

# Documentation Suite Overview

## 7450 ESS, 7750 SR, 7950 XRS, and VSR Release 20.10

### Introduction

This document provides information about the Service Router Operating System (SR OS) user guides that are available for the 7450 ESS, 7750 SR, 7950 XRS, and VSR including information about:

- Service Router portfolio platforms
- Software documents in this documentation suite
- Hardware and other documents in this documentation suite
- Accessing and searching the Documentation Center
- Searching for specific information in a document or in multiple documents
- Contact information

### Service router platforms covered in this documentation suite

7750 Service Router (SR)/7450 Ethernet Service Switch (ESS)/VSR



### 7950 eXtensible Routing System (XRS)



7950 XRS-20      7950 XRS-40      7950 XRS-20e  
NN3224

### Software documents in this documentation suite

The following table lists and describes the software documents in this documentation suite and the intended audience for each guide. The suite covers the SR OS software functionality for the 7450 ESS, 7750 SR, 7950 XRS, and VSR platforms.

The guides are organized into functional chapters and provide concepts and descriptions of the implementation flow, as well as Command Line Interface (CLI) syntax and command usage.

#### Intended audience legend:

- **A**—Network architects and designers
- **B**—Installers and hardware maintenance technicians
- **C**—Network technicians, administrators, operators, and service providers

#### Software Guides

Document	Description	Intended Audience		
		A	B	C
7450 ESS, 7750 SR, 7950 XRS, and VSR Acronyms Reference Guide	Provides expansions of acronyms found in the user guides.	✓	✓	✓
7450 ESS, 7750 SR, and 7950 XRS Advanced Configuration Guide	Provides advanced configuration solutions and is a supplement to the other guides in this suite.	✓	✓	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Basic System Configuration Guide	Describes CLI usage, file system management, boot option file (BOF) configuration, basic system management configuration, node timing, and synchronization functions.	✓	✓	✓

### Software Guides (Continued)

Document	Description	Intended Audience		
		A	B	C
7450 ESS, 7750 SR, 7950 XRS, and VSR Classic CLI Command Reference Guide	Describes all classic commands and their supported values and parameters.	✓	✓	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Clear, Show, and Tools Command Reference Guide	Describes all clear, show, and tools commands for both classic and MD-CLI and their supported values and parameters.	✓	✓	✓
7750 SR Gx AVPs Reference Guide	Describes Gx Attribute Value Pairs (AVPs).	✓	—	✓
7750 SR and VSR Gy AVPs Reference Guide	Describes Gy Attribute Value Pairs (AVPs).	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Interface Configuration Guide	Describes how to provision Input/Output Modules (IOMs), XMA Control Modules (XCMs), Media Dependent Adapters (MDAs), XRS Media Adapters (XMAs), connectors, and ports.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Layer 2 Services and EVPN Guide: VLL, VPLS, PBB, and EVPN	Describes Layer 2 service and Ethernet Virtual Private Network (EVPN) functionality and provides examples to configure and implement Virtual Leased Lines (VLLs), Virtual Private LAN Service (VPLS), Provider Backbone Bridging (PBB), and EVPN.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Layer 3 Services Guide: IES and VPRN	Describes Layer 3 service functionality and provides examples to configure and implement Internet Enhanced Services (IES) and Virtual Private Routed Network (VPRN) services.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Log Events Guide	Provides general information about log events.	✓	✓	✓
7450 ESS, 7750 SR, and 7950 XRS MD-CLI Command Reference Guide	Describes all MD-CLI commands and their supported values and parameters.	✓	✓	✓



**Software Guides (Continued)**

Document	Description	Intended Audience		
		A	B	C
7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI Quick Reference Guide	Provides a comparison of the Nokia SR OS Model-Driven Command Line Interface (MD-CLI) to those used by Junos OS and IOS XR.	—	—	✓
7450 ESS, 7750 SR, and 7950 XRS MD-CLI User Guide	Provides an overview of MD-CLI usage.	✓	✓	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide	Provides an overview of Multiprotocol Label Switching (MPLS), Resource Reservation Protocol (RSVP), Generalized Multiprotocol Label Switching (GMPLS), and Label Distribution Protocol (LDP) and provides configuration examples.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide	Provides an overview of multicast routing concepts and provides configuration examples for Internet Group Management Protocol (IGMP), Multicast Listener Discovery (MLD), Protocol Independent Multicast (PIM), Multicast Source Discovery Protocol (MSDP), Multipoint LDP, multicast extensions to BGP, and Multicast Connection Admission Control (MCAC).	✓	—	✓
7450 ESS, 7750 SR, and VSR Multiservice Integrated Service Adapter and Extended Services Appliance Guide	Provides an overview of services provided by integrated service adapters and extended service appliances, such as Application Assurance, IPsec, ad insertion (ADI), and Network Address Translation (NAT) and provides configuration examples.	✓	—	✓
NISH Installation and User Guide	Describes the Nokia Network Interface Shell (NISH) system architecture, functional overview, features, and how to install and set up the NISH.	✓	✓	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR OAM and Diagnostics Guide	Describes how to configure features such as service mirroring and Lawful Intercept (LI), and how to use the Operations, Administration and Management (OAM) and diagnostics tools.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS and VSR Pay-as-You-Grow Licensing Reference Guide	Describes FP4 hardware licensing functionality and frequently asked questions.	✓	✓	✓

**Software Guides (Continued)**

Document	Description	Intended Audience		
		A	B	C
7450 ESS, 7750 SR, 7950 XRS, and VSR Quality of Service Guide	Provides an overview of Quality of Service (QoS) policy management and provides configuration examples.	✓	—	✓
7750 SR and VSR RADIUS Attributes Reference Guide	Describes all supported RADIUS Authentication, Authorization, and Accounting attributes.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide	Describes logical IP routing interfaces and associated attributes such as IP addresses, as well as IP and MAC-based filtering, Virtual Router Redundancy Protocol (VRRP), and cflowd.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Security Best Practices and Hardening Guide	Provides an overview of the main security features available in SR OS routers along with configuration examples by focusing on the management, control, and data planes.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR Services Overview Guide	Provides a general overview of functionality provided by the routers and describes how to configure service parameters such as Service Access Points (SAPs), Service Distribution Points (SDPs), customer information, and user services.	✓	—	✓
7450 ESS, 7750 SR, 7950 XRS, and VSR System Management Guide	Describes system security features, SNMP and NETCONF features, and event and accounting logs. It covers basic tasks such as configuring management access filters, passwords, and user profiles.	✓	✓	✓
7450 ESS, 7750 SR, and VSR Triple Play Service Delivery Architecture Guide	Describes the Triple Play Service Delivery Architecture (TPSDA) support and provides examples to configure and implement various protocols and services.	✓	—	✓
7450 ESS and 7750 SR Troubleshooting Guide	Provides troubleshooting procedures for the 7450 ESS and 7750 SR routers. The guide describes commonly encountered problems and events; it does not cover every potential troubleshooting scenario that might occur in the field.	—	✓	✓
7950 XRS Troubleshooting Guide	Provides troubleshooting procedures for the 7950 XRS. The guide describes commonly encountered problems and events; it does not cover every potential troubleshooting scenario that might occur in the field.	—	✓	✓

**Software Guides (Continued)**

Document	Description	Intended Audience		
		A	B	C
7450 ESS, 7750 SR, 7950 XRS, and VSR Unicast Routing Protocols Guide	Provides an overview of unicast routing concepts and provides configuration examples for Routing Information Protocol (RIP), Open Shortest Path First (OSPF), Intermediate-system-to-intermediate-system (IS-IS), and Border Gateway Protocol (BGP) routing protocols, and for route policies.	✓	—	✓
Virtualized Service Router Installation and Setup Guide	This guide describes Nokia Virtualized Service Router (VSR) system architecture, functional overview, VSR features, and how to install and set up the VSR.	✓	✓	✓
BNG CUPS Guides				
CMG BNG CUPS Control Plane Function Guide	Describes all aspects related to a CMG Broadband Network Gateway (BNG) Control Plane Function (CPF) in a BNG Control and User Plane Separation (CUPS) system.	✓	—	✓
CMG BNG CUPS RADIUS Attributes	Describes all supported RADIUS Authentication, Authorization and Accounting attributes in a CMG BNG CUPS system.	✓	—	✓
7750 SR and VSR BNG CUPS User Plane Function Guide	Describes all aspects related to a Nokia SR OS BNG CUPS User Plane Function (UPF) in a BNG CUPS system.	✓	—	✓

**Hardware documents in this documentation suite**

The intended audience for the hardware documents in this documentation suite are network architects and designers, installers, and hardware maintenance technicians.

**7750 SR guides**

- 7750 SR IOM5-e Installation Guide
- 7750 SR MDA-e-XP Installation Guide
- 7750 SR-1e, SR-2e, and SR-3e Chassis Installation Guide
- 7750 SR-12e Chassis Installation Guide
- 7750 SR-a4 and SR-a8 Chassis Installation Guide
- 7750 SR-1 Chassis Installation Guide
- 7750 SR-1s Chassis Installation Guide
- 7750 SR-1s-3.0T Chassis Installation Guide
- 7750 SR-2s Chassis Installation Guide
- 7750 SR-7s and SR-14s Chassis Installation Guide
- 7750 SR ESA 100G Chassis Installation Guide
- 7750 SR IOM-s Installation Guide

- 7750 SR MDA-s Installation Guide
- Vertical Rack Mount Kit Installation Guide
- VSR Installation and Setup Guide

#### 7450 ESS and 7750 SR guides

- 7450 ESS and 7750 SR IOM4-e Installation Guide
- 7450 ESS and 7750 SR MDA-e Installation Guide
- 7450 ESS-7 and 7750 SR-7 Chassis Installation Guide
- 7450 ESS-12 and 7750 SR-12 Chassis Installation Guide
- 7750 SR and 7450 ESS Integrated Media Module Installation Guide
- 7750 SR and 7450 ESS Multiservice Integrated Service Adapter Installation Guide
- 7750 SR and 7450 ESS SF/CPM to SF/CPM5 Hardware Upgrade Guide
- 7x50 MDA-XP Installation Guide
- 7750 SR-7 and 7450 ESS-7 PEM-3 Upgrade Installation Note
- 7750 SR-12 and 7450 ESS-12 PEM-3 Upgrade Installation Note
- 7750 SR and 7450 ESS SFM6 and IOM5-e FP4 Hardware Upgrade Guide

#### 7950 XRS guides

- 7950 XRS-20/40 Chassis Installation Guide
- 7950 XRS-20 and 7950 XRS-20e FP4 Hardware Upgrade Guide
- 7950 XRS-20e and 7950 XRS-40 Chassis Installation Guide

#### 7750 SR and 7950 XRS guides

- vSIM Installation and Setup Guide
- 7750 SR, 7950 XRS, and 7250 IXR Optical Patch Panel Installation Guide

#### Supplementary information

- Best Practices for Improving Equipment Protection and Longevity

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#### Other documents in this documentation suite

- SR OS Software Release Notes
- SR OS AA Protocols and Applications (spreadsheet)
- Application Assurance (AA) Protocols and Application Support
- 7750 SR, VSR, CMG BNG CUPS Features Release Reference



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**Note:** Depending on your account permissions and login status, you may not be authorized to display or download restricted guides (indicated by a key symbol beside the document ID). If the guide remains restricted after a valid login, contact a Nokia technical support representative to check your account permissions.

The SR OS documentation is available in the following formats:

- PDF
- Zipped PDF library
- HTML
- Online HTML library (formerly Infocenter)
- Downloadable HTML library

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#### Searching for Specific Information in a Downloaded PDF Document or Multiple PDF Documents

You can use Adobe Reader to search the contents of one or more downloaded PDF files for a specific term.

**Note:** When searching the contents of multiple PDF files, ensure the files are located in the same folder.

1. From the Adobe Reader main menu, choose **Edit > Search or Advanced Search**. The Search panel opens.
  - To search for a specific term in the current document, click the **In the current document** radio button.
  - To search for a specific term in multiple documents, click the **All PDF Documents in** radio button and select the applicable folder from the drop-down menu.

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2. Enter the term to search for. Select one or more of the following search criteria, if required:
  - Whole words only
  - Case-Sensitive
  - Include Bookmarks
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#### Documentation support

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#### Technical support

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