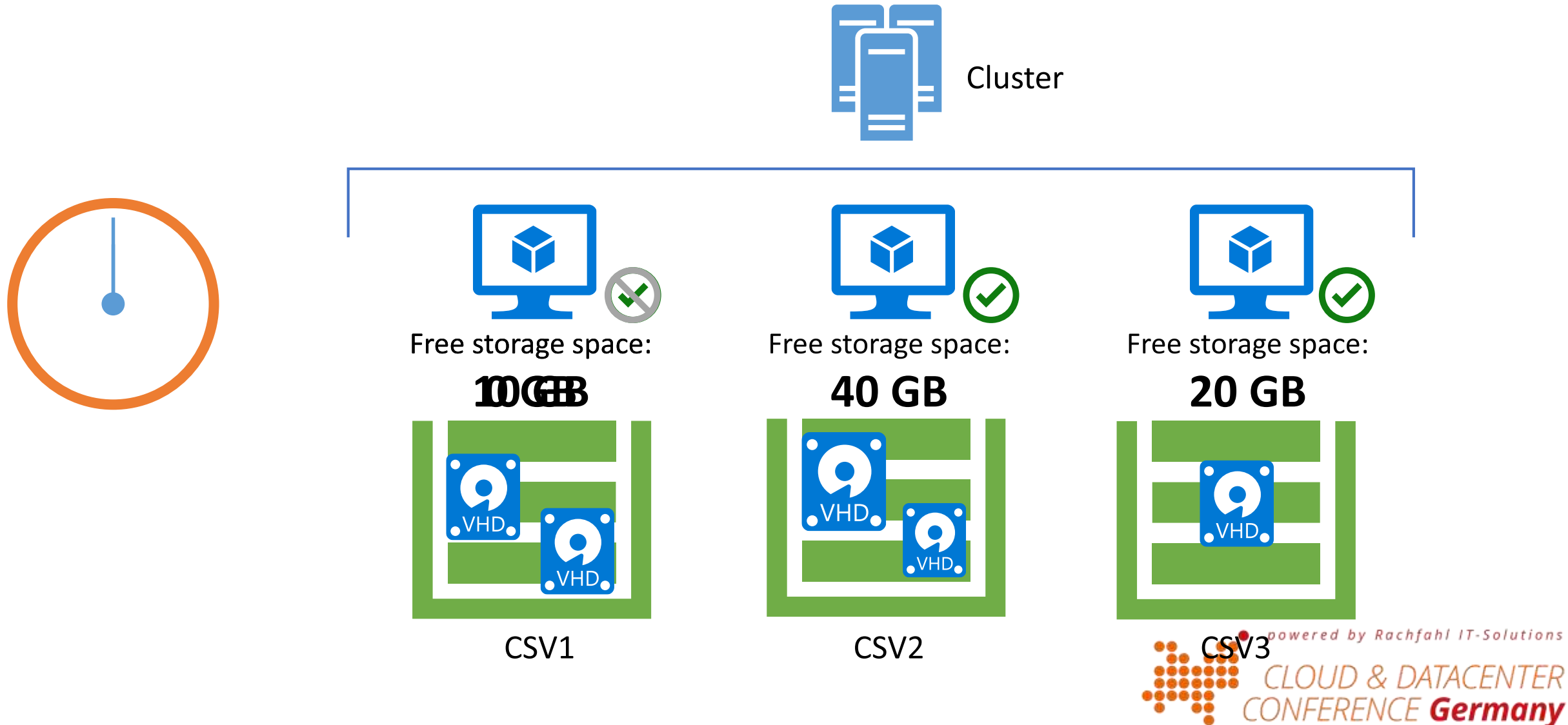
Physical network (L2) info for  
Hyper-V hosts, L3 gateway support,  
encrypted networks, floating IP for  
guest clusters



## Security

New VM administrator role

# CSVs run out of space...



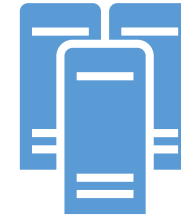
# Optimizing Storage space



## Delegated Admin

Can set free storage threshold for VHD migration

Example: 5GB

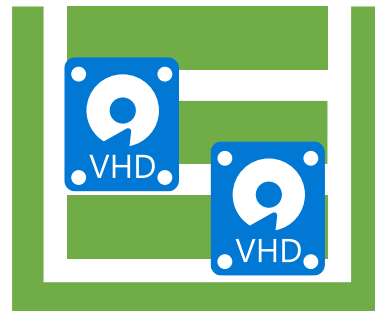


Cluster



Free storage space:

~~25 GB~~

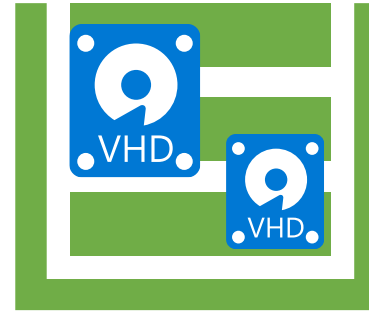


CSV1



Free storage space:

**20 GB**



CSV2



Free storage space:

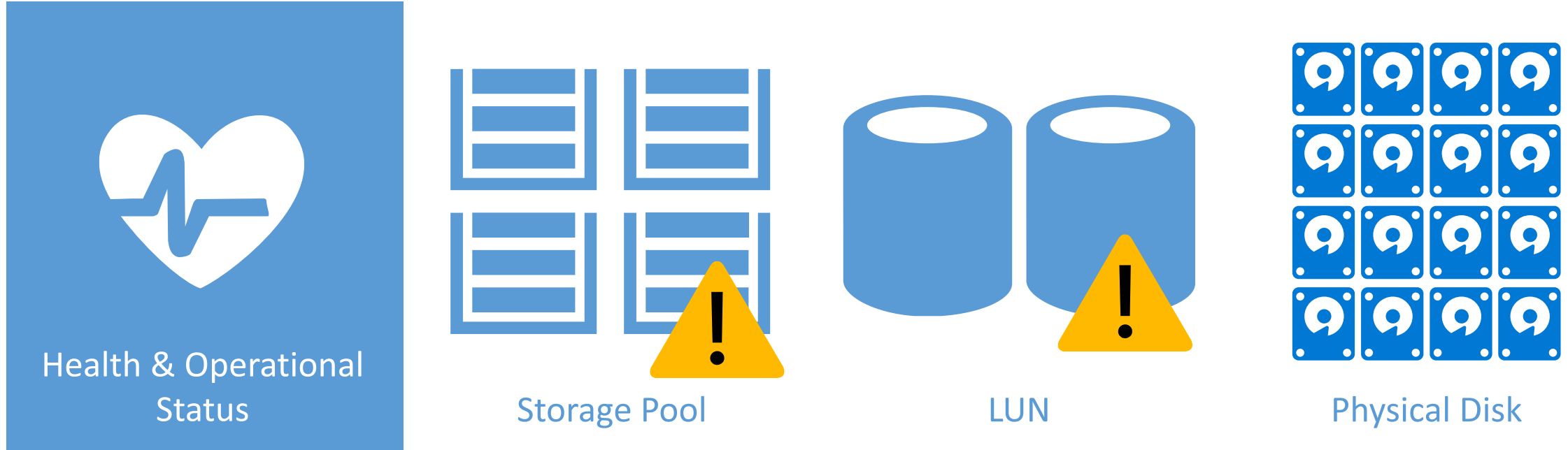
**20 GB**



CSV3



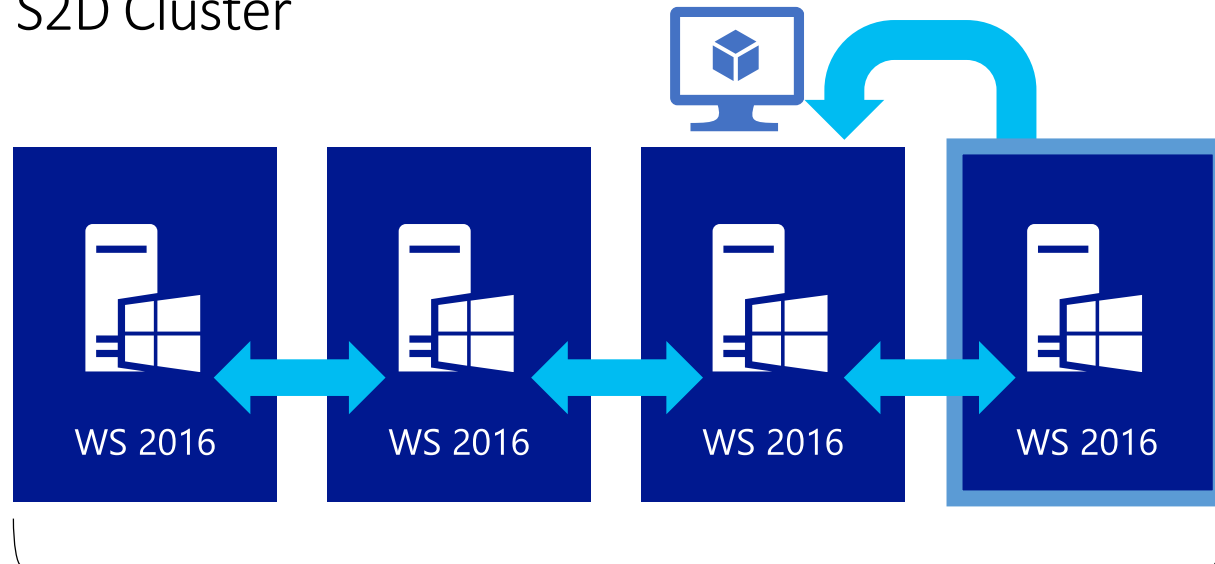
# Storage health and operational status



Storage health and operational states provide insights to troubleshoot

# Upgrading storage spaces direct cluster

S2D Cluster



Cluster  
Functional Level = 2016



Clean OS installation

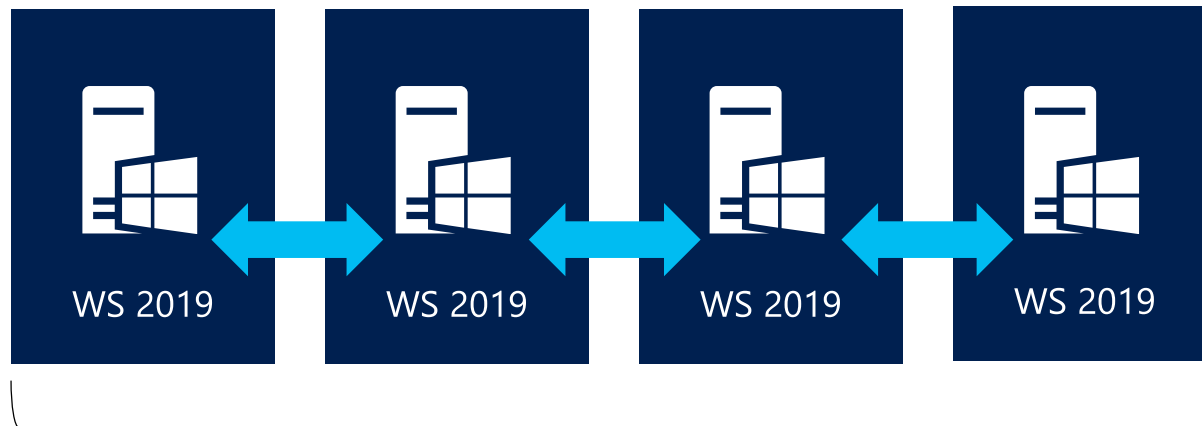
# Upgrading storage spaces direct cluster

S2D Cluster



# Upgrading storage spaces direct cluster

S2D Cluster



Cluster  
Functional Level = 2019

Effortless

VMM orchestrates the entire workflow

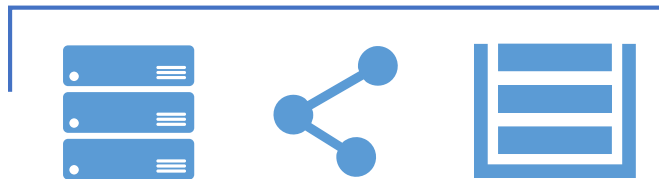
Seamless

Zero downtime for workloads

# VMM Roles



Fabric/Delegated Admin



Compute

Network

Storage

New!



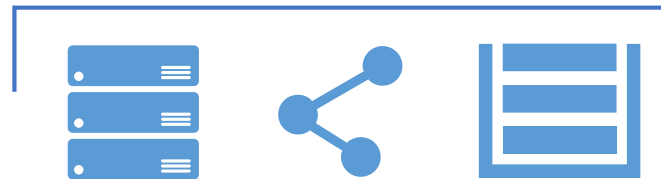
VM Admin



Read



Write



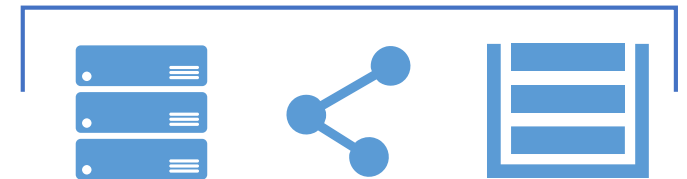
Compute

Network

Storage



Tenant Admin

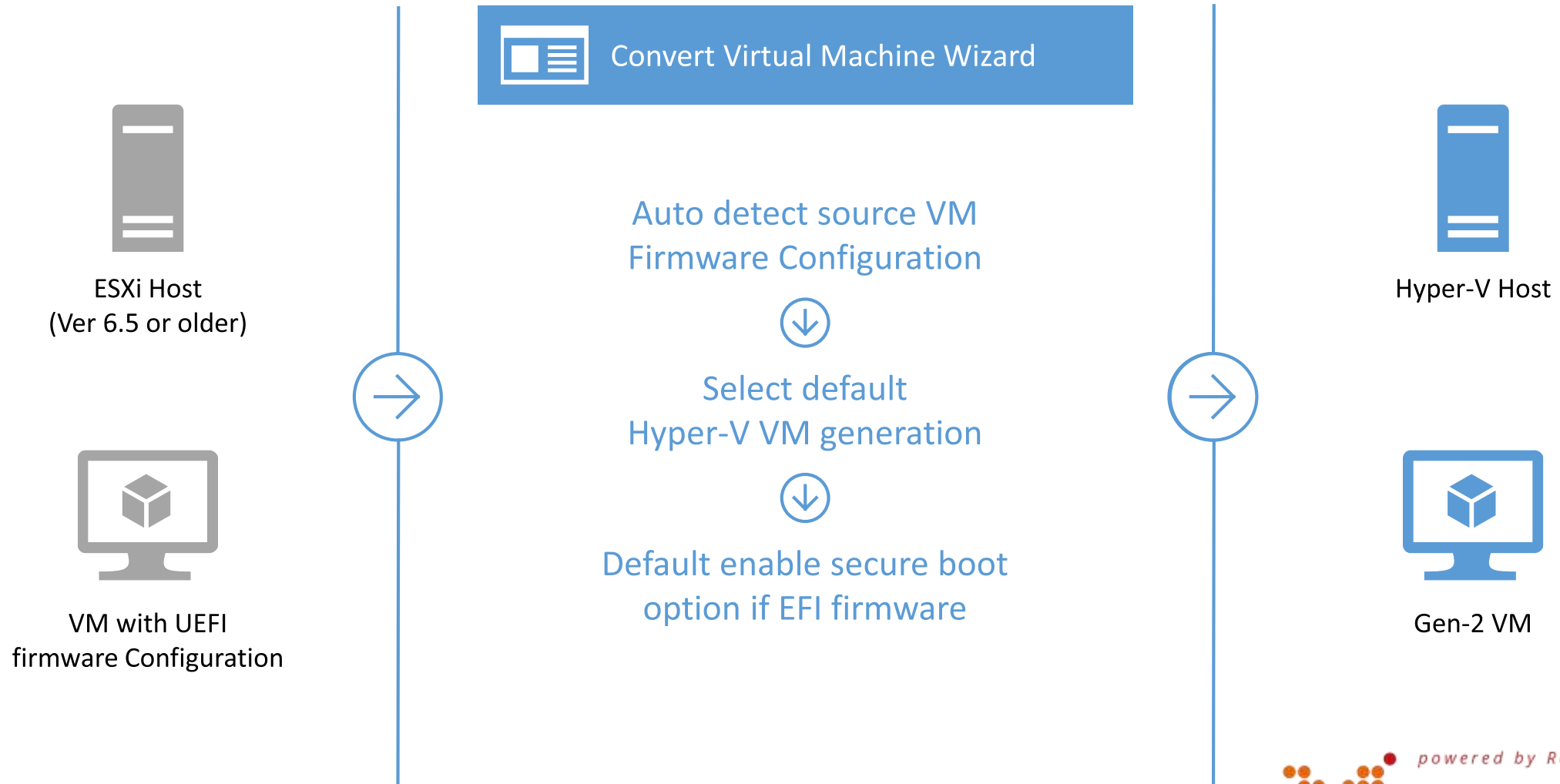


Compute

Network

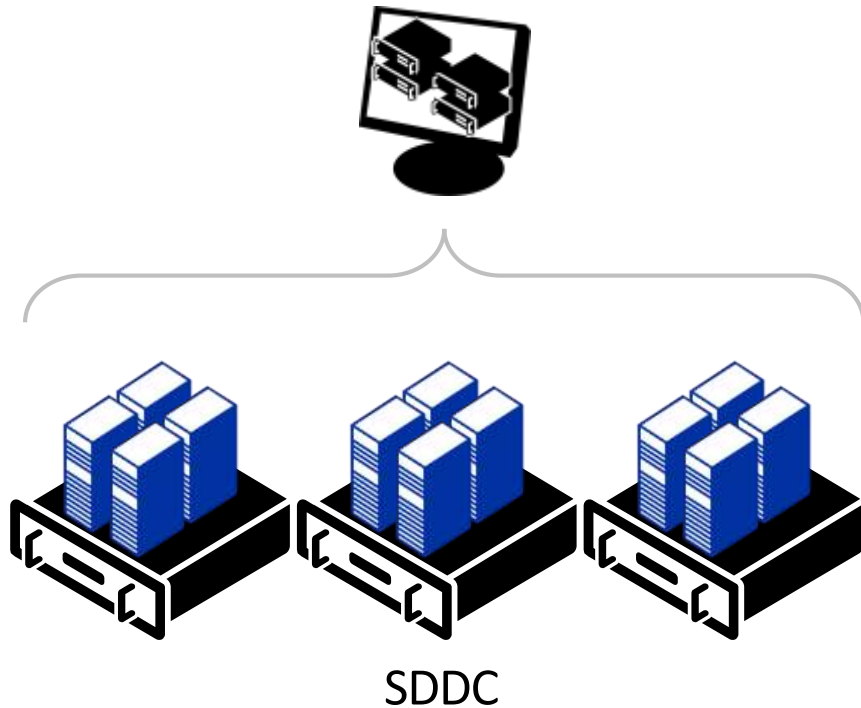
Storage

# Gen 2 V2V conversion from ESXi to Hyper-V\*



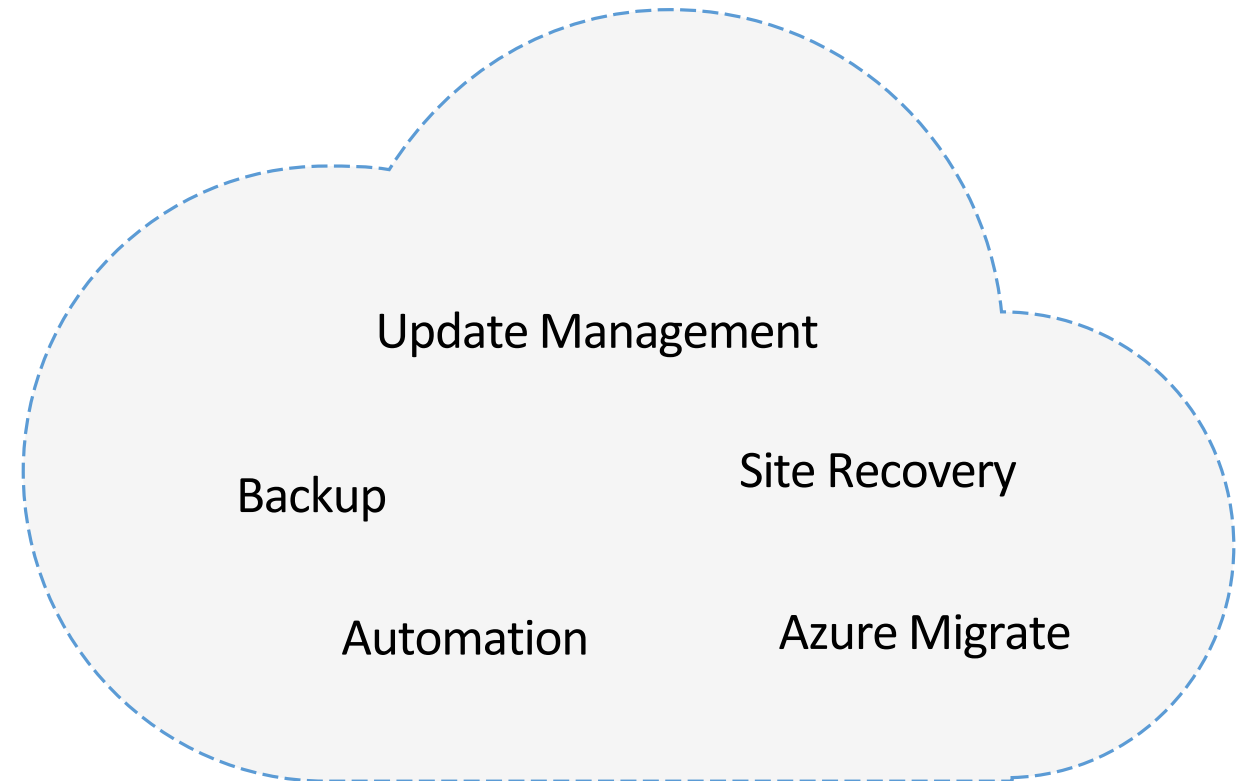
# VMM and CLOUD better together

Virtual Machine Manager  
VM & cloud management



+

Azure Management



# Operations Manager



# SCOM 2019

## Operations Manager

Monitoring infrastructure resources,  
workloads & applications

Insights



Alerts



SDDC



### Hybrid

Integration with Azure Service Map  
and Enhancements to Azure MP



### Monitoring Experience

HTML5 dashboards, Linux log file  
monitoring, MP discoverability for 3rd  
party MPs & Linux workloads, enhanced  
Notifications, better Alerts management



### Improved Fundamentals

No more Silverlight dependencies,  
Support for SQL server 2017, Disable  
interactive logon, In-place upgrade



### Monitoring Surface ++

Monitor Windows Server 2019, latest  
application servers, latest Linux distros  
and VSAE support for Visual studio 2017

# HTML5 dashboards



No dependency



Extensibility



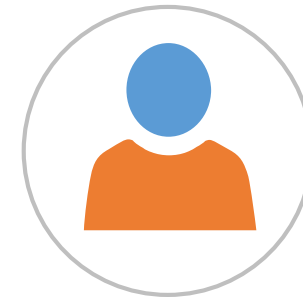
Inline actions



Easy access



Faster resolutions



Operator friendly

# Notification and subscription enhancement



Enhanced criteria builder with ability to perform “OR” and “Exclude” operations

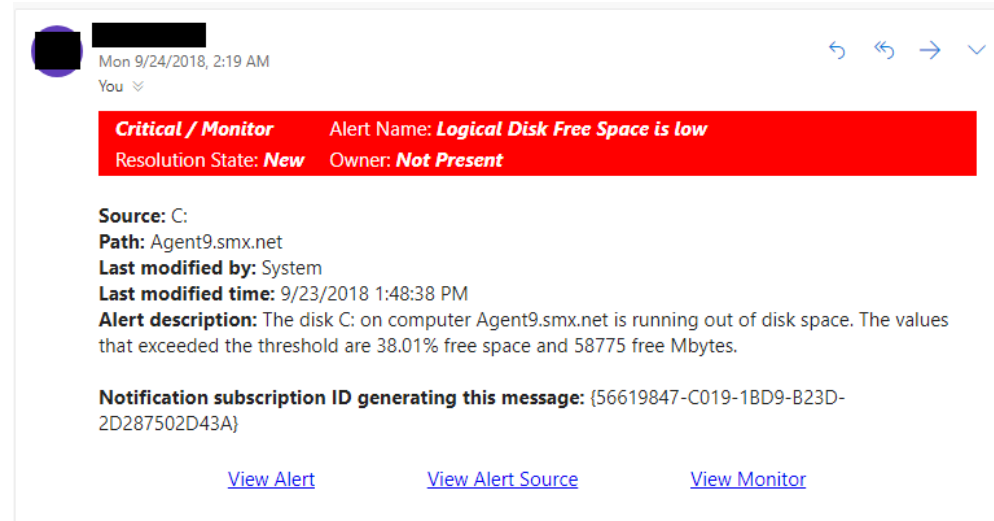
Rich HTML email notification

Flexibility to customize HTML content

Easy access to relevant information about alert, alert source and rule/monitor

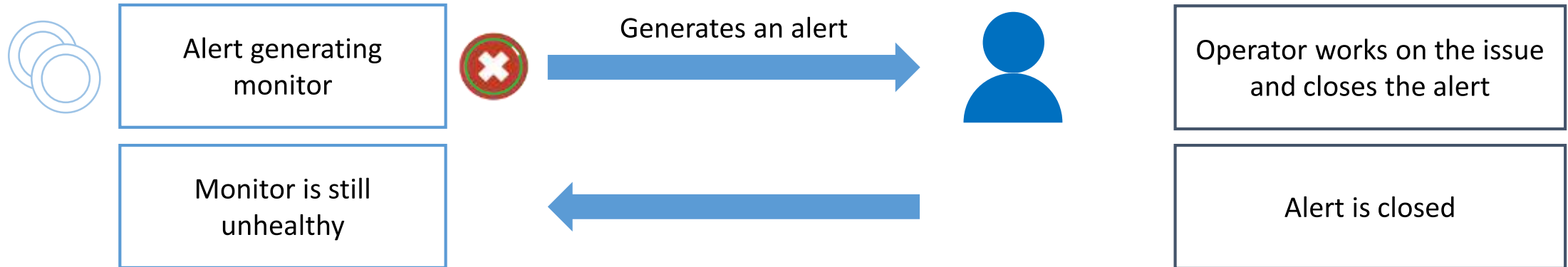
Trouble shoot / root cause the issue faster

Remediate issue or resolve alert from the alerts details page

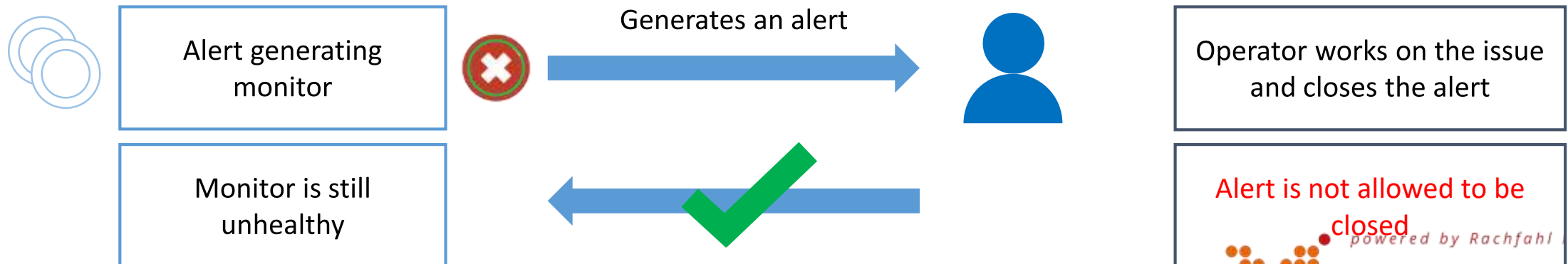


# Enhanced alert management for Monitors

## Current behavior



## \*upcoming



# Linux/UNIX monitoring enhancements

Enhanced Linux/UNIX alerting in failover scenarios

Resource Pool



MS1

Monthly Patch



MS2

Failover

No duplicate alerts

Updates & recommendations for Linux workloads

## Updates and Recommendations (18)

Name	Company	Status
CHS Suite (by Calcomp)	CalCom	Not installed
Defender 2016	Microsoft	Not installed
Distributed Transaction Coordinator 2016	Microsoft	Not installed
IBM Domino (by NiCE)	NICE IT Management	Not installed
IIS 2016	Microsoft	Not installed
JBoss 7	Microsoft	Not installed
Management Packs - Updates and Recomm	Microsoft	Update available
McAfee (by Infront)	Infront Consulting Gr	Not installed
Oracle (by OpsLogix)	OpsLogix	Not installed
RightFax (by Infront)	Infront Consulting Gr	Not installed
SCCM 2012 (by Savision)	Savision	Not installed
Skype for Business Server 2015 (by Savision)	Savision	Not installed
SQL Server 2016 Analysis Services	Microsoft	Partially installed
SQL Server 2016 Reporting Services (Native	Microsoft	Partially installed
System Center 2012 - Configuration Manage	Microsoft	Not installed
Tomcat 7	Microsoft	Not installed
Windows 10	Microsoft	Update available
Windows 8	Microsoft	Update available

Linux Log file monitoring

Monitor any data source

Application  
Logs

Java/Ruby/PHP

Network  
Protocols

HTTP/TCP/ Syslog

Cloud Services

Azure

Others

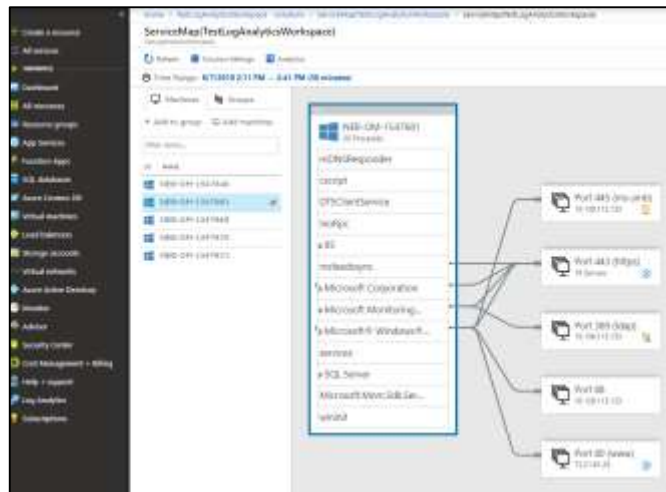
Docker/DSTAT/  
MySQL

Generate alerts in SCOM

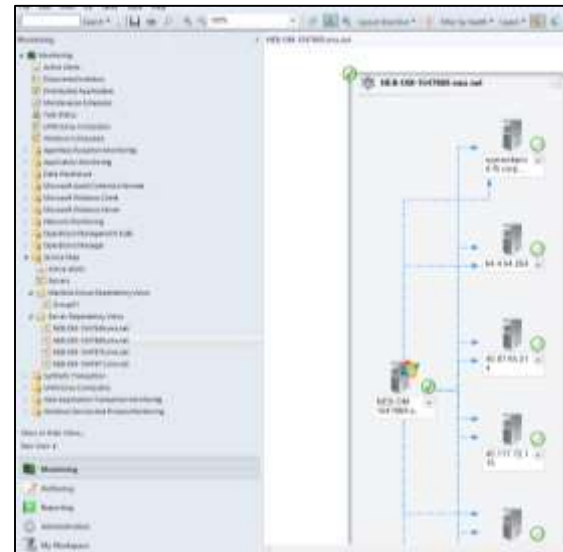
# Service Map integration

Automatically discover and map servers and their dependencies in real time with minimal configuration

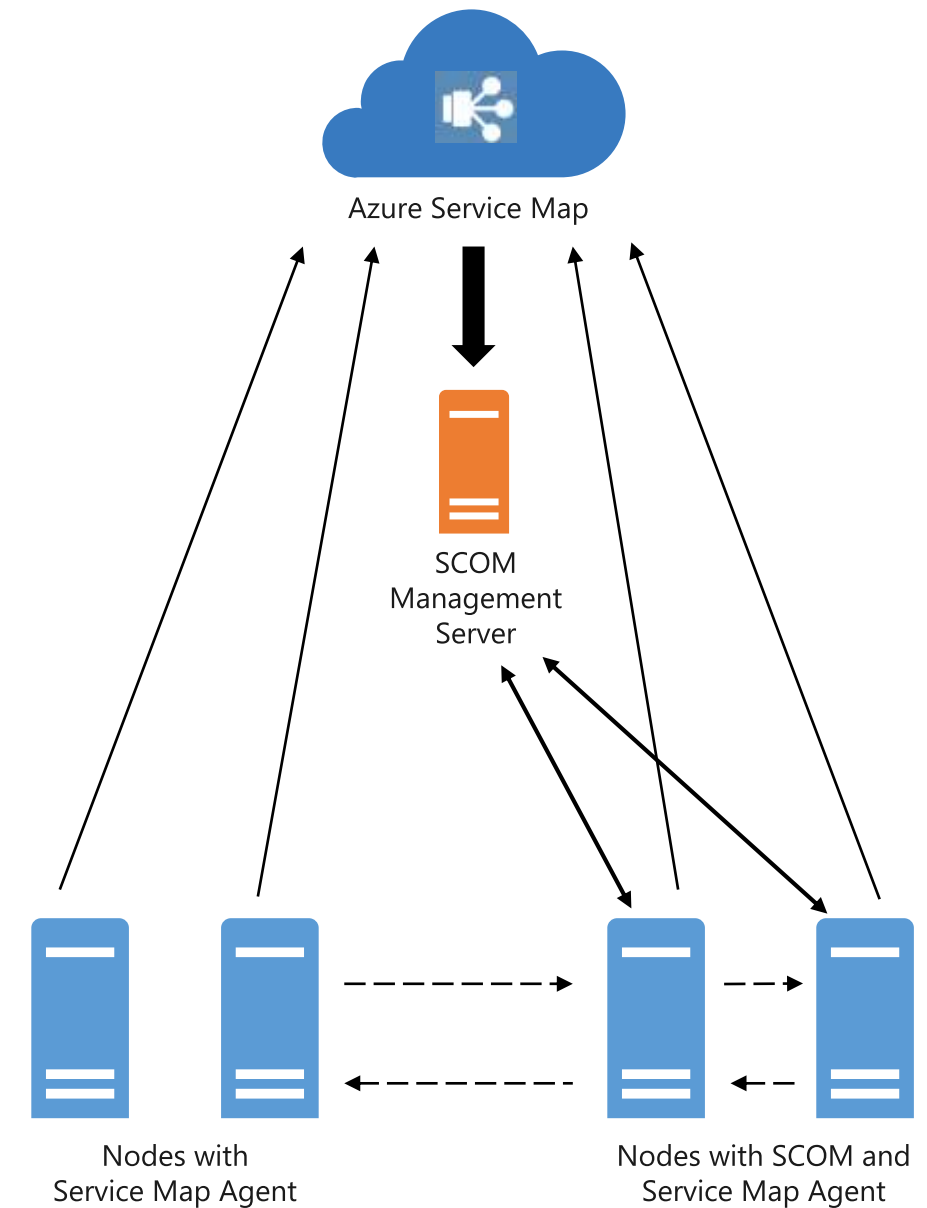
Leverage SCOM monitoring for overlaying health information on the Service Map



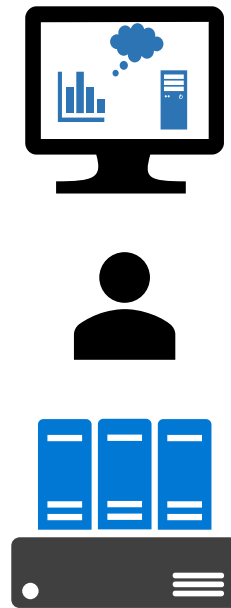
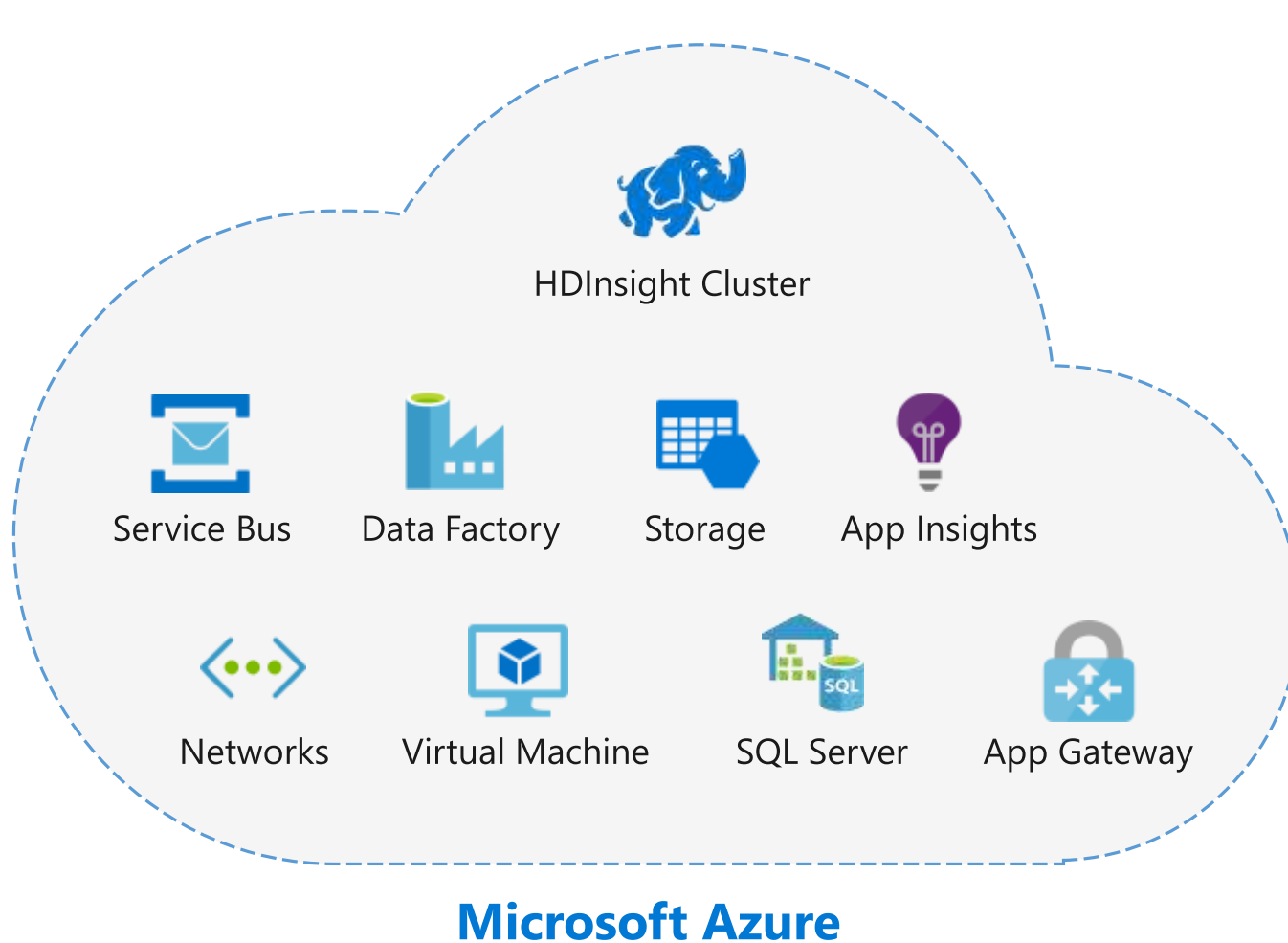
Service Map in Azure Portal



Service Map in SCOM



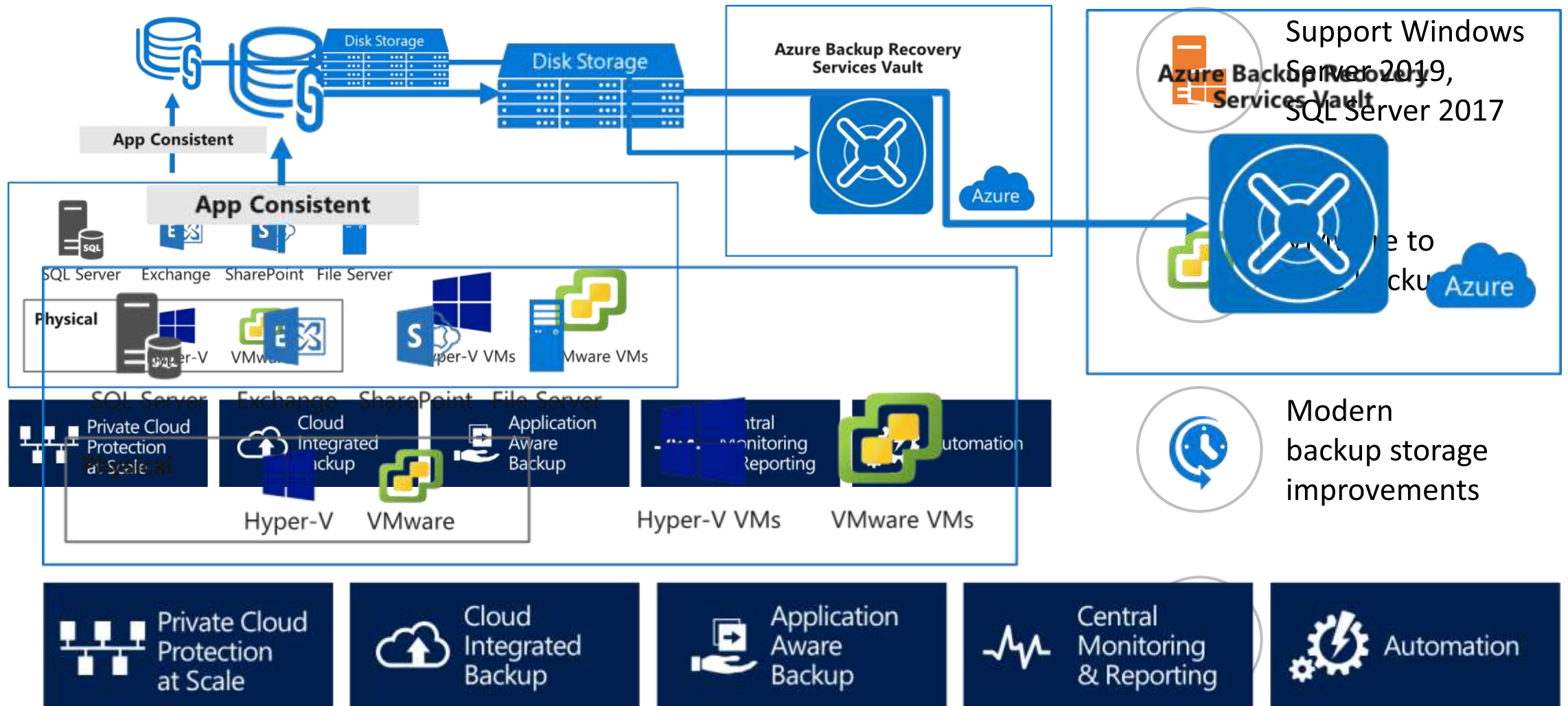
# Azure Management Pack for SCOM



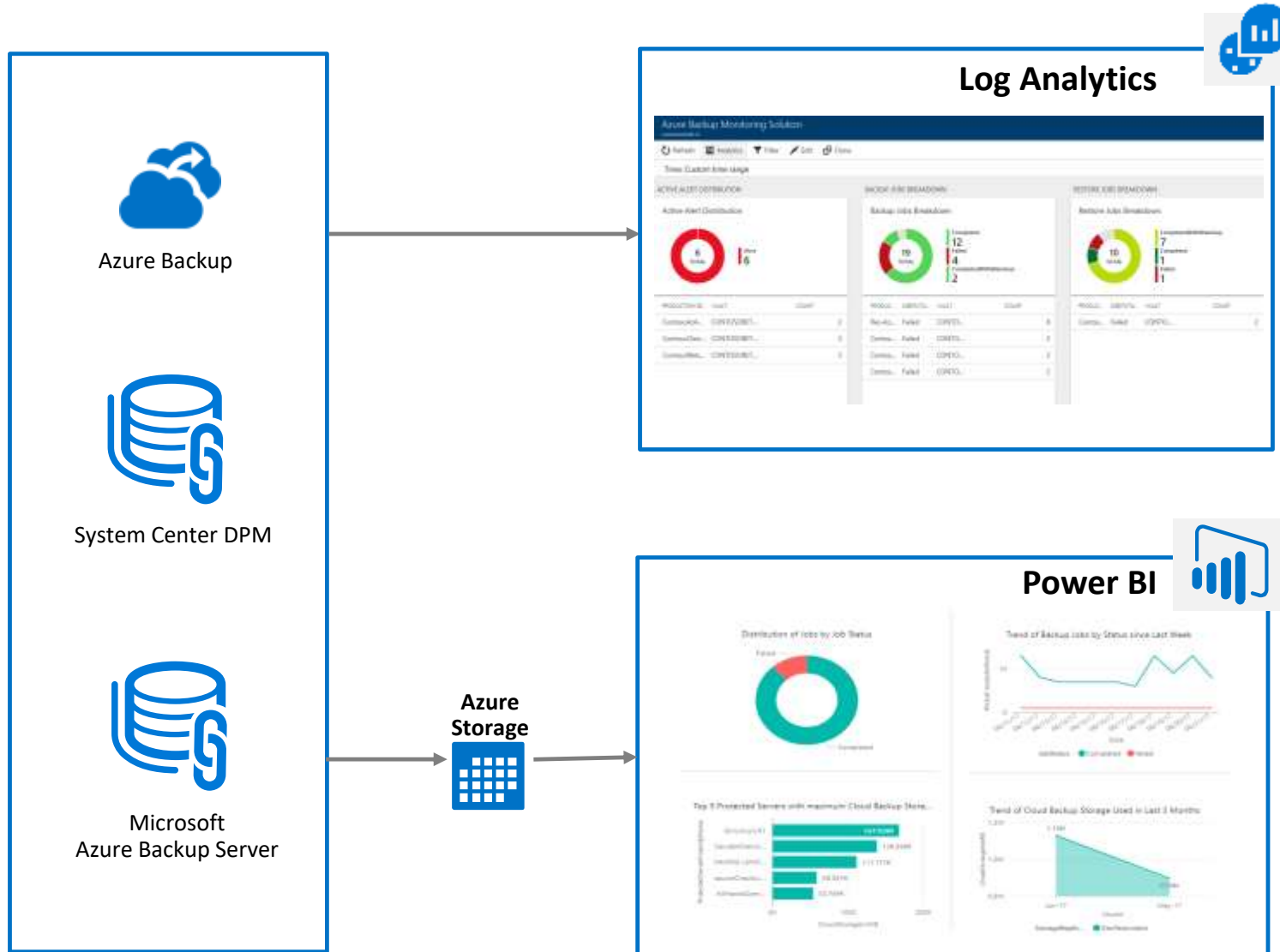
# Data Protection Manager



# DPM 2019



# Rich Reporting and Monitoring



Custom Queries

ITSM Integration

No infrastructure

Enterprise Wide

Custom Reports

Cross tenant support

# Orchestrator und Service Manager

# Orchestrator



## Orchestrator 2019

- 64 bit support
- PowerShell v4 +
- SQL 2017
- Support for TLS 1.2



### Process Automation

Orchestrate processes using graphical, PowerShell, and Python runbooks



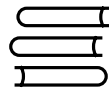
### Configuration Management

Collect inventory  
Track changes  
Configure desired state



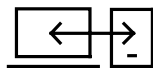
### Update Management

Assess compliance  
Schedule update installation



### Azure Functions

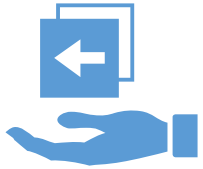
Event driven, compute on-demand, events occurring in Azure, third-party, or on-premise systems



### Heterogenous

Windows & Linux  
Azure and on-premises

# Service Manager



## Service Manager 2019

- Improved UI responsiveness
- AD connector improvement
- SQL 2017
- Support for TLS 1.2



### Service Catalog

Build and deliver turnkey applications to your enterprise IT customers

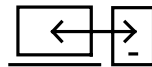


### Azure Policy

Enable security and management at scale for Azure resources



### Azure Blueprint



### Ticketing

Partner-enabled solutions

# Conclusion

# Conclusion

- System Center ist (noch) da
- On-Premises Management im Fokus
- Erweiterung um Hybrid / Cloud Szenarien im Fokus
- VMM, OM, DPM stehen im Fokus
- Orchestrator → Automation → LogicApps → Functions
- Service Manager → 3<sup>rd</sup> Party

# Danke an unsere Partner!

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## Platinum Sponsor



## Gold Sponsoren





# Danke an unsere Partner!

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## Silber Sponsoren

The logo for Azure Stack Alliance, featuring a blue icon of three connected nodes and the text "Azure Stack" in blue and "ALLIANCE" in grey.The logo for PURE STORAGE, featuring a red icon of a storage unit and the text "PURE STORAGE" in black.The logo for SquaredUp, featuring a blue and orange icon of a square and the text "SquaredUp" in black.