

# Multi-Access Gateway – controller

Release 25.3

### Guide to Documentation

3HE 21149 AAAA TQZZA Edition: 01 March 2025

© 2025 Nokia.

Use subject to Terms available at: www.nokia.com/terms.

Nokia is committed to diversity and inclusion. We are continuously reviewing our customer documentation and consulting with standards bodies to ensure that terminology is inclusive and aligned with the industry. Our future customer documentation will be updated accordingly.

This document includes Nokia proprietary and confidential information, which may not be distributed or disclosed to any third parties without the prior written consent of Nokia.

This document is intended for use by Nokia's customers ("You"/"Your") in connection with a product purchased or licensed from any company within Nokia Group of Companies. Use this document as agreed. You agree to notify Nokia of any errors you may find in this document; however, should you elect to use this document for any purpose(s) for which it is not intended, You understand and warrant that any determinations You may make or actions You may take will be based upon Your independent judgment and analysis of the content of this document.

Nokia reserves the right to make changes to this document without notice. At all times, the controlling version is the one available on Nokia's site.

No part of this document may be modified.

NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF AVAILABILITY, ACCURACY, RELIABILITY, TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE IN RELATION TO THE CONTENT OF THIS DOCUMENT. IN NO EVENT WILL NOKIA BE LIABLE FOR ANY DAMAGES, INCLUDING BUT NOT LIMITED TO SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL OR ANY LOSSES, SUCH AS BUT NOT LIMITED TO LOSS OF PROFIT, REVENUE, BUSINESS INTERRUPTION, BUSINESS OPPORTUNITY OR DATA THAT MAY ARISE FROM THE USE OF THIS DOCUMENT OR THE INFORMATION IN IT, EVEN IN THE CASE OF ERRORS IN OR OMISSIONS FROM THIS DOCUMENT OR ITS CONTENT.

Copyright and trademark: Nokia is a registered trademark of Nokia Corporation. Other product names mentioned in this document may be trademarks of their respective owners.

© 2025 Nokia.

# **Table of contents**

List	of tables	4
1	About this guide	5
_		
2	MAG-c documentation suite	6
3	Accessing documentation	9
4	Technical support	10
5	How to give feedback on documentation	11

# **List of tables**

Table 1: Software guides	6	3
Table 2: MAG-c appliance guide	8	3

### 1 About this guide

This guide provides information about the Multi-Access Gateway – controller (MAG-c) user guides, including:

- · software guides and other documents in this documentation suite
- · accessing the documentation
- · contact information

Use the MAG-c documentation suite in conjunction with the SR OS configuration guides. The SR OS guides describe SR OS service features that are supported by the MAG-c.



**Note:** The MAG-c software release is based on Release 20.10 of the 7750 SR OS, and inherits many, but not all, of the SR OS 20.10 features. The related SR OS configuration information is provided in the SR OS software user guides. The MAG-c software user guides describe features that are specifically supported by the MAG-c. See the 7450 ESS, 7750 SR, 7950 XRS, and VSR Documentation Suite Overview Card 20.10.R1 for more information about the SR OS user guides.

#### 2 MAG-c documentation suite

This documentation suite covers the software features and functionality of the MAG-c platform. The documentation suite describes topics such as software installation, functional overview, interface description, and technical reference.

#### Software guides

The software guides describe specific SR OS software functionality for the MAG-c platform. The guides are organized into functional chapters that describe concepts, implementation flow, and the command line interface (CLI) syntax and command usage. See Accessing documentation for information about accessing software guides.

Intended audience legend:

- A network architects and designers
- B installers
- C network technicians, administrators, operators, and service providers

The following table describes the software guides in this documentation suite and the intended audience for each guide.

Table 1: Software guides

Document	Description	Intended audience			
		Α	В	С	
Overview			,		
MAG-c Overview Guide	Provides an overview of the Nokia control and user plane separation (CUPS) solution. The control plane (CP) is known as the MAG-c and has the ability to control SR OS based user planes (UPs). The various UP functions include BNG, combined SGW/PGW, and 5G UPF.	/	<i>,</i>	<b>/</b>	
Install and commission					
MAG-c Installation Guide	Describes how to install the MAG-c software and defines the prerequisites and procedures to install the MAG-c elements.	_	/	/	
Operate and maintain					
MAG-c Control Plane Function Guide	Describes the Nokia control plane (CP) functionality and provides concepts and descriptions of the implementation flow,	1	_	1	

Document	Description	Intended audience		ce
		Α	В	С
	CLI syntax, and command usage for the MAG-c solution.			
MAG-c Control Plane Function Advanced Configuration Guide	Provides feature and configuration explanations, CLI descriptions, and overall solutions for the control plane function (CPF) for control and user plane separation (CUPS) solutions.	/	-	/
Monitor and troubleshoot				Ť
MAG-c Log Events Reference Guide	Provides general information about log events.	_	_	/
MAG-c Log Events Search Tool	Provides general information about log events as a searchable HTML list.	_	_	1
MAG-c Troubleshooting Guide	Provides troubleshooting procedures for the MAG-c. Describes commonly encountered problems and events.	_	/	/
Reference		•	i	,
MAG-c CLI Reference Guide	Describes CLI usage, all CLI commands, and the supported values and parameters for each command.	1	<b>V</b>	/
Per Call Measurement Data Guide	Describes the MAG-c PCMD. It provides concepts and descriptions of PCMD record generation, format, information elements and their value tables, CLI syntax, and command usage.	/	-	/
MAG-c PFCP Interface Description Guide	Describes the applicability of the packet forwarding control protocol (PFCP) for fixed broadband access and the protocol extensions for the MAG-c.	_	_	/
MAG-c RADIUS Attributes and IU Triggers	Describes all supported RADIUS attributes and RADIUS interim update (IU) triggers in a searchable HTML list.	_	-	/
MAG-c SBI IE Search Tool	Lists all the information elements (IEs) for the different Service Based Interface (SBI) services.	_	_	1
MAG-c TPSDA Python 3 API	Describes the APIs used by Python developers to interact with various TPSDA protocols and applications on the MAG-c.	1		7

#### MAG-c appliance guide

The MAG-c appliance guide describes the specific installation and configuration for the MAG-c appliance. See Accessing documentation for information about accessing the MAG-c appliance guide.

Intended audience legend:

- A network architects and designers
- B installers
- · C network technicians, administrators, operators, and service providers

The following table describes the MAG-c appliance guide in this documentation suite and the intended audience for it.

Table 2: MAG-c appliance guide

Document	Description	Intended audience		
		Α	В	С
Install and commission				
MAG-c Appliance Installation and Deployment Guide	Describes how to install, configure, and deploy the MAG-c appliance.	_	<b>*</b>	1

#### Release Notes and Features Release Reference

The MAG-c Release Notes and 7750 SR and VSR BNG CUPS Features Release Reference are not included with the MAG-c software documentation package. See Accessing documentation for information about accessing the Release Notes and the Features Release Reference.

The 7750 SR and VSR BNG CUPS Features Release Reference gives an overview of the minimal software release needed for a specific feature. A feature can require a minimal MAG-c release only (CP), a minimal SR OS release only (UP), or in most cases a minimal release for both MAG-c and SR OS (CP and UP).

The Nokia customer documentation team has introduced the RN Navigator – an online tool for quickly finding information in the Release Notes –. The RN Navigator can be accessed online at https://documentation.nokia.com/rn-navigator/products/. A customer account login is required.

### 3 Accessing documentation

The Nokia MAG-c customer documentation can be accessed through WebHelp or through the Nokia Documentation Center.

The MAG-c Installation Guide, the MAG-c Troubleshooting Guide, the MAG-c Appliance Installation and Deployment Guide, the MAG-c Release Notes, and the 7750 SR and VSR BNG CUPS Features Release Reference in the MAG-c documentation set are restricted (authentication is required).

The unrestricted MAG-c user guides can be accessed using a search engine. For best results, search using the term "MAG-c" followed by the current release and any applicable keywords.



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

The MAG-c software documentation is available in the following formats:

- WebHelp HTML
- downloadable HTML library (WebHelp format)
- · PDFs of each guide
- · a ZIP file of all PDFs in the documentation suite

# 4 Technical support

Customer support representatives are available to assist you 24 hours a day, 7 days a week. To contact Technical Support, visit the Nokia Support portal: https://customer.nokia.com/support/s/.

### 5 How to give feedback on documentation

You can use the following methods to report issues with the documentation, including errors or areas that need clarification, or to provide suggestions for improvement:

#### email

Send your feedback in an email to documentation.feedback@nokia.com. Include the guide name, topic, and release.

#### online WebHelp

In the online WebHelp click the feedback icon next to the topic title. Use the pop-up to provide your comments about the topic.

# **Customer document and product support**



#### **Customer documentation**

Customer documentation welcome page



### **Technical support**

Product support portal



**Documentation feedback** 

Customer documentation feedback