



Cloud Native BNG Control Plane Release Change Reference, Release 2024.01

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About this Guide



Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. While any existing biased terms are being substituted, exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This Release Change Reference (RCR) describes new and modified feature and behavior change information for the applicable Cloud Native Broadband Network Gateway (cnBNG) Control Plane (CP) release.

- [Conventions Used, on page iii](#)

Conventions Used

The following tables describe the conventions used throughout this documentation.

Notice Type	Description
Information Note	Provides information about important features or instructions.
Caution	Alerts you of potential damage to a program, device, or system.
Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.

Typeface Conventions	Description
Text represented as a screen display	This typeface represents displays that appear on your terminal screen, for example: <code>Login:</code>
Text represented as commands	This typeface represents commands that you enter, for example: <code>show ip access-list</code> This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.

Typeface Conventions	Description
Text represented as a command <i>variable</i>	This typeface represents a variable that is part of a command, for example: show card <i>slot_number</i> <i>slot_number</i> is a variable representing the desired chassis slot number.
Text represented as menu or sub-menu names	This typeface represents menus and sub-menus that you access within a software application, for example: Click the File menu, then click New



CHAPTER 1

Cloud Native BNG Control Plane Release Change Reference

- [Features and Behavior Change Quick Reference, on page 1](#)
- [Feature Defaults Quick Reference, on page 1](#)
- [CP Geographical Redundancy, on page 2](#)
- [Support of Multiple UPFs with a Static-IP-Pool, on page 3](#)
- [RADIUS Automated Testing, on page 3](#)
- [Support for RADIUS IPv6 Transport, on page 4](#)
- [Support for Variable Pool Chunk Size for an IPAM Data Plane, on page 5](#)

Features and Behavior Change Quick Reference

The following table provides the list of Cloud Native BNG (cnBNG) Control Plane (CP) features and changes in this release.

Features / Behavior Changes	Release Introduced / Modified
CP Geographical Redundancy, on page 2	2024.01.0
Support of Multiple UPFs with a Static-IP-Pool, on page 3	2024.01.0
RADIUS Automated Testing, on page 3	2024.01.0
Support for RADIUS IPv6 Transport, on page 4	2024.01.0
Support for Variable Pool Chunk Size for an IPAM Data Plane, on page 5	2024.01.0

Feature Defaults Quick Reference

The following table indicates what features are enabled or disabled by default.

Feature	Default
CP Geographical Redundancy	Disabled – Configuration Required
Support of Multiple UPFs with a Static-IP-Pool	Disabled – Configuration Required
RADIUS Automated Testing	Disabled – Configuration Required
Support for RADIUS IPv6 Transport	Disabled – Configuration Required
Support for Variable Pool Chunk Size for an IPAM Data Plane	Disabled – Configuration Required

CP Geographical Redundancy

Feature Summary

Table 1: Feature Summary

Applicable Product(s) or Functional Area	cnBNG
Applicable Platform(s)	SMI
Feature Default Setting	Disabled - Configuration Required
Related Documentation	<i>Cloud Native BNG Control Plane Configuration Guide</i>

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2024.01.0

Feature Description

CP Geographical redundancy provides protection to the cnBNG Control Plane site against service failures that occur due to natural disasters or massive system outages such as power failures. CP Geo redundancy takes place through replication of sessions, configuration, and any other data required for seamless failover and fallback of services to the remote site.

For more information, see the [Cloud Native BNG Control Plane Configuration Guide > CP Geographical Redundancy](#) chapter.

Support of Multiple UPFs with a Static-IP-Pool

Feature Summary

Table 3: Feature Summary

Applicable Product(s) or Functional Area	cnBNG
Applicable Platform(s)	SMI
Feature Default Setting	Disabled - Configuration Required
Related Documentation	<i>Cloud Native BNG Control Plane Configuration Guide</i>

Revision History

Table 4: Revision History

Revision Details	Release
Introduced support of multiple UPFs with a static IP-pool.	2024.01.0

Feature Description

The cnBNG Control Plane now supports sharing a single static IP-pool with multiple UPFs. To enable sharing of the same static IP-pool across multiple UPFs, you must configure the static IP-pool as a Global Static pool.

For more information, see the [Cloud Native BNG Control Plane Configuration Guide > IP Address Management](#) chapter.

RADIUS Automated Testing

Feature Summary

Table 5: Feature Summary

Applicable Product(s) or Functional Area	cnBNG
Applicable Platform(s)	SMI
Feature Default Setting	Disabled - Configuration Required

Related Documentation	<i>Cloud Native BNG Control Plane Configuration Guide</i>
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Revision History

Table 6: Revision History

Revision Details	Release
First introduced.	2024.01.0

Feature Description

The RADIUS Automated Testing feature allows the cnBNG-CP to periodically check the status of the RADIUS server until the server is considered dead or the dead-timer expires. With this feature, if the dead-timer expires, the cnBNG-CP attempts to send authentication and accounting TEST messages to the RADIUS server that is currently unreachable. If the server does not respond to these messages, it is marked as dead, and this process continues until the server is reachable. If the RADIUS server responds within the set number of retransmissions and timeouts, it is marked as available, and is then included in the selection algorithm list that is used to choose RADIUS servers.

For more information, see the [Cloud Native BNG Control Plane Configuration Guide > Authentication, Authorization, and Accounting Functions](#) chapter.

Support for RADIUS IPv6 Transport

Feature Summary

Table 7: Feature Summary

Applicable Product(s) or Functional Area	cnBNG
Applicable Platform(s)	SMI
Feature Default Setting	Disabled – Configuration Required
Related Documentation	<i>Cloud Native BNG Control Plane Configuration Guide</i>

Revision History

Table 8: Revision History

Revision Details	Release
First introduced.	2024.01.0

Support for Variable Pool Chunk Size for an IPAM Data Plane

Feature Summary

Table 9: Feature Summary

Applicable Product(s) or Functional Area	cnBNG
Applicable Platform(s)	SMI
Feature Default Setting	Disabled - Configuration Required
Related Documentation	<i>Cloud Native BNG Control Plane Configuration Guide</i>

Revision History

Table 10: Revision History

Revision Details	Release
Introduced support for variable chunk size for an IPAM Data Plane.	2024.01.0

Feature Description

You can now configure multiple pools of IP addresses, each with different chunk sizes for a given IPAM Data Plane (SRG group in SRG deployment, or an UPF in non-SRG deployment).

For more information, see the [Cloud Native BNG Control Plane Configuration Guide > IP Address Management](#) chapter.

Feature Description