



Citrix Core Technologies and Architecture Exam Enablement Guide

Citrix Systems® Education Services

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Author: Brian J Moss

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Contact Citrix Systems:

851 West Cypress Creek Road, Fort Lauderdale, FL 33309, (954) 267- 3009

1 Purpose

This document provides a list of resources needed to enable you toward a particular test objective by providing the tasks that subject matter experts determined were essential aspects of Citrix Core Technologies and Architecture administration. This exam was created from that task list. The task list will be presented as well as a list of tasks/skills that are prerequisites for the test.

This document outlines what is on the exam and how to get that information. Please read this carefully, before starting your preparation for the exam. Contained within the document are the following:

2 The Exam

The following Enablement Guide addresses the Citrix Core Technologies and Architecture #610 exam. The exam is a sixty (52) question exam written in English. Native English speakers have (1) hours or (60) minutes to complete the exam. Non-native English speakers who take the exam in English are allotted (2) hours to complete the exam. This is a rigorous examination based on the role of an Architect as defined by Citrix Systems' Subject Matter Experts. The 610 exam counts toward the CCIA certification.

The exam is administrated through Prometric. For more details on the Rules and Procedures associated with registering for the exam, please go to <http://citrix.com/training/testing.asp>.

3 Prerequisites for the Exam

To take this exam you will need networking and integration skills in an enterprise environment and at two years of experience on a Citrix Core Technologies and Architecture

Perquisite Knowledge

The following skills are prerequisite knowledge:

- MetaFrame XP integration
- Windows 2000/9x/NT Experience
- Multi-farm implementation

- Nfuse1.5 or higher
- IIS/Apache Web-server administration
- SQL/Oracle database administration
- Windows Active Directory administration

3.1 Prerequisite Experience

It is assumed that candidates will meet the following prerequisites:

- Have 2-3 years experience with application server computing
 - Have a minimum of 2 years experience working with Citrix technologies such as MetaFrame XP and NFuse
- Have a minimum of 2 years experience supporting enterprise administration, system design and implementation.
- Have performed routine tasks such as installation, configuration, and maintenance of
 - NFuse and MetaFrame products with only occasional professional consultation for 2-3 years
- Have maintained multiple server farms in separate domains for at least two years
- Have at least 2 years experience using MS SQL server databases
- Have knowledge of Firewall and system security.

4 The Sections of the Exam

The Citrix Core Technologies and Architecture exam (610)

Server Based Computing
 Terminal Services Architecture
 Licensing Architecture
 ICA Technology
 Zone and Zone Data Collector Architecture
 Data store and Local Host Cache Architecture
 Load Management Architecture
 Resource Manager Architecture
 Installation Manager Architecture
 Network Manager Architecture
 Printing Architecture
 ICA Client
 Web Access Architecture

Each section was determined by the most important tasks from a Job Task Analysis. This analysis defined the role of a Security Administrator and identified all the related knowledge, skills and abilities of that role.

5 Test Objectives and Resources for the Exam

The questions for the exam come from the test objectives. A test objective helps test developers create questions that will have you demonstrate your

understanding, in a computer-testing environment, of the particular knowledge or skills related to the sections of the exam.

There are a variety of resources for the exam. To gain a variety of resources from one source it is **HIGHLY RECOMMENDED** that you attend the Citrix course that is associated with the task/content objects. Citrix courses are available at Citrix Authorized Learning Centers (CALC). To locate the CALC nearest you visit <http://apps.citrix.com/calclisting/calc.asp>

To aid in locating and deciding on the resources, a chart is provided for each section listing resources that map directly to the test objectives.

Our recommendation for passing this exam is to attend CTX-6100 course, obtain field experience and study.

5.1 Test Objectives and Resources

The following is the list of test objectives for the exam by section and resources:

I. Server-Based Computing

- Given server –based computing concepts and Citrix historical facts, you will, identify and define the component required for server-based computing.
- Given server –based computing concepts and Citrix historical facts, you will, identify factors that differentiate MetaFrame XP from other server-based computing solutions.
- Given server –based computing concepts and Citrix historical facts, you will, outline the benefits of server-based computing.
- Given server –based computing concepts and Citrix historical facts, you will, outline the benefits of server-based computing.
- Given server –based computing concepts and Citrix historical facts, you will, identify key facts about Citrix Terminal Services history.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

II. Terminal Services Architecture

- Given background knowledge on Terminal Services you will, identify difference between a terminal server and a MetaFrame XP server.
- Given background knowledge on Terminal Services you will, list the element of terminal services and describe the role of the multi-user kernel.
- Given background knowledge on Terminal Services you will, identify how applications install and execute on a Terminal Server.
- Given background knowledge on Terminal Services you will, outline the benefits of memory based-code sharing
- Given background knowledge on Terminal Services you will,
- Given background knowledge on Terminal Services you will, identify the purpose of and differences between listener stacks idle sessions and session stacks

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

III Licensing Architecture

- Given information on Terminal Services and MetaFrame XP licensing you will, define the purpose of Terminal services Client Access License and the related client device licensing process.
- Given information on Terminal Services and MetaFrame XP licensing you will, outline the process that occurs for Terminal Services License server discovery.

- Given information on Terminal Services and MetaFrame XP licensing you will, identify key design consideration based on Terminal Services and MetaFrame XP licensing.
- Given information on Terminal Services and MetaFrame XP licensing you will, identify the license component for Terminal Services, as well as the related functions.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

IV. ICA Technology

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- Given information on Terminal Services and MetaFrame XP licensing you will, describe the components of an ICA packet.
- Given information on Terminal Services and MetaFrame XP licensing you will, outline the process for ICA data communication.
- Given information on Terminal Services and MetaFrame XP licensing you will, describe the process for ICA data compression, bitmap disk caching and the queuing of the mouse and keystrokes.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

V. Zone and Zone Data Collector Architecture

- Given zone and zone data collector architectural information, you will identify the components of a MetaFrame XP server farm and their related functions.
- Given zone and zone data collector architectural information, you will define the IMA Service and describe the purpose of the IMA subsystems and communication processes.
- Given zone and zone data collector architectural information, you will outline the different types of zone communication that occur in a MetaFrame XP server farm.
- Given zone and zone data collector architectural information, you will describe the purpose of zones and identify the reason for choosing single or multiple zones.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

VI. Data Store and Local Host Cache Architecture

- Given data store database and local host cache architectural information you will, identify how the data store is updated.
- Given data store database and local host cache architectural information you will, identify key design considerations based on data store database and local host cache architecture and communication.
- Given data store database and local host cache architectural information you will, describe the purpose of distributed data store and outline the communication process between data stores.
- Given data store database and local host cache architectural information you will, identify the ways the local host cache is updated and outline related communication processes.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

VII. Load Managed Architecture

- Given architectural information on load management, you will identify the processes that occur to update rule value.
- Given architectural information on load management, you will identify key design consideration based on load management architecture.
- Given architectural information on load management, you will outline the processes that occur to load balance application in MetaFrame XP.
- Given architectural information on load management, you will identify the role of load-managed groups in a MetaFrame XP environment.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

VIII. Citrix Resource Manager Architecture

- Given Citrix Resource Manager architecture information, you will identify Citrix Resource Manager component and their related functions.
- Given Citrix Resource Manager architecture information, you will outline the process that occurs for updating Citrix Resource Manager metrics.

- Given Citrix Resource Manager architecture information, you will outline the communication process between the database connection server and the summary database.
- Given Citrix Resource Manager architecture information, you will describe the purpose of a summary database purge schedule.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

IX. Citrix Installation Manager Architecture

- Given architectural information on Citrix Installation Manager, you will outline the communication process that occurs when an application is recorded.
- Given architectural information on Citrix Installation Manager, you will identify key design consideration based on Citrix Installation Manager architecture.
- Given architectural information on Citrix Installation Manager, you will outline the communication process that occurs when a package is deployed.
- Given architectural information on Citrix Installation Manager, you will identify the components of Citrix Installation Manager and their related functions.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

X. Citrix Network Manager Architecture.

- Given architectural overview of Citrix Network Manager, you will identify SNMP management components and related functions.
- Given architectural overview of Citrix Network Manager, you will list the components of Citrix Network Manager and related functionality
- Given architectural overview of Citrix Network Manager, you will describe the purpose of Citrix MIB in Citrix Network Manager

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

XI. Printing Architectural

- Given architectural information on printing in MetaFrame XP you will list the components of Windows printing and MetaFrame XP printing architecture as well as define the functions of those components
- Given architectural information on printing in MetaFrame XP you will outline the process that occurs when printers are auto-created in an ICA session
- Given architectural information on printing in MetaFrame XP you will list the advantages and disadvantages for each type of client printer.
- Given architectural information on printing in MetaFrame XP you will identify key design consideration based on MetaFrame XP printing architecture

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XII. ICA Client Architecture

- Given ICA Client architectural information you will identify the three Win32 clients and related functionality.
- Given ICA Client architectural information you will outline the communication process for application enumeration using an ICA Client.
- Given ICA Client architectural information you will describe the components of Citrix Program Neighborhood.
- Given ICA Client architectural information you will list the components of an .ICA file and the process that occurs when a client device receives an .ICA file.
- Given ICA Client architectural information you will identify key design consideration based on Citrix ICA client architecture.

Citrix Courses	Technical Publications	Other Resources
Citrix Core Technologies and Architecture	White Papers	At least 2 years experience supporting system design and implementation

XIII. Application Access Architecture

- Given an overview of the various application access methods and communications, you will identify the components of Citrix Secure Gateway architecture.
- Given an overview of the various application access methods and communications, you will describe the components of Citrix Enterprise Services for Nfuse.
- Given an overview of the various application access methods and communications, you will compare the process that occurs when using and not using Network Address Translation.
- Given an overview of the various application access methods and communications, you will identify the components of a Citrix Nfuse Elite architecture.