



MetaFrame XP Advanced Administration Certification Exam

Enablement Guide

Citrix Systems® Education Services

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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 MetaFrame XP Advanced 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:

- Purpose Statement
- The Exam
- Prerequisites for the Exam
 - Prerequisite Knowledge
 - Prerequisite Experience
- The Sections of the Exam
 - Weights of the Exam Sections
- Test Objectives and Resources for the Exam
 - Test Objectives
 - Resource Matrix

2 The Exam

The following Enablement Guide addresses the MetaFrame XP Advanced Administration #991 exam. The exam is 50 questions exam written in English. Native English speakers have one (1) hour or sixty (60) minutes to complete the exam. Non-native English speakers who take the exam in English are allotted (90) minutes to complete the exam. This is a rigorous examination based on the role of a MetaFrame XP Administrator as defined by Citrix Systems' Subject Matter Experts. The 991 exam counts toward the CCEA 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 server administration skills in an enterprise environment and at least six months of experience on a MetaFrame XP implementation.

3.1 Prerequisite Knowledge

The following skills are prerequisite knowledge:

- MetaFrame XP 1.0 administration
- Windows 2000/9x/NT Experience
- Multi-farm administration
- Nfuse1.5 or higher
- IIS/Apache Web-server administration
- SQL/Oracle database administration
- Windows Active Directory administration

3.2 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 6 months experience supporting enterprise administration, system design and implementation.
- Have performed routine tasks such as installation, configuration, and maintenance of NFuse and MetaFrame XP products with only occasional professional consultation.
- Have maintained multiple server farms in separate domains for 6 months
- Have at least 2 years experience using MS SQL server databases.
- Have knowledge of Firewall and system security.
- Have knowledge of Microsoft Windows 2000 (Server, Advanced Server or Data Center)

4 The Sections of the Exam

The MetaFrame XP Advanced Administration Exam (991) exam is divided into eleven sections:

- Planning a MetaFrame XP Server Farm
- Designing a MetaFrame XP Server Farm
- Testing and Readiness
- Deploying a MetaFrame XP Server Farm
- Managing a MetaFrame XP Server Farm
- Managing a MetaFrame XP Data Store
- Troubleshooting a MetaFrame XP Server Farm
- Optimizing a MetaFrame XP Server Farm

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.

4.1 Weights of the Exam Sections

Each section was evaluated by subject matter experts to determine its importance and frequency to the daily work environment. From this analysis each section of the exam was given a weight of importance that helped determine the number of questions for each section. The following is a breakdown of each section's importance, out of 100%, by subject matter experts.

Sections	Percentage
Planning a MetaFrame XP Server Farm	8%
Designing a MetaFrame XP Server Farm	12%
Testing and Readiness	7%
Deploying a MetaFrame XP Server Farm	14%
Managing a MetaFrame XP Server Farm	17%
Managing a MetaFrame XP Data Store	15%
Troubleshooting a MetaFrame XP Server Farm	15%
Optimizing a MetaFrame XP Server Farm	12%

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-1240 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. Planning a MetaFrame XP Server Farm

- Given a scenario the administrator must identify risks and considerations that may appear during an analysis.
- Given a scenario the administrators will identify information gathered during application
- Given a scenario the administrators will identify minimum server requirements for a test environment.
- Given a scenario the administrators will identify ICA Client deployment methods and user requirement for each.
- Given a scenario the administrators will identify file storage requirements.

Citrix Courses	Technical Publications	Other Resources
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MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation
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II. Designing a MetaFrame XP Server Farm

- Given a scenario administrators will choose a server farm design and list details supporting the choice.
- Given a scenario administrators will design a group server
- Given a scenario administrators will design a load managed group make suggestion on increasing startup time performance
- Given a scenario administrators will choose a data store database
- Given a scenario administrators will resolve licensing issues
- Given a scenario administrators will calculate inter-zone connections.

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

III Testing and Readiness

- Given a scenario administrators Create a test configuration
- Given a scenario administrators launch a scalability test
- Given a scenario administrators analyze test results
- Given a scenario administrators create and add a custom script

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

IV. Application deployment

- Given a scenario administrators select appropriate server installation method
- Given a scenario administrators identify appropriate user training methods based on user level and required tasks
- Given a scenario administrators will recreate the Resource Manager local database to prepare a MetaFrame XPe server for cloning.
- Given a scenario administrators will construct an ICA Client download for a Windows-based system.

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

V. Implementing MetaFrame XP

- Given a scenario administrators will publish the Citrix Management Console.
- Given a scenario administrators will manage and monitor print driver to improve network performance.
- Given a scenario administrators will create load evaluators to balance user load
- Given a scenario administrators will use the Citrix Web Console to remotely administer a server farm.

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

VI. Managing a MetaFrame XP Data Store

- Given a MetaFrame XP server farm administrators will compact, back up, and recover a Microsoft Access data store.
- Given a MetaFrame XP server farm administrators will set a dsn file to work with a Microsoft Access database.
- Given a MetaFrame XP server farm administrators will migrate a data store database from Microsoft Access to Microsoft SQL Server.
- Given a MetaFrame XP server farm administrators will create a new dsn file.
- Given a MetaFrame XP server farm administrators will move Microsoft Access data store database to a new server and configure a MetaFrame XP server to indirectly access the data store database.

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

VII. Troubleshooting a MetaFrame XP Server Farm

- Given a MetaFrame XP server farm administrators will troubleshoot the local host cache.
- Given a MetaFrame XP server farm administrators will recreate the local host cache.
- Given a MetaFrame XP server farm administrators will enable logging by editing the registry.
- Given a MetaFrame XP server farm administrators will troubleshoot IMA.
- Given a MetaFrame XP server farm administrators will view IMA logs.

Citrix Courses	Technical Publications	Other Resources
MetaFrame XP for Windows Advanced Administration	White Papers	6 months experience supporting system design and implementation

VIII Optimizing a MetaFrame XP Server Farm

- Given a MetaFrame XP server farm administrators will increase the performance and throughput.
- Given a MetaFrame XP server farm administrators will optimize load management
- Given a MetaFrame XP server farm administrators will improve client connectivity over inconsistent WANS links
- Given a MetaFrame XP server farm administrators will configure Windows services and applications for use in a multi-user environment.
- Given a MetaFrame XP server farm administrators will adjust default Windows NT network configurations.

Sample Questions

(1) What are two system requirements for Citrix Management Console to install? (Choose two.)

- (a) MetaFrame XP
- (b) At least 65 MB of RAM
- (c) At least 200 MB of hard disk space
- (d) Java Runtime Environment Version 1.3

Answer b and d

(2) Which command can you use to change the TCP port for the ICA protocol on your MetaFrame XP server?

- (a) CHANGE /Port:NUM
- (b) CHANGEPORT /Port:NUM
- (c) ServerChange Port
- (d) ICAPORT

Answer d

(3) When testing MetaFrame XP servers, it is important to ensure that the _____. (Choose two.)

- (a) users are working with live data
- (b) logon scripts are written automatically
- (c) applications are compatible with the network environment
- (d) applications perform all of the users tasks in an ICA session

Answer c and d

(4) What are two guidelines that should be followed when using the Citrix Server Test Kit? (Choose two.)

- (a) run a five-minute reliable test
- (b) do not count on reports and statistics as the only indication performance
- (c) run the CSTK multiple times to generate data
- (d) conserve at least 2 GB of disk space for testing

Answers b and c

(5) Which of the following is a section that is included in the default answer file for an unattended MetaFrame XP installation?

- (a) [NFuse]
- (b) [User Profiles]
- (c) [Session]
- (d) [Citrix Management Console]

Answer a

(6) What can an administrator perform using the Citrix Web Console?

- (a) view information about servers
- (b) delete published applications
- (c) Change server role
- (d) configure server farm settings for SNMP

Answer a

(7) Which of the following is a rule that the load evaluators may use during calculation?

- (a) Buildload
- (b) Datatype rules
- (c) Max-Min rule
- (d) Scaling graph
- (e) Incremental rules

Answer e

(8) When will a member server update the session and load information to the zone data collector? (Choose two.)

- (a) when the user connects to the server
- (b) when an application is published
- (c) when a printer driver is added
- (d) when users log off the server

Answers a and d

(9) What are two areas to consider when measuring performance of a MetaFrame XP server farm? (Choose two.)

- (a) efficiency of the processor
- (b) efficiency of the protocols
- (c) efficiency of the network
- (d) efficiency of the server

Answers c and d

(10) Which tool is used to publish applications on multiple server farms?

- (a) Program Neighborhood Agent
- (b) Citrix Secure Gateway
- (c) Citrix Management Console
- (d) Citrix Connection Configuration

Answer c