



## **Cloud Native BNG Control Plane Release Change Reference, Release 2023.04**

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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 v](#)

## 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 <b>commands</b>	This typeface represents commands that you enter, for example: <b><code>show ip access-list</code></b> 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 <b>command</b> <i>variable</i>	This typeface represents a variable that is part of a command, for example: <b>show card</b> <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 <b>File</b> menu, then click <b>New</b>



# CHAPTER 1

## Cloud Native BNG Control Plane Release Change Reference

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- [Features and Behavior Change Quick Reference](#), on page 1
- [Feature Defaults Quick Reference](#), on page 1
- [AAA Attribute Enhancements](#), on page 2
- [cnBNG Cluster Deployment Using Inception Server](#), on page 3

### 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
<a href="#">AAA Attribute Enhancements</a>	2023.04.0
<a href="#">cnBNG Cluster Deployment Using Inception Server</a>	2023.04.0

### Feature Defaults Quick Reference

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

Feature	Default
AAA Attribute Enhancements	Disabled – Configuration Required
cnBNG Cluster Deployment Using Inception Server	Disabled – Configuration Required

# AAA Attribute Enhancements

## 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
Enhancement Introduced: <ul style="list-style-type: none"> <li>• The <b>user-plane-ip</b> keyword is added to the <b>nas-ip</b> attribute under RADIUS accounting, and RADIUS attribute configurations.</li> <li>• RADIUS IETF attributes such as <b>Filter-Id</b>, and <b>Session-Timeout</b> are now supported.</li> <li>• RADIUS Cisco vendor-specific attributes such as <b>user-plane-ip-address</b>, and <b>vrf-id</b> are now supported.</li> </ul>	2023.04.0

## Feature Description

RADIUS attributes are used to define specific authentication, authorization, and accounting (AAA) elements in a user profile, which is stored on the RADIUS daemon. With this release, the following RADIUS attributes are introduced in cnBNG:

- **Session-Timeout**: You can use this IETF attribute to disconnect a subscriber after the specified time expires.
- **Filter-Id**: This IETF attribute can be used to specify a filter or access control policy to be applied to a user's session.
- **vrf-id**: This Cisco attribute-value pair (AVP) can be used to specify the virtual routing and forwarding (VRF) instance ID for the subscriber.



- **user-plane-ip-address**: In Broadband Network Gateway (physical BNG) deployments, the IP address of the User Plane Function (UPF) is typically available in the **nas-ip** attribute of the RADIUS Access-Request or Accounting-Request messages. However, in cloud native BNG deployments, the **nas-ip** attribute carries the IP address of the cnBNG itself, rather than the specific UPF.

To address this issue, the Cisco AVP **user-plane-ip-address** is used to carry the UPF IP address in the RADIUS messages. This attribute enables the awareness of the UPF IP address in the policy plane during cnBNG migration.

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

## cnBNG Cluster Deployment Using Inception Server

### 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
First introduced.	2023.04.0

### Feature Description

You can now deploy the cnBNG cluster using the Inception server alone. You do not require the SMI Cluster Manager, which was previously used along with the Inception server to deploy the cnBNG cluster. This enhancement can help you save on hardware resources (servers).

For more information, see the [Cloud Native BNG Control Plane Configuration Guide > cnBNG Installation and Configuration](#) chapter.

Feature Description