

# Citrix Password Manager 4.5: Administration

## 327 Exam

### Preparation Guide

### Citrix Education

2.0

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**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 Purpose

This document provides a list of exam objectives for the Citrix Password Manager 4.5: Administration exam (327) and a list of resources that will help prepare the exam-taker for items associated with these objectives. This document outlines, at a high level, topics that are covered in the exam and instruction on how to obtain information about these topics. The exam-taker should read this document carefully before preparing for the exam.

This exam certifies that successful candidates have the knowledge and skills necessary to install, administer and support a Citrix Password Manager 4.5 implementation.

# 2 The Exam

This guide pertains to the 327 exam. The 327 exam is a 66-question exam written in English. Native English speakers have 90 minutes to complete the exam. Non-native English speakers who take the exam in English have 120 minutes to complete the exam. The passing score for this exam is 62%.

This version of the exam is based on Citrix Password Manager 4.5. It includes product nomenclature and features consistent with this version of the product.

The 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 section of [www.CitrixTraining.com](http://www.CitrixTraining.com).

# 3 The Intended Audience

The 327 exam is a rigorous examination of subjects that are critical to an administrator's role as defined by Citrix Systems' subject matter experts. This role includes, but is not limited to:

- Administrators of Password Manager 4.5 implementations
- Administrators of Citrix Access Suite 4.5 implementations
- Help desk personnel
- Network Administrators
- Systems Engineers
- Technical Consultants
- Trainers
- Network Security Personnel
- Systems Administrators
- Citrix Access Partner network members

## 4 Preparatory Recommendations for the Exam

It is recommended that the exam-taker have the knowledge, skills, and abilities necessary to install, administer and support Citrix Password Manager 4.5 prior to taking this exam.

### 4.1 Recommended Knowledge and Skills

Exam-takers should have the following knowledge and skills prior to taking this exam:

- Knowledge of concepts of authentication and authorization
- Knowledge of how various types of applications process authentication requests
- Knowledge of basic security concepts
- Basic administration of Citrix Password Manager 4.5
- Basic Microsoft Windows Server 2003 administration
- Basic network administration, including the ability to:
  - ❑ Log on/Log off
  - ❑ Navigate the system
  - ❑ Create users and manage permissions and administrator rights
  - ❑ Configure operating system options

### 4.2 Recommended Experience

It is recommended that the exam-taker have at least six months of experience with the following:

- Installing, configuring and administering Citrix Password Manager 4.5
- Creating application definitions for Windows, web, and host applications
- Installing and managing Citrix licensing
- Configuring password management
- Configuring settings for agent deployment
- Performing advanced configurations to enable features such as Hot Desktop and Account Self-Service

It is also recommended that the exam-taker attend the Citrix course CTX-1327AI Citrix Password Manager 4.5: Administration.

## 5 Exam Sections and Weights

The Citrix Password Manager 4.5: Administration exam (327) is divided into nine (9) sections. Each section of the exam is weighted as follows, totaling 100%:

Planning a Citrix Password Manager 4.5 Deployment	14%
Selecting and Installing the Central Store	5%
Installing and Managing the Agent	6%
Using the Password Manager Console	11%
Managing Password Manager Licensing	7%
Creating and Managing Application Definitions	23%
Password Manager Functionality	19%
Service Features	12%
Smart Card Integration	3%
<b>Total</b>	<b>100%</b>

## 6 Exam Objectives and Resources for the Exam

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

Some of the exam objectives will correspond, or map, to field experience. The exam-taker is expected to have at least six months of experience with Citrix implementations of Password Manager 4.5 to increase their chance of passing this exam.

For optimal performance on this exam, Citrix recommends that exam-takers attend the CTX-1327AI Citrix Password Manager 4.5: Administration course and obtain field experience.

## 6.1 Resources Used to Develop the Exam

The following resources were used to develop this exam:

Resource	How to Obtain
CTX-1327AI Citrix Password Manager 4.5: Administration	This course is available at Citrix Authorized Learning Centers (CALCs) worldwide. To find the CALC nearest you, please visit the <a href="https://secureportal.citrix.com/MyCitrix/listings/Calc.aspx">https://secureportal.citrix.com/MyCitrix/listings/Calc.aspx</a> web site.
Citrix Password Manager Administrator's Guide	The administrator's guide is available on the CD for Citrix Password Manager 4.5 for Windows. It is also available for download at <a href="http://support.citrix.com/article/CTX111558">http://support.citrix.com/article/CTX111558</a> .
Getting Started with Citrix Licensing Guide	The licensing guide is available on the CD for Citrix Password Manager 4.5 for Windows. It is also available for download at <a href="http://support.citrix.com/article/CTX109108">http://support.citrix.com/article/CTX109108</a> .

## 6.2 Exam Objectives

For each exam objective, the chart below lists the corresponding Citrix course and/or available technical publications.

**For all sections, at least six months of experience administering a Citrix Password Manager 4.5 implementation is recommended.**

Section	Objectives	Citrix Course and/or Technical Publication
<b>Planning a Citrix Password Manager 4.5 Deployment</b>	<ul style="list-style-type: none"> <li>▪ Based on the requirements of a given environment, choose the hardware and/or software necessary to implement Password Manager 4.5.</li> <li>▪ Given a required feature for an installation of Citrix Password Manager 4.5, identify options, components, and/or installation/configuration steps required.</li> <li>▪ Given a list of installation tasks and/or a scenario, choose the required options and/or accounts to implement data integrity, Self-Service Password Reset, Hot Desktop, and other service-based features.</li> <li>▪ Based on requirements, choose the appropriate password policy settings.</li> </ul>	Citrix Password Manager Administrator's Guide

Section	Objectives	Citrix Course and/or Technical Publication
<b>Selecting and Installing the Central Store</b>	<ul style="list-style-type: none"> <li>▪ Given a type of central store, identify which central store to implement and/or advantages for choosing a specific central store.</li> <li>▪ Given a scenario and/or requirements, choose the appropriate steps and/or options to create and/or configure an NTFS Network Share or Active Directory central store.</li> <li>▪ Given a user configuration scenario related to an implemented central store, identify the cause of a given problem and/or choose the appropriate troubleshooting steps.</li> </ul>	Citrix Password Manager Administrator's Guide
<b>Installing and Managing the Agent</b>	<ul style="list-style-type: none"> <li>▪ Given a Windows, host or web application, choose the correct steps to configure application credentials and/or troubleshoot application credential configuration errors.</li> <li>▪ Given a description of user interactions with the Citrix Password Manager environment, identify the impact it will have on the single sign-on user experience.</li> <li>▪ Given a list of implementation requirements, select the required options for installing and/or using the agent software.</li> <li>▪ Given a list of considerations, select those that are required when deploying the agent.</li> <li>▪ Given a list of features, choose the appropriate options to configure Password Manager Enrollment for first time use</li> <li>▪ Given a description of an environment with an implementation of Citrix Password Manager, identify how administrative changes will impact users in the environment.</li> </ul>	Citrix Password Manager Administrator's Guide  CTX-1327AI Citrix Password Manager 4.5: Administration

Section	Objectives	Citrix Course and/or Technical Publication
<b>Installing and Managing the Agent (continued)</b>	<ul style="list-style-type: none"> <li>▪ Given requirements for adding, editing, or managing credentials for secure applications, choose the appropriate options to use the Logon Chooser for these purposes.</li> </ul>	
<b>Using the Password Manager Console</b>	<ul style="list-style-type: none"> <li>▪ Based on stated requirements, select the steps to configure a basic user and/or the options to ensure that the Citrix Password Manager deployment meets those requirements.</li> <li>▪ Determine the required steps to configure Citrix Password Manager for Account Self-Service, Hot Desktop, and other advanced Password Manager Service features.</li> </ul>	Citrix Password Manager Administrator's Guide  CTX-1327AI Citrix Password Manager 4.5: Administration
<b>Managing Password Manager Licensing</b>	<ul style="list-style-type: none"> <li>▪ Based on a scenario, select the type of licensing to implement and identify the required steps to configure licensing, including advanced, enterprise, named user and concurrent user licensing.</li> <li>▪ Given a scenario in which Password Manager licensing appears to be malfunctioning or otherwise checked out, identify the appropriate steps and/or options to troubleshoot the licensing process.</li> </ul>	Field experience managing Citrix Password Manager licensing
<b>Creating and Managing Application Definitions</b>	<ul style="list-style-type: none"> <li>▪ From a list of definitions and/or functions, select those which accurately describe application definitions.</li> <li>▪ From a description, identify the types of application definitions available with Citrix Password Manager.</li> <li>▪ Given a scenario and/or description of a Windows application authentication function, identify which options are required to configure the</li> </ul>	Citrix Password Manager Administrator's Guide  CTX-1327AI Citrix Password Manager 4.5: Administration

Section	Objectives	Citrix Course and/or Technical Publication
<b>Creating and Managing Application Definitions (continued)</b>	<p>definition.</p> <ul style="list-style-type: none"> <li>▪ Given a scenario and/or a description of a web application authentication function, identify which options are required to configure the definition.</li> <li>▪ Given a scenario and/or a description of a host application's authentication function, identify which options are required to configure the definition.</li> <li>▪ Given a list of requirements, identify the required steps and/or options to create and configure complex application definitions such as ActiveX and proprietary Windows applications and/or identify troubleshooting steps when needed.</li> <li>▪ Given a list of options, choose the appropriate options and/or identify when it is appropriate to implement these options for SAP applications.</li> <li>▪ Based on stated requirements, identify the steps and/or options to install and/or use the Application Definition Tool.</li> </ul>	
<b>Password Manager Functionality</b>	<ul style="list-style-type: none"> <li>▪ Identify the purpose and the requirements for establishing Password Manager policies.</li> <li>▪ Based on a scenario and/or description of the needs of an environment, identify the appropriate password expiration options.</li> <li>▪ Given a list of requirements, identify appropriate options to create and/or test password policies.</li> <li>▪ Based on stated requirements and/or a list of functions, choose the appropriate steps and/or options for creating application groups.</li> <li>▪ Choose the appropriate options to</li> </ul>	<p>Citrix Password Manager Administrator's Guide</p> <p>CTX-1327AI Citrix Password Manager 4.5: Administration</p>

Section	Objectives	Citrix Course and/or Technical Publication
<b>Password Manager Functionality (continued)</b>	<p>create and/or configure password sharing groups to meet stated requirements.</p> <ul style="list-style-type: none"> <li>▪ Based on a description of configuration steps taken by an administrator, select the steps to test these configurations and/or the implications of these configuration choices.</li> <li>▪ Based on the needs of a given environment, identify the appropriate options to create and/or manage question-based authentication.</li> </ul>	
<b>Service Features</b>	<ul style="list-style-type: none"> <li>▪ Identify the settings, components, and/or options required to configure the Password Manager Service to meet stated requirements.</li> <li>▪ Given a description, identify the steps and/or options required to install and configure Account Self-Service.</li> <li>▪ Given a scenario and/or description of the needs of an environment, identify the appropriate options to manage the password reset data for a user.</li> <li>▪ Based on stated requirements, choose the appropriate options for installing and/or using the Data Signing Tool.</li> <li>▪ Identify the settings and/or options required to configure data integrity to meet stated requirements.</li> <li>▪ Given the needs of an environment, identify how to install and use provisioning.</li> <li>▪ Given the needs of an environment, identify when and how to configure Automatic Key Recovery and/or assign key recovery functionality features to users.</li> </ul>	CTX-1327AI Citrix Password Manager 4.5: Administration

<b>Section</b>	<b>Objectives</b>	<b>Citrix Course and/or Technical Publication</b>
<b>Service Features (continued)</b>	<ul style="list-style-type: none"> <li>▪ Based on the needs of an environment, identify the steps and/or options to configure account association.</li> </ul>	
<b>Smart Card Integration</b>	<ul style="list-style-type: none"> <li>▪ Choose the appropriate settings and/or options to integrate smart cards with Password Manager to meet stated requirements.</li> <li>▪ Identify the requirements for choosing Smart Cards, tokens, or biometrics and/or configuration options from a list.</li> </ul>	<p>Citrix Password Manager Administrator's Guide</p> <p>CTX-1327AI Citrix Password Manager 4.5: Administration</p>

## 7 Drag and Drop Usage

The Citrix Password Manager 4.5: Administration exam consists primarily of traditional multiple-choice items. This exam also includes Drag and Drop items. These types of items allow for the exam-taker to answer questions by dragging objects to predefined destinations. In this exam, these types of items are used for matching or placing steps in order.

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 7.1 and 7.2 on the next page) or similar text that flags the exam-taker 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.

While dragging these objects, exam-takers should pay careful attention to the cursor. Figures 7.1 and 7.2 on the next page depict the two cursors an exam-taker will see while completing a Drag and Drop item in this exam. Learning to recognize and interpret these can make all the difference in answering these types of items correctly.



Figure 7.1: In this figure, an exam-taker is attempting to drag an object to a destination panel and the prohibited symbol appears. The exam-taker will not be able to drop the source panel into the destination panel when the prohibited symbol is present. The exam-taker should reposition the source panel on the desired destination panel until he or she sees the insert symbol shown in Figure 7.2 below.



Figure 7.2: In this figure, an exam-taker is attempting to drag an object to a destination panel and the insert symbol appears. The exam-taker will be able to drop the source panel into the desired destination panel when the insert symbol is present.

## 8 Appendix: Practice

1. Users must \_\_\_\_\_ in order to use the agent software. (Choose the correct option to complete the sentence.)
- A. be members of the domain
  - B. be included in a user configuration
  - C. have Administrator rights and privileges to the Logon Manager
  - D. have the Password Manager Console installed on their client devices

Answer: B

2. Under which circumstances is it appropriate to install the Password Manager agent software on each server running Presentation Server and on each client desktop?
- A. Only concurrent user licenses are implemented
  - B. All client applications are published on a server running Presentation Server
  - C. Users are allowed to access published applications as well as other local applications
  - D. The environment includes servers running Presentation Server and a Citrix Access Gateway appliance

Answer: C

3. **Scenario:** A user configuration includes two Active Directory groups (Group 1 and Group 2), an organizational unit, and a domain root. A user belongs to both Active Directory groups and his user account resides in the organizational unit.

Which attribute associated with the user configuration would apply to this user?

- A. domain root
- B. organizational unit
- C. Group 1 Active Directory group
- D. Group 2 Active Directory group

Answer: B

4. What are two purposes of application definitions? (Choose two.)
- A. To assign applications to users
  - B. To apply password complexity restrictions
  - C. To communicate to the agent software how to recognize the application
  - D. To communicate to the agent software how to supply credentials to the appropriate fields

Answers: C and D

5. Which option allows an administrator to create an application definition for a Presentation Server client with the least effort?
- A. Use the Logon Manager on the machine with the agent software installed to configure the client.
  - B. Use the Password Manager Console to upload the APPLIST.INI file to the synchronization point.
  - C. Export the Agent Settings to a .REG file using the Password Manager Console and then run the .REG file on the machine with the agent software installed.
  - D. Use the Password Manager Console to create an application definition and select the application template from the "Create from application template" drop-down menu.

Answer: D

6. An administrator is concerned that unauthorized software is being installed with the same executable name and Windows title as a Password Manager-defined application.
- How can the administrator ensure that only authorized software is recognized by the agent software?
- A. Change the submission actions from Control IDs to Send Special Keys.
  - B. Modify the Windows title to something that cannot be recognized or guessed.
  - C. Specify the executable path to the applications within the application definition.
  - D. Configure the agent software to perform an MD5 checksum on the executable name.

Answer: C

7. **Scenario:** An administrator creates a Windows application definition and assigns it to a user configuration. The administrator opens the application from a workstation while running the agent software and finds that it does not recognize this application.

Which two steps can the administrator complete to resolve this issue? (Choose two.)

- A. Select "Refresh" within the Logon Manager.
- B. Reinstall the Password Manager agent software.
- C. Verify that the user logging in is a member of the user configuration.
- D. Open the application, right-click the Password Manager agent software icon, and choose "Submit Credentials."

Answers: A and C

8. Which statement about resetting a primary password using Account Self-Service is true?
- A. The answers to the security questions are case-insensitive by default.
  - B. At least two of the four security questions must be answered correctly in order to reset a forgotten password.
  - C. An email containing the new password and reset confirmation instructions will be sent by default to the user once the password is reset.

- D. The answers to the security questions must match the exact spelling, spacing and punctuation of those entered when the answers to the security questions were first registered.

Answer: A

- 9. Which smart card key source setting in Password Manager requires the use of roaming profiles?
  - A. Smart Card Certificate
  - B. Allow Smart Card PINs
  - C. Microsoft Data Protection API
  - D. Allow protection using blank passwords

Answer: C