

# Veeam ONE: Provide Multi-tenant Monitoring as a Service to Your Customers



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# Scope of this session

## What will NOT be covered:

### Veeam® ONE™ Client.

- Real-time metrics for virtual and backup infrastructure.
- Alarms.
- Intelligent diagnostics.

### Veeam Cloud Connect.

## Instead, the laser-focus will be on:

### Veeam ONE Web Client.

- Top reports for service providers, dashboards and widgets.
- Multitenancy.

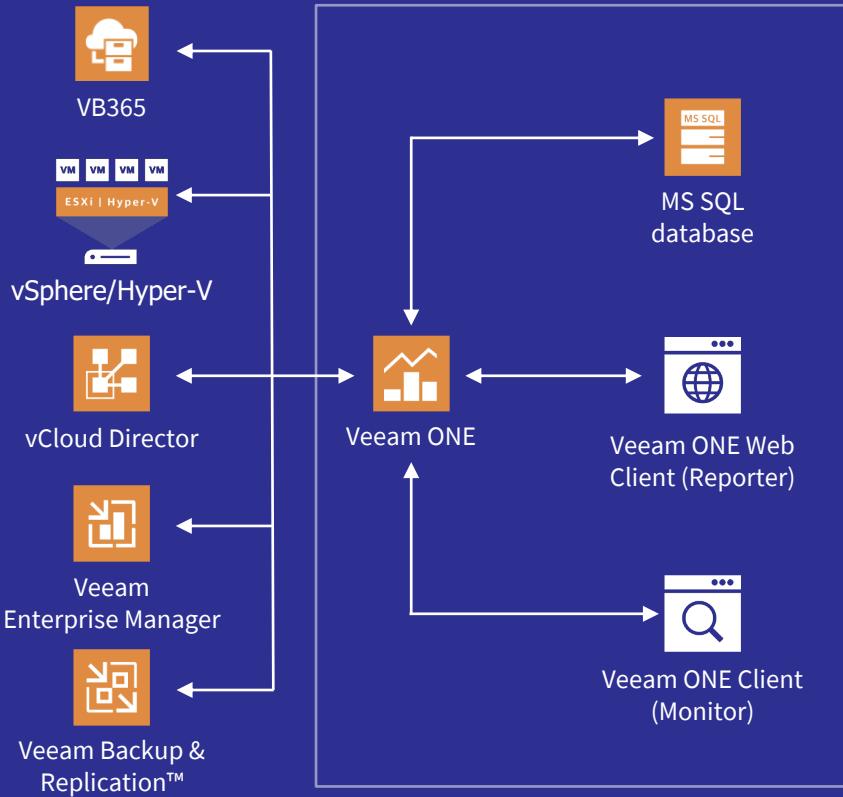
The future.

veeAMON 2023

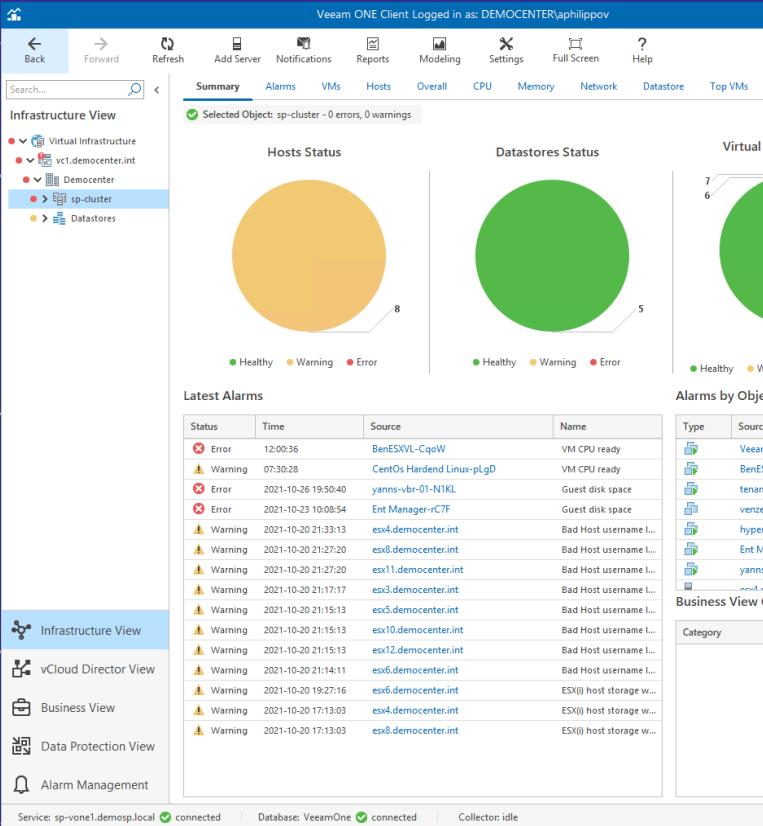
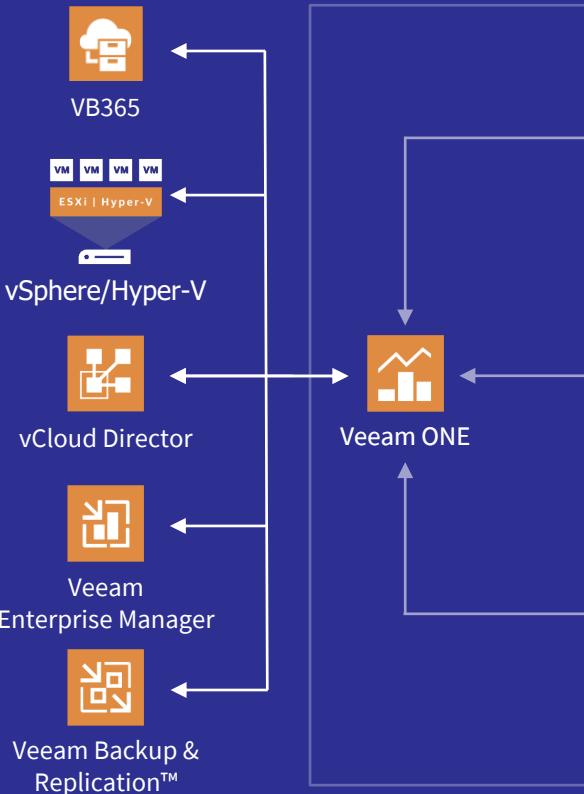


# Architecture recap

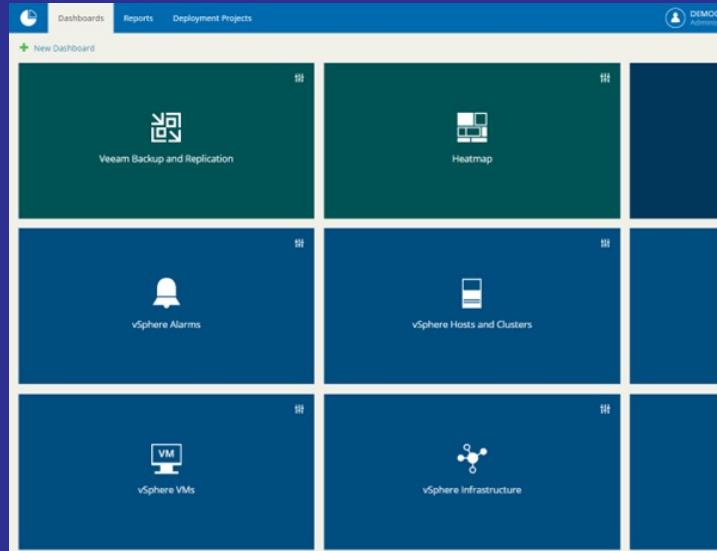
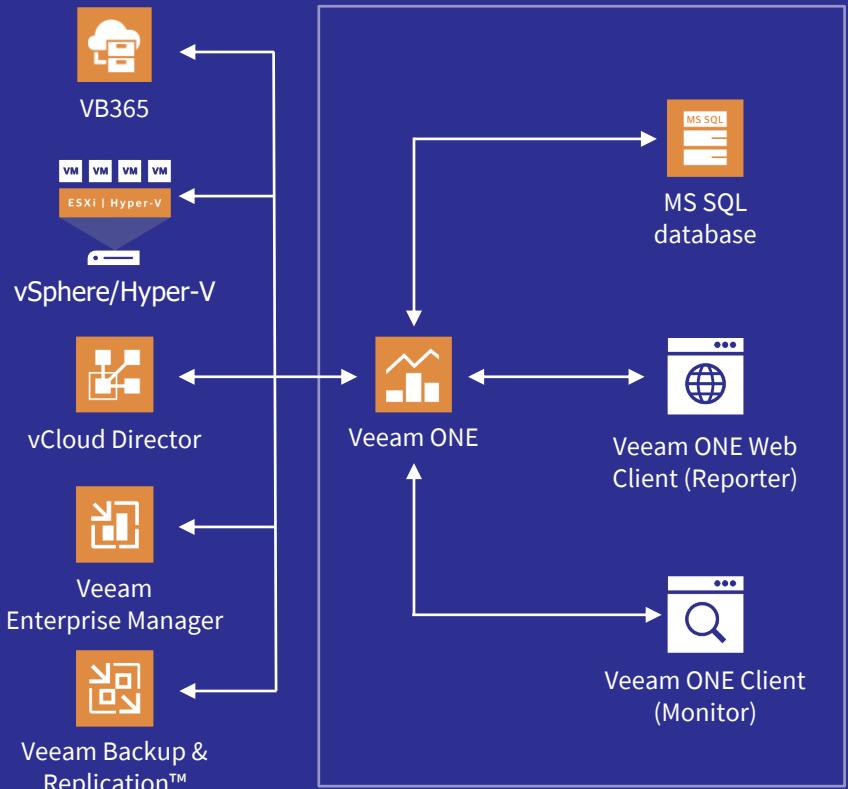
# Architecture recap



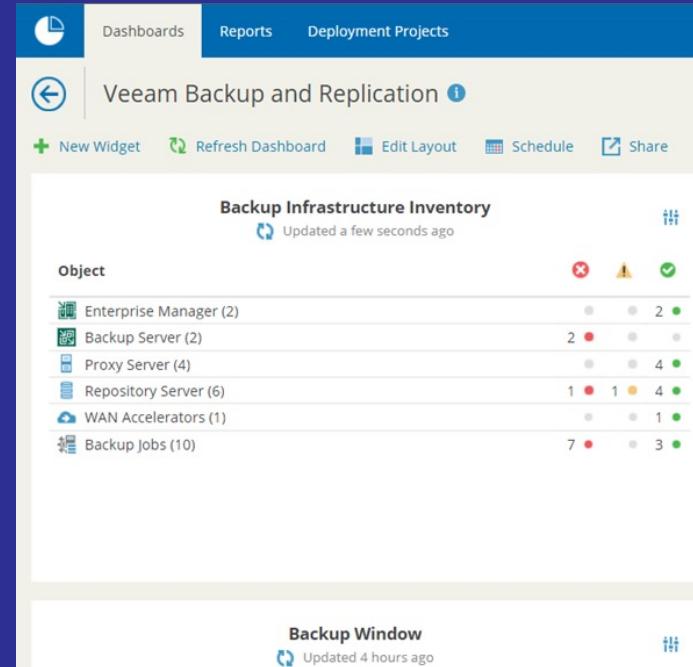
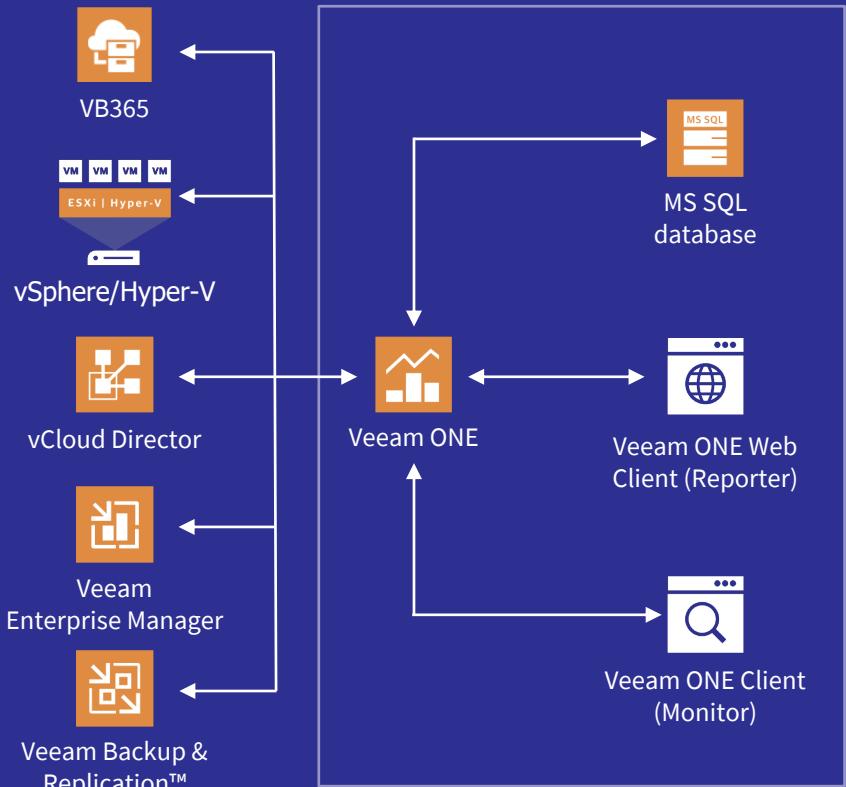
# Architecture recap



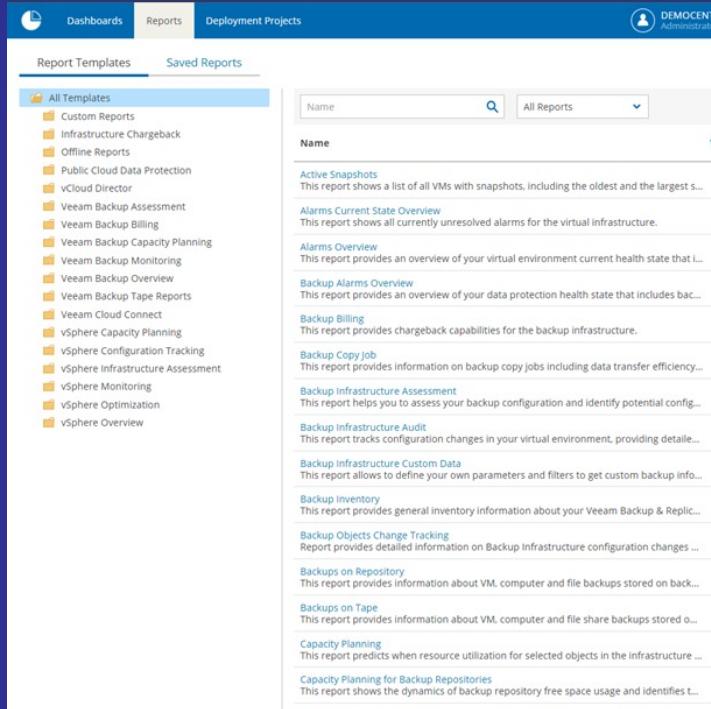
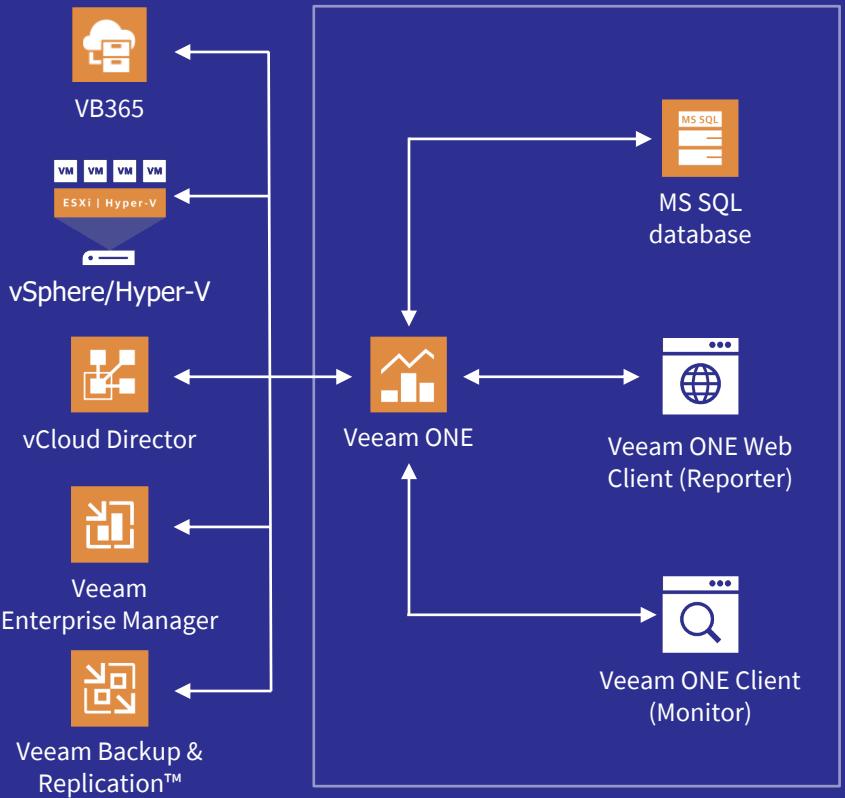
# Architecture recap



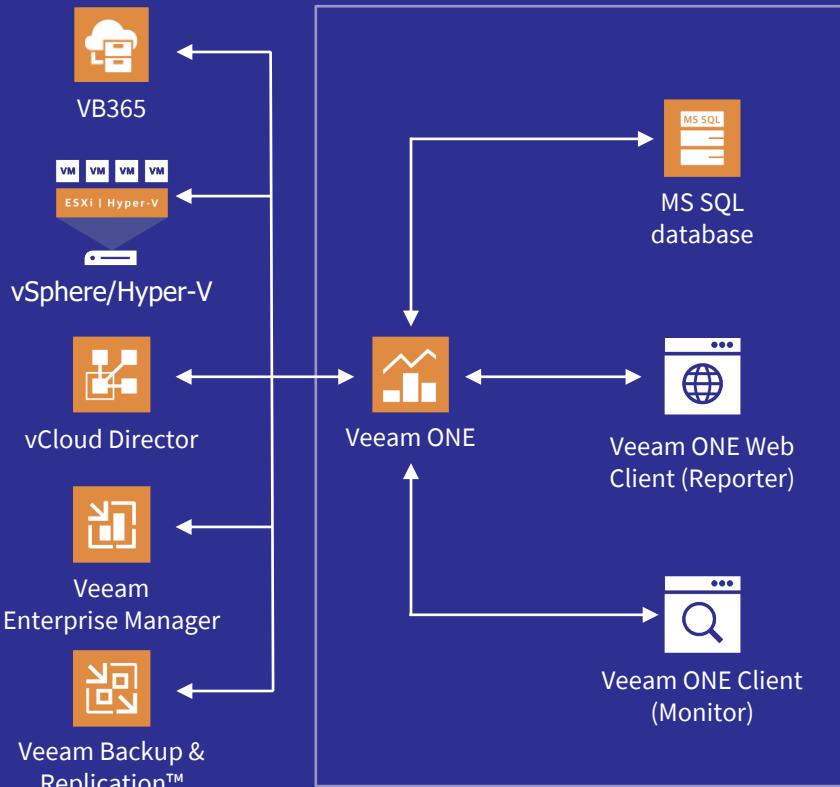
# Architecture recap



# Architecture recap



# Architecture recap



The screenshot shows the "vSphere Custom Performance" report template in the Veeam ONE Web Client. The interface includes:

- A navigation bar with tabs: Dashboards, Reports, Deployment Projects.
- A sidebar with Report Templates and Saved Reports sections.
- A main content area titled "vSphere Custom Performance" with a preview and save buttons.
- Filtering options: Infrastructure objects (Virtual Infrastructure), vCloud Director objects (Select...), and Business View objects (Select...).
- Time period selection: Interval (Past Week), Last (1 Weeks), and Range (From: 27/10/2021 To: 27/10/2021).
- Object type selection: Hosts.
- Measured entities: CPU, Memory.
- Metrics: CPU: CPU Usage (MHz), CPU: CPU Usage (Percent).

# Repository consumption

## VM Configuration Assessment

The screenshot shows the Veeam Backup Infrastructure management console. The left sidebar lists various backup infrastructure components, including Scale-out Repositories, AWS S3 Repository, Azure Repository, WAN Accelerators, Service Providers, SureBackup, Application Groups, Virtual Labs, Managed Servers, VMware vSphere, VMware vCloud, Microsoft Hyper-V, Microsoft Windows, Linux, Nutanix AHV, AWS, and Microsoft Azure. The main pane displays a table of repositories:

Name	Type	Host	Path	Capacity	Free ↑	Used Space	Description
AWS S3 Archive Tier	Amazon Glacier	hq-vbr1repo1.demolab.local	amazonS3://demo-hqvbr1/Veeam/LongTerm/ArchiveTier	N/A	N/A	86.5 GB	Created by Powershell at 7/16/2021 3:55:01 PM.
AWS S3 Performance Tier	Windows	hq-vbr1repo1.demolab.local	R:\AWS S3 Performance Tier	2 TB	1.6 TB	436.9 GB	AWS S3 Performance Tier
AWS S3 Capacity Tier	Amazon S3		amazonS3://demo-hqvbr1/Veeam/Archive/CapacityTier	2 TB	0 GB	2.1 TB	Created by Powershell at 7/28/2020 5:24:44 PM.

# Repository consumption



The screenshot shows a software interface for managing backup repositories. At the top, there's a navigation bar with tabs: Dashboards, Reports (which is selected), and Deployment Projects. Below the navigation bar, there are two tabs: Report Templates and Saved Reports. The Report Templates tab is currently active, showing a list of report templates on the left and a search/filter area on the right.

**Report Templates:**

- All Templates
- Custom Reports
- Infrastructure Chargeback
- Offline Reports
- Public Cloud Data Protection
- vCloud Director
- Veeam Backup Assessment
- Veeam Backup Billing
- Veeam Backup Capacity Planning
- Veeam Backup Monitoring
- Veeam Backup Overview
- Veeam Backup Tape Reports
- Veeam Cloud Connect
- vSphere Capacity Planning
- vSphere Configuration Tracking
- vSphere Infrastructure Assessment
- vSphere Monitoring
- vSphere Optimization
- vSphere Overview

**Search/Filter Area:**

- A search input field containing "backups" with a clear button (X).
- A dropdown menu labeled "All Reports" with a downward arrow.

**Report Details:**

- Backups on Repository:** This report provides information about VM, computer and file backups stored on backup repositories.
- Backups on Tape:** This report provides information about VM, computer and file share backups stored on particular tapes.

# Repository consumption

hq-vbr1.demolab.local\AWS S3 Repository								
Repository type:	Scale-out							
Capacity:	4 TB							
Free space:	1.26 TB							
Used space:	2.83 TB							
VM Backups size:	4.46 TB							
Computer Backups size:	45.38 GB							
File Backups size:	0 B							
VM Backups								
Virtual Machine	Full Backups #	Increments #	Restore Points #	Full Backups Size, GB	Increments Size, GB	Total Backups Size, GB	Parent Jobs	Latest Restore Point
exch1	1	2	3	22.81	6.09	28.9	VMware - Backup of Exchange Server	10/19/2021 11:00 PM
exch1	5	12	16	116.48	44.82	161.3	VMware - Backup of Exchange Server	10/11/2021 11:00 PM
fs1	5	14	18	40.19	5.09	45.28	VMware - Backup of File Server	10/19/2021 11:15 PM
fs1	1	0	1	0	0	0	VMware - Backup of File Server	9/15/2021 11:15 PM
hq-dc1	5	17	21	61.92	12.77	74.69	VMware - Backup of AD Domain Controller	10/19/2021 11:00 PM
ora1	10	27	35	166.56	44.28	210.83	VMware - Backup of Oracle Server	10/19/2021 11:13 PM
ora3	0	2673	2049	0	573.56	573.56	ora3 Oracle backup (AWS S3 Repository)	10/20/2021 2:48 PM
ora3	0	6700	6700	0	3330.88	3330.88	ora3 Oracle backup (AWS S3 Repository)	9/21/2021 2:52 AM
sps1	5	14	18	114.08	28.66	142.74	VMware - Backup of SharePoint Server	10/19/2021 11:12 PM
Computer Backups								
Computer Name	Full Backups #	Increments #	Restore Points #	Full Backups Size, GB	Increments Size, GB	Total Backups Size, GB	Parent Jobs	Latest Restore Point
exch3.demo.local	1	1	2	27.12	4.57	31.69	Windows - Backup of Exchange Server - exch3.demo.local	8/29/2021 11:31 PM
sol3 Backup	2	13	14	12.9	0.79	13.69	sol3 Backup	10/20/2021 12:30 AM



# Top reports for VCSPs

# Undersized VMs/oversized VMs



## Use cases:

- Identify upsell opportunities.
- Optimize usage across internal resources.

Undersized Virtual Machines by Memory					
Virtual Server: elal.dev					
Cluster/Host	Virtual Machine	Allocated (GB)	Memory Average Usage (%)	Swap out Rate (Kbps)	Recommended Amount of RAM
Cluster1	2	4.00	95.12	0.00	5.1 GB
	<a href="#">2 SA VBR.10 vCenter Appliance</a>	8.00	91.05	0.00	10.1 GB
Cluster2	1	4.00	38.81	0.00	5.1 GB
	<a href="#">SA L2 VM1 Win10 1809</a>				
Virtual Server: vcenter01					
Cluster/Host	Virtual Machine	Allocated (GB)	Memory Average Usage (%)	Swap out Rate (Kbps)	Recommended Amount of RAM
esx01	1	4.00	93.94	0.00	5.1 GB
	<a href="#">srv11</a>				

Note: Consider relocating VM to a different host, if present does not have enough memory resources.

# Guest disk free space

## Use cases:

- Inform your customers about VMs running out of space.
- Make sure the services keep running.

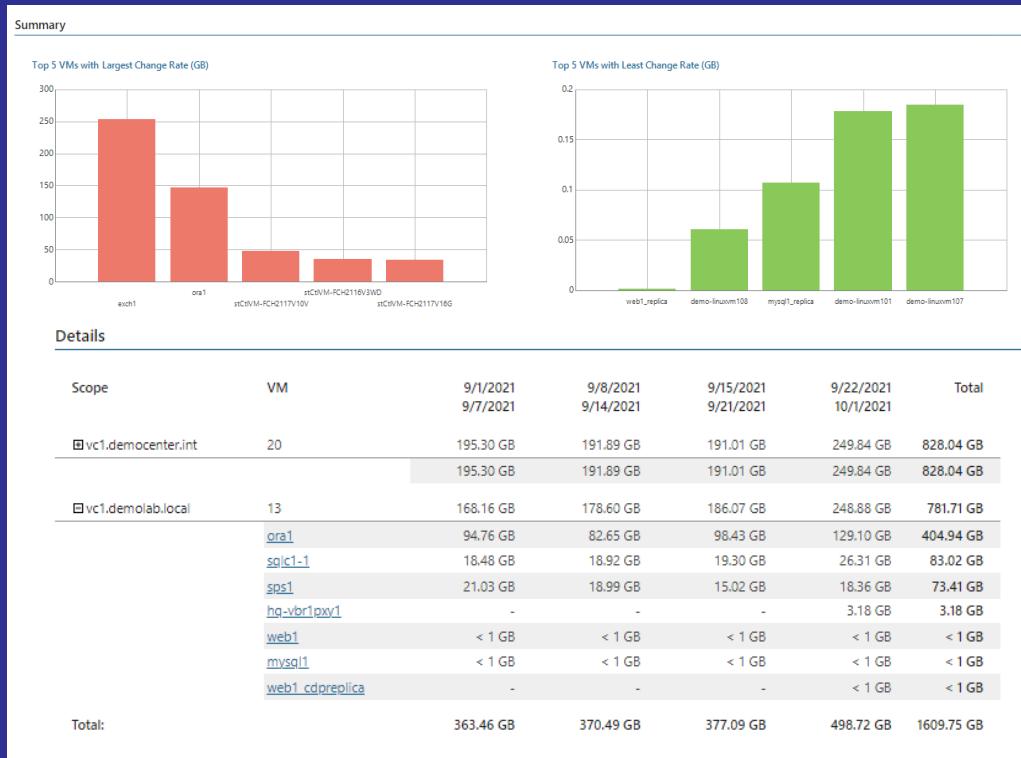
Summary								
Overview		Disks to Reach Threshold First						
VMs analyzed	30	Virtual Machine	Partition	Capacity (GB)	Free Space (GB)	Daily Growth (GB)	Days to Reach 90%	Days to Reach 100%
Virtual disks in the infrastructure	31							
Including								
Thick disks	12	<a href="#">srwin12</a>	E:\	29.51	1.25	0.00	0	∞
Thin disks	19	<a href="#">backup01</a>	C:\	119.66	4.37	3.48	1	6
Disks to reach 100% in less than 30 days	2	<a href="#">serv02</a>	C:\	39.66	4.04	0.14	5	51
Disks to reach 100% in less than 60 days	3	<a href="#">filesvy01</a>	C:\	29.66	3.70	0.61	6	14
Disks with less than 1 GB of free space	1	<a href="#">hurricane</a>	C:\	119.66	15.86	0.24	30	109
Disks with less than 1% of free space	0	<a href="#">srv18</a>	/	9.04	0.98	0.00	34	407
Average disks' daily growth [GB]	-0.13	<a href="#">srv13</a>	C:\	49.66	17.61	0.31	67	92
Average disks' daily growth [%]	-0.14 %	<a href="#">zero_lez</a>	C:\	32.47	10.12	0.16	71	103
		<a href="#">shell</a>	C:\	99.66	13.24	0.06	85	331
		<a href="#">serv07</a>	C:\	39.66	12.79	0.13	106	152



# VM change rate estimation

## Use cases:

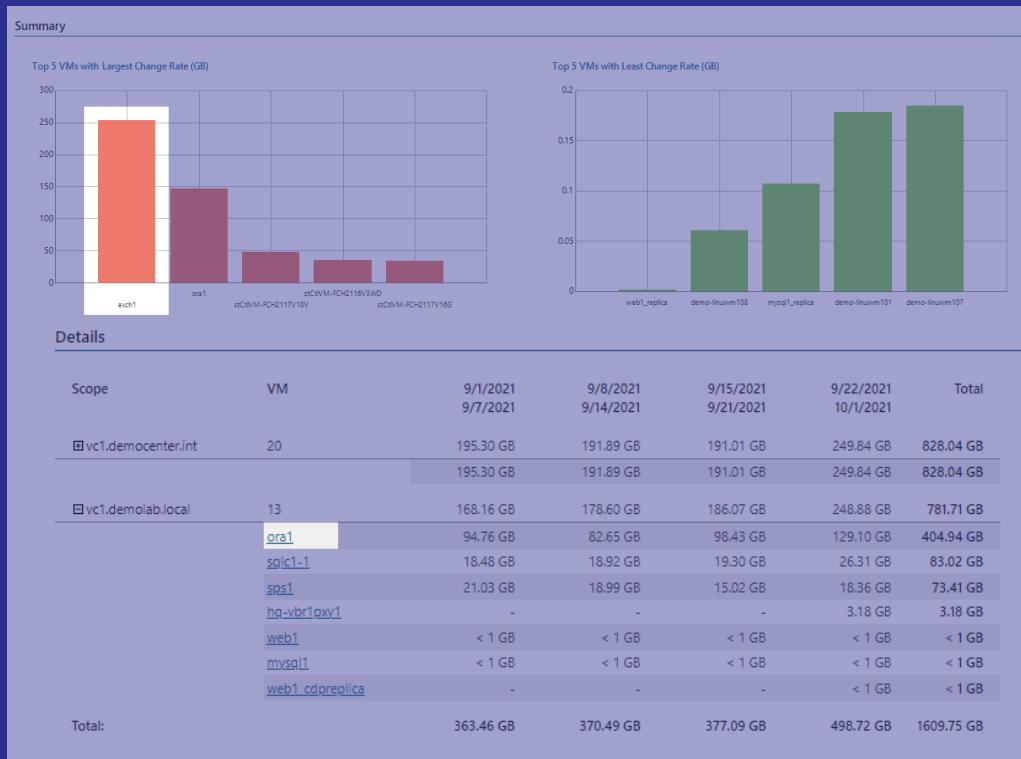
- Backup estimations
- Ransomware detection
- Search of unaffected restore point



# VM change rate estimation

## Use cases:

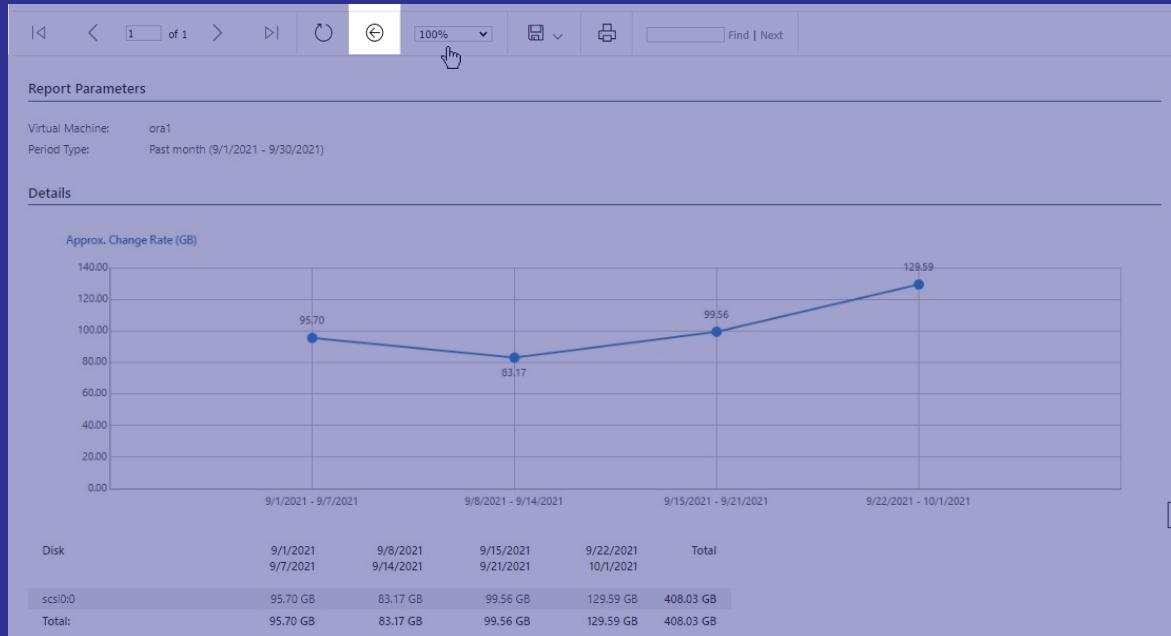
- Backup estimations
- Ransomware detection
- Search of unaffected restore point



# VM change rate estimation

## Use cases:

- Backup estimations
- Ransomware detection
- Search of unaffected restore point



# Protected VMs

## Use cases:

- Keep track of backup job results in a single report and make sure all tenants' VMs are protected and meet the required recovery point objective (RPO).
- **Cool fact:** you can find unprotected workloads for computers, objects and cloud instances.



# Infrastructure changes audit

## Use cases:

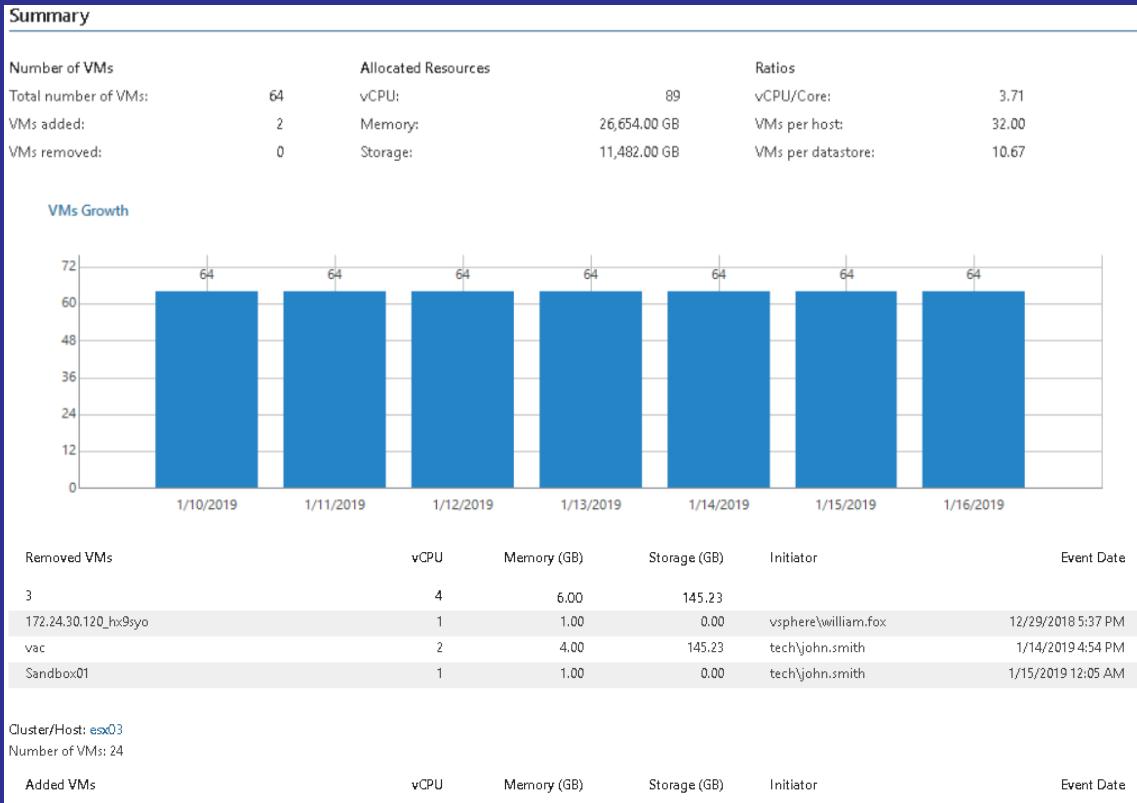
- Reconfigurations
- Responsibility
- Malicious actions

Change Details					
Initiator	Event Description	Time	Object	Location	Object Type
VMware vSphere Storage Policy-based Management Service	Associated storage policy: b60de2de-01c5-4ae6-8794-f4215a91e64b with entity: virtualDiskId:m-539286:2017:3e9ed63-cee4:4c3d-8962-6da05c236aac	10/20/2021 7:13:05 PM	vc1.democenter.int	>Virtual Infrastructure	vCenter Server
VMware vSphere Storage Policy-based Management Service	Associated storage policy: 50326423-04e1-47ed-b5fe-5bb43cb34ab4 with entity: virtualDiskId:m-533848:2000:3e9ed63-cee4:4c3d-8962-6da05c236aac	10/20/2021 7:15:53 PM	vc1.democenter.int	>Virtual Infrastructure	vCenter Server
VMware vSphere Storage Policy-based Management Service	Associated storage policy: 50326423-04e1-47ed-b3fe-5bb43cb34ab4 with entity: virtualMachineVm-533848:3e30ed63-cee4:4c3d-8962-6da05c236aac	10/20/2021 7:15:53 PM	vc1.democenter.int	>Virtual Infrastructure	vCenter Server
VSPHERE.LOCAL\vsphere-webclient-d01c7c1c-dffd-490e-b523-142562a154e2	Task: com.vmware.vsphere.client.PluginDeploymentTask	10/20/2021 7:39:42 PM	vc1.democenter.int	>Virtual Infrastructure	vCenter Server
VSPHERE.LOCAL\vccloud	Task: VirtualMachine.reconfigure	10/20/2021 8:11:37 PM	wink8s-US73	>Virtual Infrastructure>vc1.democenter.int>Democenter>sp-cluster>esx8.democenter.int	vSphere Virtual Machine
VSPHERE.LOCAL\vccloud	Reconfigured wink8s-US73 on esx8.democenter.int in Democenter.  Modified:  config.hardware.device(4000).backing.port.portKey: "10154" -> "7247";  config.hardware.device(4000).backing.port.connectionCookie: 1147111376 -> 89797272;  config.hardware.device(4000).connectable.startConnectable: true -> false;  config.hardware.device(4000).connectable.connected: true -> false;  Added:  Deleted:	10/20/2021 8:11:37 PM	wink8s-US73	>Virtual Infrastructure>vc1.democenter.int>Democenter>sp-cluster>esx8.democenter.int	vSphere Virtual Machine
VSPHERE.LOCAL\vccloud	A ticket for wink8s-US73 of type MKS on esx8.democenter.int in Democenter has been acquired	10/20/2021 8:34:06 PM	wink8s-US73	>Virtual Infrastructure>vc1.democenter.int>Democenter>sp-cluster>esx8.democenter.int	vSphere Virtual Machine

# VM growth

## Use cases:

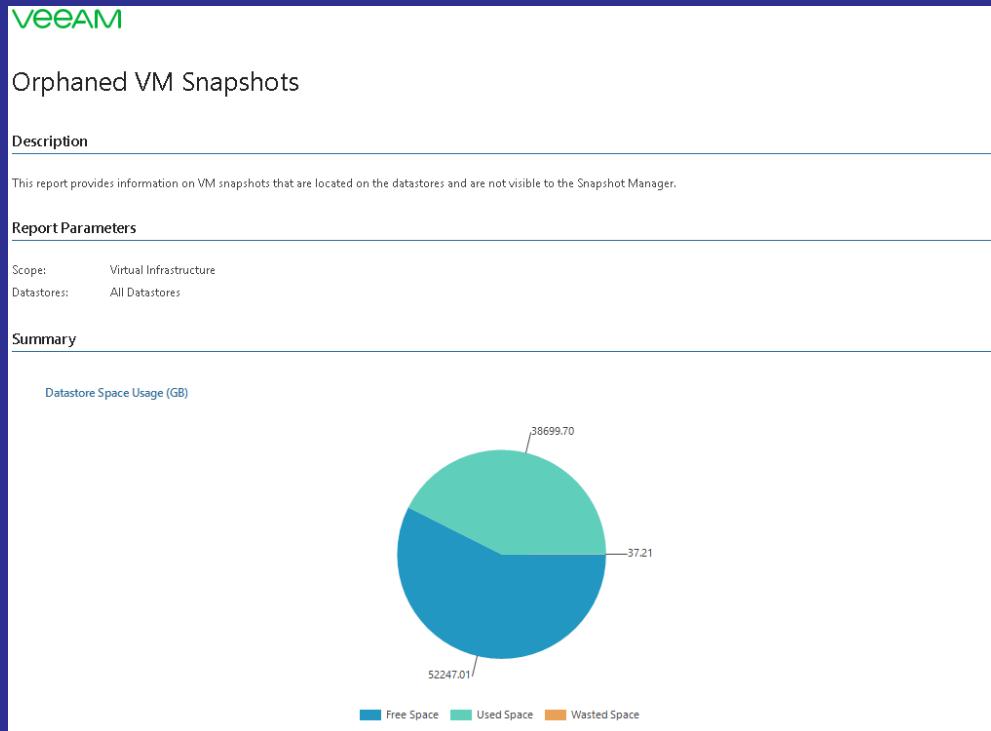
- Find out when VM was removed/added and who was initiator
- Control VM sprawl



# Active/orphaned VM snapshots

## Use cases:

- Discover snapshots that are no longer needed and regain valuable datastore space.
- Find leftover snapshots from backup activities.
- **Hot tip:** use alarm actions and remove snapshots automatically or manually.



# Backup objects change tracking

## Use cases:

- Reconfigurations
- Responsibility
- Malicious actions
- Tenants' complaints

Change Details				
Property Name	Previous Setting	New Setting	Modification Time	Initiator
Object: sp-vbr1.demosp.local			9/20/2021 4:52 PM	svc-vbr
Backup 'democenter\venzenulon_Backup Job' has been deleted.			9/20/2021 4:57 PM	democenter\venzenulon
Backup 'DEMOCENTER\Domain Users\democenter\venzenulon_Backup Job' has been created.			9/28/2021 10:47 PM	n/a
Component [Transport] on the host [sp-vbr1pxy1.demosp.local] has been updated			9/28/2021 10:47 PM	n/a
Component [Transport] on the host [sp-vbr1repo1.demosp.local] has been updated			9/28/2021 10:48 PM	n/a
Component [Transport] on the host [sp-vbr1.demosp.local] has been updated			9/28/2021 10:48 PM	n/a
Component [Mount Server] on the host [sp-vbr1.demosp.local] has been updated			9/28/2021 10:48 PM	n/a
Component [Mount Server] on the host [sp-vbr1repo1.demosp.local] has been updated			9/28/2021 10:48 PM	n/a
Backup 'KBB1_testJob' has been created.			10/11/2021 3:05 AM	kbb\admin
Backup 'KBB1_testJob' has been deleted.			10/11/2021 3:07 AM	kbb\admin
Backup 'KBB1_Demo' has been created.			10/12/2021 3:24 PM	kbb\admin
Backup 'democenter.int\venzenulon_test123' has been created.			10/14/2021 12:55 PM	democenter.int\venzenulon
Backup 'democenter.int\venzenulon_test123' has been deleted.			10/14/2021 12:59 PM	democenter.int\venzenulon
Backup 'democenter.int\venzenulon_Test123' has been created.			10/14/2021 1:55 PM	democenter.int\venzenulon
Backup 'KBB1_123' has been created.			10/14/2021 2:12 PM	kbb\admin
Backup 'democenter.int\venzenulon_Test123' has been deleted.			10/14/2021 3:34 PM	svc-vbr
Backup 'democenter.int\venzenulon_Test123' has been created.			10/14/2021 3:43 PM	democenter.int\venzenulon
Backup 'KBB1_Test CloudDirector' has been created.			10/14/2021 3:49 PM	kbb\admin

# Job configuration change tracking

## Use cases:

- Reconfigurations
- Responsibility
- Malicious actions
- Tenant's complaints

Details								
Backup Server	Job	Type	Wizard Page	Property	Previous Setting	New Setting	Modification Time	Modified By
sp-vcc1.demosp.local								
sp-vbr1.demosp.local	democenter\venzenulon_Backup Job	Backup		Undefined		Backup 'democenter\venzenulon_B backup Job' has been deleted.	9/20/2021 4:52 PM	svc-vbr
	KBBI_testjob	Backup		Undefined		Backup 'KBBI_testjob' has been deleted.	10/11/2021 3:07 AM	kbb\admin
	KBBI_Backup All VMs	Backup		Objects to backup		'1' objects has been created for 'KBBI_Backup All VMs'.  '1' objects has been deleted for 'KBBI_Backup All VMs'.	7/26/2021 10:43 AM	kbb\admin
							7/26/2021 10:45 AM	kbb\admin

# Restore operator activity

## Use cases:

- Track all restore actions
- Who, what and where

Backup Server: sp-vbr1.demosp.local									
Restore Type: Full Restore									
Initiator	Restore Point	Restore Point Age, Days	Restored Item	Restored Item Size	Destination	Start Time	Status	RTBF Script Result	
KBB\l\admin	Test VMs	10/11/2021 10:01 PM	13	[KBB\l_Backup All VMs 10/11/2021 8:01:25 PM] vmA	N/A	[vc1.democenter.int]\vc1.democenter.int	10/12/2021 3:11 PM	Successful	N/A
Restore Reason: Restore operator's request from Enterprise Manager.									
KBB\l\admin	Test VMs	10/12/2021 10:01 PM	12	[KBB\l_Backup All VMs 10/12/2021 8:01:45 PM] vmB	N/A	[vc1.democenter.int]\vc1.democenter.int	10/13/2021 10:00 AM	Successful	N/A
Restore Reason: Restore operator's request from Enterprise Manager.									
KrustyKrab\l\admin	GFS-test-01-bbb4b40b-c99e-4114-930b-b19b909913cd	10/10/2021 10:01 PM	14	[KrustyKrab_Backup all with GFS 10/10/2021 8:01:27 PM] GFS-test-01-bbb4b40b-c99e-4114-930b-b19b909913cd	N/A	[vc1.democenter.int]\vc1.democenter.int	10/11/2021 2:20 PM	Successful	N/A
Restore Reason: Restore operator's request from Enterprise Manager.									
Restore Type: Guest Files									
Initiator	Restore Point	Restore Point Age, Days	Restored Item	Restored Item Size	Destination	Start Time	Status	RTBF Script Result	
KBB\l\admin	vmB	10/11/2021 10:03 PM	13	C:\Logs\Microsoft-Windows-Containers-Wofls%4Operational.evtx	68.00 Kb	N/A	10/12/2021 3:41 PM	Successful	N/A
Restore Reason: File download request from Veeam Backup Enterprise Manager									



# Multitenancy



# New V12 features



**Improved REST  
API support**



**Enhanced visibility over  
immutability status**



**Protection calendar**



**Support for Veeam  
Backup for Microsoft 365**

# Useful resources

TOP 10 must-have reports for any responsible IaaS service provider

TOP seven future-proofing reports for IaaS service providers

Above and beyond with Veeam ONE multitenancy for IaaS service providers



As the NEW Veeam ONE v11a brings [additional RESTful API \(preview\) endpoints](#), more and more service providers are getting interested in general product capabilities. The following blog is the first chapter of our series covering Veeam ONE features, which could be beneficial for any Veeam Cloud & Service Provider (VCSP) running a hosting environment.

In any IaaS infrastructure, one of the critical parts of service implementation is to have visibility over the virtual infrastructure as a key element to run a stable and reliable service. At the same time, being able to protect workloads while meeting SLA requirements and adhering to compliance policies is an essential service our VCSP partners are already providing for their customers. The only product, which can combine monitoring and reporting capabilities for both virtual and backup infrastructures is Veeam ONE.

Veeam ONE is the product built for all types of Veeam customers — small or medium businesses, enterprises or service providers — certainly, there is something for everyone. Once the product is deployed, you may find yourself overwhelmed with a countless number of reports, alarms, and dashboards, wondering “which ones are actually useful for my IaaS business?”

# Need more of that ONE thing?

Check out these sessions!



**Build Your Own Backup Compliance Dashboards**

 **Wednesday, May 31** |  
12:00 AM - 12:45 AM EDT

Do you ever have to pull data for auditors and compliance reporting? Do you need to separate the data manually into business groups? Do...



**10 Tips on Getting the Most Out of Your Veeam ONE...**

 **Tuesday, May 23** |  
8:30 AM - 9:15 AM EDT

Monitoring your data protection operations is imperative to ensure you are meeting SLAs, maintaining compliance and ensuring you are...



**Say Goodbye to Ransomware Worries,...**

 **Tuesday, May 23** |  
6:00 AM - 6:45 AM EDT

Immutability continues to be a hot topic especially when it comes to ransomware and security, but did you know Veeam partners with 30+...





# Thank you!

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