

Veeam ONE Technical Onboarding

Agenda

- 1. Introduction
- 2. Architecture & Core Components
- 3. Veeam ONE Client
- 4. Veeam ONE Web Client
- 5. Additional Resources



Introduction

Core Capabilities, Supported Platforms, Licensing



Veeam Data Platform

	Secure	Cyber Resilience					Enterprise Resilience				
	Zero Trust Data Resilience	Al Guidance		- Identify eats	Security and Observability			GenAl Insights	Recovery Orchestration and Compliance		Threat Assessment
	Data Protection & Verified Recovery	On-demand Assistance	Al-powered Malware Detection	loC Tool Scanning	Security Integrations	Analytics, Discovery & Reporting	Threat Health Center	Trends & Decision Support	Orchestrated Recovery & Validation	GRC Audit Documentation	Proactive Threat Assessment
Foundation	•	•	•	_	_	_	_	_	_	_	_
Advanced									_	_	_
Premium	•	•	•	~	•	•	~	•	•	•	•
Veeam Backup & Replication Veeam ONE Veeam Recovery Orchestrator Coveware Recon Scanner			+	Cyber Secure	a. Ha to CEM Paragraphy and Margarity with Margarity with Margarity with Margarity and Margarity with Margarity						



Supported Platforms

by Veeam ONE v12.3



- VMware vSphere 6.x 8.0 Update 3
- VMware Cloud Director 10.1 10.5
- Microsoft Hyper-V 2012 2025
- Azure Stack HCI
 - * Free versions of VMware vSphere ESXi and Microsoft Windows Server Hyper–V are supported



Supported Platforms

by Veeam ONE v12.3



- Veeam Backup & Replication 12 12.3
- Veeam Backup & Replication 11
- Veeam Backup & Replication 10a



Veeam Backup for Microsoft 365

- Veeam Backup for Microsoft 365 v8
- Veeam Backup for Microsoft 365 v7



Licensing

Two models of licensing

Per-Socket

Legacy licensing model.

Veeam ONE can be licensed by the number of CPU sockets on monitored VMware vSphere or Microsoft Hyper-V hosts. A license is required for every occupied motherboard socket as reported by the hypervisor API.

Monitoring of Veeam Backup for Microsoft 365 does not consume any license.

Instance-based (VUL)

Future proof licensing model.

Veeam ONE can be licensed by the number of monitored VMs, computers protected with Veeam Agents and cloud instances.



Licensing

Two types of licensing

Perpetual

Permanent license. Support and maintenance period is included with the license and is specified in months or years.

Perpetual License includes Production or Basic Support and Maintenance agreement for the first year.

Maximum prepaid term for Support and Maintenance for a Perpetual License is three years.

Subscription

License that expires at the end of the subscription term.

Subscription License includes Production Support and Maintenance agreement for the full term of the license.

The Subscription license term is normally 1–3 years from the date of license issue.

Maximum prepaid term for a Subscription License is five years.



Components Overview, Design and Installation Process



Components Overview



Veeam ONE Server



Veeam ONE Server

- Central component of the Veeam ONE solution, responsible for data collection, processing and consolidation from various sources
- Provides critical functionality for monitoring, alerting, and reporting on your virtual and backup infrastructure
- Seamlessly integrates with Veeam
 Backup & Replication, enabling comprehensive monitoring and analytics in a single pane of glass



The configuration database

- This component acts as the repository for all data collected by the Veeam ONE Server, storing information for historical analysis and reporting purposes
- Efficiently indexes and retrieves data, enabling quick generation of reports and realtime monitoring insights
- Database can be installed either locally (on the same machine with the Veeam ONE Server) or remotely



Veeam ONE UI



Veeam ONE Client

- Veeam ONE Client is a desktop application that provides a rich user interface for interacting with and managing your Veeam ONE environment
- Offers comprehensive tools for detailed analysis, allowing users to dive deeper into data with dashboards, reports, and alerts
- Enables to monitor virtual and backup infrastructures in real-time, providing instant insights and the ability to react swiftly to any issues



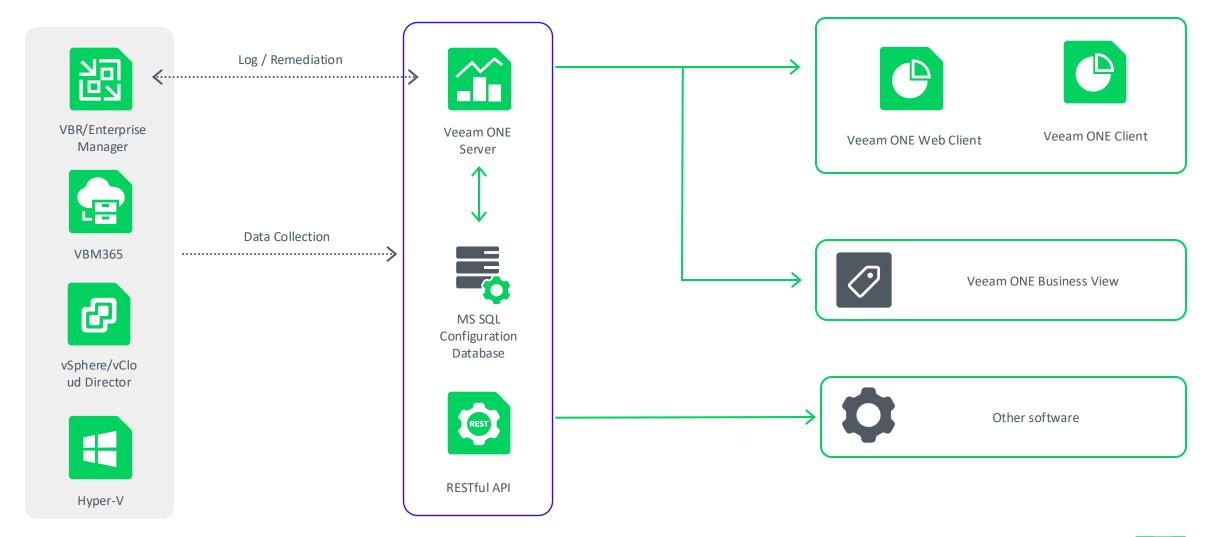
Veeam ONE Web Client

- The Veeam ONE Web Client offers a browserbased interface for accessing monitoring and reporting functionalities
- Designed with an intuitive layout, the web client makes it easy for users to navigate through reports and metrics



Architecture Overview

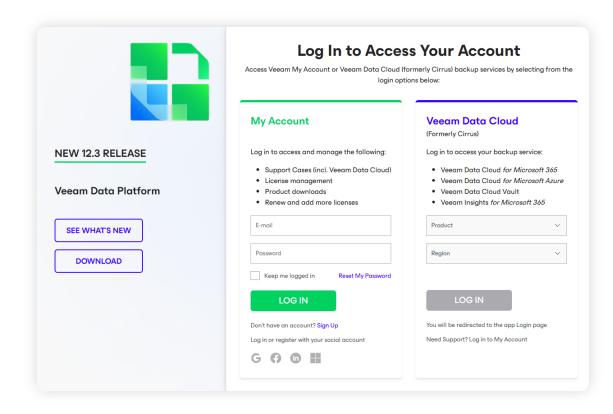
Veeam ONE Collection Workflow

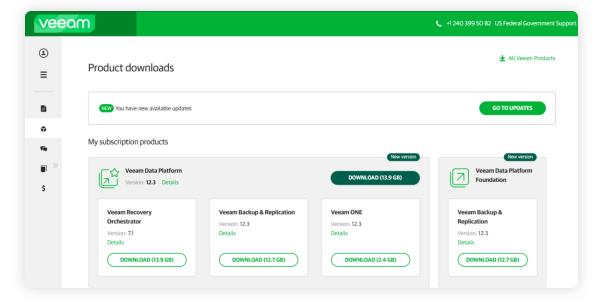




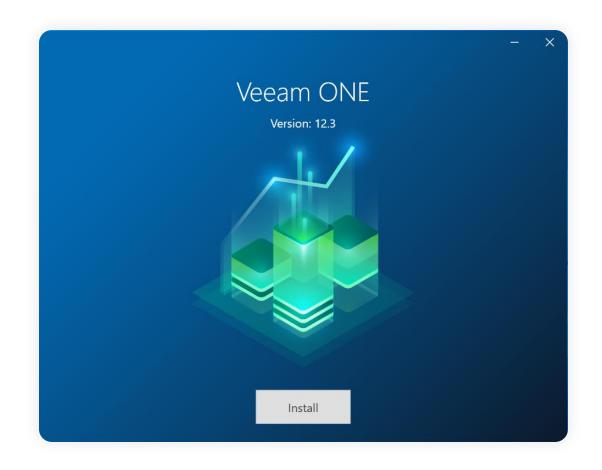
Installation

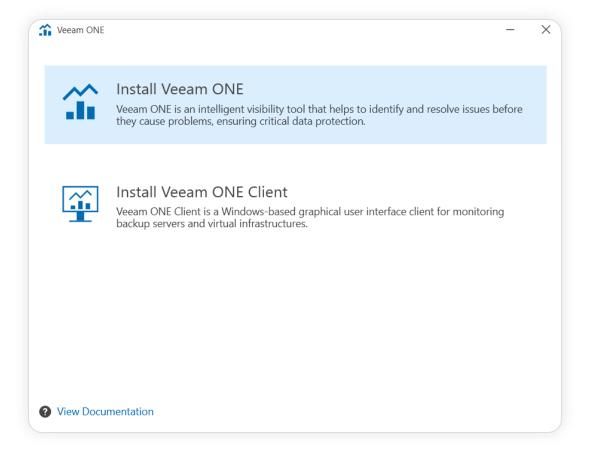
Download the Veeam ONE image file at https://my.veeam.com/my-products. Sign in if necessary.



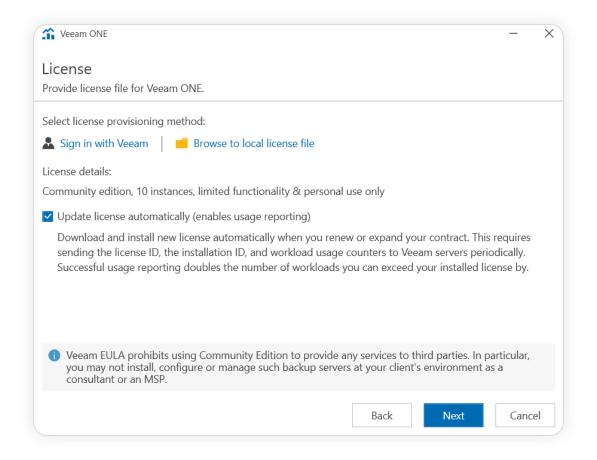


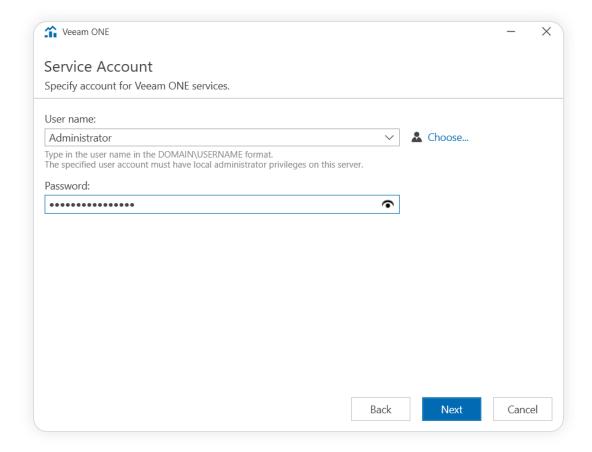




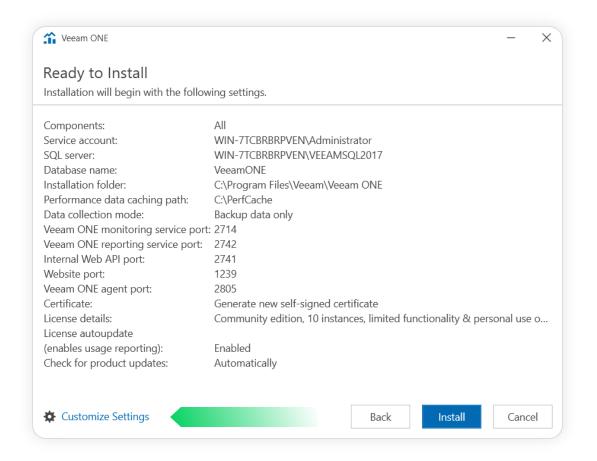


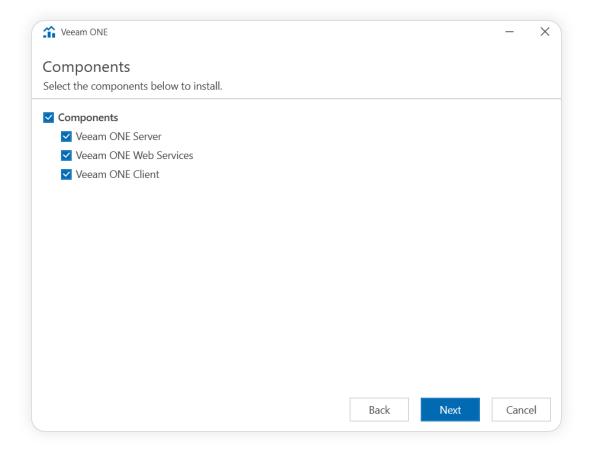




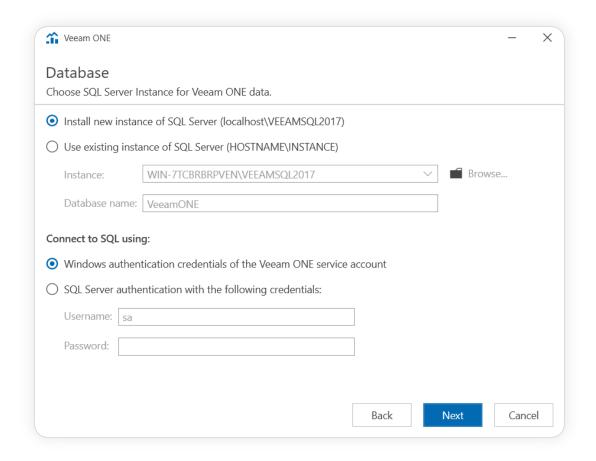


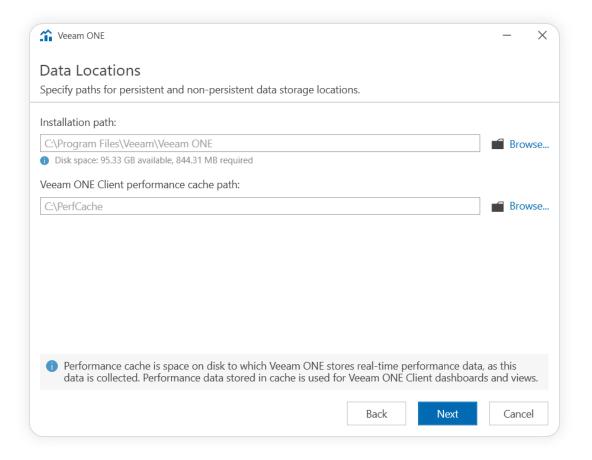




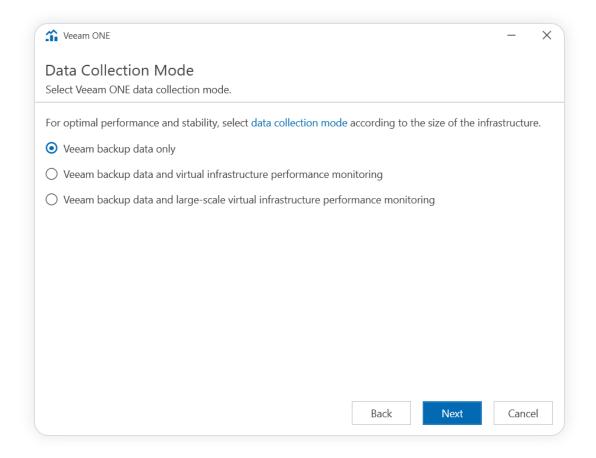


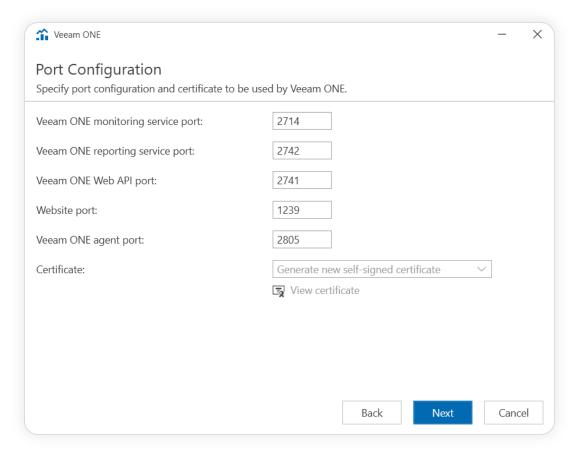




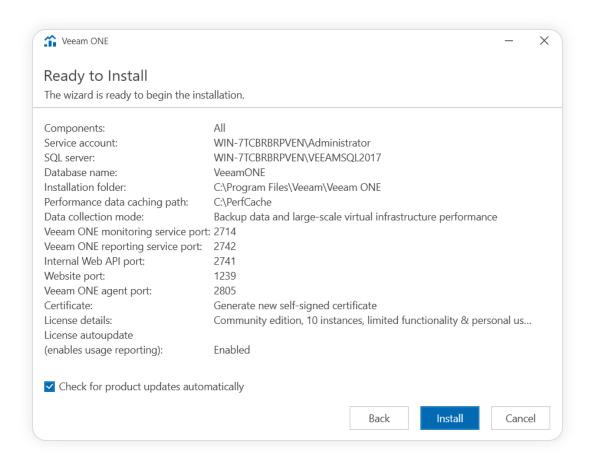












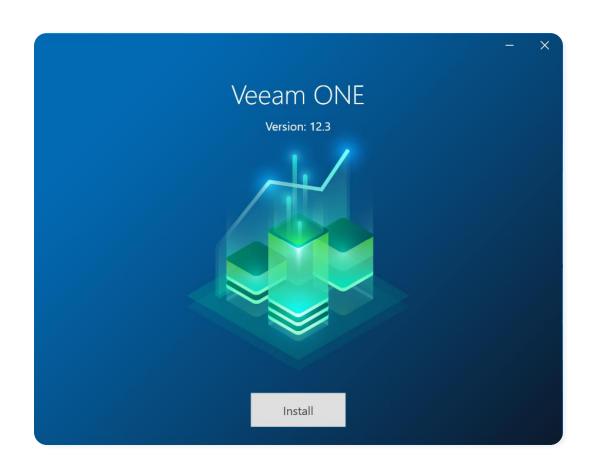


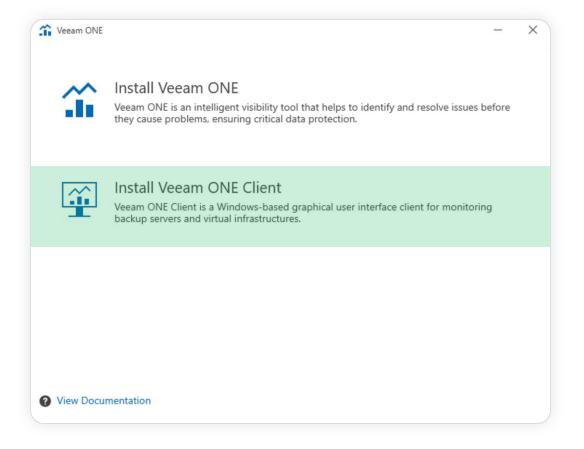
Veeam ONE Client



Veeam ONE Client

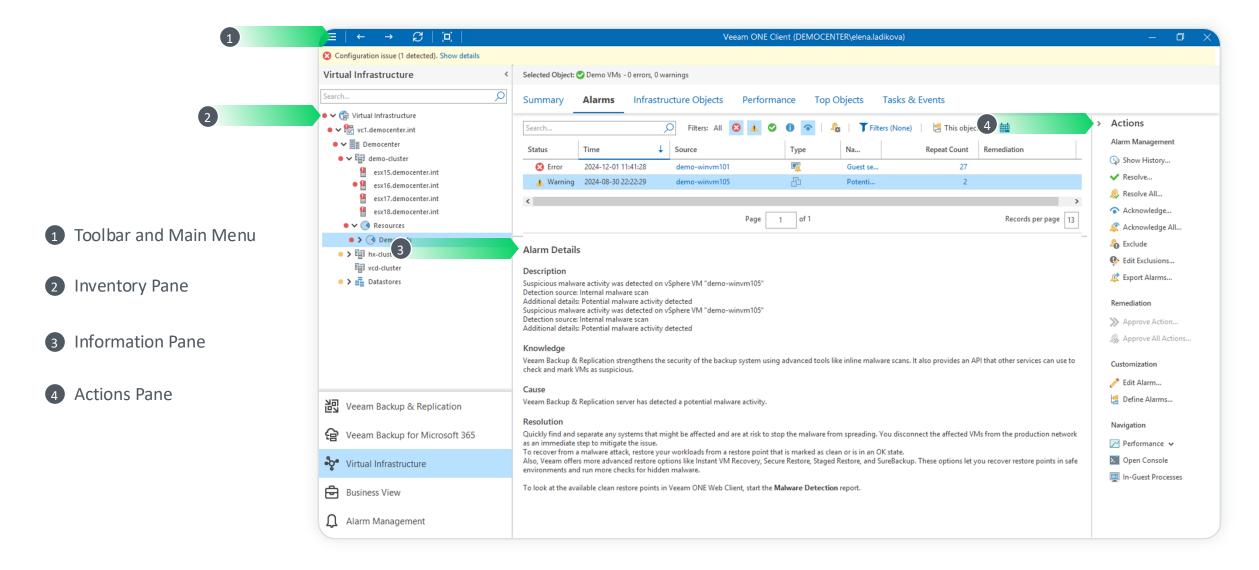
Veeam ONE Client comes as a part of the integrated Veeam ONE solution.







Veeam ONE Client User Interface





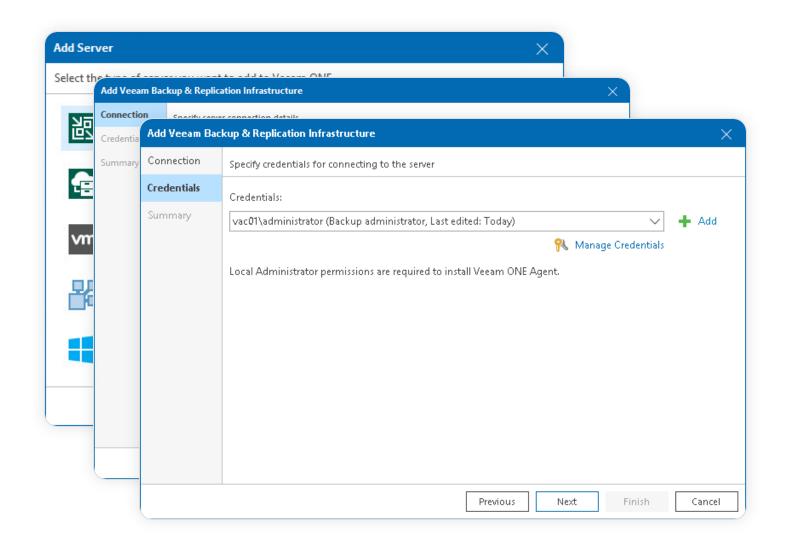
VBR Monitoring



Adding Veeam Backup & Replication

To collect data about your backup infrastructure and data protection operations, you must configure connections to Veeam Backup & Replication servers in Veeam ONE Client. You can connect the following types of servers:

- Veeam Backup & Replication server to monitor standalone backup servers
- Veeam Backup Enterprise Manager to monitor all backup servers federated under Veeam Backup Enterprise Manager





Veeam Backup & Replication Dashboards

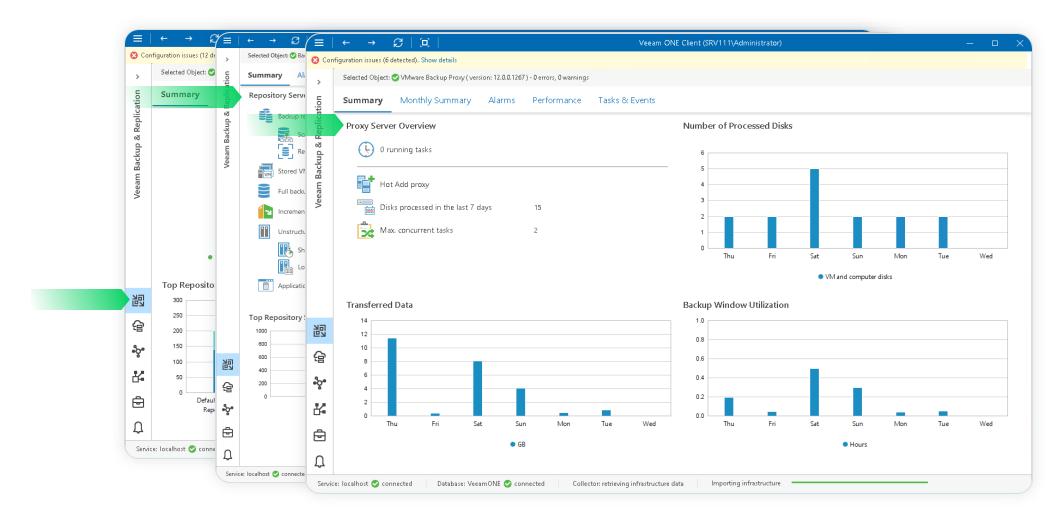
- Backup & Infrastructure Dashboards
- Backup Infrastructure Summary
- Repositories Overview & Summary
- Backup Proxies Overview & Summary
- WAN Accelerators Dashboards
- Tape Servers
- Cloud Repositories & Gateways Overview

- Overview of all components and their health.
- Details on storage usage and status.
- Insights into data processing tasks.
- Performance metrics for WAN optimization.
- Status and resource utilization.
- Each dashboard offers weekly and monthly performance summaries.



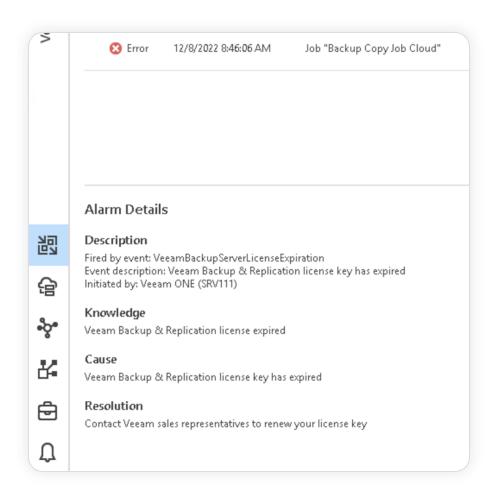
Veeam Backup & Replication Dashboards

The dashboards reflect the latest state of backup, replication and SureBackup jobs, and help you analyze the performance and configuration of backup infrastructure components.





Veeam Backup & Replication Alarms



Key Alarm Categories

Connectivity Issues: Monitors communication between backup infrastructure components.

Software Health: Tracks the state of Veeam Backup & Replication software.

Job Status: Alerts for failed jobs or jobs with warnings.

Storage Capacity: Warns of low or rapidly decreasing space on repositories.

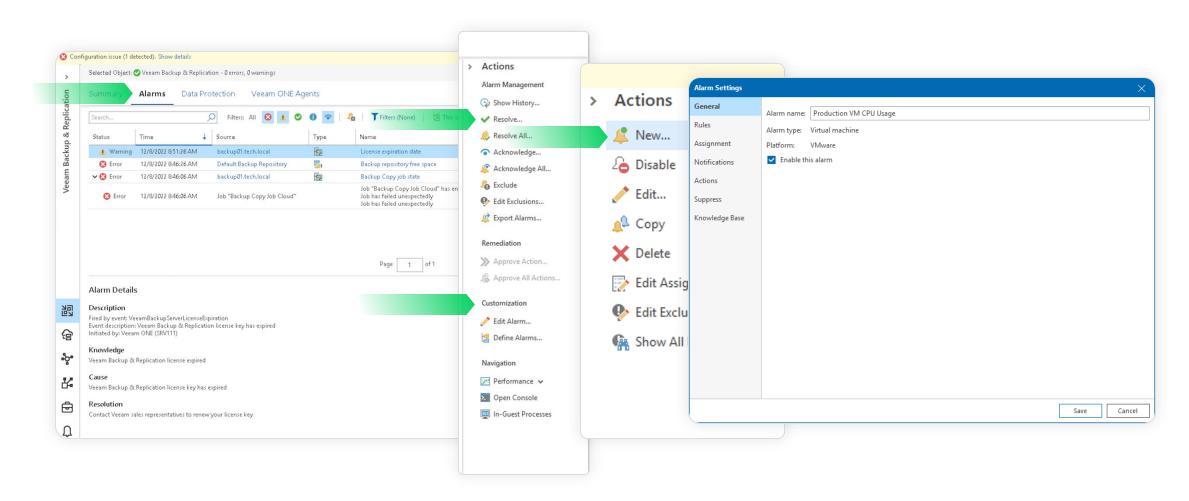
Performance: Detects long-running jobs exceeding the backup window.

Licensing: Monitors product licenses and support contracts.



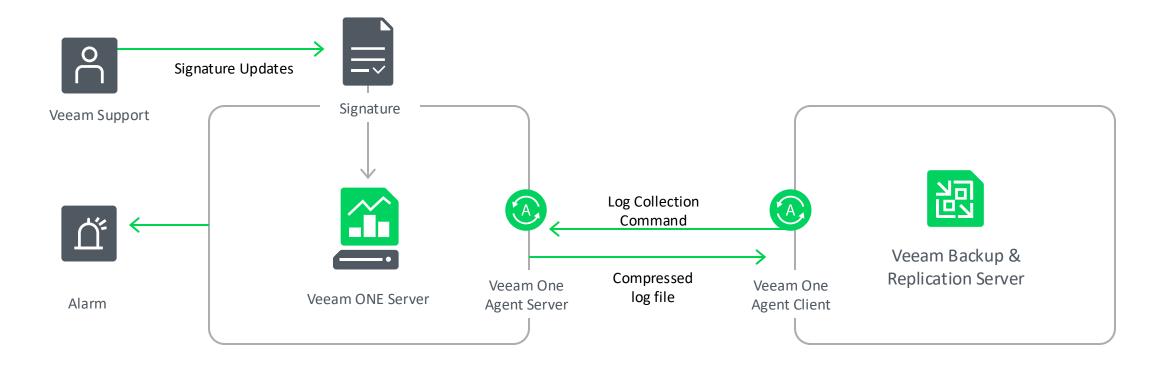
Veeam Backup & Replication Alarms

Predefined data protection alarms are configured to warn you about events or issues that can cause loss of data or prevent Veeam Backup & Replication infrastructure from functioning properly





Veeam Intelligent Diagnostic



Resolution

To get more information about the issue and resolution, refer to the following Veeam Support Knowledge Base article KB4682.

The vulnerability is resolved with a hotfix for Veeam Backup Enterprise Manager 12.2.0.334 and also in the latest Veeam Backup & Replication version, 12.2 (build 12.2.0.334) ISO.

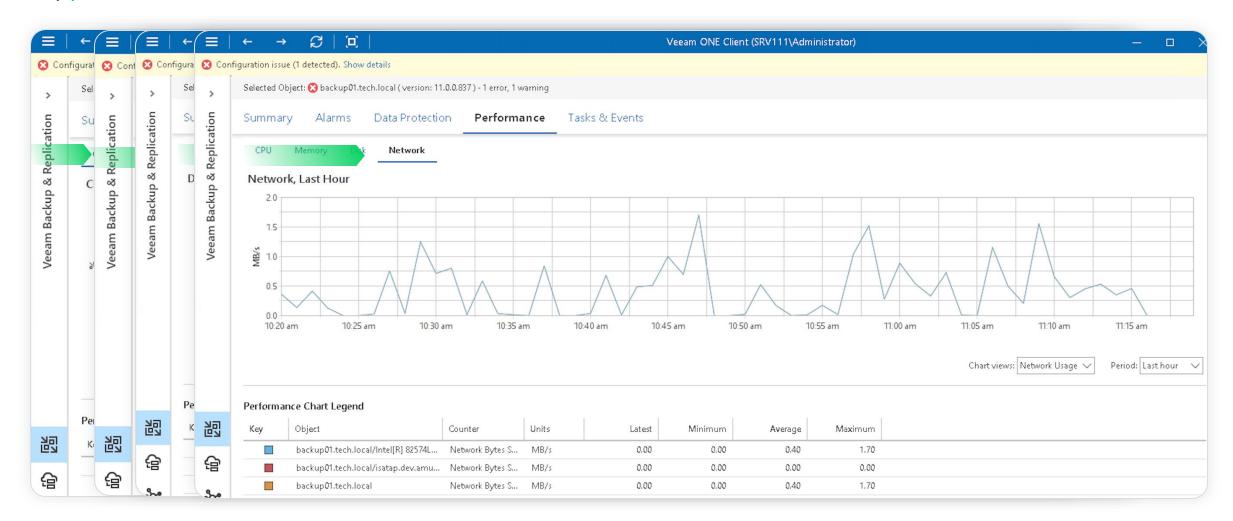
If you are about to contact Veeam Technical Support regarding this alarm, make sure to provide the Veeam Intelligent Diagnostics signature UID when opening a support case. This will simplify the investigation process and can significantly decrease resolution time.

Signature UID: VID843751



Veeam Backup and Replication Performance Charts

To identify performance bottlenecks in your backup data flow, you can access the following key performance charts:





VB365 Monitoring



Veeam Backup for Microsoft 365

Monitoring overview



Dashboards & Infrastructure:

Summarizes backup health and repositories.



Proxies: Monitors proxy performance and pools.

Alarms & Data Protection: Tracks alerts and backup metrics.



Performance:

CPU, Memory, Disk, and Network charts.



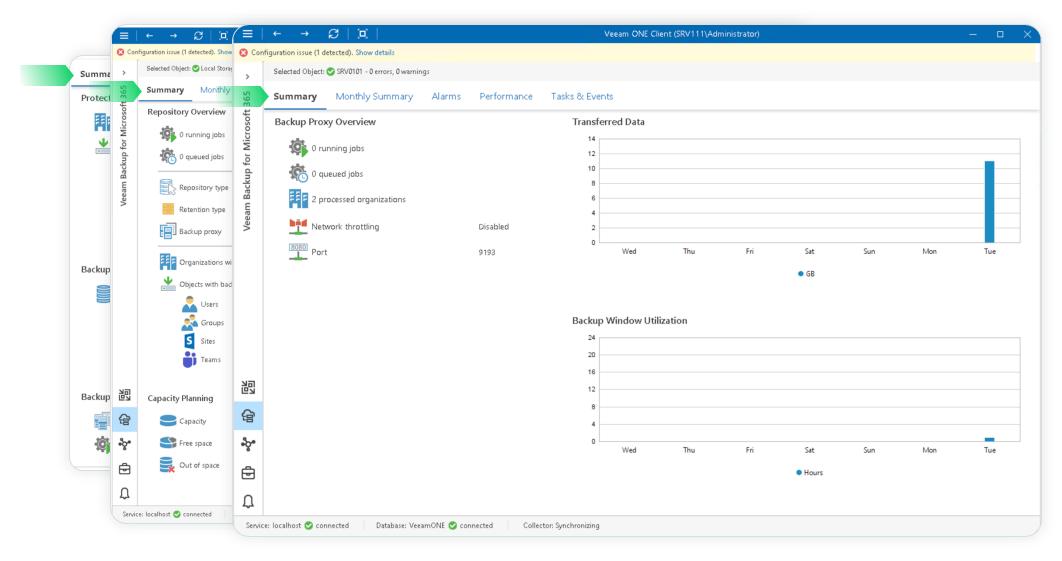
Protected Data & Events:

Logs backup data and events.



Veeam Backup for Microsoft 365

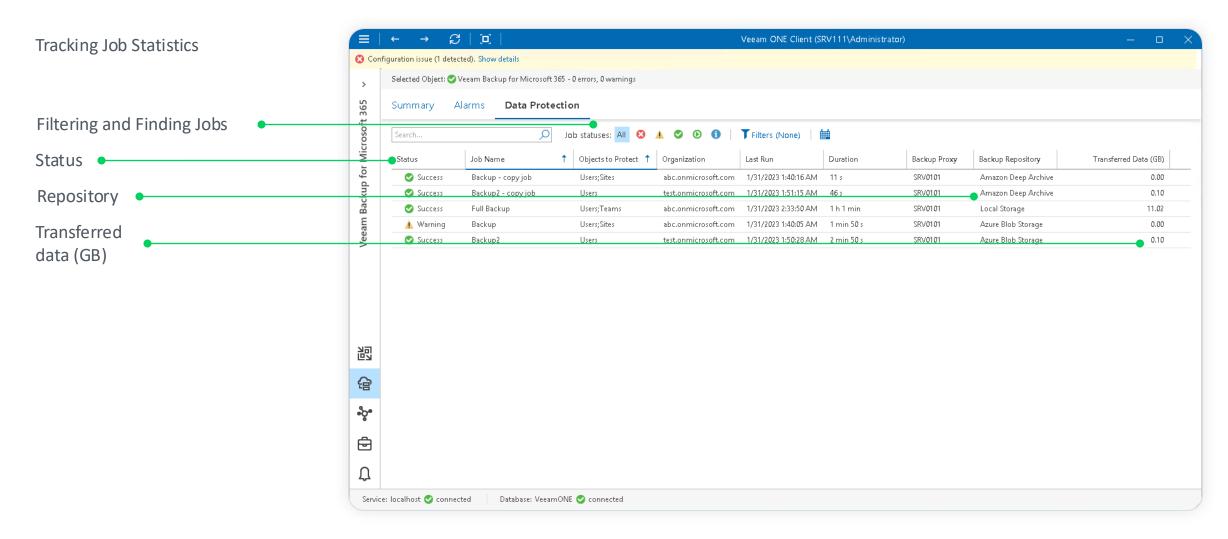
Dashboards & Infrastructure: Summarizes backup health and repositories.





Veeam Backup for Microsoft 365 Data Protection

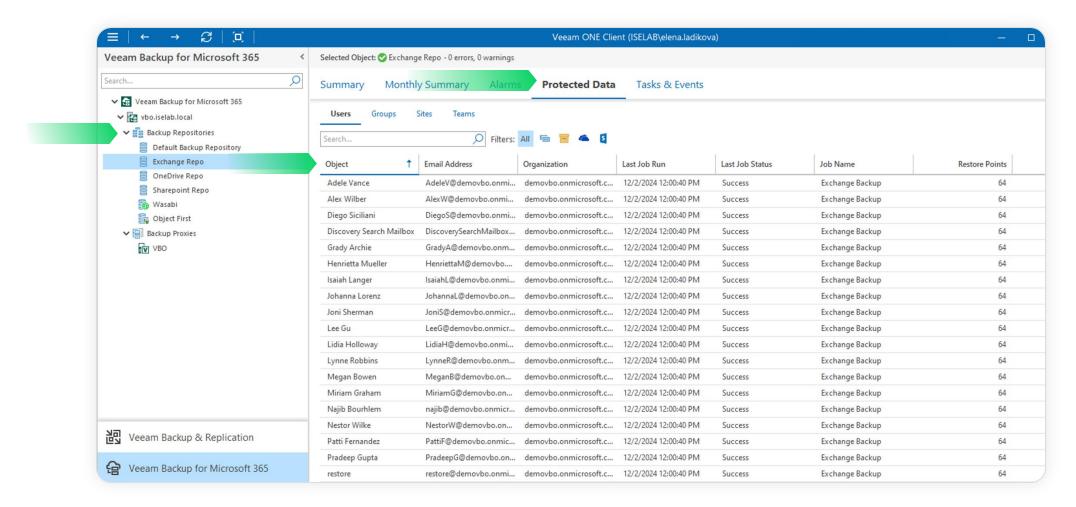
Data Protection: Tracks alerts and backup metrics.





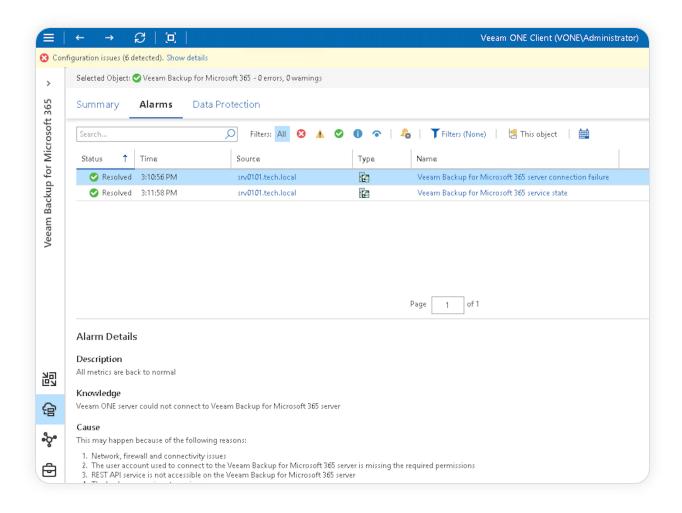
Protected Data

The Protected Data tab allows you to view the list of protected Microsoft 365 objects stored in backups on backup and object storage repositories:





Veeam Backup for Microsoft 365 Alarms



Key Issues Monitored by Alarms

- Connectivity Issues: Communication problems between backup components.
- Software State: Issues with Veeam Backup for Microsoft 365 software.
- Job Failures/Warnings: Jobs that failed or ended with warnings.
- Storage Space: Rapidly decreasing space on repositories.
- Long-running Jobs: Jobs exceeding the backup window.
- Licenses & Contracts: Product license or support contract issues.



Virtual Environment Monitoring



VMware vSphere Monitoring



Dashboards & Infrastructure:

Summarizes hosts, VMs, and datastores



Alarms & Data Protection:

Tracks alerts and key system events



Performance charts:

Monitors CPU, memory, storage, and network metrics



Top Objects & Hardware:

Highlights resource usage and hardware health.



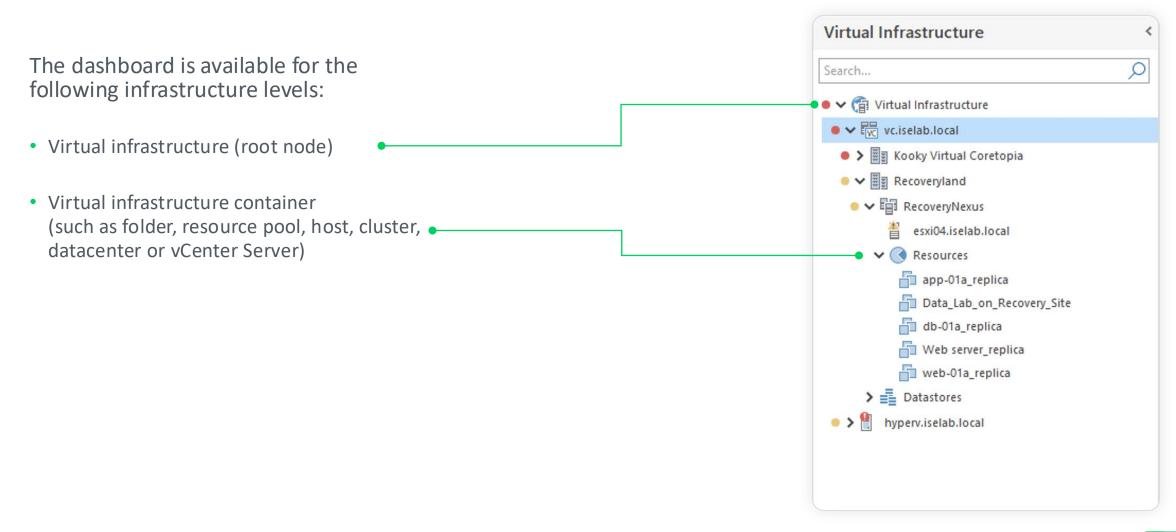
In-Guest Insights:

Tracks processes and services within VMs.



VMware vSphere summary dashboards

Dashboards & Infrastructure: Summarizes hosts, VMs, and datastores.

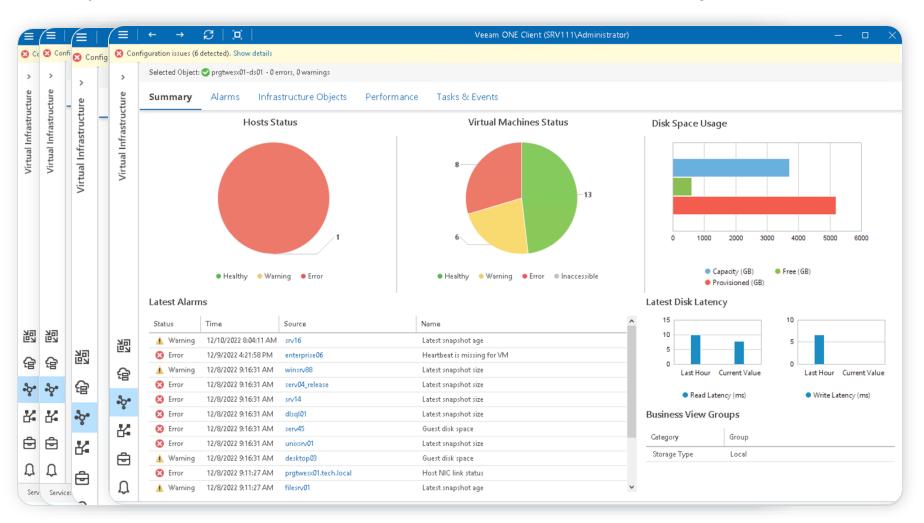




VMware vSphere summary dashboards

The following types of summary dashboards are available for virtual infrastructure objects:

- VMware vSphere Infrastructure Summary
- Host Summary
- Virtual Machine Summary
- Datastore Summary





VMware vSphere Performance Charts

Overview: Comprehensive performance monitoring across key metrics.

Select any infrastructure object or segment from the inventory pane to view relevant performance charts.

Key Charts

CPU & Memory: Resource utilization trends.

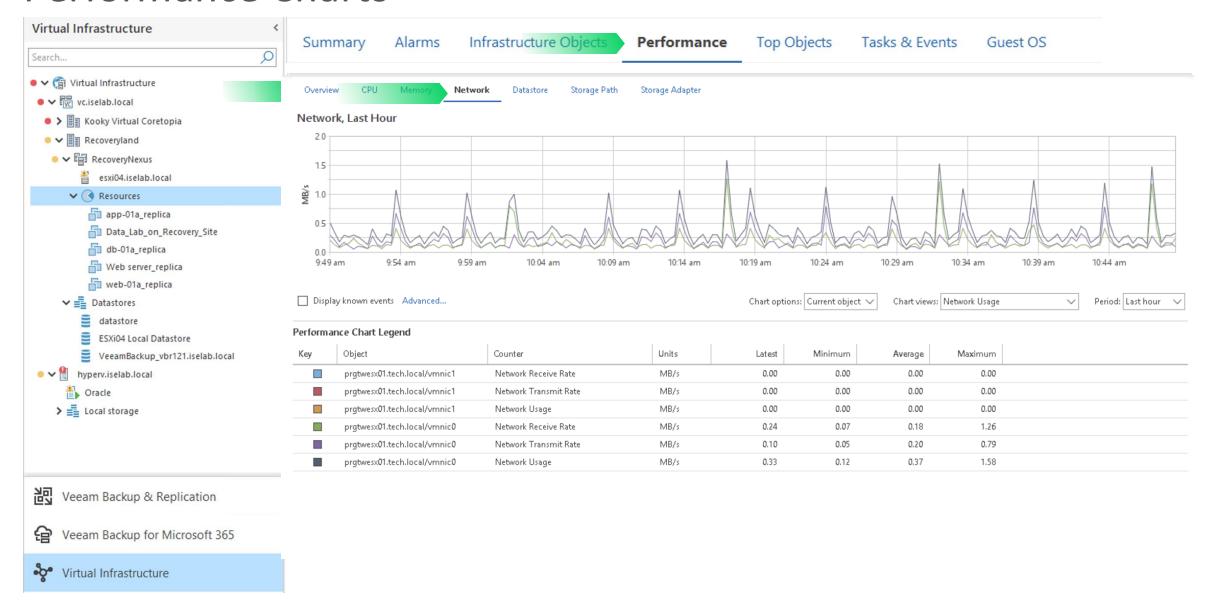
Network: Bandwidth and connectivity insights.

Datastore & Disks: Storage performance and usage (I/O, space, paths).

Customization: Tailor charts for specific needs and insights. customize performance charts to select specific objects, time intervals or performance counters to display on the charts.



Performance Charts





VMware vSphere Alarms

On the Alarms dashboard, you can view triggered alarms, track alarm history, resolve and acknowledge alarms and perform other actions.

Alarm Examples

Alarm Details

Description

Fired by event: esx.problem.storage.connectivity.lost

Event description: Lost connectivity to storage device naa.600000e00d290000002938ec00260000. Path vmhba2:C0:T6:L1 is down. Affected datastores: Unknown. Initiated by: Not Set

Knowledge

The event indicates a loss in connectivity to the specified storage device. The path indicated is the last path that went down

Cause

Failure of the storage connection cable, disconnect of cable, failure of the physical storage adapter, failure of disk controller/port/etc

Resolution

The storage device reading (vmhba35:C1:T0:L7) mentioned in the example earlier contains several potential failure points:

- vmhba35 HBA (Host Bus Adapter)
- C1 Channel
- T0 Target (Storage processor port)
- L7 LUN (Logical Unit Number or Disk Unit)

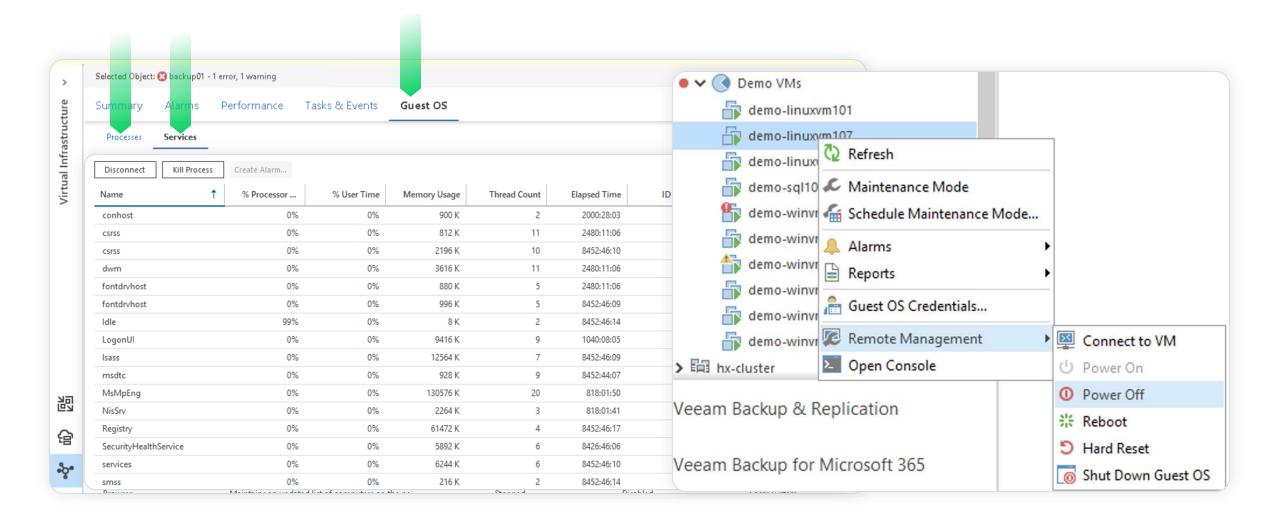
To determine the actual failure or to eliminate possible issues:

- Identify the available storage paths to the reported storage device by running the esxcfg-mpath -I command. For more information, see Obtaining LUN pathing information for ESX Server 3 (1003973)
- Check that a rescan does not restore visibility to the targets. Follow the steps provided in Performing a rescan of the storage (1003988) to rescan the storage device by using the command-line interface and VMware vSphere Client.
- 3. Determine whether the connectivity issue is with the iSCSI storage or the fiber storage. Perform one of the following depending on what your connectivity issue is:
 - To troubleshoot the connectivity to the iSCSI storage using the software initiator
 - Check whether a ping to the storage array fails from the host. For more information, see <u>Testing VMkernel network connectivity with the vmkping command</u> (1003728).
 - . Check that the initiator is registered on the array. Contact your storage vendor for instructions on this procedure.
 - Check that the following physical hardware is correctly functioning:

Service: localhost 🗸 connected Database: VeeamONE 🗸 connected



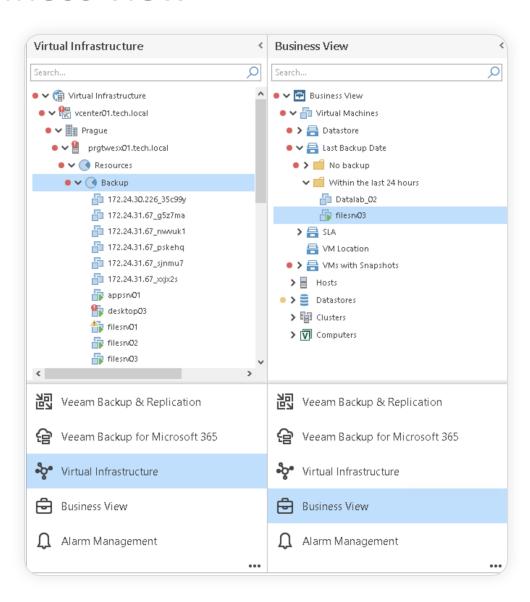
In-Guest Processes and Services



Business View



Business view



Veeam ONE Client offers two perspectives for viewing your infrastructure:

- Technical Perspective: Focuses on VMware vSphere or Microsoft Hyper-V inventory.
- Business Perspective: Utilizes the Business View component to organize infrastructure based on business needs.



Categorization model

Objects: Include clusters, hosts, VMs, storage, and applications.

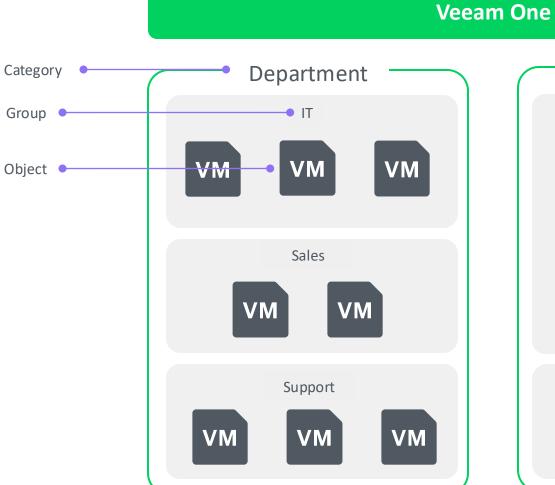
Objects can belong to multiple groups.

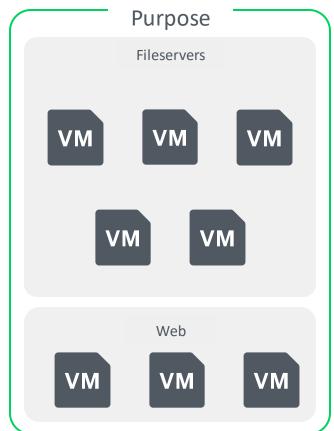
Categories: Logical divisions (e.g., department, purpose).

Static: Manually created and updated during data collection.

Dynamic: Automatically generated based on criteria.

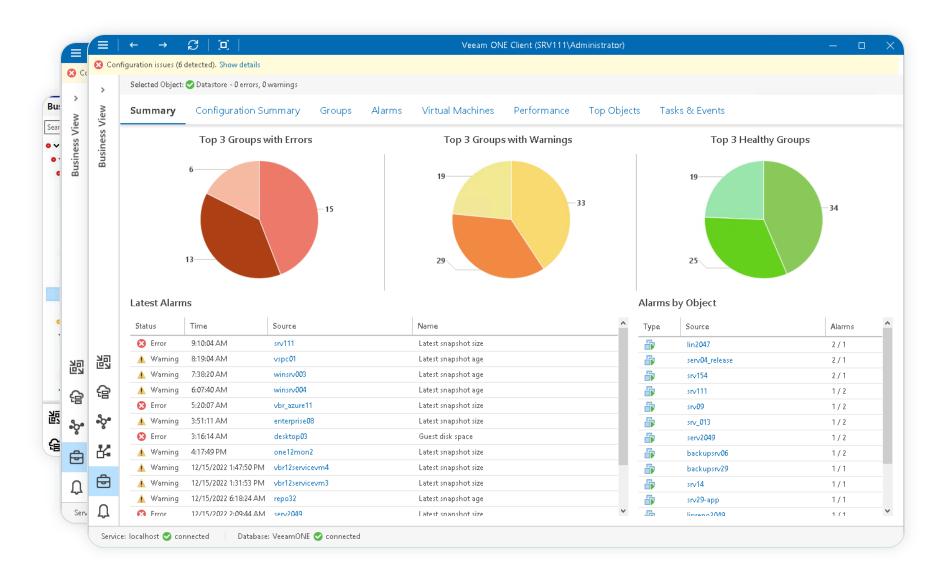
Groups: Tags for similar infrastructure objects.





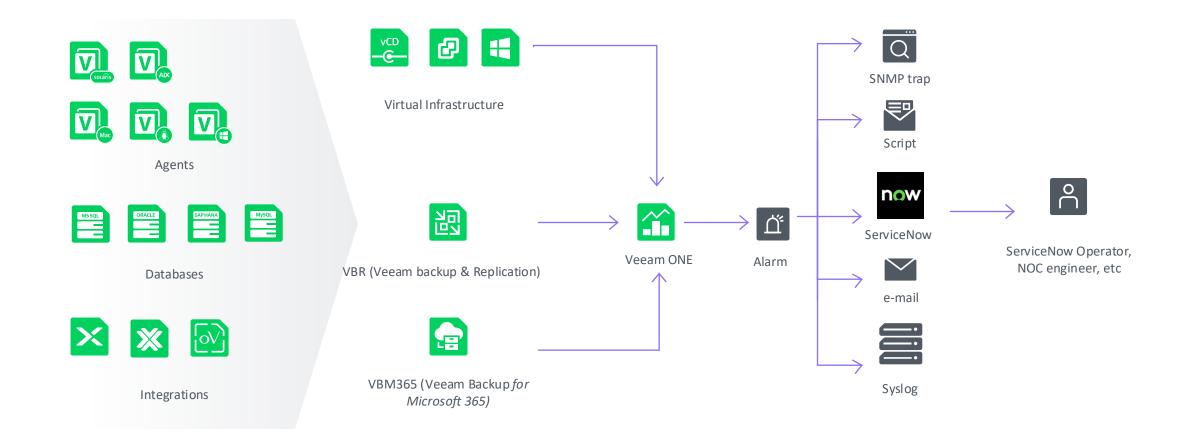
Business view examples

- Monitor the overall state of the categorized infrastructure
- View triggered alarms
- View objects included in categories and groups
- Work with performance charts
- View the list of events





ServiceNow integration





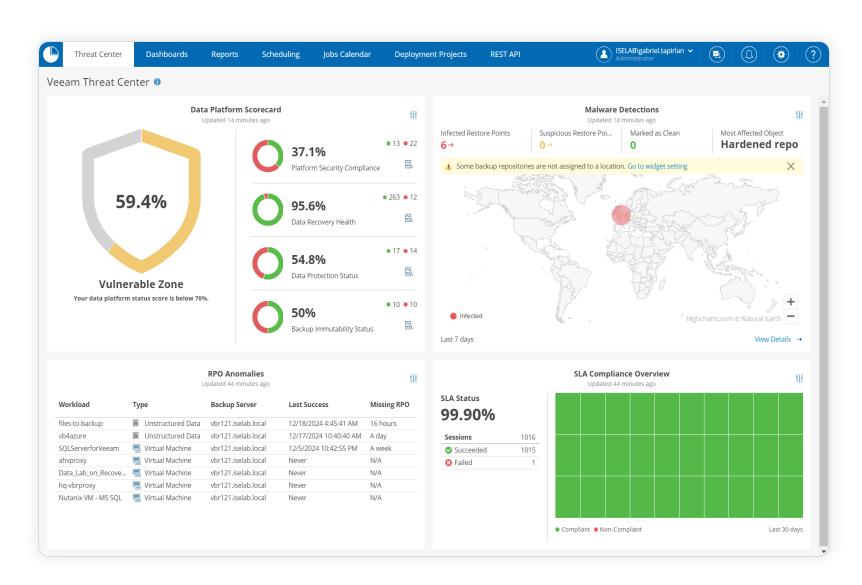
Veeam ONE Web Client



Veeam ONE Web Client – Threat Center

Threat Center

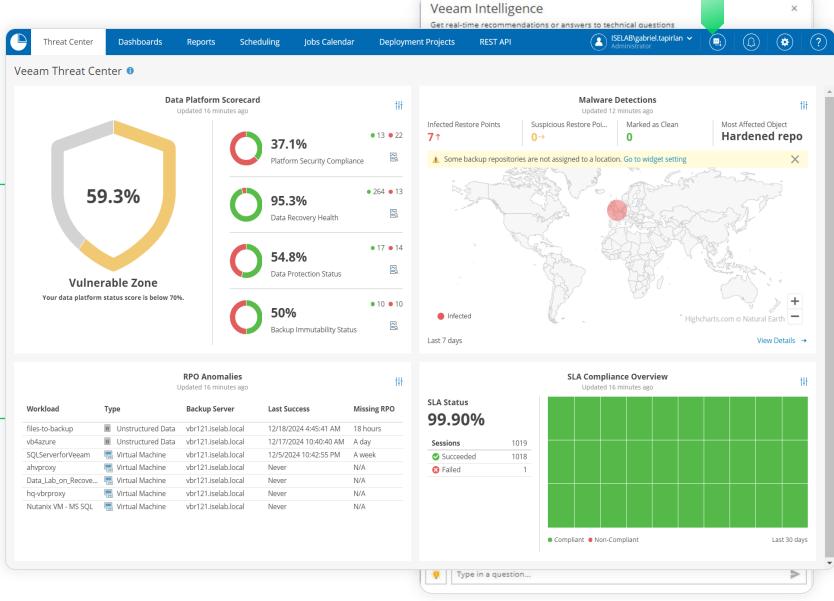
- Provides Data Platform
 Status Score based on Best
 Practices, RPO, Health and
 Immutability of Restore
 Points
- Gives information on RPO Anomalies
- Presents the SLA Compliance





Veeam Intelligence

The perfect companion for receiving real-time recommendations and answers to technical questio Meseam CDN cdn.restai.veeam.com and is.veeam.com Download JS and signature manifest HTTPS port 443



Veeam ONE

Server

Veeam ONE Web Client – Dashboards

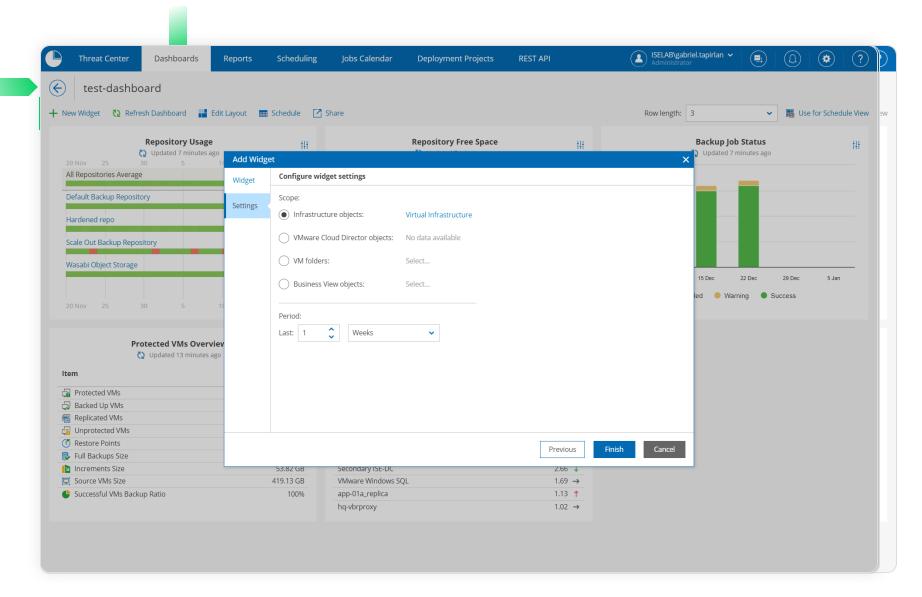
Dashboards

Contains both predefined and user-defined dashboards.

VBR, VBM365 and the virtual infrastructure have predefined dashboards.

Users can create new dashboards and define widgets, schedule them to be delivered/stored or share them through Direct Links.

Widgets can also be personalized to include different workloads or set the analysed period.





Veeam ONE Web Client – Reports

Reports

Predefined replaces an Bed wow early the first refinitive refiniti

Reports can also be used for checking the compliance of the infrastructure with our best practices or structured in different reports folders.

Details							
Backup Server: vbr121.iselab.local							
Jobs with Warnings							
Job	Last Run	Objects in Job Warning / Total	Transferred (GB)	Retry Count	Duration	Avg. Duration	Details
Hyper-V Windows Oracle XE	12/20/2024	1 of 1	1.02	0	00:03:52	00:03:35	Warnings: Job finished with warning at 12/20/2024 3:04:08 AM Processing Oracle
Successful Jobs							
Job	Last Run	Backed Up Objects in Job	Transferred (GB)	Retry Count	Duration	Avg. Duration	Duration Trend
Agent Linux PostgreSQL backup - vbsf	12/20/2024	1	0.25	0	00:01:47	00:01:26	†
Agent Windows DC backup	12/20/2024	1	0.51	0	00:03:25	00:02:49	†
AHV photon os backup	12/20/2024	1	0.00	0	00:01:27	00:01:21	†
Backup Copy from Azure to on-premises storage\Iselab-linuxvm Backup	12/20/2024	1	0.18	0	00:02:38	00:02:45	+
Backup Copy Tiny linux to VDC Vault\VMWare Tiny Linux VM Backup	12/20/2024	1	0.00	0	00:03:19	00:04:33	+
bc to azure\Agent Windows DC backup - iselab-dc.iselab.local	12/19/2024	1	0.45	0	00:05:45	00:05:47	↓
Entra ID Log Backup Job	12/20/2024	1	0.00	0	00:04:18	00:04:05	†
File Share backup	12/19/2024	1	0.00	0	00:02:13	00:02:13	4
PVE backup	12/20/2024	2	0.09	0	00:13:14	00:09:44	†
test job backup AzureSQI blob	12/17/2024	1	3.37	0	00:08:28	00:08:28	\rightarrow
VMware Backup to Azure Blob	12/20/2024	1	0.01	0	00:05:10	00:05:17	†
VMWare Tiny Linux VM Backup	12/20/2024	1	0.00	0	00:01:56	00:01:56	↓
VMWare webapp replication	12/20/2024	3	0.10	0	00:03:58	00:03:55	†



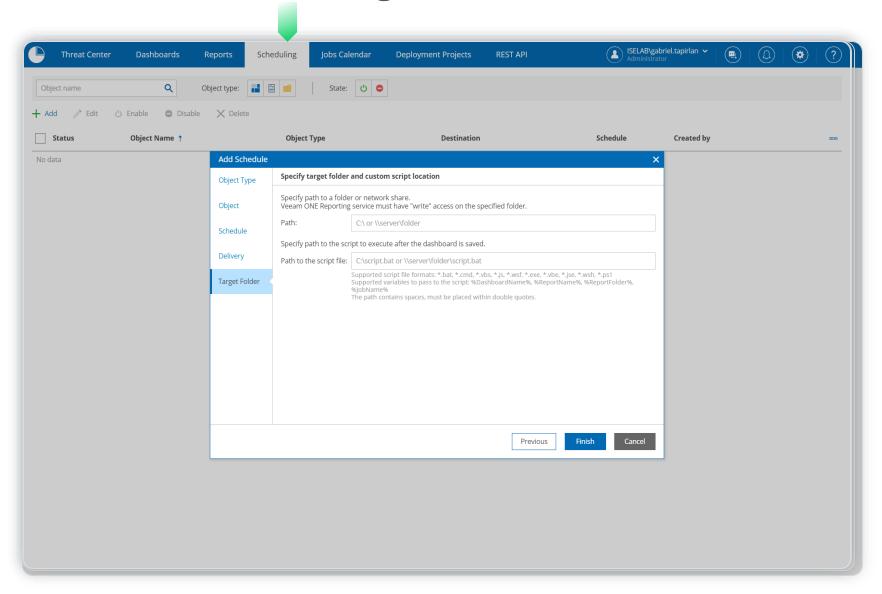
Veeam ONE Web Client – Scheduling

Scheduling

Dashboards, report folders and reports can be scheduled.

They can be sent via e-mail or stored on a folder or a network share.

Scripts can also be executed after an object is stored.



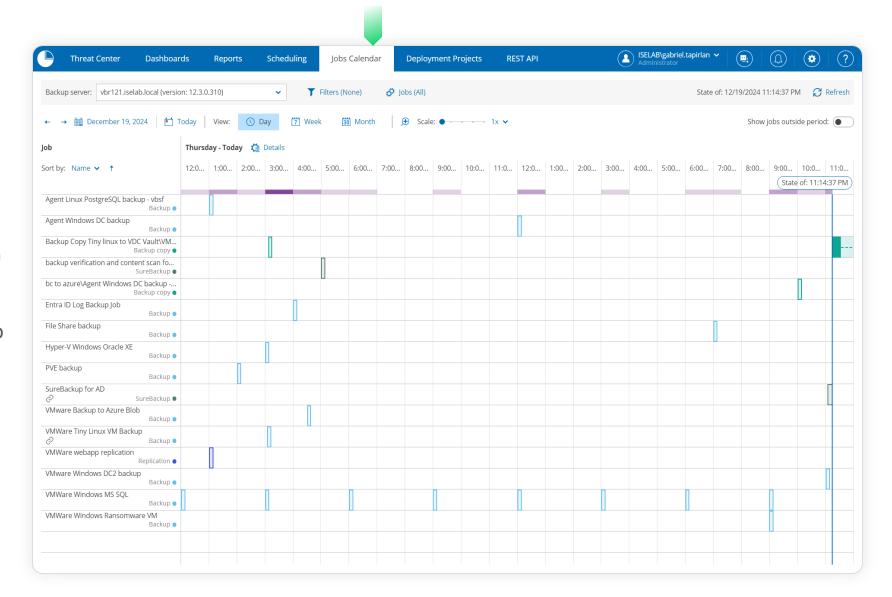


Veeam ONE Web Client – Jobs Calendar

Jobs Calendar

This feature will allow users to have an overview on all the jobs processed by the VBR server.

Besides the start time, we can also check the durations and schedule accordingly in the future to avoid concurrent job executions.





Veeam ONE Web Client – Deployment Projects

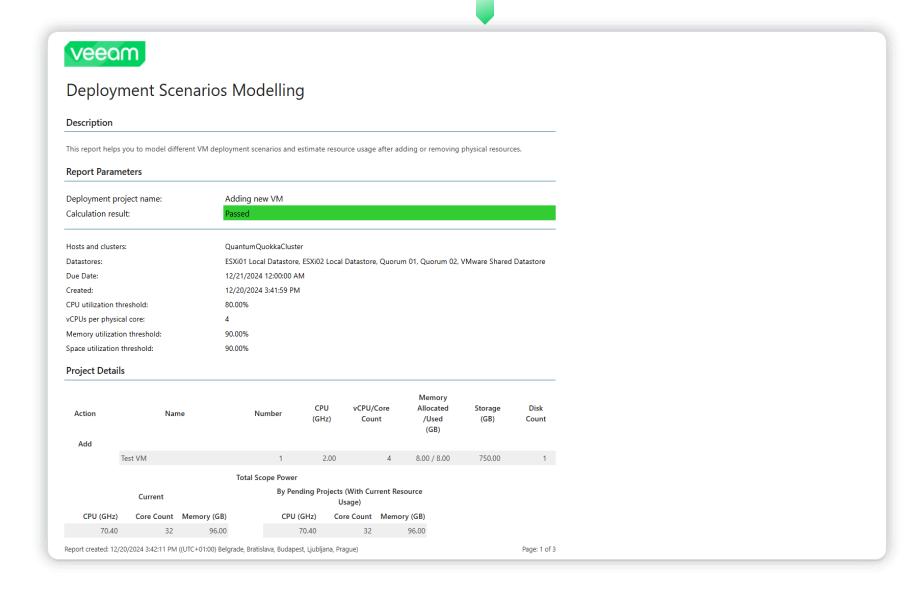
Deployment Projects

Users can check their current capabilities of modifying the current virtual environment by simulating different scenarios.

Tests can aim different clusters or standalone hosts.

Simulations include the addition or evictions of VMs or hosts.

After setting the thresholds, we can calculate and view the report of the simulation.





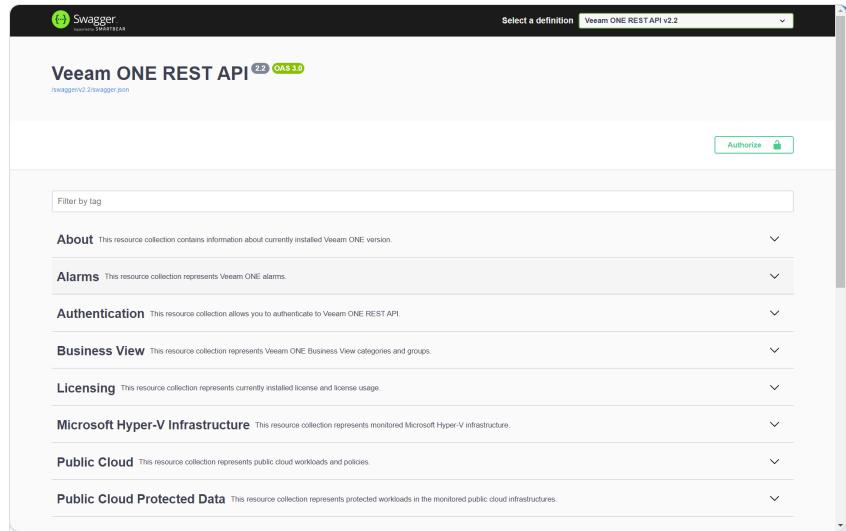
Veeam ONE Web Client - REST API



REST API

Veeam ONE exposes its entities through an application programming interface (API) based on the Representational State Transfer (REST) architecture style.

Veeam ONE REST API relies on the client-server model and is additionally available through Swagger UI, a tool that you can use to evaluate and explore its capabilities.





Veeam ONE Web Client – Configuration

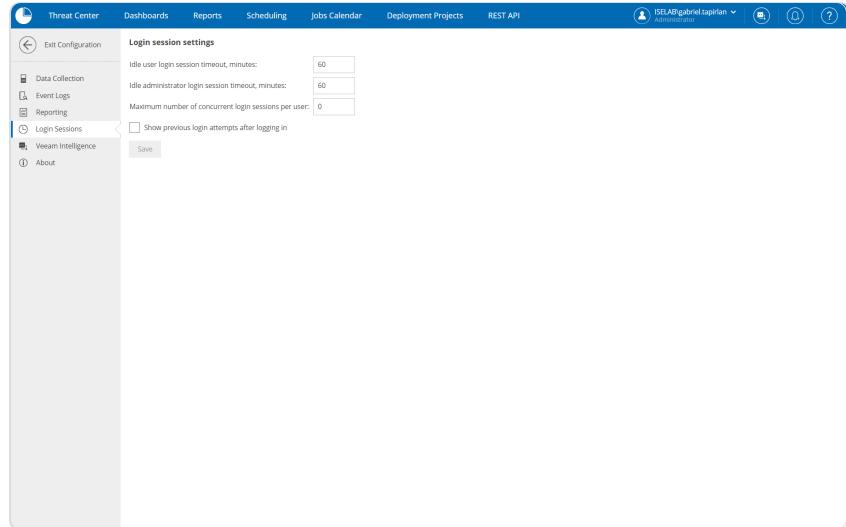
Configuration

Users can review configured connections, change the data collection schedule or run data collection manually.

They can also check the Event Logs for the Web Client.

Custom logos for reports and SSRS servers can be used.

Login sessions can be adjusted to optimize the process of accessing the Web Client.

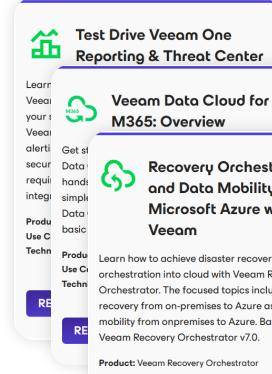




Additional Resources



Want some hands-on experience?





Test Drive MongoDB backup with Veeam Data



Test Drive Veeam Backup for Oracle KVM



Veeam Data Cloud for Microsoft Azure: Overview



Test drive Veeam Kasten for Kubernetes



Recovery Orchestration and Data Mobility to Microsoft Azure with Veeam

Learn how to achieve disaster recovery orchestration into cloud with Veeam Recovery Orchestrator. The focused topics include Automate recovery from on-premises to Azure as well as data mobility from onpremises to Azure. Based on Veeam Recovery Orchestrator v7.0.

Product: Veeam Recovery Orchestrator Use Cases: Data Recovery

REQUEST LAB

Technical Level: Intermediate



Test drive Veeam Backup for Azure

In this lab, you will learn the steps required to setup & configure a Veeam Backup for Azure appliance to protect & recover your Azure cloud workloads such as Azure VMs. Azure SQL databases and Azure files.

Product: Veeam Backup for Azure Use Cases: Data Freedom, Data Recovery, Data Security Technical Level: Intermediate

REQUEST LAB



Enterprise Level Disaster Recovery Orchestration with Veeam

Learn how achieve enterprise level Disaster Recovery Orchestration with Veeam Recovery Orchestration solution. Topics include automated DR documentation, verify SLA, build a platinum level recovery plan, execute a automated DR failover & test, automate recovery from onpremises to Microsoft Azure. Based on Veeam Recovery Orchestration v7.0.

Product: Veeam Recovery Orchestrator Use Cases: Data Recovery Technical Level: Intermediate

REQUEST LAB



https://go.veeam.com/ hands-on-labexperience#renewal



Veeam Certified Engineer (VMCE)

- Instructor or On Demand
- Available in 100 countries
- Theory and Labs
- https://www.veeam.com/support/training/vmcetraining.html





Additional Resources

- Calculators (https://www.veeam.com/calculators)
- Help Center (https://www.veeam.com/support/help-center-technical-documentation.html)
- Veeam Backup & Replication Best Practices (<u>https://bp.veeam.com/vbr/</u>)
- KB: Security (https://www.veeam.com/knowledge-base.html?type=security)
- R&D Forums (https://forums.veeam.com/)
- https://community.veeam.com/







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