



containerized Multi-Access Gateway – controller

Release 25.7

Data Model Guide

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1 Getting started

Find general information about this guide.

1.1 About this guide

This documentation gives general information about the configuration and state data models available for the Nokia containerized Multi-Access Gateway – controller (cMAG-c) and describes the predefined show reports.



Note: This guide generically covers content for the release specified on the title page of the guide, and may also contain some content that will be released in later maintenance loads. See the applicable *cMAG-c Release Notes* for information about features supported in each load of the software release.

1.2 Conventions

This section describes the general conventions used in this guide.

1.2.1 Precautionary and information messages

The following information symbols are used in the documentation.



DANGER: Danger warns that the described activity or situation may result in serious personal injury or death. An electric shock hazard could exist. Before you begin work on this equipment, be aware of hazards involving electrical circuitry, be familiar with networking environments, and implement accident prevention procedures.



WARNING: Warning indicates that the described activity or situation may, or will, cause equipment damage, serious performance problems, or loss of data.



Caution: Caution indicates that the described activity or situation may reduce your component or system performance.



Note: Note provides additional operational information.



Tip: Tip provides suggestions for use or best practices.

1.2.2 Options or substeps in procedures and sequential workflows

Options in a procedure or a sequential workflow are indicated by a bulleted list. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform one of the listed options to complete the step.

Example: Options in a procedure

1. User must perform this step.
2. This step offers three options. User must perform one option to complete this step.
 - This is one option.
 - This is another option.
 - This is yet another option.

Substeps in a procedure or a sequential workflow are indicated by letters. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform two substeps (a. and b.) to complete the step.

Example: Substeps in a procedure

1. User must perform this step.
2. User must perform all substeps to complete this action.
 - a. This is one substep.
 - b. This is another substep.

2 Overview

The cMAG-c management features are built on top of the SR Linux management function, which is implemented via the management pod.

The cMAG-c supports different management interfaces for accessing and using the data models. Key features include:

- command line interface (CLI)
- SSH server
- NETCONF using YANG
- user management with AAA

See the references in "cMAG-c management" in the *cMAG-c Control Plane Function Guide* for information about accessing and using the interfaces that support the cMAG-c data models.

2.1 Transaction and report types

Learn about the supported transaction and report types in the cMAG-c data model.

The cMAG-c data model supports the following types of transactions and reports:

- Configuration transactions modify a configuration.
- State transactions display configuration and operational state information.
- Show reports provide cMAG-c predefined or user-created custom show reports.

The transaction descriptions in the *CLI and Data Model Explorer Tool* have a field called "Configurable" that indicates the transaction type:

- **true** — configuration transaction
- **false** — state transaction

See the *CLI and Data Model Explorer Tool* for more information about configuration and state transactions.

See [Show reports](#) for more information about supported show reports.

2.2 CLI help function

Access usage information for the cMAG-c data model using the online help function in the CLI interface.

The cMAG-c branch and leaf descriptions are available in the CLI interface, using the online help function. Enter a question mark (?) after a branch or leaf name to display the usage information. In the following example the question mark displays information about the **radius-authentication-profile** leaf.

Example: Using the question mark (?) to view information in the CLI interface

```
# /subscriber-management profiles radius-authentication-profile ?  
usage: radius-authentication-profile <name>
```

List of RADIUS authentication profiles

The RADIUS authentication profiles define system behavior when using the RADIUS server to authenticate sessions

Positional arguments:

name [string, length 1..255] RADIUS authentication profile name

2.3 Show reports

The Nokia cMAG-c CLI provides a set of predefined show reports. See [show subscriber-management command descriptions](#) for descriptions of the commands for generating the predefined show reports.

The cMAG-c CLI is a flexible application that can also load dynamic plugins. This flexibility allows users to create and load their own custom show reports. Users can use CLI plug-ins written in Python to create their own custom reports. See the *SR Linux CLI Plug-In Guide* for more information.

3 show subscriber-management command descriptions

3.1 subscriber-management

Syntax

show subscriber-management

Context

show subscriber-management

Description

Top-level container for subscriber-management information

3.2 log

Syntax

show subscriber-management log [*hostname hostname*] [*subsystem subsystem...*] [*event event...*]
[*severity severity*] [*since since*] [*apply-state*] [*detail*]

Context

show subscriber-management log

Description

Show subscriber-management logs

Parameters

hostname

The syslog hostname (POD name)

subsystem

Syslog subsystem name

event

Name of the event

severity

Minimum displayed severity

since

Earliest displayed timestamp

Supported formats:

- RFC822; E.g.: 2025-03-25T10:49:41
- ISO format
- relative using: (N (year|month|week|day|hour|minute|second)s?)+ ago; E.g. 10:40, 5 minutes ago, 2 days 1 hour ago

apply-state

Only show apply-state related logs

detail

Show more detailed information

3.3 pool

Syntax

show subscriber-management pool [*network-instance network-instance*] [*name name*] [*type type*]

Context

show subscriber-management pool

Description

Show pools

Parameters

network-instance

Filter on network-instance

name

Filter on name

type

Filter on IP type

3.4 prefix

Syntax

show subscriber-management pool prefix [*prefix*]

Context

show subscriber-management pool prefix

Description

Show pool prefixes

Parameters

prefix
Filter on prefix

3.5 session

Syntax

show subscriber-management session [**subscriber** *subscriber*] [**up** *up*] [**network-instance** *network-instance*] [**mac** *mac*] [**ipv4-address** *ipv4-address*] [**na-address** *na-address*] [**pd-prefix** *pd-prefix*] [**slaac-prefix** *slaac-prefix*] [**detail**]

Context

show subscriber-management session

Description

Show sessions

Parameters

subscriber
The subscriber name

up
The UP

network-instance
The network instance

mac
The MAC address

ipv4-address
The IPv4 address

na-address
The IPv6 NA address

pd-prefix
The IPv6 PD prefix

slaac-prefix
The IPv6 SLAAC prefix

detail
Show more detailed information

3.6 subscriber

Syntax

show subscriber-management subscriber [*name*]

Context

show subscriber-management subscriber

Description

Show subscribers

Parameters

name

The subscriber name

3.7 version

Syntax

show version

Context

show version

Description

Show the system information

Customer document and product support



Customer documentation

[Customer documentation welcome page](#)



Technical support

[Product support portal](#)



Documentation feedback

[Customer documentation feedback](#)