

Implementing Citrix XenServer Enterprise Edition 5.0

1Y0-A09 Exam

Preparation Guide

Citrix Education

2.0

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Notice

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Disclaimer

This exam preparation guide is designed to allow you to assess the types of questions that may be asked during the subject Citrix certification exam. Please be aware that the content of this guide in no way ensures a passing score on the certification exam.

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1 The Exam

1.1 Purpose of Exam The 1Y0-A09 Implementing Citrix XenServer Enterprise Edition 5.0 exam certifies that successful candidates have the knowledge and skills necessary to install, configure and administer a Citrix XenServer Enterprise Edition 5.0 implementation in an enterprise environment.

1.2 Number of Questions The A09 exam is a 48-question exam written in English.

1.3 Passing Score The passing score for this exam is 68% and is based on the analysis of scores of candidates from the alpha exam.

1.4 Time Limit Native English speakers have 60 minutes to complete the exam. Non-native English speakers who take the exam in English have 90 minutes to complete the exam.

Non-native English speakers must explicitly ask for the time extension when registering for the exam in English. Candidates should verify the specific process with the test provider they choose.

1.5 Registration and Administration This exam is administered through Pearson VUE. For details on the rules and procedures associated with registering for and taking the exam, please visit the Exams page at www.CitrixEducation.com.

1.7 Registering with Pearson VUE In the United States and Canada, call 1-800-931-4084. Worldwide, visit the Pearson VUE website (www.VUE.com) to locate a testing center in your area and register for an exam with Pearson VUE.

1.8 Certification Tracks The A09 exam is a requirement for the Citrix XenServer Enterprise Edition 5 Citrix Certified Administrator (CCA) track. To become certified in this track, candidates must take and pass the following:

Certification	Required Exam(s)
CCA for Citrix	• A09: Implementing Citrix XenServer

XenServer 5 Enterprise Edition	Enterprise Edition 5.0
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This exam may also be a requirement for advanced certification tracks. For the most up-to-date certification information visit www.citrixtraining.com.

1.9 Citrix Exam Retake Policies

If a candidate fails an exam on the first attempt, he or she must wait 24 hours from their original appointment time before they can register to retake the exam. If a candidate fails on a second attempt, and any attempt thereafter, he or she must wait 14 days after a failed attempt to retake the exam. Beta exams may only be taken once.

Citrix Education monitors retake activity for breaches of this policy. Breach of this policy can result in sanctions up to and including temporary ban from taking Citrix exams and/or decertification.

1.10 Commenting During Live Exam

Citrix Education is committed to continually monitoring and updating our exams as needed. As a practice, Citrix Education regularly reviews and refreshes exams and exam questions even after the beta exam period is over. Comments made by candidates during beta and live exams are used as anecdotal feedback and considered by the Citrix Exam Development team when making decisions about the exam and specific exam questions.

2 The Intended Audience

2.1 Intended Audience

The A09 exam is a rigorous examination of subjects that are critical to an administrator's role as defined by subject matter experts (SMEs) at Citrix Systems. This role includes, but is not limited to:

- Citrix XenServer Administrators
 - Citrix XenDesktop Administrators
 - End-user/customers
 - Support Administrators
 - Partners
-

3 Preparatory Recommendations for the Exam

3.1 Introduction

It is recommended that candidates have the knowledge and skills necessary to install, configure and administer Citrix XenServer Enterprise Edition 5.0 implementations in an enterprise environment.

3.2 Recommended Knowledge and Skills

Candidates should have the following knowledge and skills prior to taking this exam:

- Basic knowledge of network storage concepts (NAS, SAN)
 - Basic knowledge of Linux
 - Basic datacenter administration skills, including knowledge of High Availability, SAN technologies, and networking
-

3.3 Recommended Product Experience

It is recommended that candidates obtain hands-on experience with Citrix XenServer Enterprise Edition 5.0, such as what is provided in the CXS-200-II Implementing Citrix XenServer Enterprise Edition 5.0 instructor-led training course or 6 months of real world experience using the product.

3.4 Recommended Course

For optimal performance on this exam, Citrix recommends that exam-takers attend or self-study the CXS-200-II Implementing Citrix XenServer Enterprise Edition 5.0 instructor-led training course and obtain field experience if possible.

4 Exam Sections and Weights

4.1 Introduction

The Implementing Citrix XenServer Enterprise Edition 5.0 exam (1Y0-A09) is divided into ten (10) sections. Each section of the exam is weighted as follows, totaling 100%.

4.2 Section Titles and Weights

Section	Weight
Pre-deployment Planning	17%
Installing XenServer Enterprise Edition 5.0	20%
Creating Virtual Machines	9%
Working with Virtual Machines	9%
Managing XenServer Hosts	8%
Determining Storage	9%
Working with Pools	8%
Supporting a XenServer Enterprise Edition 5.0 Implementation	8%
Using the XenServer Command Line Interface	4%
Business Continuity (HA and VM Recovery)	8%
Total	100%

4.3 How Section Weights Relate to Questions on the Exam

Section weights correlate directly to the number of questions on the exam. For example, if an exam has 60 questions, and section 1 is weighted as 50%, then 30 of the questions on the exam will relate to section 1 ($60 \times 50\% = 30$).

Section weights are NOT used to calculate a candidate's score. Section weights are meant to indicate the percentage of the exam that covers certain content. Because some questions may have different point values assigned to them, section weights and exam scores do not always have a one to one correlation.

5 Exam Objectives and Resources for the Exam

5.1 Introduction

The questions for the exam were developed directly from the exam objectives. The exam objectives are used to test the knowledge, skills and abilities related to each section of the exam.

Some of the exam objectives will correspond, or map, to field or hands-on experience. Candidates are expected to have some hands-on experience with Citrix implementations of Citrix XenServer Enterprise Edition 5.0 to increase their likelihood of passing.

For optimal performance, Citrix recommends that candidates attend or self-study the CXS-200-1I Implementing Citrix XenServer Enterprise Edition 5.0 course and obtain field experience.

5.2 Obtaining an Evaluation License of XenServer 5.0

Candidates can get hands-on experience by obtaining an evaluation license for Citrix XenServer Enterprise Edition 5.0. Individuals can obtain a copy of the software by downloading it from MyCitrix.com. Evaluation licenses may also be obtained by attending or purchasing the CXS-200-1I Implementing Citrix XenServer Enterprise Edition 5.0 course.

5.3 Resources Used to Develop the Exam

The following resources were used to develop this exam:

Resource	How to Obtain
Technical Documentation: CXS-200-1I Implementing Citrix XenServer Enterprise Edition 5.0	This course is available at Citrix Authorized Learning Centers (CALCs) worldwide. To find the CALC nearest you, please visit: http://www.citrixtraining.com/courses/index.cfm *
Technical Documentation: Citrix XenServer 5.0 Administrator's Guide	The XenServer 5.0 Administrator's Guide can be found here: http://support.citrix.com/article/ctx118447 *
Technical Documentation: Citrix XenServer 5.0 Installation and Configuration Guide	The Citrix Provisioning Server 5.0 Installation and Configuration Guide can be found here: http://support.citrix.com/article/CTX118448
XenCenter Help Files	The XenCenter Help Files can be found within the XenCenter Console.

In addition, the Citrix XenServer 5.0 product was used for hands-on experience in developing items for the exam.

*Links are subject to change

5.4 Exam Objectives

For all sections, some hands-on experience administering a Citrix XenServer Enterprise Edition 5.0 implementation is recommended.

Note: Field experience is considered technical and practical experience with the Citrix XenServer Enterprise Edition 5.0 in a pilot or production environment. Hands-on experience is considered technical or practical experience with the Citrix XenServer Enterprise Edition 5.0 in a lab or proof-of-concept (POC) environment.

Section	Objectives	Resources Used
Pre-deployment Planning	<ul style="list-style-type: none"> • Given a list of options, determine how to apply a manual MAC address. • Given a list of options, determine how to manage the virtual NICs from a virtual switch perspective. • Given a list of options, identify when to use an internal-only, external, or bonded NIC. • Determine how to change the network interface or IP address for the management interface using XenCenter or the XenServer console. • Based on a particular guest operating system, determine the appropriate number of virtual CPUs to assign to a single virtual machine. • Identify which conversion tool to use for either Windows or Linux VMs and their related requirements (including memory) when virtualizing the respective server type, including both virtual and physical servers. 	<ul style="list-style-type: none"> • Citrix XenServer 5.0 Administrator's Guide • XenCenter Help • Hands-on experience

<p>Installing XenServer Enterprise Edition 5.0</p>	<ul style="list-style-type: none"> • Given a list of options, identify system requirements. • Given a plan to install XenServer, select the correct step(s) to install, including compatibility and existing infrastructure. • Identify storage requirements from a list of options. • Given a list of options, select what is needed to create an ISO library. • Determine how to upgrade to XenServer 5.0. • Determine how to manage licensing for a XenServer 5.0 deployment. 	<ul style="list-style-type: none"> • Citrix XenServer 5.0 Installation and Configuration Guide • CTX-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 • Hands-on experience
<p>Creating Virtual Machines</p>	<ul style="list-style-type: none"> • Given a list of options, determine the appropriate methods for creating a VM using XenCenter. • Identify the correct steps to install the tools and differences between Windows and/or Linux. • Determine how to create a template based on scenario or requirements. • Determine how to create a VM from a template based on the needs of scenario. • Determine the step(s) to create a Windows VM using XenConvert P2V conversion. 	<ul style="list-style-type: none"> • Citrix XenServer 5.0 Administrator's Guide • Citrix XenServer 5.0 Installation and Configuration Guide • CXS-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 • XenCenter Help
<p>Working with Virtual Machines</p>	<ul style="list-style-type: none"> • Given a list of options, determine which lifecycle operations to use in the XenCenter client. • Given requirements, determine whether an admin should export/import, copy or uninstall, or delete a VM. • Identify properties of virtual networking architecture or components, including adding 	<ul style="list-style-type: none"> • Citrix XenServer 5.0 Installation and Configuration Guide • CXS-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 • XenCenter Help

Working with Virtual Machines (Cont.)	<p>VLANs thru the CLI and NIC bonding.</p> <ul style="list-style-type: none"> Identify or specify what information can be obtained and which tasks can be executed from the VM tabs. 	
Managing XenServer Hosts	<ul style="list-style-type: none"> Identify what information can be obtained and which tasks can be executed from the host tabs. Identify the effects of a server being in maintenance mode. Given a scenario, determine how to manage the physical or virtual network. 	<ul style="list-style-type: none"> Citrix XenServer 5.0 Installation and Configuration Guide Hands-on experience
Determining Storage	<ul style="list-style-type: none"> Determine how to manage storage including repairing broken links Determine how to disconnect and reconnect storage without losing the VM data Determine how to configure a multipath configuration to meet requirements Determine how to set up remote storage, including identifying which storage type to use 	<ul style="list-style-type: none"> Citrix XenServer 5.0 Administrator's Guide CXS-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 XenCenter Help
Working with Pools	<ul style="list-style-type: none"> Given a scenario depicting a resource pool, identify the pool architecture. Based on the need for a pool, determine how to create the pool. Given a list of options, identify pool recovery methods. Given a scenario, determine how to use maintenance mode to update servers. 	<ul style="list-style-type: none"> CXS-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 XenCenter Help
Supporting a XenServer Enterprise Edition 5.0 Implementation	<ul style="list-style-type: none"> Identify the process, command or file to use in order to support the XenServer implementation. Identify ways to capture server status report using XenCenter. 	<ul style="list-style-type: none"> CXS-200-11 Implementing Citrix XenServer Enterprise Edition 5.0 XenCenter Help Hands-on Exp.

Using the XenServer Command Line Interface	<ul style="list-style-type: none"> • Given a list of CLI commands, determine which CLI commands are valid. • Identify the purpose or functionality of XenServer CLI or menu-based console. 	<ul style="list-style-type: none"> • Citrix XenServer 5.0 Administrator's Guide
Business Continuity (HA and VM recovery)	<ul style="list-style-type: none"> • Determine the prerequisites necessary for High Availability. • Determine how to enable High Availability, including the processes that run while High Availability is enabled • Given a scenario, determine the steps needed to configure disaster recovery for VMs. 	<ul style="list-style-type: none"> • Hands-on experience

5.5 How Objectives Relate to Questions on the Exam

Objectives summarize what the test is designed to measure. Objectives are developed by Exam Developers and SMEs based on identified tasks that relate to the job of administering a Citrix XenServer Enterprise Edition 5.0 implementation. The number of questions written for each objective relates directly to the importance of that task in doing the job and is proportional to how frequently the task is performed.

6 Interactive Item Usage

6.1 Introduction

The Implementing Citrix XenServer Enterprise Edition 5.0 exam consists primarily of traditional multiple-choice items. This exam also includes Drag and Drop items and Point and Click items. These types of items allow for candidates to answer questions by interacting with the interface by dragging objects to predefined destinations and clicking responsive areas (Hot Spots) of an image.

Traditional multiple-choice items store the selected answers so that candidates may revisit the item and see their chosen answers. In non-traditional items, this is **NOT** the case. If candidates navigate away from a non-traditional item, their previous selection is **NOT** visible to them once they revisit the item. **If candidates revisit a previously answered non-traditional item, they will be prompted to answer the item again.**

6.2 Description of Drag and Drop items

Drag and drop items instruct candidates to drag objects to pre-defined destinations. These types of items are usually used to test a candidate's understanding of a process, order, or other regimented ordered concept.

In these items, predefined destinations are marked by rectangular objects called destination panels. Destination panels indicate where objects can be placed in the user interface. These panels contain instructions, such as "Place Here" or "Place First Here" (as shown in Figures 6.1 and 6.2) or similar text that alerts candidates that this is a panel onto which an object should be dragged. Objects which can be moved are marked by an action word or sentence.

As with the other non-traditional items, candidates must click the "Done" button within the task window when finished in order to record their answer(s) and move on to the next item.

6.3 Specialized cursors in Drag and Drop items

While dragging these objects, candidates should pay careful attention to the cursor. Figures 6.4 and 6.5 depict the two cursors candidates will see while completing a Drag and Drop item in this exam.

Figure 6.4
Prohibited
cursor
indicator



In this figure, a candidate is attempting to drag an object to a destination panel and the prohibited symbol appears. The candidate will not be able to drop the source panel into the destination panel when the prohibited symbol is present. The candidate should reposition the source panel on the desired destination panel until he or she sees the insert symbol shown in Figure 6.5.

Figure 6.5
Insert cursor
indicator



In this figure, a candidate is attempting to drag an object to a destination panel and the insert symbol appears. The candidate will be able to drop the source panel into the desired destination panel when the insert symbol is present.

6.6 Deselecting an option in a Drag and Drop Item

If a candidate moves an object to the incorrect destination panel, the candidate can remove the item by dragging it out of the destination panel, towards the object's original location.

6.7 Description of Point and Click Items

Point and click items or hotspot items require candidates to click responsive areas in an image. This type of an item is usually used to test candidates' knowledge of a product's UI.

In a point and click item, usually an image of a configuration screen or network topology is displayed. Instructions direct candidates to which element they should select in the item. (As shown in Figure 6.9).

As with the other non-traditional items, candidates must click the "Done" button within the task window when finished in order to record their answer(s) and move on to the next item.

6.8 Specialized Indicator in Point and Click Items

When candidates click a spot in a point and click item, a cross-hair will appear on that spot to indicate it has been selected (as shown in Figure 6.9).

Figure 6.9



In this figure a candidate has selected the spot they believe correctly answers the question. The spot the candidate chose is indicated by the cross-hair symbol.

6.10 Deselecting a Spot in a Point and Click Item

If candidates click the wrong spot, the candidate can deselect the spot by clicking it again. Once the spot has been deselected, the cross-hair symbol will disappear.

7 Appendix: Practice

Question 1 What are two ways that an administrator can install a license file on a XenServer host? (Choose two.)

- A. Use Secure Copy (SCP) to upload the license file
- B. Apply the license file to the server from XenCenter
- C. Use the `xe host-license-add` command from the CLI
- D. Apply the license file to the server using XenServer Tools

Answer: B, C

Question 2 **Scenario:** An administrator wants to organize and manage three XenServer hosts as a single entity using resource pool architecture. The administrator has already selected XS1 as the pool master and disconnected the shared storage configuration from the two servers, XS2 and XS3 that will be made secondary pool members. The administrator also has verified that the NICs are connected to the same networks in the pool and that the system has access to the shared storage.

Which additional step must the administrator take before adding XS2 and XS3 to the resource pool?

- A. Stop all running VMs
- B. Assign a static IP to each member of the pool
- C. Configure a NIC bond on the management NIC
- D. Reconfigure the management interface for XS1 to accommodate XS2 and XS3

Answer: A

Question 3 What can an administrator use to set bandwidth limits?

- A. XenCenter
- B. XenMotion
- C. XenServer tools
- D. Logical volume manager

Answer: A

Question 4 An administrator needs to free up memory and CPU cycles on the XenServer host of a virtual machine (VM).

Which step should the administrator take to complete this task?

- A. Restart the VM
- B. Reboot the VM
- C. Suspend the VM
- D. Shut down the VM

Answer: C

Question 5 Which three steps must the administrator take to create a dedicated NIC bond as a management interface for storage? (Choose three.)

- A. Create the bond
- B. Add a new management interface
- C. Assign a number to the new logical network
- D. Specify the correct network for the secondary management interface
- E. Reconfigure the management interface of the server and move it back on to a physical NIC

Answer: A, B, D

Question 6 Which two XenServer CLI commands are valid? (Choose two.)

- A. log-reopen
- B. log-get-keys
- C. log-shutdown
- D. log-backup-data

Answer: A, B

Question 7 **Scenario:** An administrator is creating a Server Status Report for three servers that are part of a resource pool.

For each server in the pool, the administrator requires the following:

- A list of the guest VMs installed onto the server and their current states
- Client application log files

Based on these requirements, which two report content items should the administrator select to include in the report? (Choose two.)

- A. System logs
- B. XenCenter logs
- C. XenServer domain list
- D. XenServer daemon sub processes

Answer: B, C

Question 8 What should an administrator do before configuring multi-pathing using XenCenter?

- A. Restart the XenServer host
- B. Suspend the XenServer host
- C. Shutdown the XenServer host
- D. Place the XenServer host in maintenance mode

Answer: D

Question 9 What is an effect of performing maintenance operations on a XenServer host that is not part of a resource pool?

- A. Any running virtual machines will be gracefully shut down by the XenServer host.
- B. Any running virtual machines will be migrated to a XenServer host that is part of a resource pool.
- C. Any suspended virtual machine cannot be resumed without performing a **Force Shutdown** and restarting it.
- D. Any custom RPMs that might have been installed on the XenServer host control domain will not be preserved.

Answer: C
