

# **Citrix WANScaler 4.2: Administration**

## **1Y0-740 Exam**

### **Preparation Guide**

#### **Citrix Education**

**2.0**

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**Disclaimer** This exam preparation guide is designed to allow you to assess the types of questions that may be asked during the Citrix WANScaler 4.2: Administration certification exam. Please be aware that the content of this guide in no way ensures a passing score on the certification exam.

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# 1 The Exam

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**1.1 Purpose of Exam** This exam certifies that successful candidates have the knowledge and skills necessary to plan, install, configure, administer, monitor and/or support Citrix WANScaler 4.2 implementations in an enterprise environment.

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**1.2 Beta Testing** The 1Y0-740 exam was beta tested from 11/8/2007 to 12/5/2007.

Once all the questions were developed for this exam, it was offered at no charge to individuals who expressed interest in obtaining the certification.

A minimum of 50 candidates took this exam and completed a survey. A Psychometrician analyzed the exam and survey to determine which questions would be kept in the final versions of the exam. The Psychometrician also recommended the passing score range and the timing for the exam.

Once the analysis was completed and the passing score determined, those who obtained a passing score on the beta exam also obtained their certification.

To participate in future beta exams, e-mail [training@citrix.com](mailto:training@citrix.com) a request to be added to the beta exam mailing list.

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**1.3 Number of Questions** The 1Y0-740 exam is a 53-question exam written in English.

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**1.4 Passing Score** The passing score for this exam is 70% and is based on the analysis of scores of candidates from the beta test.

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**1.5 Time Limit** Timing for this exam was determined by analyzing the results of the beta exam.

Native English speakers have 75 minutes to complete the exam. Non-native English speakers who take the exam in English have 105 minutes to complete the exam.

Non-native English speakers must explicitly ask for the time extension when registering for the exam in English. Candidates should verify the specific

process with the test provider they choose.

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**1.6 Registration and Administration**

This exam is administered through Pearson VUE. For details on the rules and procedures associated with registering for and taking the exam, please visit the Exams page at [www.CitrixEducation.com](http://www.CitrixEducation.com).

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**1.7 Registering with Pearson VUE**

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

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**1.8 Certification Track**

The 1Y0-740 exam is part of the Citrix WANScaler 4 Citrix Certified Administrator (CCA) track. To become certified in this track, candidates must take and pass the 740 exam.

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**1.9 Citrix Exam Retake Policies**

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

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

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**1.10 Commenting During Live Exam**

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

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## 2 The Intended Audience

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### 2.1 Intended Audience

The Citrix WANScaler 4.2: Administration (1Y0-740) exam is a rigorous examination of subjects that are critical to an administrator's role as defined by Citrix Systems' subject matter experts (SMEs). This role includes, but is not limited to:

- Network Administrators
- Network Engineers
- Systems Engineers
- Consultants
- Architects and Integrators
- Technical support staff
- Trainers
- Sales Engineers
- Citrix Certified Instructors

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### 2.2 Defining the Role being Tested

The intended audience was determined by (SMEs) for the product through a Job Task Analysis (JTA) procedure. The SMEs defined the audience by identifying the job functions that require use of the Citrix WANScaler 4.2 product.

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## 3 Preparatory Recommendations for the Exam

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### 3.1 Introduction

It is recommended that candidates have the knowledge, skills, and abilities necessary to plan, install, configure, administer, monitor and/or support Citrix WANScaler 4.2 implementations prior to taking this exam.

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### 3.2 Recommended Knowledge and Skills

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

- Basic knowledge of application and network protocols, devices and commonly used tools (e.g. TCP/IP , HTTP and DNS)
  - Basic knowledge of network management and auditing protocols (such as SNMP and SysLog)
  - Intermediate knowledge of routing and layer 2 switching concepts
  - Strong working knowledge of commonly used network appliances (load balancers, firewalls, routers, switches)
  - Practical experience with troubleshooting tools such as protocol analyzers (e.g. Ethereal (WireShark) and NetMon)
  - Basic knowledge of command line interfaces
  - Basic knowledge of VPN concepts
  - Knowledge of desktop operating systems (Windows and Macintosh) and desktop security concepts (e.g. antivirus software and personal firewalls)
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### 3.3 Recommended Product Experience

It is strongly recommended that candidates have at least 6 months of experience administering a Citrix WANScaler 4.2 implementation.

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### 3.4 Recommended Course

Candidates should attend or self-study the Citrix Course CTX-1740AI Citrix WANScaler 4.2: Administration.

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## 4 Exam Sections and Weights

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### 4.1 Introduction

The Citrix WANScaler 4.2: Administration exam (1Y0-740) is divided into seven (7) sections. Each section of the exam is weighted as follows, totaling 100%.

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### 4.2 Section Titles and Weights

Section	Weight
Planning the Networking and Deployment Architecture	21%
Understanding the Theory of Operation	15%
Installing and Configuring WANScaler	33%
Conducting System Management and Administration	6%
Monitoring and Reporting	11%
Performing Basic Troubleshooting	8%
Configuring and Managing the Client	6%
<b>Total</b>	<b>100%</b>

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### 4.3 How Section Weights Relate to Questions on the Exam

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

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

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## 5 Exam Objectives and Resources for the Exam

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### 5.1 Introduction

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

Some of the exam objectives will correspond, or map, to field or hands-on experience. Candidates are expected to have at least 6 months of experience administering Citrix WANScaler 4.2 to increase their likelihood of passing.

For optimal performance, Citrix recommends that candidates attend or self-study the CTX-1740AI Citrix WANScaler 4.2: Administration course and obtain field experience.

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### 5.2 Resources Used to Develop the Exam

The following resources were used to develop this exam:

Resource	How to Obtain
CTX-1740AI Citrix WANScaler 4.2: Administration course	This course is available at Citrix Authorized Learning Centers (CALCs) worldwide. To find the CALC nearest you, please visit the Citrix Education web site: <a href="http://www.citrix.com/English/SS/education/feature.asp?contentID=24019">http://www.citrix.com/English/SS/education/feature.asp?contentID=24019</a>
Citrix WANScaler Appliance Installation and User's Guide, Releases 2.2 – 4.2	This document is available for download on the Citrix Support web site: <a href="http://support.citrix.com/article/ctx115193">http://support.citrix.com/article/ctx115193</a>
Citrix WANScaler Client System Administrator's Guide, Release 4.2	This document is available for download on the Citrix Support web site: <a href="http://support.citrix.com/article/CTX112194">http://support.citrix.com/article/CTX112194</a>
Knowledge Base Articles: CTX112397, CTX113151 and CTX112401	Knowledge Base articles are available at: <a href="http://support.citrix.com/product/ws/v4.x/">http://support.citrix.com/product/ws/v4.x/</a>

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### 5.3 Exam Objectives

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

For all sections, at least 6 months of experience administering a Citrix WANScaler 4.2 implementation is recommended.

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

Section	Objectives	Citrix Course and/or Technical Publication
Planning the Networking and Deployment Architecture	<ul style="list-style-type: none"><li>• Given a scenario or a description of a network environment, determine the appropriate topology (include point-to-point, hub and spoke, mesh) for a WANScaler implementation.</li><li>• Given a scenario or a diagram of an environment, determine the appropriate traffic to accelerate.</li><li>• Based on stated requirements, determine the appropriate deployment options for a WANScaler appliance (include inline, virtual inline, WCCP or group mode) or identify in which mode WANScaler is implemented.</li><li>• Given a scenario or a description of the architecture mode of a WANScaler implementation, determine whether to use hardboost or softboost.</li></ul>	CTX-1740AI Citrix WANScaler 4.2: Administration course  Hands-on Experience

<p>Planning the Networking and Deployment Architecture (continued)</p>	<ul style="list-style-type: none"> <li>• Based on the architectural design of a WANScaler implementation, determine the appropriate IP addressing needs.</li> <li>• Based on stated requirements, determine the appropriate cabling to set up a WANScaler implementation.</li> </ul>	
<p>Understanding the Theory of Operation</p>	<ul style="list-style-type: none"> <li>• For a specific WANScaler component, select a statement that describes its role.</li> <li>• Identify how WANScaler identifies a connection (or TCP session) as being eligible to be accelerated.</li> <li>• Identify how WANScaler optimizes traffic (flow control, compression, queue, application acceleration) and limitations of CIFS over a WAN.</li> <li>• From a list of statements, select those which correctly describe compression with WANScaler and/or the causes of compression issues.</li> <li>• From a list of statements, select those which correctly describe the WANScaler QoS feature.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p> <p>Citrix WANScaler Appliance Installation and User's Guide, Releases 2.2 – 4.2</p> <p>Citrix WANScaler Client System Administrator's Guide, Release 4.2</p> <p>Field Experience</p>
<p>Installing and Configuring WANScaler</p>	<ul style="list-style-type: none"> <li>• Based on stated requirements, determine how or when to customize bandwidth settings for a WANScaler implementation.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p>

<p>Installing and Configuring WANScaler (continued)</p>	<ul style="list-style-type: none"> <li>• Based on stated requirements, identify the appropriate protocol optimization settings for a WANScaler environment.</li> <li>• Given the need to implement WANScaler in a specific mode, identify the required configurations for the router settings and/or WANScaler to run in the specified mode.</li> <li>• Based on requirements, identify the appropriate steps or commands to configure IP addresses on a WANScaler appliance.</li> <li>• Determine how to configure the interface settings for a WANScaler appliance based on specific requirements or needs.</li> <li>• Based on stated requirements, determine which steps are needed to configure HA pairs for a WANScaler implementation.</li> <li>• Given a description of a network environment and requirements such as link speed and type and/or traffic types, identify the appropriate steps to configure bandwidth modes (including softboost, hardboost, full and partial) based on stated needs.</li> <li>• Based on requirements to implement WANScaler in a specific mode, determine the appropriate steps to enable virtual inline mode on a WANScaler</li> </ul>	<p>Citrix WANScaler Appliance Installation and User's Guide, Releases 2.2 – 4.2</p> <p>Field Experience</p> <p>Citrix WANScaler Client System Administrator's Guide, Release 4.2</p>
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<p>Installing and Configuring WANScaler (continued)</p>	<p>appliance.</p> <ul style="list-style-type: none"> <li>• Determine the appropriate methods to test a configuration in a WANScaler implementation to ensure that the implementation meets stated requirements.</li> <li>• Determine the appropriate steps to configure or define a service class.</li> <li>• Based on stated requirements, determine the appropriate method to configure service class policies.</li> <li>• Given a scenario or a set of statements, determine which option, setting, statement or statements are true about configuring WANScaler appliances in group mode.</li> <li>• Based on stated requirements, determine when it is appropriate or how to apply QoS for WANScaler .</li> <li>• Select scenarios that describe when it is appropriate to use memory- based compression over disk- based compression (or vice versa) to meet stated requirements.</li> <li>• Based on requirements to implement WANScaler in a specific mode, determine the appropriate steps to enable WCCP mode on the WANScaler.</li> </ul>	
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<p>Conducting System Management and Administration</p>	<ul style="list-style-type: none"> <li>• Determine the appropriate procedure to manage a specific type of user account such as full and view-only.</li> <li>• Identify how to configure authentication on a WANScaler appliance for RADIUS and TACACS.</li> <li>• Based on stated requirements, determine how to reset the admin password for a WANScaler appliance.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p> <p>Knowledge Base Article: CTX112397</p>
<p>Monitoring and Reporting</p>	<ul style="list-style-type: none"> <li>• Based on a screen shot or description of the usage graph page information, interpret the results.</li> <li>• Based on the need to log events or send alerts in a WANScaler environment, determine the appropriate steps to configure logging (including syslog) or alerts (including event settings).</li> <li>• Based on the need to provide SNMP support, determine which SNMP support is provided by WANScaler or which settings to configure for SNMP support.</li> <li>• Based on stated requirements, determine what to look for when monitoring QoS from WANScaler.</li> <li>• Identify the type of information available when monitoring service classes from WANScaler.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p> <p>Citrix WANScaler Appliance Installation and User's Guide, Releases 2.2 – 4.2</p> <p>Hands-on Experience</p>

<p>Performing Basic Troubleshooting</p>	<ul style="list-style-type: none"> <li>• Given a scenario depicting issues in a WANScaler implementation such as cabling and duplex problems, IP forwarding and router misconfiguration errors, acceleration failures, CIFS acceleration failures and TCP option blocking (firewall configuration), determine the appropriate steps/procedures to resolve them.</li> <li>• Based on the need to test bandwidth-related settings/issues, determine how to use iPerf in order to test bandwidth.</li> <li>• Identify the statements about capturing a trace file for troubleshooting purposes.</li> <li>• Based on the need to retrieve core files on a WANScaler system, determine how or where to find the core files on the WANScaler system.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p> <p>Knowledge Base Articles: CTX113151 and CTX112401</p> <p>Field Experience</p> <p>Hands-on Experience</p>
<p>Configuring and Managing the Client</p>	<ul style="list-style-type: none"> <li>• Determine what is true about deploying a WANScaler Client in an environment.</li> <li>• Determine what is required to configure a WANScaler Controller (include configuring the Client rules) and/or when or where to deploy a WANScaler in Redirector mode.</li> </ul>	<p>CTX-1740AI Citrix WANScaler 4.2: Administration course</p> <p>Citrix WANScaler Client System Administrator's Guide, Release 4.2</p> <p>Hands-on Experience</p>

**5.4 How Objectives Relate to Questions on the Exam**

Objectives summarize what the test is designed to measure. Objectives are developed by Exam Developers and SMEs based on identified tasks that relate to the job of administering a Citrix WANScaler 4.2 implementation. The number of questions written for each objective relates directly to the importance of that task in doing the job and is proportional to how frequently the task is performed.

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## 6 Appendix: Practice

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**Question 1** The number of WANScaler Clients that can accelerate traffic through a WANScaler appliance is limited by \_\_\_\_\_. (Choose the correct option to complete the sentence.)

- a. bandwidth settings
- b. service class policies
- c. the WANScaler Controller
- d. the WANScaler license file

Answer: D

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**Question 2** Which WANScaler component can be disabled without preventing acceleration?

- a. Client
- b. Server
- c. Controller
- d. Appliance

Answer: C

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**Question 3** Two WANScaler appliances identify one another across a WAN using the \_\_\_\_\_ feature, which functions by inserting WANScaler-specific data into TCP options \_\_\_\_\_ through \_\_\_\_\_. (Choose the correct set of options to complete the sentence.)

- a. autodiscovery; 24, 31
- b. autodiscovery; 19, 24
- c. autonegotiation; 24, 31
- d. autonegotiation; 19, 24

Answer: A

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**Question 4**

An administrator needs to configure a WANScaler appliance to operate in virtual inline mode.

Which two pieces of information could the administrator use to specify where the output packets should be sent? (Choose two.)

- a. The default gateway
- b. The management IP address
- c. The port number of the incoming packet
- d. The network address of the outgoing packet
- e. The Ethernet source address associated with the incoming packet

Answers: A and E

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**Question 5**

**Scenario:** An administrator is installing a WANScaler appliance in high availability (HA) mode at a data center. The accelerated and primary Ethernet ports of both appliances are enabled. The accelerated ports were assigned IP addresses on Subnet A. The primary ports were assigned IP addresses on Subnet B.

What should the administrator do before enabling HA mode on either of the WANScaler appliances?

- a. Reassign the primary ports to Subnet A.
- b. Reassign the accelerated ports to Subnet B.
- c. Assign a VRRP ID for the pair from Subnet A.
- d. Assign a virtual management IP address for the pair from Subnet B.

Answer: D

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**Question 6**

Which two considerations should an administrator take into account when configuring QoS? (Choose two.)

- a. Set accurate bandwidth limits.
- b. Monitor the QoS graphs and statistics.
- c. Assign unaccelerated traffic to its own queue.
- d. Use only one queue as needed for critical traffic.

Answers: A and B

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**Question 7**

What can an administrator do to troubleshoot a 'No initial TCP handshake' issue?

- a. Increase the bandwidth limit.
- b. Disable and re-enable the WANScaler appliance.
- c. Reset the TCP connection between the client and server.
- d. Configure a service class to accelerate the connection to apply QoS.

Answer: C

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