Preparing to Take and Pass the VCP-DCV Exam

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VMware Certification Website
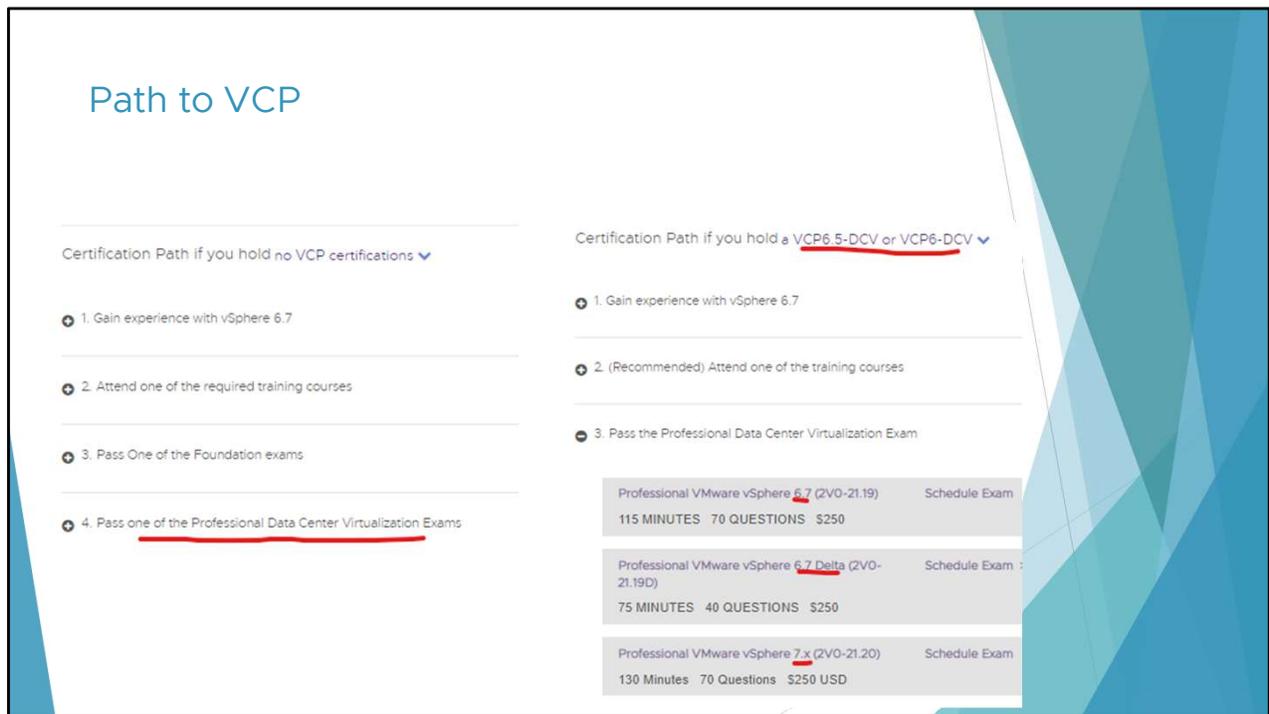
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Certification Levels

VCA VMware Certified Associate	VCP VMware Certified Professional	VCAP VMware Certified Advanced Professional	VCDX VMware Certified Design Expert
For Administrators, Architects & Executives	For Administrators & Engineers	For Administrators, Architects & Engineers	For Architects
This entry level certification is ideal for new IT professionals as well as executives making decisions about VMware solutions.	This level is designed for IT professionals who install, configure, manage, and optimize VMware solutions.	The advanced levels are for those who design and build VMware Solutions (VCAP Design) and manage and optimize VMware solutions (VCAP Deployment).	The highest level of certification, VCDX recognizes IT professionals who design, build, and manage VMware solutions and systems.

https://www.vmware.com/education-services/certification.html

Your path depends on your experience and current certification holdings. On the left is a sample path for those who do not hold a VCP certification. Notice in this case that you may be required to take a qualified training course and pass a Foundations exam, prior to taking the Professional exam. On the right is a sample path for those who hold a VCP6-DCV or VCP6.5-DCV certification.

Depending on your path, you may have choices for the Professional Exam, such as a vSphere 6.7, a vSphere 7.0, or a Delta Exam. Each exam has a different exam number, exam blueprint (exam guide), number of questions, price, etc.
TIP: Take the exam that is the best fit for you. If you are more comfortable with a 6.7 exam than a 7.0. Perhaps you prefer a Delta exam that focuses on upgrading and what's new… or the opposite an exam where you can make better use of long-term vSphere knowledge.

The vSphere 6.7 Foundations Exam 2V0-01.19 has 65 questions, allows 105 minutes, costs $125, and is a non-proctored exam. Questions are single choice, multiple choice, and drag / drop. Passing score is 300.

No vSphere 7.0 Foundations Exam is currently listed.

Professional Exam 2V0-21.20 on vSphere 7.x

- Review the Exam Guide (Blueprint)
- Required or Recommended Training
  - vSphere Install, Configure, Manage [v7]
  - vSphere Optimize and Scale [v7]
- 70 Questions
- 130 Minutes
- Passing Score: 300
- Proctored Exam
- Single and Multiple Choice

Sections Included in this Exam

Section 1 –Architectures and Technologies

Objective 1.1 – Identify the pre-requisites and components for a vSphere implementation

Objective 1.2 – Describe vCenter Server topology

Objective 1.3 – Identify and differentiate storage access protocols for vSphere (NFS, iSCSI, S

1.3.1 – Describe storage datastore types for vSphere

1.3.2 – Explain the importance of advanced storage configuration (vSphere Storag vSphere Storage APIs Array Integration (VAAI), etc.)

1.3.3 – Describe storage policies

1.3.4 – Describe basic storage concepts in K8s, vSAN and vSphere Virtual Volumes

Objective 1.4 – Differentiate between vSphere Network I/O Control (NIOC) and vSphere Sto

Objective 1.5 – Describe instant clone architecture and use cases

Objective 1.6 – Describe ESXi cluster concepts

1.6.1 – Describe Distributed Resource Scheduler (DRS)

1.6.2 – Describe vSphere Enhanced vMotion Compatibility (EVC)

1.6.3 – Describe how Distributed Resource Scheduler (DRS) scores virtual machine

1.6.4 – Describe vSphere High Availability

1.6.5 – Describe datastore clusters

Objective 1.7 – Identify vSphere distributed switch and vSphere standard switch capabilities

1.7.1 – Describe VMkernel networking

Begin by downloading the exam blueprint (for your selected professional exam) and examining the latest requirements and details, including exam delivery, minimally qualified candidate, and exam sections (objectives)

TIP If your path requires a qualified course, ensure you take the course that is the best fit for you.

TIP: During the exam, watch the timer. You could target 1.5 minutes per question to leave 25 minutes at the end to return to Marked questions. So, after 20 questions, I should have 1 hour 40 minutes remaining. After 40 questions, 1 hour 10 min remaining.

TIP: Answer questions quickly (less than 2 minutes) mark those that you want to review more closely later

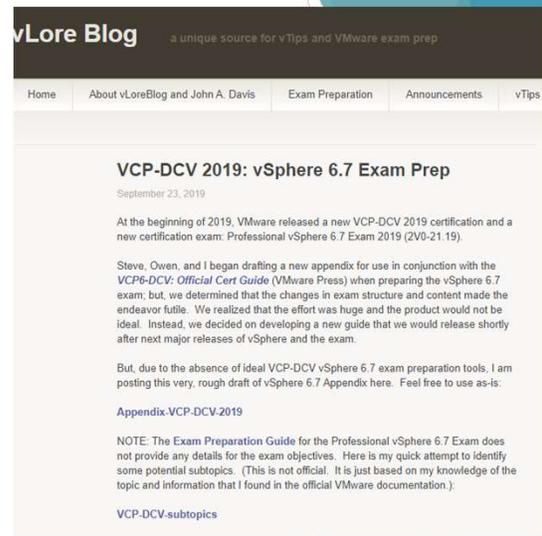Use link to schedule the exam or go to vue.com.

VMware has standardized on 7 sections for all exams, but some sections are not in some exams. In this exam, Section 3 (planning and design) and Section 6 (Troubleshooting) is not covered.

TIP: But do not be shocked if a question or two feels like a troubleshooting question.

TIP: Pay close attention to each objective and expect to be questioned on the objective. If you are weak on a few objectives, do not let that delay you taking the exam.

Exam Preparation Resources

▶ References table in the Exam Blueprint (Official VMware Documentation)
▶ Qualifying courses listed in the Exam Blueprint and website.
▶ VMware Learning Zone – Certification Exam Prep
▶ VMware Press
  ▶ vSphere 6 Foundations Exam (Bill Ferguson)
  ▶ VCP6-DCV Official Cert Guide (John Davis, Steve Baca, Owen Thomas)
▶ VMware community blog sites
  ▶ vLoreBlog.com

vLore Blog — a unique source for vTips and VMware exam prep

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VCP-DCV 2019: vSphere 6.7 Exam Prep
September 23, 2019

At the beginning of 2019, VMware released a new VCP-DCV 2019 certification and a new certification exam: Professional vSphere 6.7 Exam 2019 (2V0-21.19).

Steve, Owen, and I began drafting a new appendix for use in conjunction with the *VCP6-DCV: Official Cert Guide* (VMware Press) when preparing the vSphere 6.7 exam; but, we determined that the changes in exam structure and content made the endeavor futile. We realized that the effort was huge and the product would not be ideal. Instead, we decided on developing a new guide that we would release shortly after next major releases of vSphere and the exam.

But, due to the absence of ideal VCP-DCV vSphere 6.7 exam preparation tools, I am posting this very, rough draft of vSphere 6.7 Appendix here. Feel free to use as-is:

Appendix-VCP-DCV-2019

NOTE: The Exam Preparation Guide for the Professional vSphere 6.7 Exam does not provide any details for the exam objectives. Here is my quick attempt to identify some potential subtopics. (This is not official. It is just based on my knowledge of the topic and information that I found in the official VMware documentation.):

VCP-DCV-subtopics

TIP: Questions are often based on the content of VMware official documentation that is referenced in the exam blueprint.

TIP: If you are required to take a course, take a qualifying course that best suits you. For example, if you are already skilled in vSphere 7.x, consider the Optimize and Scale course over the Install, Configure, Manage course

Prepare Your Own Study Guide

- Review each objective
- Review the referenced, official VMware documentation
- Pay attention to:
  - Purposes, functionalities, use cases
  - Requirements, limitations, compatibility.
  - Implementation and management procedures
  - Notes. Tables, Figures
- Copy and paste into a study guide
  - Highlight keywords in copied text
  - Create memory tables
  - Figures: blot out component names
  - Think of potential exam questions

Hardware Requirements for the vCenter Server Appliance

The hardware requirements for a vCenter Server appliance depend on the size of your vSphere inventory.

Hardware Requirements for a vCenter Server Appliance

	Number of vCPUs	Memory
Tiny environment (up to 10 hosts or 100 virtual machines)	2	12 GB
Small environment (up to 100 hosts or 1,000 virtual machines)	4	19 GB
Medium environment (up to 400 hosts or 4,000 virtual machine)	8	28 GB
Large environment (up to 1,000 hosts or 10,000 virtual machines)	16	37 GB
X-Large environment (up to 2,500 hosts or 45,000 virtual machines)	24	56 GB

Note:

If you want to add an ESXi host with more than 512 LUNs and 2,048 paths to the vCenter Server inventory, you must deploy a vCenter Server appliance for a large or x-large environment.

TIPs:
- copy and paste from official docs into a word processor doc
- Include what is new to you. Get familiar with official VMware wording
- Highlight keywords and phrases in texts

TIPs:
- copy and paste from official docs into a word processor doc
- Include what is new to you. Get familiar with official VMware wording
- Just capture what you do not already know
- Highlight keywords and phrases in texts to help you recall details and original wording
- Think of potential questions, or parts of questions

Other Preparation Steps

▶ Gain hands on experience
  ▶ Setup a home lab https://bit.ly/3gYykaY
  ▶ VMware Hands on Labs
▶ Read the release notes for the appropriate vSphere version
  ▶ Pay attention to new features and changes
  ▶ Pay attention to architecture and requirement changes
▶ Work with a group of 5 or more. Each group create a set of practice questions for different sections.

TIP: In addition to using HOL to get familiar with new products and features, you can use it as a playground. Find a lab that has the software you need, ignore the lab exercises, just do your own thing. No worries about making mistakes. Limitation: You have no Internet access inside the lab or means to copy in software installers

Practice Question: Architecture / Technologies

▶ Objective 1.1 - Prerequisites

▶ Question: You plan to deploy a vCenter Server 7.0 appliance to support 350 ESXi hosts and 4500 virtual machines. What is the minimum memory you should plan for the vCenter Server appliance?

  ▶ a. 37 GB

  ▶ b. 56 GB

  ▶ c. 28 GB

  ▶ d. 19 GB

Practice Question: Architecture / Technologies

▶ Objective 1.1 - Prerequisites

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    ▶ a. 37 GB

    ▶ b. 56 GB

    ▶ c. 28 GB

    ▶ d. 19 GB

> You should deploy the vCenter Server appliance in the "Large Environment" configuration, which requires 37 GB, because the "Medium Environment" configuration only supports 4000 virtual machines.

TIP: Create memory tables to cram just hours before the exam.

Practice Question: VMware Products / Solutions

- Objective 2.1 – vSphere in SDDC
- Question: Which of the following products provide the automation, orchestration, and operations layer for an on-premise VMware SDDC?
  - a. vSphere
  - b. vSAN
  - c. NSX
  - d. vRealize Suite
  - e. VCF

Practice Question: VMware Products / Solutions

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   ▶ b. vSAN
   ▶ c. NSX
   ▶ d. vRealize Suite
   ▶ e. VCF

   vRealize Automation, vRealize Orchestrator, and vRealize Operations provide automation, orchestration, and operations, respectively. Sphere is the core component in the VMware SDDC.

TIP: Do not be surprised or upset if some of the questions, or at least some of the potential answers, refer to VMware products that are not mentioned in the exam blueprint.
TIP: Get familiar with the purpose and use cases for products such as vRealize Suite, vSphere Replication, Site Recovery Manager, Horizon, AppDefense, and NSX.

Practice Question: Installation, Configuration

▶ Objective 4.6 – Deploy vCenter HA

▶ Question: You are implementing vCenter HA for a vSphere 7.0 environment. Which of the following does not need to be connected to the vCenter HA network?

    ▶ a. Active Node

    ▶ b. Witness Node

    ▶ c. ESXi

    ▶ d. vCenter Server

Practice Question: Installation, Configuration

▶ Objective 4.6 – Deploy vCenter HA

▶ Question: You are implementing vCenter HA for a vSphere 7.0 environment. Which of the following does not need to be connected to the vCenter HA network?

  ▶ a. Active Node

  ▶ b. Witness Node

  ▶ c. ESXI

  ▶ d. vCenter Server

The vCenter HA network connects the Active, Passive, and Witness nodes, replicates the server state, and monitors heartbeats.

Practice Question: Performance Optimization

- Objective 5.3 – Performance Monitoring Tools
- Question: Concerning this ESXTOP screenshot, which of the following statements are true?
  - a. The VMs are waiting to be granted CPU cycles.
  - b. The VMs are experiencing significant CPU contention
  - c. The VMs are waiting on memory resources
  - d. No significant CPU contention exits

```
11:02:40am up 80 days  1:10, 419 worlds, 12 VMs, 18 vCPUs; CPU load average: 0.07, 0.08, 0.08
PCPU USED(%): 8.3 5.4 6.3  10 5.2 3.3 6.6 4.3 AVG: 6.3
PCPU UTIL(%):  10 7.0 8.3  12 6.1 3.9 8.0 5.5 AVG: 7.7

      ID      GID NAME            NWLD    %USED    %RUN   %SYS   %WAIT %VMWAIT    %RDY   %IDLE
       1        1 idle               8   715.72  800.00   0.01    0.00       -  800.00    0.00
 4049316  4049316 TS-ADM             6    15.73   17.98   0.13  559.47    0.56    0.79  174.07
 4074051  4074051 NSVPX-Extern       6     7.54    9.66   0.49  567.56    0.37    0.94  181.89
 2411248  2411248 vCloud-NFS         5     5.17    5.26   0.03  476.53    0.00    0.09   92.50
 4093789  4093789 VRA                6     3.07    3.26   0.12  574.66    0.00    0.33  189.76
```

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Practice Question: Performance Optimization

▶ Objective 5.3 – Performance Monitoring Tools

▶ Question: Concerning this ESXTOP screenshot, which of the following statements are true?

▶ a. The VMs are waiting to be granted CPU cycles.

▶ b. The VMs are experiencing significant CPU contention

▶ c. The VMs are waiting on memory resources

▶ d. No significant CPU contention exits

%RDY less than 5% indicates insignificant CPU contention.
High %WAIT and %IDLE indicate low activity in the VM.

```
11:02:40am up 80 days  1:10, 419 worlds, 12 VMs, 18 vCPUs; CPU load average: 0.07, 0.08, 0.08
PCPU USED(%): 8.3 5.4 6.3   10 5.2 3.3 6.6 4.3 AVG: 6.3
PCPU UTIL(%):  10 7.0 8.3   12 6.1 3.9 8.0 5.5 AVG: 7.7

     ID      GID NAME            NWLD    %USED    %RUN    %SYS    %WAIT %VMWAIT     %RDY    %IDLE
      1        1 idle              8   715.72  800.00    0.01    0.00       -   800.00     0.00
4049316  4049316 TS-ADM            6    15.73   17.98    0.13  559.47    0.56     0.79   174.07
4074051  4074051 NSVPX-Extern      6     7.54    9.66    0.49  567.56    0.37     0.94   181.89
2411248  2411248 vCloud-NFS        5     5.17    5.26    0.03  476.53    0.00     0.09    92.50
4093789  4093789 VRA               6     3.07    3.26    0.12  574.66    0.00     0.33   189.76
```

TIP: Historically, you had to click a button to examine exhibits. In the vSphere 7.0 exam, the exhibits appear on the same page as the question. No special navigation is needed.

Practice Question: Upgrades

- Objective 5.7 – Plan for upgrading vSphere Components
- Question: You want to upgrade a vCenter Server 6.7 instance and External PSC to version 7.0. Which statement is true?
  - a. You can upgrade in place, keeping the External PSC
  - b. The vCenter Server 7.0 instance incorporates the PSC services.
  - c. The vCenter Server 7.0 instance is using an embedded PSC.
  - d. You can choose to migrate to a new embedded or external PSC

Practice Question: Upgrades

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  ▶ c. The vCenter Server 7.0 instance is using an embedded PSC.

  ▶ d. You can choose to migrate to a new embedded or external PSC

> PSCs (embedded or external) are not used in vCenter Server 7.0. Instead, the services are directly integrated into the vCenter Server appliance

Practice Question: Secure vSphere

▶ Objective 7.8 – Managing Certificates

▶ Question: You are managing certificates in your vSphere environment. By default, what types of certificates are in VECS? (pick two)?

    ▶ a. ESXi Certificates

    ▶ b. Machine SSL Certificates

    ▶ c. Trusted Root Certificates

    ▶ d. None of the above

TIP: If a question calls for you to select multiple answers, it will tell you the specific number (such as pick two). It will not state more than one answer may apply,

TIP: Although a one option here is NONE of the above, the actual exam avoids this. It also avoids all of the above.

Practice Question: Secure vSphere

▶ Objective 7.8 –Managing Certificates

▶ Question: You are managing certificates in your vSphere environment. By default, what types of certificates are in VECS? (pick two)?

   ▶ a. ESXi Certificates
   ▶ b. Machine SSL Certificates
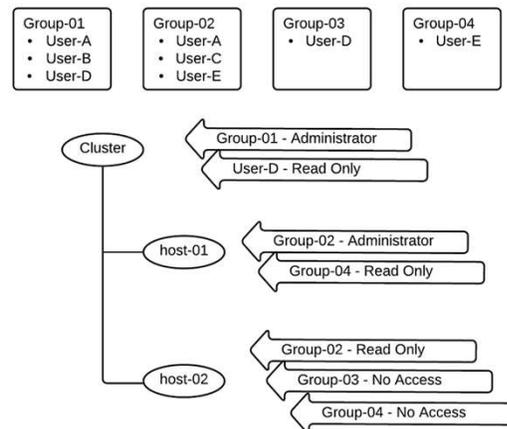   ▶ c. Trusted Root Certificates
   ▶ d. None of the above

> The Certificate Management page shows the certificate types in the VMware Endpoint Certificate Store (VECS). By default, the types are Machine SSL Certificates and Trusted Root Certificates.

TIP: If a question calls for you to select multiple answers, it will tell you the specific number (such as pick two). It will not state more than one answer may apply,

TIP: Although a one option here is NONE of the above, the actual exam avoids this. It also avoids all of the above.

TIP: Sometimes you must make an assumption so that the right number of answers fit.
TIP: Sometimes it is easier to rule out answers than to find the correct answer

Practice Question: Administration and Operations

▶ Objective 7.7 –Managing Role Based Permissions

▶ Question: Based on the exhibit, which statement is true?

   ▶ a. User A has Administrator access to both hosts.

   ▶ b. User E has Read Only access to host-01

   ▶ c. User D has Read Only access to the cluster and no access to host-02
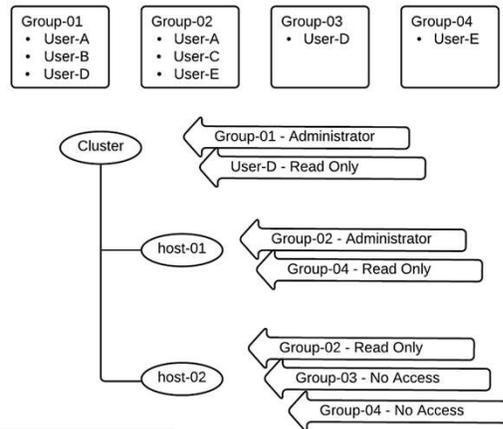
   ▶ d. User D has Administrator access to the cluster

Assume propagation. User permission overrides group permission on same object. When multiple group permissions on a single object apply to a specific user, the union applies., except No Access overrides other roles.

Group-01	Group-02	Group-03	Group-04
• User-A	• User-A	• User-D	• User-E
• User-B	• User-C		
• User-D	• User-E		

Cluster
- Group-01 - Administrator
- User-D - Read Only

host-01
- Group-02 - Administrator
- Group-04 - Read Only

host-02
- Group-02 - Read Only
- Group-03 - No Access
- Group-04 - No Access

TIP: If a question calls for you to select multiple answers, it will tell you the specific number (such as pick two). It will not state more than one answer may apply,

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