

riverbed

Think fast™

Riverbed Certified Solutions Associate (RCSA) Study Guide

Exam 101-01 for RiOS v5.5

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RIVERBED CERTIFIED SOLUTIONS ASSOCIATE STUDY GUIDE

Preface

This Riverbed Certification Study Guide is intended for anyone who wants to become certified in the Riverbed Steelhead products and Riverbed Optimization System (RiOS). The Riverbed Certified Solutions Associate (RCSA) program is designed to validate the skills required of pre-sales engineers and technical professionals who work in the initial implementation of Riverbed products.

This study guide provides a combination of theory and practical experience needed for a general understanding of the subject matter. It also provides sample questions that will help in the evaluation of personal progress and provide familiarity with the types of questions that will be encountered in the exam.

This publication does not replace practical experience, nor is it designed to be a stand-alone guide for any subject. Instead, it is an effective tool that, when combined with education activities and experience, can be a very useful preparation guide for the exam.

Certification Overview

The Riverbed Certified Solutions Associate certificate is granted to individuals who demonstrate entry-level knowledge and experience with the RiOS product suite. The typical RCSA will have taken a Riverbed approved training class such as the *Steelhead Appliance Deployment & Management* course in addition to having hands-on experience in performing deployment, troubleshooting, and maintenance of RiOS products in small and medium organizations. While there are no set requirements prior to taking the exam, candidates who have taken a Riverbed authorized training class and have at least three months of hands-on experience with RiOS products have a significantly higher chance of receiving the certification. We would like to emphasize that *solely* taking the class will not adequately prepare you for the exam.

To obtain the RCSA certification, you are required to pass a computerized exam available at any Pearson VUE testing center worldwide.

Benefits of Certification

1. Establishes your credibility as a knowledgeable and capable individual in regard to Riverbed's products and services, WAN optimization and Application acceleration.
2. Helps improve your career advancement potential.
3. Qualifies you for discounts and/or benefits for Riverbed sponsored events and training.
4. Entitles you to use the RCSA certification logo on your business card.

Exam Information

Exam Specifications

- **Exam Number:** 101-01
- **Exam Name:** Riverbed Certified Solutions Associate
- **Version of RiOS:** Up to RiOS version 5.5 for the Steelhead appliances and the Central Management Console, Interceptor 2.0, Steelhead Mobile 2.1.1, and Cascade 8.3
- **Number of Questions:** 65
- **Total Time:** 75 minutes for exam, 15 minutes for Survey and Tutorial (90 minutes total)
- **Exam Provider:** Pearson VUE

- **Exam Language:** English only. Riverbed allows a 30-minute time extension for English exams taken in non-English speaking countries for students that request it. English speaking countries are Australia, Bermuda, Canada, Great Britain, Ireland, New Zealand, Scotland, South Africa, and the United States. A form will need to be completed by the candidate and submitted to Pearson VUE.
- **Special Accommodations:** Yes (must submit written request to Pearson VUE for ESL or ADA accommodations; includes time extensions and/or a reader)
- **Offered Locations:** Worldwide (over 5000 test centers in 165 countries)
- **Pre-requisites:** None (although taking a Riverbed training class is highly recommended)
- **Available to:** Everyone (partners, customers, employees, etc)
- **Passing Score:** 700 out of 1000 (70%)
- **Certification Expires:** Every 2 years (must recertify every 2 years, no grace period)
- **Wait Between Failed Attempts:** 72 hours. No retakes allowed on passed exams.
- **Cost:** \$150.00 (USD)
- **Number of Attempts Allowed:** Unlimited (though statistics are kept)

Certification Checklist

As the RCSA exam is geared towards individuals who have both the theoretical knowledge and hands on experience with the RiOS product suite, ensuring proficiency in both areas is crucial towards passing the exam. For individuals starting out with the process, we recommend the following steps to guide you along the way:

1. Building Theoretical Knowledge

The easiest way to become knowledgeable in deploying, maintaining, and troubleshooting the RiOS product suite is to take a Riverbed authorized training class. To ensure the greatest possibility of passing the exam, it is recommended that you review the RCSA Study Guide – Recommended Resources for Study and ensure your familiarity with all topics listed, prior to any examination attempts.

2. Gaining Hands-on Experience

While the theoretical knowledge will get you partway there, it is the hands-on knowledge that can get you over the top and enable you to pass the exam. Since all deployments are different, providing an exact amount of experience required is difficult. Generally, we recommend that resellers and partners perform at least five deployments in a variety of technologies prior to attempting the exam. For customers, and alternatively for resellers and partners, starting from the design and deployment phase and having at least six months of experience in a production environment would be beneficial.

3. Taking the Exam

The final step in becoming an RCSA is to take the exam at a Pearson VUE authorized testing center. To register for any Riverbed Certification exam, please visit <http://www.pearsonvue.com/riverbed>.

Recommended Resources for Study

Riverbed Certified Solutions Associate (RCSA) blueprint

- Steelhead and RiOS
- Steelhead Mobile
- Central Management Console (CMC)

- Interceptor
- Cascade

Riverbed Recommended Training Courses

Information on Riverbed Training can be found at: <http://www.riverbed.com/services/training/>.

- Steelhead Appliance Deployment & Management
- Steelhead Mobile Installation & Configuration

Additional recommended training:

- Steelhead Appliance Operations & L1/L2 Troubleshooting (eLearning)
- Central Management Console Configuration & Operations
- Interceptor Appliance Installation & Configuration
- Steelhead Appliance Advanced Deployment & Troubleshooting
- Cascade Configuration & Operations

Publications

Recommended Reading (In No Particular Order)

- Riverbed documentation:
https://login.riverbed.com/login_support.htm
 - Steelhead Management Console User's Guide
 - Steelhead Command-Line Interface Reference Guide
 - Steelhead Appliance Deployment Guide
 - Steelhead Appliance Installation Guide
 - Bypass Card Installation Guide
 - Steelhead Mobile Controller User's Guide
 - Steelhead Mobile Controller Installation Guide
 - Central Management Console User's Guide
 - Central Management Console Installation Guide
 - Interceptor Appliance User's Guide
 - Interceptor Appliance Installation Guide
 - Cascade Sensor and Cascade Gateway User's Guide
 - Cascade Profiler and Cascade Express User's Guide

Additional Recommended Reading

- Riverbed Certified Solutions Professional (RCSP) Study Guide:
http://www.riverbed.com/docs/RCSP_StudyGuide_199-01_v2.0.1.pdf

Sample Questions

1. What are not default port labels on the Steelhead appliance? (Select 2)
 - a. Secure
 - b. Interactive
 - c. RBT-Proto
 - d. Fixed-Target
 - e. Pass-Through
2. How many in-path rules will a LAN-initiated single connection execute on a Steelhead appliance?
 - a. 0
 - b. 2
 - c. 4
 - d. 3
 - e. None of the above
3. Which version of WCCP supports redirection of all TCP traffic?
 - a. Version 2
 - b. Version 3
 - c. Version 4
 - d. Version 9
4. A user uploads a Microsoft Word document to a server across the network using the file transfer protocol (FTP). The file has been seen before by the Steelhead appliances that are optimizing the link and so the user experiences warm performance. A second user at the same location downloads the file from the same server using the CIFS protocol. This file transfer can be considered:
 - a. Warm, the data has been seen by the Steelhead appliances before making the application protocol irrelevant
 - b. Cold, the data now travels in another direction so the Steelhead appliances need to relearn the data
 - c. Cold, the application protocol is now different so the Steelhead appliances need to relearn the data
 - d. Warm, the Transaction Prediction module of the Steelhead appliance can detect the application and accelerate the transfer
 - e. Partially warm, the Steelhead appliances only need to learn the new data

5. Using QoS on the Steelhead provides service to traffic in which direction:
 - a. Ingress only
 - b. Egress only
 - c. Both ingress and egress
 - d. Ingress only on the WAN port
 - e. None of the above
6. When performing a logical in-path deployment, which interface needs to be physically cabled for optimization to occur?
 - a. LAN
 - b. AUX
 - c. Primary
 - d. WAN
7. Once a Steelhead Mobile client connects to the Steelhead Mobile Controller (SMC), it retrieves what from the SMC?
 - a. Secure vault key
 - b. License
 - c. The Central Management Console (CMC) tree
 - d. The Steelhead domain catalog descriptor database (DCDD)
8. What are two benefits in using a Central Management Console (CMC) appliance? (Select 2)
 - a. Centralized monitoring of Steelhead appliances
 - b. Centralized reporting of Interceptor appliances
 - c. Centralized reporting of Steelhead Mobile Controller appliances
 - d. Centralized configuration of Steelhead appliances
 - e. Centralized configuration of Cascade Profiler appliances
9. How many Steelhead appliances can an Interceptor appliance support in single or cluster groups?
 - a. Up to 10
 - b. Up to 15
 - c. Up to 20
 - d. Up to 25
 - e. Up to 30

10. In a Cascade deployment with a Sensor and Profiler, what information does the Application Performance Policy report show? (Select 4)
- a. Number of jumbo frames
 - b. Number of connections per second
 - c. Average Response time
 - d. CPU and memory utilization of server
 - e. TCP resets
 - f. TCP retransmission

Correct answers: 1: D and E; 2: E; 3: A; 4: A; 5: B; 6: D; 7: B; 8: A and D; 9: D; 10: B, C, E and F.