Engineering a Citrix Virtualization Solution (with Simulations)

1Y1-A15 Exam

Beta Preparation Guide 1.0
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Disclaimer

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

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1 The Exam

1.1 Purpose of Exam

This document provides a list of exam objectives for the 1Y1-A15 Engineering a Citrix Virtualization Solution (with simulations) exam and a list of resources that will help exam-takers prepare for items associated with these objectives. This document outlines, at a high level, topics that are covered on this exam and instructions on how to obtain information pertaining to these topics. Exam-takers should read this document carefully before attempting this exam.

This exam certifies that successful exam-takers have the knowledge and skills necessary to interpret a design, fine tune it if necessary, manage an implementation project plan, build, roll out and document the setup of a Citrix virtualization solution.

1.2 Number of Questions

The A15 beta exam is a 90-question exam written in English. The exam consists of two parts. Part One contains seven simulation items. Part Two contains 83 traditional items (i.e., multiple-choice single response and multiple response, drag and drop and point and click items).

1.3 Passing Score

The passing score for this exam is 70% and is based on the analysis of ratings provided by Subject Matter Experts (SMEs) during the Angoff Workshop. In order to pass the beta exam, an exam-taker must score 70% overall on the entire exam.

1.4 Time Limit

Native English speakers have 300 minutes (150 minutes for Part One and 150 minutes for Part Two) to complete the exam. Non-native English speakers who take the exam in English have 330 minutes to complete the exam.

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

1.5 Registration and Administration

This exam is administered at Pearson VUE testing centers worldwide. As this is a beta exam, registration is limited and restricted to selected participants. For this exam, Citrix announced a pre-registration option for both the 1Y1-A15 beta and 1Y0-A15 production exams to allow candidates to reserve a spot and be among the first to earn one of the latest, advanced Citrix certifications. Pre-registration for the beta reached capacity two weeks following the announcement, and as such, the beta was closed. However, pre-registration for the production version of the exam is still available. For information about pre-registration or to find answers to other frequently asked questions, please visit the Citrix Education page at www.citrixtraining.com.

1.6 Registering with Pearson VUE

To register for the production version of this exam or for issues with the beta version in the United States and Canada, call 1-800-931-4084. A surcharge will be added to phone registrations. 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.

1.7 Certification Tracks

The A15 exam is a requirement for the Citrix Certified Enterprise Engineering (CCEE) track. The new CCEE track is expected to replace the existing Citrix Certified Enterprise Administrator (CCEA) track.

There are two paths that exam-takers can take to become certified in the new CCEE track. The following represents the recommended paths a candidate can take to achieve the CCEE certification:

Path 1	
Existing Citrix Certified Enterprise Administrator for Citrix Access Suite 4	Pass the A15 Engineering a Citrix Virtualization Solution exam

Path 2	
Non-Citrix Certified Enterprise Administrator for Citrix Access Suite 4	Obtain two (2) years of practical hands-on experience in building, testing and administering Citrix solutions in enterprise environments (recommended)
	Attain the following Citrix Certified Administrator (CCA) certifications: • Citrix XenApp 5 for Windows Server 2008 • Citrix XenServer Enterprise Edition 5 or CCA for Citrix XenServer Enterprise Edition 4 • Citrix XenDesktop 4 or CCA for Citrix XenDesktop 3 or CCA for Citrix XenDesktop Enterprise Edition 2
	Pass the A08 Advanced Administration for Citrix XenApp 5.0 for Windows Server 2008 exam
	Pass the A15 Engineering a Citrix Virtualization Solution exam

For the most up-to-date information on the CCEE certification, including required exams and associated recommended preparatory courses visit http://www.citrixtraining.com/courses/course_view.cfm/course_id:264/cgroup_id:26.

Note: The associated training materials and exams on administering the individual products can be taken in any order. Citrix recommends that they be completed prior to attempting the A15 exam.

1.8 Citrix Exam Retake Policies

As this guide pertains to the beta release of the CCEE exam, please note that exam-takers can only take the beta once. This is in keeping with the beta policy for all of Citrix's beta exams.

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.

2 The Intended Audience

2.1 Intended Audience

The A15 exam is a rigorous examination of subjects that are critical to an engineer's role as defined by Citrix's SMEs. This role includes, but is not limited to:

- Citrix Enterprise Engineers
- Citrix Virtualization Engineers
- Systems Engineers
- Technical Consultants
- Trainers
- Network Engineers
- Sales/Systems Engineers (SEs)
- Systems Integrators

3 Preparatory Recommendations for the Exam

3.1 Introduction

It is recommended that exam-takers have the knowledge, skills and abilities necessary to interpret design documents, manage project rollouts, install, configure, document and roll out Citrix virtualization solutions that include XenApp 5 on Windows Server 2008, XenDesktop 3.1 and Provisioning Services 5.1 and XenServer 5.5 prior to taking this exam.

3.2 Recommended Knowledge and Skills

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

- Advanced implementation of Citrix XenApp 5 on Windows Server 2008, XenDesktop 3.1, XenServer 5.5 and Provisioning Services 5.1
- Intermediate knowledge of Microsoft Windows Server 2003, Windows Server 2008, Active Directory, DNS, DHCP and IIS
- Intermediate network analysis and design skills, including the ability to create, configure and maintain:
  - Virtual LANs
  - Storage Networks
  - Network Bonds
  - Active Directory OU's, groups and users
  - DNS and DHCP
- Intermediate network management knowledge using SNMP

3.3 Recommended Product Experience

Prior to taking this exam, it is recommended that exam-takers have:

- Intermediate knowledge of:
  - SQL 2005+
  - General networking skills (i.e. routing, switching)
  - Change control process
  - Project management
  - Risk assessment
- Advanced knowledge of:
  - Virtualization concepts
  - Application troubleshooting process
- At least two years experience with:
  - Planning for a XenApp 5 on Windows Server 2008, XenServer 5.5, XenDesktop 3.1 and/or Provisioning Services 5.1 implementation
  - Building environments that consist of XenApp 5 on Windows Server 2008, XenServer 5.5, XenDesktop 3.1 and/or Provisioning Services 5.1, including installing and optimizing selective components
  - Integrating third-party elements with XenApp, XenServer, XenDesktop or Provisioning Services
    - Microsoft Windows Operating Systems: Vista, Windows XP, Windows Server 2008
    - Roles and features of Windows Server 2008
    - Directory Services

3.4 Recommended Course

For optimal performance on this exam, Citrix recommends that exam-takers attend the CVE-400-1I Engineering a Citrix Virtualization Solution instructor-led training course or self-study the CVE-400-1W Engineering a Citrix Virtualization Solution Self-paced Online course and obtain hands-on experience if possible.

As with all Citrix exams, it is recommended that exam-takers obtain hands-on experience working directly with the products covered on the exam.

4 Exam Sections and Weights

4.1 Introduction

The Engineering a Citrix Virtualization Solution beta (1Y1-A15) exam is divided into seven (7) sections and is based on XenApp 5 for Windows Server 2008, XenDesktop 3.1, Provisioning Services 5.1 and XenServer 5.5. Each section of the exam is weighted as follows, totaling 100%.

4.2 Section Titles and Weights

Section	Weight
Finalizing the design and planning for an implementation	16%
Interpreting the networking and deployment architecture	13%
Integrating virtual solutions	14%
Securing a virtual environment	18%
Managing the storage of a virtual environment	12%
Monitoring and managing a virtual environment	16%
Optimizing a virtual environment	11%
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 at 50%, then 30 of the questions on the exam will relate to Section 1 (60*50% = 30).

Section weights are NOT used to calculate an exam-taker'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 items for the exam were developed directly from the exam objectives. The exam objectives are used to test exam-takers' knowledge, skills and abilities related to each section of the exam.

Some of the exam objectives will correspond, or map, to field experience. Exam-takers should have at least two years of practical hands-on experience in building, testing and administering Citrix solutions in enterprise environments to increase their likelihood of passing this exam.

For optimal performance on this exam, Citrix recommends that exam-takers attend the CVE-400-1I Engineering a Citrix Virtualization Solution course and obtain field experience.

5.2 Resources Used to Develop the Exam

The following resources were used to develop this exam:

Resource	How to Obtain
CVE-400-1I Engineering a Citrix Virtualization Solution	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 *
CXA-201-2I Implementing Citrix XenApp 5.0 for Windows Server 2008	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 *
CPV-200-1I Implementing Citrix Provisioning Server 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 *
CXD-200-1I Implementing Citrix XenDesktop 3 and 4	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 *

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 *
Citrix XenApp 5.0 for Windows Server 2008 Administrator's Guide	http://support.citrix.com/servlet/KbServlet/download/17831-102-18861/XenApp-Administrators-Guide.pdf
Provisioning Services 5.1 Administrator's Guide	http://support.citrix.com/servlet/KbServlet/download/20494-102-642111/AdministratorsGuide.pdf
Citrix XenDesktop 3.0 Administrator's Guide	http://support.citrix.com/servlet/KbServlet/download/19149-102-19637/XDAdminGuide.pdf
Citrix Web Interface 5.1 Administrator's Guide	http://support.citrix.com/servlet/KbServlet/download/19153-102-98468/Web-Interface-Administrators-Guide.pdf
Citrix XenServer 5.0 Administrator's Guide	http://support.citrix.com/servlet/KbServlet/download/18051-102-19048/reference.pdf
Citrix XenServer 5.5 Virtual Machine Installation Guide	http://support.citrix.com/servlet/KbServlet/download/20641-102-641938/xs-55-guest-vm-guide.pdf
Citrix XenConvert Guide	http://www.citrix.com/site/resources/dynamic/software/XenConvert_Guide.pdf
Knowledge Base Articles: CTX119686, CTX116307, CTX117025, CTX117374, CTX119686, CTX119849, CTX120464,	Knowledge Base articles are available at: http://support.citrix.com/

*Links are subject to change.

5.3 Exam Objectives

For all sections, two (2) years of practical hands-on experience in building, testing and administering Citrix solutions in enterprise environments is recommended.

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

Section	Objectives
Finalizing the design and planning for an implementation	• Based on a design document, recommend the appropriate method to modify the components in an existing environment in order for them to work with the new design. • Based on stated requirements in a design document to implement new configurations in an environment, determine which tasks should be performed and in which order. • Based on the needs of an environment, determine when to recommend additional virtualization opportunities. • Based on a given scenario, recommend a physical or virtual implementation while considering performance. • Based on implementation recommendations included in a design document, determine if the recommendations are aligned with Citrix Best Practices. • Based on an assessment of an existing environment, determine what should be done to fix risks outlined in the assessment document or design document. • Given a scenario describing several implementation activities, determine which activities will happen at which phase. • Based on a scenario, identify risks and/or categorize them into risk levels. • Given a scenario, assess the risk being described. • Based on the need to perform a specific task, recommend the change control process that should be followed.

Interpreting the networking and deployment architecture	• Given a network related issue, identify the information required to resolve the issue. • Based on the requirements for a virtual desktop implementation outlined in a design document, assess the existing environment and fine tune the network architecture. • Given a diagram or a description of a Web Interface architecture, position the Web Interface server within the network based on best practices. • Based on the requirements to implement application virtualization, assess the existing environment and fine tune the network architecture. • Based on the design document or the description of a PXE/DHCP implementation, assess the implementation. • Based on a diagram or description of a Storage Area Network implementation (such as HBA, NAS, Fibre Channel and iSCSI) outlined in the design document, assess the implementation. • Based on the phase of an implementation, determine what or when to test (system acceptance testing).
Integrating virtual solutions	• Given screenshots of XenConvert, determine the necessary information to convert a physical server to a virtual server or a virtual server from one hypervisor to another. • Using the XenDesktop Active Directory Wizard, set up OUs and XenDesktop groups. • Based on a specific scenario, determine which type of profile to implement (roaming vs. mandatory). • Using the Access Management Console for XenApp, configure the appropriate settings to publish or stream an application. • Given screenshots of the XenConvert tool, configure the necessary settings to convert from a boot disk, a live production system or a virtual environment to another virtual environment. • Based on stated requirements, identify the steps or specify the appropriate settings to take snapshots, test backups, restore backups or configure disaster recovery sites. • Configure the XenDesktop farm and the XenApp farm to display in the same web interface site to meet stated requirements. • Identify the appropriate agents to install in an environment consisting of XenApp, XenServer, XenDesktop and Provisioning Services to meet stated requirements.

Securing a virtual environment	• Given a scenario describing the need for secure client connection to a published or streamed application, virtual desktop or Web Interface, configure the appropriate settings to implement secure connection, including modifying or verifying the necessary firewall configurations. • Based on stated needs highlighted in the design document, configure advanced XenApp and XenDesktop policies for virtual channels and ICA encryption. • Given a list of requirements, determine if a private or public certificate will be appropriate to use in an environment. • Based on stated requirements mentioned in the design document, determine if client-side or server-side certificates will work. • Based on stated requirements in the design document, determine which smart card or biometric technologies to implement.
Managing the storage of a virtual environment	• Given a diagram of a storage architecture for an environment, identify key storage components important to XenServer. • Based on stated requirements, determine how to bind the appropriate management network. • Given a CLI or XenCenter, configure maximum up-time for XenServer, including multi-pathing and NIC bonding for adaptive load balancing. • Given a scenario based on information within a design document, determine which storage interface will be appropriate. • Based on stated requirements for a XenServer implementation, determine if a dedicated or shared storage architecture is required. • Based on the needs of an environment, determine the appropriate location for the Provisioning Services write cache.
Monitoring and managing a virtual environment	• Based on the needs of an environment highlighted in a design document, determine which managing and monitoring tools should be used to manage and monitor the environment. • Based on the needs to meet compliance, specify the steps to download and install patches and hot fixes for XenServer. • Based on stated requirements, specify the settings to create or roll out a VM. • Based on stated requirements, determine the appropriate approach to monitor CPU, memory and disk usage of virtual servers.

Monitoring and managing a virtual environment (continued)	• Based on the need to install or roll out a patch, determine the appropriate steps to patch virtual images. • Given the appropriate console or wizard, configure monitoring for applications, desktops or XenApp servers in a virtual environment. • Given a scenario requiring the use of a monitoring tool such as XenApp HMR, determine how the monitoring tool should be used to monitor Citrix products in an environment. • Given a scenario pertaining to XenDesktop, identify if the XenDesktop infrastructure type can be changed. • Based on stated needs, assign roles to desktop delivery controller through registry edits.
Optimizing a virtual environment	• Using the Access Management Console or the XenApp Advanced Configuration tool, configure the appropriate settings to optimize applications for deployment in a virtual environment. • Using XenCenter, configure the appropriate settings to optimize a virtual server based on the server's work load. • Using the Provisioning Server Console, configure the necessary settings to provision a vDisk. • Based on the needs of an environment, configure Provisioning Services for high availability/load balancing.

5.4 How Objectives Relate to Questions on the Exam

Objectives summarize what the test is designed to measure. These objectives were developed by Exam Developers and SMEs based on identified tasks that relate to the job of engineering a Citrix virtualization solution. 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 that task is performed.

6 Interactive Item Usage

6.1 Introduction

The A15 Engineering a Citrix Virtualization Solution exam consists primarily of traditional multiple-choice items. This exam also includes non-traditional point and click items, drag and drop items and simulation items. These types of items allow for exam-takers to answer questions by interacting with the interface, and in some instances by clicking on or dragging objects to predefined destinations.

All traditional multiple-choice items and non-traditional simulation items store the selected answers so that exam-takers may revisit the item and see their chosen answers. In the drag and drop and point-and-click non-traditional items, this is **NOT** the case. If exam-takers navigate away from a drag and drop or point-and-click non-traditional item, their previous selection is **NOT** visible to them once they revisit the item. **If exam-takers revisit these two types of non-traditional items, they will be prompted to answer the items again.**

6.2 Description of Drag and Drop items

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

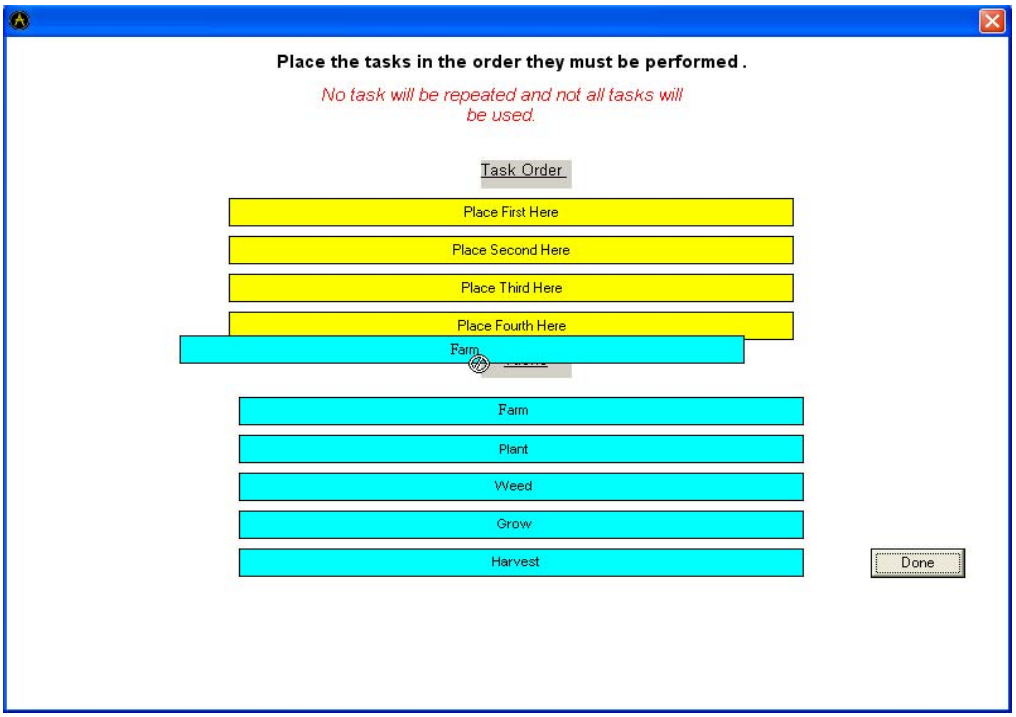
In these items, predefined destinations are marked by rectangular objects called destination panels. Destination panels indicate where objects can be placed in the user interface. These panels contain instructions, such as "Place Here" or "Place First Here" (as shown in Figures 6.4 and 6.5 or similar text that alerts exam-takers 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, exam-takers 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

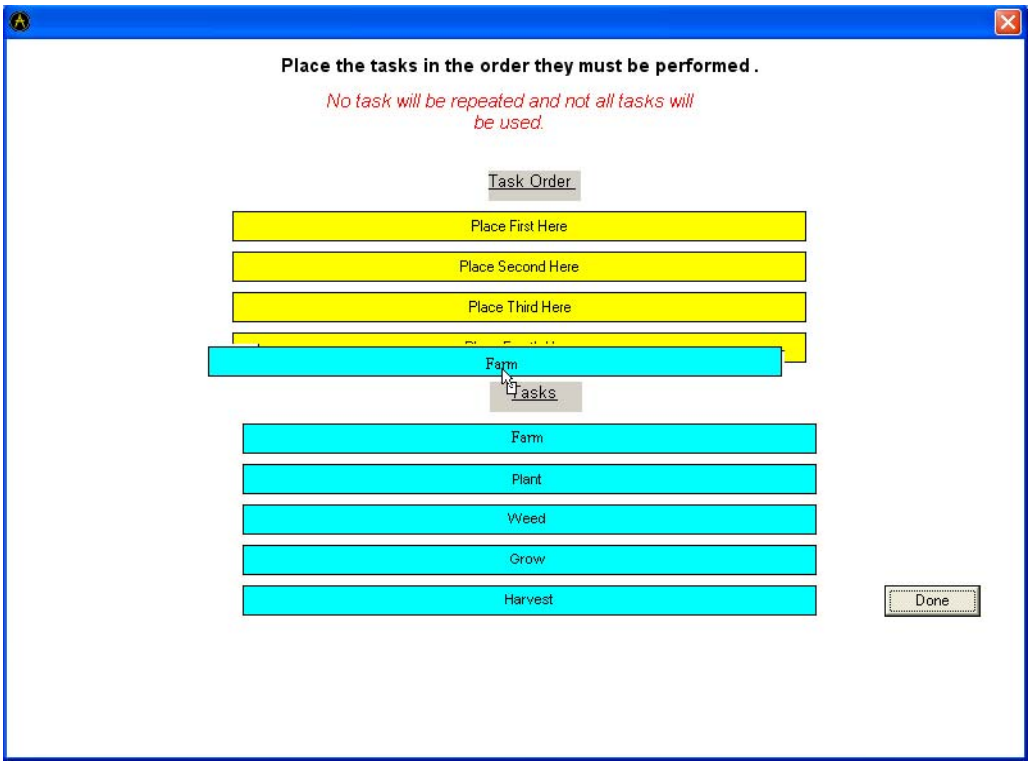
While dragging these objects, exam-takers should pay careful attention to the cursor. Figures 6.4 and 6.5 depict the two cursors exam-takers will see while completing a Drag and Drop item in this exam.

Figure 6.4 Prohibited cursor indicator



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 6.5.

Figure 6.5 Insert cursor indicator



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.

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 tests candidates' knowledge of a product's UI.

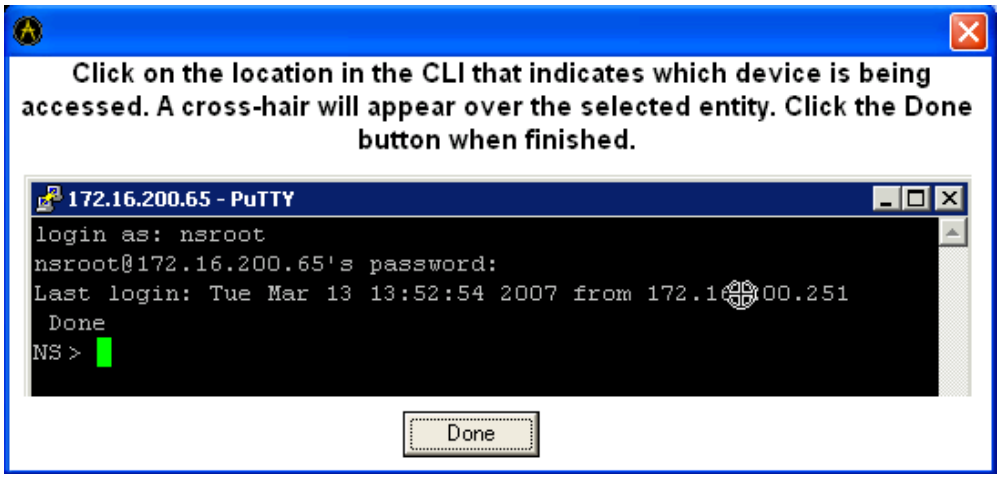
In a point and click item, an image of a configuration screen or network topology is usually displayed. Instructions direct candidates to the element they should select in the item. (As shown in Figure 6.9).

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 candidate's chosen spot is indicated by the cross-hair symbol.

6.10 Deselecting a Spot in a Point and Click Item

If a candidate believes he or she has clicked 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 and they may attempt to answer again.

7 Simulation Item Types

7.1 Introduction

This exam includes seven simulation items. The purpose of this section is to discuss simulation items as they are less common to Citrix exams. This section of the preparation guide provides a tutorial on the user interface, scoring and answering rules and timing matters for these unique item types.

The A15 exam consists of some unique features that exam-takers need to know before attempting the exam. The user interface for this exam has been customized to meet the needs of the unique items included. However, some standard components typical for all exams are included in this exam as well.

All of the simulation items in the A15 exam open in the main window.

The main window in an exam may contain item scenarios, requirements or multiple-choice items, as well as the helms. The navigation helm, which is found at the lower portion of the screen, consists of the 'Previous', 'Comment' and 'Next' buttons. These buttons can be used to navigate forward and backward as well as to make comments related to the item.

7.2 Helms in the Exam at VUE

In the left margin of the screen is the counter helm. This helm contains a counter, which displays the number of the item being tested. In the top margin is the title helm. The title helm of the exam includes a 'Select for Review' checkbox and the time remaining for the exam. The select for review and time remaining options in this exam function the same way they do in traditional multiple-choice exams. *See figure 1 for an example*.

7.3 Description of Simulation Items

Simulation items are used to test exam-takers' abilities to complete specific configuration tasks. When this type of item is delivered, exam-takers are expected to read and synthesize information included in the scenario and then complete configurations in accordance with best practices.

The main window is the first window presented for this type of item. In addition to the buttons in the helm, the main window contains a 'Simulation' button. Clicking this button opens the simulated environment.

Below is an example of the main window for a simulation item in the VUE environment.

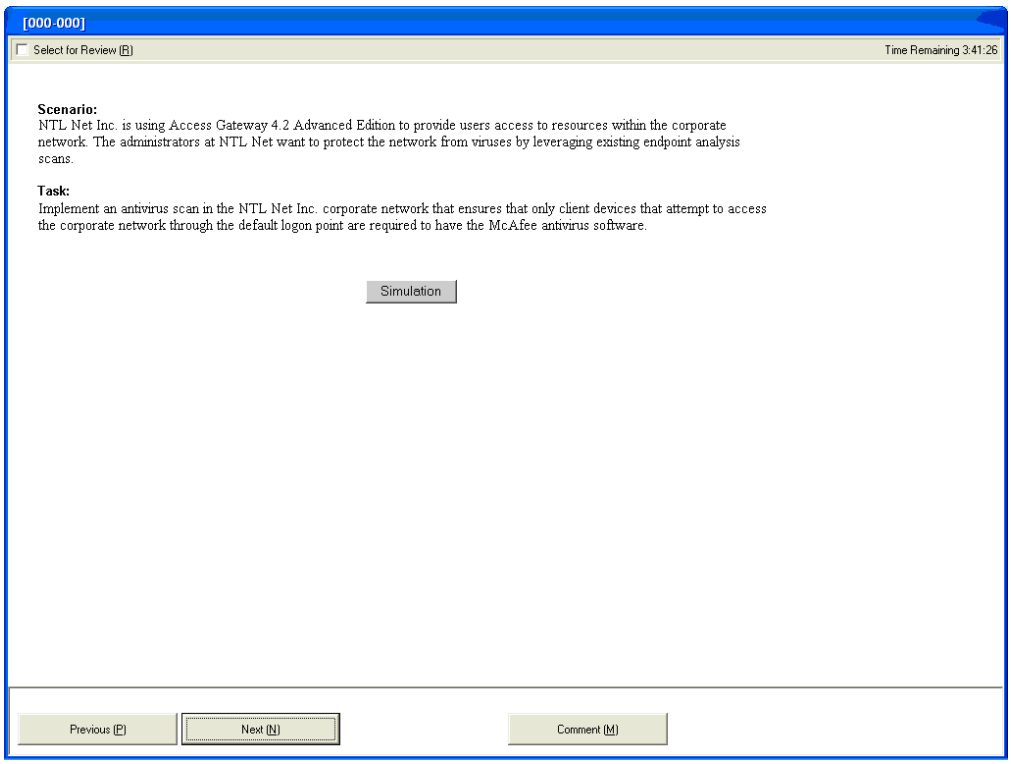


Figure 1: Main window for a simulation item

Once the 'Simulation' button is clicked and the simulated environment is launched, exam-takers are presented with a console. A floating window with all the relevant information from the main window is also presented. This floating window has an additional marking functionality. It is resizable and movable and it can be closed or reopened by simply clicking the 'X' button in the upper right corner.

Below is an example of the simulated environment with a floating window.

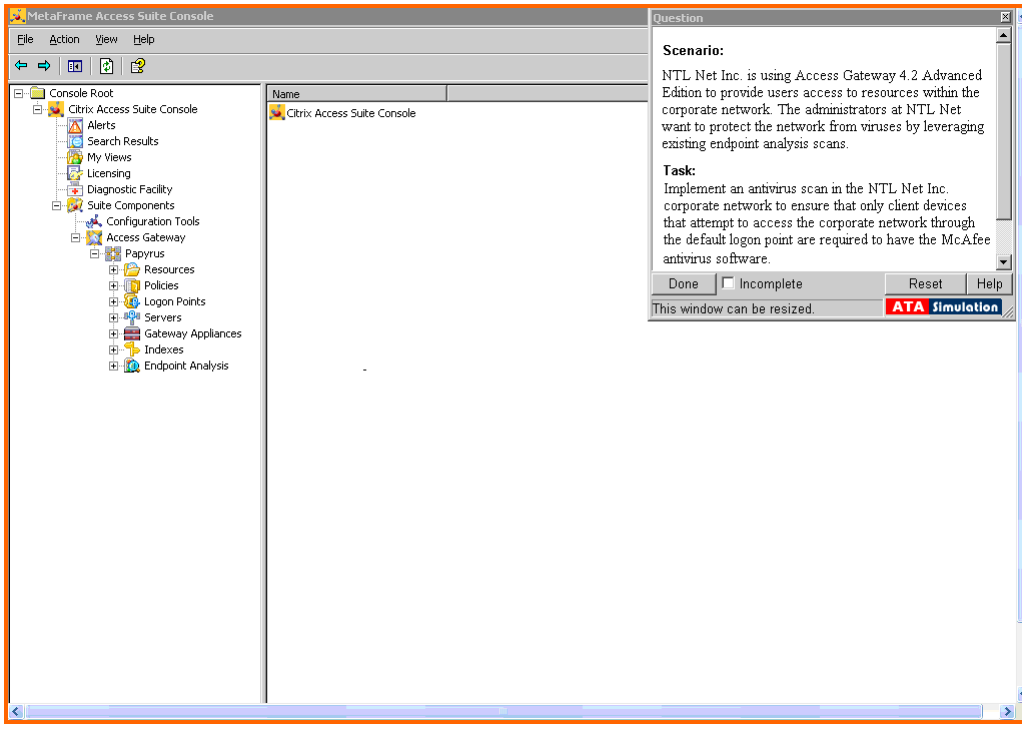


Figure 2: Simulated environment with a floating window

The simulated environment looks identical to the real user interface of the product with which exam-takers are familiar. Consoles can be minimized or closed; desktops and alternate applications, including administrative tools, can be accessed from the 'Start' menu of the server as in a real environment.

Citrix Education worked closely with subject matter experts (SMEs) to ensure that the most relevant features and settings available within the real products are also available within the simulated environments. However, features such as Help menu items, other settings deemed irrelevant to the task(s) exam-takers are being asked to address or settings otherwise outside the typical path taken, were not included in the simulations.

By default, the floating window resides in the upper-right corner of the simulated environment. Exam-takers can move or resize the floating window as needed. When exam-takers complete the required tasks or want to return to the main window, they should click the 'Done' button in the floating window. Clicking the 'Done' button saves the final configurations made and closes the simulation window. Whether or not exam-takers configure any settings or complete the required configurations, they still have to click the 'Done' button to exit the simulated environment. Exam-takers can go back into the simulated environment after clicking the 'Done' button as many times as they wish and make changes as desired. Whenever they click the 'Done' button,

whatever new configurations they make will be saved. If they did not configure anything, their original configuration will remain as-is.

Note: Whenever exam-takers try to visit the simulated environment for a simulation item that has been visited on a previous occasion, the following warning message pops up:

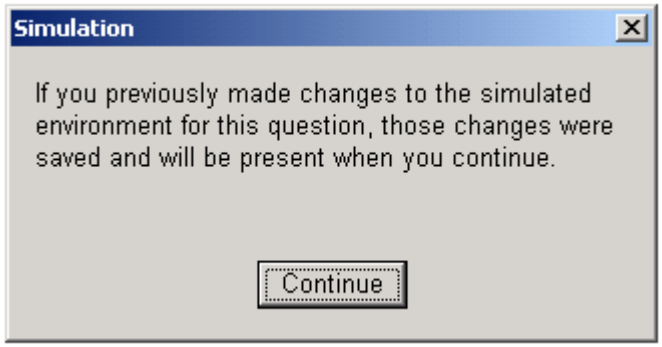


Figure 3: Standard Warning Message

Clicking the 'Done' button prompts the simulated environment to save its state for scoring and results retention. Depending on the number of configuration steps or the system resources on the computer owned by the test center, exam-takers may experience a slight delay after clicking the 'Done' button. While such delays are rare, if they occur, Citrix recommends that exam-takers refrain from using the mouse or keyboard while the simulation saves its state, as these actions may prolong the delay. Delays of this type are rare and usually last no longer than 20 seconds.

If exam-takers choose to mark an item incomplete before exiting the simulated environment, they can do so by checking the 'Incomplete' checkbox at the bottom of the floating window. At the end of the exam, exam-takers may review the items they marked as incomplete.

Exam-takers can also reset the simulated environment by clicking the 'Reset' button. Clicking the 'Reset' button clears any configurations made within a particular simulated environment. This restores the simulated environment to a clean state; the state it was in when it was first visited. Exam-takers should only use the 'Reset' button if they want to reconfigure the simulated environment from scratch. Otherwise, they can delete or undo unwanted configurations and they will still get the appropriate score. A 'Help' button is also provided in the floating window. This button provides basic help text to guide exam-takers on how to use simulations. This help text is not customized to the specific items and will not guide exam-takers on how to make specific configurations for an item.

Below is an example of the floating window.

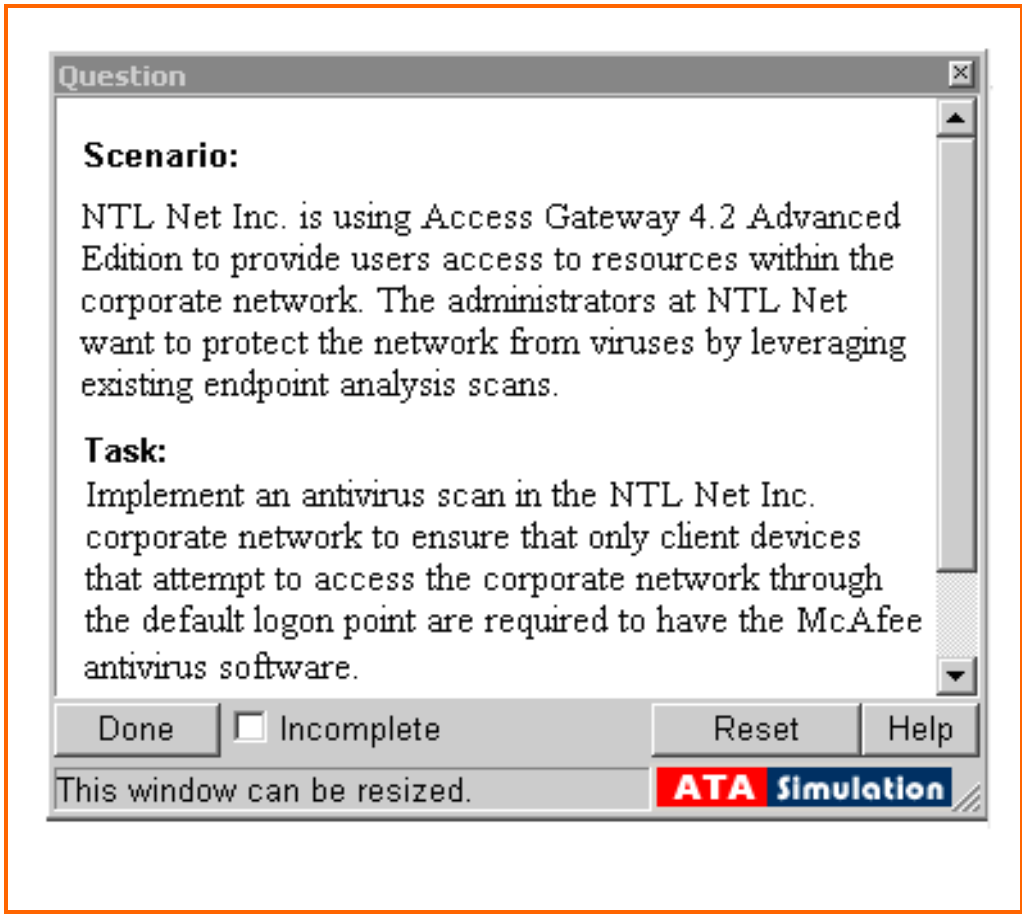


Figure 4: Floating window

7.4 Citrix Simulation Item Demo

If you would like to view a demo of a Citrix simulation item, please go to http://www.findcitrixtraining.com/content/index.cfm/content_id:26.

8 Scoring and Answering Process

8.1 Scoring

In order to receive points for a simulation item, exam-takers must complete all the tasks in accordance with the requirements in a manner that is deemed acceptable. For this exam, SMEs defined "acceptable" as actions that meet the requirements without rendering harm to the environment. In those items where there is an identified best practice, exam-takers are expected to adhere to the best practice.

Based on the nature of what is being tested, exam-takers may receive partial credit for completing some of the required tasks. The exam was designed to allow for partial scoring. Exam-takers can earn points for items in which all critical tasks are correctly configured rather than only gaining credit when all tasks, critical and non-critical, are configured correctly.

8.2 Answering Process for Simulation Items

SMEs identified multiple ways that exam-takers could respond to the simulation items in order to meet the requirements of scenarios and best practices while configuring or interacting with those items. As such, exam-takers will find that most actions that could be taken to configure a real implementation to meet the requirements are also available in the simulations. Examples of possible ways to answer items include using various menu options, mouse clicks, keyboard inputs and multiple consoles as needed. While Citrix took many steps to ensure that the most common ways to complete a task were available in the simulation items, there may be some actions that are excluded or otherwise unavailable within the simulation. In those limited cases in which an action is not allowed in a simulation, exam-takers are encouraged to use an alternative action to complete the required configurations.

Exam-takers are required to create and/or configure specific settings and/or policies within the simulated environments. Some of the simulation items contain specific instructions that specify how exam-takers should name these settings and policies. However, if not specified, exam-takers are not penalized for misspelling the names of these settings and/or policies. For some of the simulation items, Citrix did not specify how the settings and/or policies should be named. In such cases, exam-takers can name the settings and/or policies whatever they choose.

9 Time Matters for this Exam

9.1 System Clock versus Actual Time

The time remaining is displayed in the top right corner of the main window for all the item types; however, it is not visible from within the simulation items once the simulated environment is launched. The time displayed on the task bar of the simulated environment desktop is part of the simulation. It is the time of the simulated server and, therefore, may not be accurate.

Exam-takers configuring a simulation item can use the Alt + Tab combination keys to toggle between the simulated environment and the main window in order to view the time remaining.

11 Appendix B: FAQ

11.1 Introduction

Due to the uniqueness of this exam, a FAQ section has been added to address some of the questions frequently asked by exam-takers.

11.2 FAQ

Question	Answer
How is the exam graded?	When an exam-taker selects an option as the correct response to a question, configures a setting or set of settings, those settings are saved within the exam when the exam-taker clicks the 'Next' or 'Done' button. At the end of the exam, when exam-takers click the 'End Exam' or 'Exit Exam' button, the final responses to the questions on the exam are graded using scripts and scoring logics.
How are my grades calculated?	A complex but thorough grading algorithm is used to calculate your final score. Your grades are calculated using the scores you receive for each question, along with other factors taken into consideration. **Note:** Calculating your final score using the averages for the sections on the exam will, in most cases, vary from the final score indicated on your score report. Please see section 4.3 "How Section Weights Relate to Questions on the Exam" for more details.
What happens when I configure a setting in the simulated environment and click the 'Done' button?	When you configure a setting in the simulated environment and click the 'Done' button, the setting you configured is saved and you are returned to the main window of that item.

What happens when I configure a setting in the simulated environment, check the 'Incomplete' check box, and click the 'Done' button, will the item be scored?	Yes, the configured setting will be saved, but the item will be flagged as 'incomplete' so that you may revisit it at the end of the exam. Since you have already configured the environment, you do not have to remove the incomplete check mark in order to get credit. You will be graded according to your response, regardless if the item is marked as 'Incomplete' or not.
What happens when I configure the simulated environment, but then make a change to a particular setting in the environment and click the 'Done' button?	The particular setting you change will be updated but all the other settings will remain the same.
What happens when I configure a setting in the simulated environment, click the 'Done' button, go back into the simulated environment and configure new settings?	The old setting and the new settings are saved and graded at the end of the exam.
What is the function of the 'Reset' button?	The 'Reset" button clears the simulated environment of a full-screen item and returns the item to a clean state. It returns the item to the same state it was in before you made any configurations to it.
What is the function of the 'Done' Button?	The 'Done' button saves whatever configurations or changes you make within the simulated environment and returns the item to the main window.
What is the function of the 'Incomplete' checkbox?	The 'Incomplete' checkbox marks or flags an item as incomplete so that you may edit that item at the end of the exam. You may click the 'Review Incomplete' button on the review screen at the end of the exam to review all the items marked 'Incomplete' in a sequential order, or you may double-click a single item marked 'Incomplete' to review that item from the review screen at the end of the exam.

What is the function of the 'Return to Question' button?	The 'Return to Question' button returns the simulated environment item to the main window for that item.
What happens if I launch a simulated environment, do not perform any configurations, click the 'Done' button, and move to another item, is it marked incomplete?	No, the item is saved, and it does not appear as an incomplete item unless you mark it as incomplete using the 'Incomplete' checkbox in the floating window.
How can I speed up the loading of items during the exam?	There is no way to speed up the loading of items. The simulation items are large and as such require slightly longer time to load. When you notice that an item is loading, please do not interact with the item until it is fully loaded. If you continuously click the 'Done,' 'Next' or any buttons while an item is loading or while the state of an item is being saved, this could delay the processing time, which will, in turn, cause a longer wait time for you. If you click a button continuously for a very long period, this may cause your exam to crash. Citrix suggests that exam-takers refrain from clicking buttons when the exam is loading items or saving configurations.
What should I do when the exam screen looks blank?	When the exam screen goes blank, do not touch the mouse or keyboard for a couple of seconds, and the exam will load/reload. The exam screen may go blank for a couple of milliseconds when navigating from one item to another because the exam is trying to load the new or next item. The exam screen may also go blank when it is saving certain configurations. However, if the exam screen goes blank for more than 20 seconds on any given instance, please contact the test center administrator.

How do I know how much time I have remaining to complete the exam?	In the exam, there is a 'Time Remaining' clock. However, the clock is only available from the main window. You can use the Alt + Tab keys to toggle between the simulated environment and the main window in order to view the 'Time Remaining' clock.
What happens if I miss only one configuration step?	Citrix worked with subject matter experts (SMEs) to identify critical configuration steps for each of the simulation items on the exam. Critical configurations steps are those steps that if not configured properly would result in the task required not being completed at all, not even partially. If you miss one of those critical steps, you could lose all the points for that item. However, if you miss some of the non-critical steps, you may still get some points for the other steps you configured or answered correctly.
How many steps can I miss before failing an item?	You could fail an item by missing one or several steps depending on the nature of the step or steps you miss. Some steps are considered critical, and as such, missing a critical step could result in partial credit or no credit at all. However, exam-takers could miss one or several non-critical steps and still receive partial credit depending on the item.
How do I know if the simulation is functioning correctly?	If the navigational buttons are responding correctly, the simulated environment is launching correctly and all the icons in the wizard or console are displaying correctly as well, then the simulation is working. **Note:** If you are trying to configure something and you notice that the simulation is not allowing you to configure as you would like, **STOP**, re-read the scenario and tasks and try to configure the item again.

What should I do if I cannot find what I am looking for within the simulated environment?	Everything you need to address the full-screen items on the exam are provided in the scenarios and in the simulated environments of those items. If you cannot find what you are looking for, please go back and re-read the scenario. If you are convinced that there is a problem, please use the 'Comment' button and comment on the problem.
Can I "hunt-and-peck" in the simulated environment and will I be penalized for doing so?	Yes, you can hunt-and-peck in the simulated environment and no, you will not be penalized by any means for "hunting-and-pecking."
Will I be penalized for doing more than is requested to answer a particular question?	No, you will not be penalized for doing more than is required; however, Citrix advises that you do not "over configure" any settings, as this will not give you extra credit and could result in errors, which could decrease your score.
Is the A15 exam a conditional exam?	No, the A15 exam is not a conditional exam. Your response to each item is treated independently and will not affect your response to the next item.