Nokia Services Architecture

Course outline

The Nokia Services Architecture course is an introduction to Nokia’s concept of the service implementation. Students are walked through the steps for deploying virtual private network (VPN) and residential services in a service provider’s multiprotocol label switching (MPLS) network. Various services supported in the Nokia service routing portfolio are covered in this course — Internet enhanced service (IES), virtual private wire service (VPWS), virtual private LAN service (VPLS), and virtual private routed network service (VPRN). Service mirroring and service OA&M are also covered.

Course number
3FL30636AAAAZZZZA

Duration
4 days (classroom hours and in-depth lab training)

Exam
Nokia Services Architecture (4A0-104)
- Course registration is available at networks.nokia.com/src/courses
- Exam information and registration are available at networks.nokia.com/src/exams

Credit toward certification
- Nokia Network Routing Specialist II
- Nokia Service Routing Architect

Recommended pre-requisites
- Nokia Scalable IP Networks
- Nokia Multiprotocol Label Switching
Credit for other IP certifications
If you have already received an IP certification from Cisco or Juniper, and your certification is still valid, you may be eligible to receive credit towards prerequisite written exams in the Nokia Service Routing Certification program. To find out which third-party certifications are eligible for credit, which SRC exam exemptions you may be qualified to receive, and instructions on how to request an exemption, please visit networks.nokia.com/src/exemptions. Please note that your third-party certification must be current/active to receive credit.

Course objectives
After completing the course, students should be able to:
• Demonstrate a basic overall understanding of Nokia services
• Differentiate between service access point (SAP) and network ports
• Provide an explanation for a service delivery point (SDP) and differentiate between mesh and spoke SDPs
• Differentiate between transport tunnels and service tunnels
• Correctly analyze the implications of maximum transmission unit (MTU) size
• Use the correct operations, administration and maintenance (OAM) tools to analyze a configured system
• Correctly define the terms related to VPWS services such as Epipe, Apipe, Fpipe, and Ipipe
• Correctly configure an Epipe service
• Manage Epipe services given an existing infrastructure including modifying, deleting, disabling, re-enabling, and creating these services
• Explain the issues related to VPWS interworking
• Describe the purpose and operation of a VPLS service
• Explain the different types of SAP encapsulations and describe their behaviour
• Correctly configure a VPLS service
• Define and configure an Internet enhanced service (IES)
• Configure an IES spoke termination to a VPLS service
• Identify reasons to use mirror services and differentiate between local and distributed mirror services
• Configure and verify the operation of a remote mirror service
• Identify the protocols and technologies required to implement VPRN service
• Explain the interaction between the control and data plane of a VPRN service
• Configure, verify, and troubleshoot an IPv4 and IPv6 VPRN service

Course modules
• Module 1 - Services Overview and Implementation
• Module 2 - Virtual Private Wire Service
• Module 3 - Virtual Private LAN Service
• Module 4 - Operations, Administration, and Maintenance
• Module 5 - Internet Enhanced Service
• Module 6 - Service Mirroring
• Module 7 - Virtual Private Routed Network Service

Learn more at networks.nokia.com/src