

# VMCE 2020 exam specification

## Credential awarded

Veeam® Certified Engineer 2020

## Exam purpose

The VMCE certification is documented proof that an administrator or engineer has the necessary level of expertise to protect an organization's data with Veeam Availability Suite™. Holders of Veeam certifications have a deep understanding of Veeam Availability Suite, the critical functions required by an organization to actively protect their data and the ability to grow and adapt with an organization's evolving data protection needs.

## Candidate profile

This certification is recommended for anyone responsible for protecting data with Veeam Availability Suite. To qualify to take a Veeam certification exam, candidates must attend the Veeam Availability Suite v10: Configuration and Management training course through a Veeam Authorized Educational Center (VMAEC) or hold the previous certification.

Candidates should have some hands-on experience working with a Veeam Availability Suite implementation and more than six months of experience with other core technologies on which Veeam Backup & Replication™ depends, including virtualization technologies (Microsoft Hyper-V and/or VMware vSphere), storage technologies, basic tape (LTO) technology experience, Microsoft Windows Server and network understanding (routing and subnetting).

## Number of items

The exam consists of 50 multiple choice and multiple response items.

## Passing score

The passing score for the VMCE exam is 70%. Once you pass the exam, you will receive your VMCE certificate, digital badge and priority access to technical support.

## Languages

The exam is available in English (US).

## Time limit

Examinees will get 60 minutes to take the exam. A 30-minute time extension will be available when the exam is delivered in a language different than the local language.

## Delivery

The VMCE 2020 exam is delivered through Pearson VUE test centers (<https://home.pearsonvue.com/>).

## Retake policy

There is a 24-hour waiting period after the first failed attempt and a 14-calendar day waiting period after the second through the fourth failed attempt. After the fifth failed attempt, there is a 12 month waiting period, or a request can be submitted with prior permission from the Veeam VMCE security team, [vmce.fraud@veeam.com](mailto:vmce.fraud@veeam.com). After the candidate has waited 12 months, they can take the exam for attempt six through nine. After that, candidates must wait 12 months again, or submit a request and obtain permission from the Veeam VMCE security team.

Once a candidate has passed an exam, the exam cannot be retaken until a new major exam revision is released.

## Recertification

Certifications do not expire, but ProPartners may be required to update their certifications to remain compliant in the Veeam ProPartner program. Check your ProPartner program guide or reach out to your Veeam representative for more details on certification requirements in your region.

## Exam security

Veeam reserves the right to refuse certifying a candidate who violates exam security policies. This includes copying and redistribution of exam material, using any type of study material during the exam itself, attempting to photograph exam items and taking an exam using a false identity. Your identity is captured as part of the exam registration process and must be validated before you will be allowed to take the exam.

# Exam outline

## How the objectives relate to the exam

Objectives summarize what the exam is designed to measure. The objectives have been developed by certification specialists and subject matter experts based on identified tasks that relate to the job of configuring and administering Veeam Availability Suite.

## Objectives and resources

All content provided in the Veeam Availability Suite v10: Configuration and Management training course are necessary to study and pass the exam. It is also expected that you have some commercial experience with Veeam prior to taking the course. Veeam strongly recommends independent study in addition to commercial experience and course attendance to significantly increase the probability of passing the exam. The exam objectives are listed below, along with links to resources relevant to each objective to help candidates evaluate their readiness for the exam and aid independent study.

### 01: Key concepts of a successful backup strategy (2%)

#### Objectives

- 01.01: Understand Recovery Time Objective (RTO) and Recovery Point Objective (RPO)

#### Resources

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[Demystifying recovery objectives](#)

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### 02: Building backup capabilities (38%)

#### Objectives

- 02.01: Understand backup use-cases
- 02.02: Apply appropriate global settings for your environment
- 02.03: Differentiate between and select the most appropriate backup method
- 02.04: Understand the backup optimizations that can be applied and their impact
- 02.05: Understand the concepts behind backup copy jobs

## Resources

Hyper-V	VMware
<a href="#">Veeam Backup &amp; Replication settings</a>	<a href="#">Veeam Backup &amp; Replication settings</a>
<a href="#">Deployment scenarios</a>	<a href="#">Deployment scenarios</a>
<a href="#">Backup infrastructure components</a>	<a href="#">Backup infrastructure components</a>
<a href="#">Creating backup jobs</a>	<a href="#">Creating backup jobs</a>
<a href="#">Backup methods</a>	<a href="#">Backup methods</a>
<a href="#">Data compression and deduplication</a>	<a href="#">Data compression and deduplication</a>
<a href="#">Backup copy</a>	<a href="#">Backup copy</a>
<a href="#">Creating backup copy jobs for VMs and physical machines</a>	<a href="#">Creating backup copy Jobs for VMs and physical machines</a>
<a href="#">Backup copy modes</a>	<a href="#">Backup copy modes</a>
<a href="#">Retention policy for backup copy jobs</a>	<a href="#">Retention policy for backup copy jobs</a>
<a href="#">WAN acceleration</a>	<a href="#">WAN acceleration</a>

## 03: Building replication capabilities (10%)

### Objectives

- 03.01: Understand replication use-cases
- 03.02: Correctly use the configuration options available within replication

### Resources

Hyper-V	VMware
<a href="#">About replication</a>	<a href="#">About replication</a>
<a href="#">How replication works</a>	<a href="#">How replication works</a>
<a href="#">Replication scenarios</a>	<a href="#">Replication scenarios</a>
<a href="#">Replica from backup</a>	<a href="#">Replica from backup</a>
<a href="#">Replica seeding</a>	<a href="#">Replica seeding</a>
<a href="#">Replica mapping</a>	<a href="#">Replica mapping</a>
<a href="#">Creating replication jobs</a>	<a href="#">Creating replication jobs</a>

## 04: 3-2-1 strategy (4%)

### Objectives

- 04.01: Apply the 3-2-1 rule

## Resources

[How to follow the 3-2-1 backup rule with Veeam Backup & Replication](#)

[The 3-2-1-0 rule to high availability](#)

### Hyper-V

[Resource scheduling](#)

### VMware

[Resource scheduling](#)

[Veeam vPower NFS service](#)

## 05: Testing backup and replication (18%)

### Objectives

- 05.01: Determine which data lab to use and configure
- 05.02: Determine and configure an application group
- 05.03: Combine data labs and application groups into SureBackup jobs
- 05.04: Set up a sandbox environment

## Resources

### Hyper-V

[Virtual lab](#)

[Virtual lab configuration](#)

[Application group](#)

[SureBackup](#)

[SureBackup job](#)

[SureReplica](#)

[On-Demand Sandbox](#)

[Configuring On-Demand Sandbox](#)

### VMware

[Virtual lab](#)

[Virtual lab configuration](#)

[Application group](#)

[SureBackup](#)

[SureBackup job](#)

[SureReplica](#)

[On-Demand Sandbox](#)

[Configuring On-Demand Sandbox](#)

## 06: Restoring from backup (10%)

### Objectives

- 06.01: Execute a restore responding to a number of recovery scenarios

## Resources

Hyper-V	VMware
<a href="#">Data recovery</a>	<a href="#">Data recovery</a>
<a href="#">Instant VM recovery</a>	<a href="#">Instant VM recovery</a>
<a href="#">Instant VM disk recovery</a>	<a href="#">Instant VM disk recovery</a>
<a href="#">Entire VM restore</a>	<a href="#">Entire VM restore</a>
<a href="#">VM files restore</a>	<a href="#">VM files restore</a>
<a href="#">Virtual disks restore</a>	<a href="#">Virtual disks restore</a>
<a href="#">Secure restore</a>	<a href="#">Secure restore</a>
<a href="#">Staged restore</a>	<a href="#">Staged restore</a>

## 07: Recovery from replica (8%)

### Objectives

- 07.01: Execute a failover responding to a number of recovery scenarios

### Resources

Hyper-V	VMware
<a href="#">Replica failover and failback</a>	<a href="#">Replica failover and failback</a>
<a href="#">Replica failover</a>	<a href="#">Replica failover</a>
<a href="#">Permanent failover</a>	<a href="#">Permanent failover</a>
<a href="#">Failover plan</a>	<a href="#">Failover plan</a>
<a href="#">Planned failover</a>	<a href="#">Planned failover</a>
<a href="#">Undo failover</a>	<a href="#">Undo failover</a>
<a href="#">Replica failback</a>	<a href="#">Replica failback</a>
<a href="#">Commit failback</a>	<a href="#">Commit failback</a>
<a href="#">Undo failback</a>	<a href="#">Undo failback</a>

## 08: Monitoring and reporting (10%)

### Objectives

- 08.01: Understand the infrastructure of Veeam ONE
- 08.02: Configure Veeam ONE
- 08.03: Set up reports and dashboards

## Resources

[Veeam ONE architecture](#)

[Deployment scenarios](#)

[Installing Veeam ONE](#)

[VMware vSphere monitoring](#)

[Hyper-V monitoring](#)

[Data protection monitoring](#)

[Business view](#)

[Grouping expressions syntax](#)

[Alarm rules](#)

[Working with triggered alarms](#)

[Reports](#)

[Scheduling reports](#)

[Veeam ONE business view reporting](#)

[Dashboards](#)

[Creating custom dashboards](#)

[Sharing dashboards](#)

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## Additional resources

[Veeam.com](#)

[Veeam help center \(technical documentation\)](#)

[Veeam support knowledge base](#)

[Veeam forums](#)