What to expect with the Nokia Service Routing Architect (SRA) Lab Exam

The Nokia SRA Lab Exam is an eight-hour practical exam that tests a candidate’s ability to configure basic and advanced services and the supporting technologies on the Nokia 7750 Service Router (SR).

To register for the Nokia SRA Lab Exam, candidates must have successfully completed the following prerequisite written and lab exams:

• Nokia Interior Routing Protocols (4A0-101)
• Nokia Border Gateway Protocol (4A0-102)
• Nokia Multiprotocol Label Switching (4A0-103)
• Nokia Services Architecture (4A0-104)
• Nokia Virtual Private LAN Services (4A0-105)
• Nokia Virtual Private Routed Networks (4A0-106)
• Nokia Quality of Service (4A0-107)
• Nokia NRS II Lab Exam (NRSII4A0)

The exam content covers topics presented in all of the above referenced Service Routing Certification courses.

Exam topics

Exam topics are summarized in the sections below. Candidates should be able to configure, verify, and troubleshoot all topics and features. However, it is possible that not all topics will be covered in the exam.

1. Border Gateway Protocol (BGP)
   - Autonomous system (AS) and BGP peering
   - BGP messages and attributes
   - Route reflectors and confederations
   - Route advertisement
   - Redistribution
   - Policies and route selection
   - BGP regular expressions
   - BGP Advertise External
   - BGP Add-Paths
   - BGP Fast Reroute

2. Virtual Private LAN Services (VPLS)
   - VPLS SAP encapsulation types and forwarding rules
   - VPLS MTU calculation methodology and configuration
   - VPLS Forwarding Database Management
     - FDB size
     - FDB alarms
     - MAC aging
     - MAC learning
     - Discarding MACs
   - BGP auto-discovery (A-D)
   - BGP VPLS
   - LDP VPLS with BGP (A-D)
   - MAC protection
   - VPLS OAM Tools
   - Building Resilient VPLS Topologies
     - Spanning Tree Protocol in VPLS
     - Management VPLS with RSTP
     - Multi-Chassis LAG
     - Active/Standby Pseudowires
   - VPLS Network Design and Scaling
     - VPLS Ring and Full Mesh topologies
     - Hierarchical VPLS
     - Provider Backbone Bridging
3. Virtual Private Routed Networks (VPRN)
   - VPRN control/data plane
     - MPLS label signaling
     - MP-BGP label signaling
   - Route distinguisher and route targets
   - VRF import and export policies
   - Route selection
   - VPRN topologies
     - Full mesh
     - Hub and spoke
     - Extranet
     - Internet access
   - PE-CE routing protocols
     - static routes, OSPF, BGP
   - Inter-AS VPRN
     - VPRN Inter-AS Model A
     - VPRN Inter-AS Model B
     - VPRN Inter-AS Model C
   - Carrier Supporting Carrier (CSC) VPRN

4. Quality of Service (QoS)
   - Traffic classification
   - Queuing
   - Buffer management
   - Policing and shaping
   - Scheduling
   - Rate limiting
   - Resource allocation
   - Hierarchical scheduling
   - Egress port scheduling
   - Class Fair Hierarchical Policing
   - Marking
   - Applying QoS to Layer 2 and Layer 3 services

Exam registration
Registration and scheduling for the SRA lab exam can be completed at the following URL: networks.nokia.com/src/examreg

Lab exams are delivered at select Nokia locations globally. Candidates should plan to register six to eight weeks in advance of their targeted exam date.

Exam notes and tips
The SRA Lab Exam is an eight-hour exam that covers a broad range of topics. The eight-hour time frame excludes a 30-minute lunch break and 30 minutes of break time to be taken at your discretion. In total, the examinee could be on site for up to nine hours including breaks.

During the exam, candidates will be allowed to access soft copies of the product manuals only as reference material, if necessary. The product manuals will be accessible from the PC used to access the exam equipment. No other notes or text books or reference materials are allowed during the exam. Electronic devices, including cell phones, are not allowed into the examination room. You will be provided with pen and paper during the exam.

The exam pass mark is 80 percent. Candidates must complete some parts of the exam correctly, in order to obtain full marks in later parts of the exam. The candidate must have an adequate level of hands-on experience to maintain a reasonable pace during the exam so that all required tasks can be completed within the allotted time.

Listed below are some tips to help candidates successfully prepare for and pass the Nokia SRA Lab Exam:

1. Consider using My SR Lab to help you prepare for the exam. MySRLab provides remote, dedicated access to a Service Router lab environment. Lab scheduling is available 24 hours a day, 7 days a week. In addition to lab access time, My SR Lab includes (optionally) a suite of over 50 lab practice scenarios — including NRS II and SRA practice exercises — that can serve as an excellent exam practice and preparation tool. To find out more about My SR Lab and/or to register, please visit networks.nokia.com/src/mysrlab. A summary of each of the lab practice scenarios is available from this URL as well.

2. Ensure that you completely understand and are familiar with the student manuals of the prerequisite courses in the SRA certification. This will help you to become more comfortable with the lab exam material.
3. Ensure you are familiar with the configuration exercises from the practical labs of the prerequisite courses.

4. For each exam scenario, a recommended time and mark allocation are provided to help you manage your time.

5. If you are unclear about anything in the exam, ask the proctor for clarification. The exam proctor will attempt to clarify anything that may be ambiguous. Do not expect the proctor to provide other information during or after the exam.

6. Be sure to allow yourself some time to verify the correct operation of your solution.

7. Save your configuration often. Your exam mark will be based on your final configuration.

8. Relax and read each question very carefully. Be thorough in your solution, but remember to pace yourself appropriately.

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Nokia Oyj
Karaportti 3
FI-02610 Espoo, Finland
Tel. +358 (0) 10 44 88 000

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