

# Oracle® Communications

## Cloud Native Core Release Notes



Release 2.3.3

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# What's New In This Guide

This section introduces the documentation updates for Release 2.3.3 in Oracle Communications Cloud Native Core (CNC) Release Notes.

## **Release 2.3.3 - F40709-26, January 2022**

### **CNC Policy Release 1.11.6**

The following sections are updated for CNC Policy Release 1.11.5:

- [Media Pack](#): Added Media pack details
- [CNC Policy Resolved Bugs](#): Added resolved bugs list

## **Release 2.3.3 - F40709-25, August 2021**

### **CNC Policy Release 1.11.5**

The following sections are updated for CNC Policy Release 1.11.5:

- [Media Pack](#): Added Media pack details
- [CNC Policy Resolved Bugs](#): Added resolved bugs list

## **Release 2.3.3 - F40709-24, August 2021**

### **SCP Release 1.11.3**

The following sections are updated for SCP Release 1.11.3:

- [Media Pack](#): Added Media pack details
- [SCP Resolved Bugs](#): Added resolved bugs list

## **Release 2.3.3 - F40709-23, August 2021**

### **DBTier Release 1.8.9**

The following sections are updated for DBTier Release 1.8.9:

- [CNE Resolved Bugs](#): Added resolved bugs list

## **Release 2.3.3 - F40709-22, July 2021**

### **CNE Release 1.8.4**

The following sections are updated for CNE Release 1.8.4:

- [Cloud Native Environment \(CNE\)](#): Added enhancements information.
- [Media Pack](#): Added Media pack details
- [CNE Resolved Bugs](#): Added resolved bugs list

## **Release 2.3.3 - F40709-21, July 2021**

### **CNC Policy Release 1.11.4**

The following section is updated for CNC Policy Release 1.11.4:

- [CNC Policy Resolved Bugs](#): Added resolved bugs list

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### **Release 2.3.3 - F40709-20, July 2021**

#### **NRF Release 1.11.4**

The following sections are updated for NRF Release 1.11.4:

- [Media Pack](#): Added Media pack details
- [NRF Resolved Bugs](#): Added resolved bugs list

#### **DBTier Release 1.8.8**

The following sections are updated for DBTier Release 1.8.8:

- [CNE Resolved Bugs](#): Added DBTier Release 1.8.8 resolved bugs list

### **Release 2.3.3 - F40709-19, June 2021**

#### **UDR Release 1.11.1**

The following sections are updated for UDR Release 1.11.1:

- [UDR Resolved Bugs](#): Added resolved bugs list
- [UDR Known Bugs](#): Added known bugs list

### **Release 2.3.3 - F40709-18, June 2021**

#### **SCP Release 1.11.2**

The following sections are updated for SCP Release 1.11.2:

- [SCP Resolved Bugs](#): Added resolved bugs list
- [Media Pack](#): Added Media pack details

### **Release 2.3.3 - F40709-17, June 2021**

#### **CNC Policy Release 1.11.3**

The following sections are updated for CNC Policy Release 1.11.3:

- [CNC Policy Resolved Bugs](#): Added resolved bugs list

### **Release 2.3.3 - F40709-16, June 2021**

#### **UDR ATS Release 1.11.1**

The following sections are updated for UDR ATS Release 1.11.1:

- [UDR ATS Resolved Bugs](#): Added resolved bugs list
- [UDR ATS Customer Known Bugs](#): Added known bugs list

### **Release 2.3.3 - F40709-15, June 2021**

#### **CNE Release 1.8.3**

The following sections are updated for CNE Release 1.8.3:

- [CNE Resolved Bugs](#): Added resolved bugs list

### **Release 2.3.3 - F40709-14, June 2021**

#### **DBTier Release 1.8.7**

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The following sections are updated for DBTier Release 1.8.7:

- [CNE Resolved Bugs](#): Added resolved bugs list

#### **Release 2.3.3 - F40709-13, May 2021**

##### **NRF Release 1.11.3**

The following sections are updated for NRF Release 1.11.3:

- [Media Pack](#): Added Media pack details
- [NRF Resolved Bugs](#): Added resolved bugs list

#### **Release 2.3.3 - F40709-12, May 2021**

##### **CNC Policy Release 1.11.2**

The following sections are updated for CNC Policy Release 1.11.2:

- [Media Pack](#): Added Media pack details
- [CNC Policy Resolved Bugs](#): Added resolved bugs list

#### **Release 2.3.3 - F40709-11, May 2021**

Performed cosmetic changes.

#### **Release 2.3.3 - F40709-10, May 2021**

##### **CNC Policy Release 1.11.1**

The following sections are updated for CNC Policy Release 1.11.1:

- [Cloud Native Core Policy \(CNC Policy\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [CNC Policy Resolved Bugs](#): Added resolved bugs list

Updated the [CNC Policy Resolved Bugs](#) section for ATS resolved bugs list for CNC Policy 1.11.3.

Updated the [CNC Policy Customer Known Bugs](#) section for ATS customer known bugs list for CNC Policy 1.11.3.

##### **BSF Release 1.8.1**

The following sections are updated for BSF release 1.8.1:

- [Media Pack](#): Added Media pack details
- [BSF Resolved Bugs](#): Added resolved bugs list

#### **Release 2.3.3 - F40709-09, May 2021**

##### **SCP Release 1.11.1**

The following section is updated for SCP Release 1.11.1:

- [SCP Resolved Bugs](#): Added a new bug 32860623.

#### **Release 2.3.3 - F40709-08, May 2021**

Performed cosmetic changes.



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### **Release 2.3.3 - F40709-07, May 2021**

#### **NRF Release 1.11.2**

The following sections are updated for NRF Release 1.11.2:

- [Media Pack](#): Added Media pack details
- [NRF Resolved Bugs](#): Added resolved bugs list
- [NRF Customer Known Bugs](#): Added customer known bugs list

### **Release 2.3.3 - F40709-06, April 2021**

#### **SCP Release 1.11.1**

The following sections are updated for SCP Release 1.11.1:

- [Media Pack](#): Added Media pack details
- [SCP Resolved Bugs](#): Added resolved bugs list

### **Release 2.3.3 - F40709-05, April 2021**

#### **CNC Console Release 1.6.2**

The following sections are updated for CNC Console Release 1.6.2:

- [Cloud Native Core Console \(CNC Console\)](#): Added new feature/enhancement
- [CNC Console Customer Known Bugs](#): Added customer known bugs list
- [Media Pack](#): Added Media pack details

### **Release 2.3.3 - F40709-04, April 2021**

#### **NRF Release 1.11.1**

The following sections are updated for NRF Release 1.11.1:

- [Network Repository Function \(NRF\)](#): Added new feature/enhancement
- [Media Pack](#): Added Media pack details
- [NRF Resolved Bugs](#): Added resolved bugs list

### **Release 2.3.3 - F40709-03, April 2021**

#### **SCP Release 1.11.0**

The following sections are updated for SCP Release 1.11.0:

- [Service Communication Proxy \(SCP\)](#): Added new feature/enhancement
- [Media Pack](#): Added Media pack details
- [Security Certification Declaration](#) : Added security certification declaration for SCP
- [SCP Resolved Bugs](#): Added resolved bugs list
- [SCP Customer Known Bugs](#): Added customer known bugs list

### **Release 2.3.3 - F40709-02, April 2021**

#### **CNC Console Release 1.6.1**

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The following sections are updated for CNC Console Release 1.6.1:

- [Cloud Native Core Console \(CNC Console\)](#): Added new feature/enhancement
- [CNC Console Customer Known Bugs](#): Added customer known bugs list
- [Media Pack](#): Added Media pack details

### **Release 2.3.3 - F40709-01, March 2021**

#### **BSF Release 1.8.0**

The following sections are updated for BSF Release 1.8.0:

- [Binding Support Function \(BSF\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details

#### **CNC Console Release 1.6.0**

The following sections are updated for CNC Console Release 1.6.0:

- [Cloud Native Core Console \(CNC Console\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [CNC Console Resolved Bugs](#): Added resolved bugs list
- [CNC Console Customer Known Bugs](#): Added customer known bugs list

#### **CNC Policy Release 1.11.0**

The following sections are updated for CNC Policy Release 1.11.0:

- [Cloud Native Core Policy \(CNC Policy\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [CNC Policy Resolved Bugs](#): Added resolved bugs list
- [CNC Policy Customer Known Bugs](#): Added customer known bugs list

#### **CNE Release 1.8.0**

The following sections are updated for CNE Release 1.8.0:

- [Cloud Native Environment \(CNE\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [CNE Resolved Bugs](#): Added resolved bugs list
- [CNE Customer Known Bugs](#): Added customer known bugs list

#### **NRF Release 1.11.0**

The following sections are updated for NRF Release 1.11.0:

- [Network Repository Function \(NRF\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [NRF Resolved Bugs](#): Added resolved bugs list
- [NRF Customer Known Bugs](#): Added customer known bugs list

#### **NSSF Release 1.5.0**

The following sections are updated for NSSF Release 1.5.0:

- 
- [Network Slice Selection Function \(NSSF\)](#): Added new features/enhancements
  - [Media Pack](#): Added Media pack details

#### **UDR Release 1.11.0**

The following sections are updated for CNC UDR Release 1.11.0:

- [Unified Data Repository \(UDR\)](#): Added new features/enhancements
- [Media Pack](#): Added Media pack details
- [UDR Resolved Bugs](#): Added resolved bugs list
- [UDR Customer Known Bugs](#): Added customer known bugs list

# 1

## Introduction

This Release Notes includes feature descriptions, media and documentation pack contents. This document also includes listings for both the resolved and known bugs for this release. Directions for accessing key Oracle's sites and services are explained in [MOS](#). Release Notes is included in the documentation pack made available with every software release.

# 2

## Feature Descriptions

This chapter provides a summary of each feature released in Cloud Native release 2.3.3.

### Automated Testing Suite (ATS)

ATS has been updated with the following enhancements:

- Provides NF Specific login support - Only NF specific pipelines are visible.
- Provides RBAC authorization.
- Allows to deploy ATS using either Helm2 or Helm3 helm versions.
- Enables all the NF teams with the basic environment, framework and a GUI (Jenkins) to execute all the functional test cases.

### Binding Support Function (BSF)

Binding Support Function (BSF) 1.8.0 has below enhancements:

- **Turning off AccessToken signature validation:** With this feature, CNC Binding Support Function has the capability to turn off AccessToken signature validation at the application layer. For instance, when service mesh, for example, Aspen Service Mesh, is integrated with BSF, the service mesh would perform the AccessToken validation. In such cases, the BSF shall skip validating AccessToken signature. For more information, see *Oracle Communications Cloud Native Core Binding Support Function Installation Guide*.
- **Alerts for change in Status of BSF and the Services:** New alerts are added to notify the operators on any change in BSF status and BSF services. For more information about these alerts, see *Oracle Communications Cloud Native Core Binding Support Function User's Guide*. **BSF\_Alertrules.yaml** file has also been updated as part of this feature. The **BSF\_Alertrules.yaml** file is packaged with BSF Custom Templates. The **BSF Custom Templates.zip** file can be downloaded from [MOS](#).

### Cloud Native Core Console (CNC Console)

Cloud Native Core Console (CNC Console) 1.6.2 has been updated with the following enhancement:

- **CNC Console GUI support for latest version of NRF (1.11.1):** CNC Console GUI is updated to support the latest version of NRF (1.11.1). For more information about this, see *Oracle Communication Cloud Native Core Network Repository Function (NRF) Installation Guide* and *Oracle Communication Cloud Native Core Network Repository Function (NRF) User's Guide*.

Cloud Native Core Console (CNC Console) 1.6.1 has been updated with the following enhancement:

- **CNC Console GUI support for latest version of SCP (1.11.0):** CNC Console GUI is updated to support the latest version of SCP (1.11.0). For more information about this,

see *Oracle Communication Cloud Native Core Service Communication Proxy (SCP) Installation Guide* and *Oracle Communication Cloud Native Core Service Communication Proxy (SCP) User's Guide*.

Cloud Native Core Console (CNC Console) 1.6.0 has been updated with the following enhancements:

- **CNC Console Upgrade and Rollback support:** CNC Console IAM and CNC Console Core can be upgraded from the previous version to the current version using helm upgrade feature. For more information about the upgrade, see *Oracle Communications Cloud Native Core Console Installation and Upgrade Guide*.
- **Consistent Logging Screen for SCP, NRF, UDR:** Consistent Logging screens are supported for SCP, NRF and UDR. Policy and BSF already support Consistent Logging screens. For more information about the Consistent Logging screen, see *Oracle Communications Cloud Native Core Console User's Guide*.
- **CNC Console Metrics enhancements:** This enhancement supports security (Authentication and Authorization) related Metrics, KPIs, and Alerts. For more information about metrics, KPIs, and alerts, see *Oracle Communications Cloud Native Core Console User's Guide*.
- **Support latest version of NFs:** CNC Console 1.11.0 is compatible with latest version of already supported NFs:
  - SCP 1.11.0
  - NRF 1.11.0
  - UDR 1.11.0
  - CNC Policy 1.11.0
  - BSF 1.8.0

## Cloud Native Diameter Routing Agent (CnDRA)

There are no new features or updates implemented in CNC 2.3.3 release.

## Cloud Native Environment (CNE)

Cloud Native Environment (CNE) 1.8.4 provides the following major enhancement:

For baremetal installations, Kubernetes master nodes are deployed on virtual machines. These virtual machines are created on the designated baremetal "master" servers.

### Note:

The configuration of masters in the *hosts.ini* file is changed from previous releases. For more information about the changes in the *hosts.ini* file for release 1.8.4, see *Oracle Communications Cloud Native Environment Installation Guide*.

Cloud Native Environment (CNE) 1.8.0 provides the following major features in this release:

- **CNE Sizing and Performance - Common Services:** OCCNE allows the operator to perform predeployment sizing for persistent storage for metrics and logs. For more information, see *Oracle Communications Cloud Native Environment (OCCNE) Installation Guide* and *Oracle Communications Cloud Native Environment (OCCNE) Upgrade Guide*.
- **Bare Metal Redesign:** The new server and storage architecture is provided for baremetal deployments. The new baremetal architecture allows the cloud-native DBTier to be deployed on baremetal, and will eliminate issues affecting Prometheus and Elasticsearch during upgrade. It will also remove the special "storage servers" used by the DBTier, and replace them with an equal number of K8s worker nodes (making the minimum recommended deployment 6 worker nodes). For more information, see *Oracle Communications Cloud Native Environment (OCCNE) Installation Guide* and *Oracle Communications Cloud Native Environment (OCCNE) Upgrade Guide*.
- **Upgraded to Oracle Linux 8:** Both baremetal and virtualized CNE are using Oracle Linux 8. For more information, see *Oracle Communications Cloud Native Environment (OCCNE) Installation Guide* and *Oracle Communications Cloud Native Environment (OCCNE) Upgrade Guide*.
- **Cloud Native DBTier:** The cloud native DB Tier (cnDbTier) is a version of the DB Tier that runs entirely within Kubernetes, and uses Kubernetes persistent storage. For more information, see *DbTier Installation Guide* and *DBTier User Guide*.
- **DBTier 3-Site Replication:** This feature allows the users to replicate DBTier data to two other sites. Management of HA replication channels to both sites is automated, like in previous releases. 2-site replication is still supported as well. For more information, see *DbTier Installation Guide* and *DBTier User Guide*.

## CNC NF Data Collector

There are no new features or updates implemented in CNC 2.3.3 release.

## Cloud Native Core Policy (CNC Policy)

Oracle Communications Cloud Native Core Policy (CNC Policy) 1.11.1 has below enhancements:

- **Diameter Routing Table Configuration:** The Diameter datasource configuration includes the option to add a Diameter Routing Table if diameter gateway is configured for the datasource. For information on configuring Diameter Routing Table, see the Diameter Configurations section in *Oracle Communications Cloud Native Core Policy User's Guide*.

Oracle Communications Cloud Native Core Policy (CNC Policy) 1.11.0 has below enhancements:

- **PCF Interface Timer Handling Enhancements - Phase2:** The CNC Policy Solution now allows you to set request timeout values for **PCF Session Management** and **PCF UE Policy** services in applications/interfaces using timer profile. CNC Policy applies the specific timeout profile when sending a request to external NFs, the external NFs include UDR/CHF/NRF/BSF, and CNC Policy updates the appropriate metrics. For information on managing timer profile, see the Managing Timer Profile section in *Oracle Communications Cloud Native Core Policy User's Guide*.
- **Policy Table Enhancements - Phase 1:** The CNC Policy solution now allows you to modify the Key column values of a Policy Table. Also, new fields are introduced on the Policy Tables page to import, export, and clone a Policy Table. For information on

managing policy tables, see the Managing Policy Tables section in *Oracle Communications Cloud Native Core Policy User's Guide*.

- **Policy Import/Export Enhancements - Phase 1:** With this enhancement, you can export policy table data using REST APIs. Also, this enhancement allows you to export individual policies and its dependencies using the REST APIs. For more information, see *Oracle Communications Cloud Native Core Policy REST API Guide*.
- **Diameter metrics enhancements - Phase 2:** With this enhancement, new Diameter Gateway Metrics have been added. For more information, see the Diameter Gateway Metrics section in *Oracle Communications Cloud Native Core Policy User's Guide*.
- **Manually Delete Session (phase II - deleting SMF, UDR, CHF):** With this enhancement, CNC Policy supports for request of termination of the SM association with the SMF which triggers SMF to delete the SM association, which will result in deleting associated contexts (e.g. UDR subscription, CHF, etc.). For more information, see *Oracle Communications Cloud Native Core Policy User's Guide*.
- **Handling of Install and Remove Conflict for Same Rule:** With this enhancement, when SM service receives two action types - install and remove for the same rule, SM service processes the remove action for the rule first, and then installs it. However, if install is not configured for the rule, SM service may remove it. For more information, see *Oracle Communications Cloud Native Core Policy User's Guide*.
- **Alerts for change in Status of PCF and the Services:** New alerts are added to notify the operators on any change in PCF status and PCF services. For more information about these alerts, see *Oracle Communications Cloud Native Core Policy User's Guide*. **PCF\_Alertrules.yaml** has also been updated as part of this feature. The **PCF\_Alertrules.yaml** file is packaged with CNC policy Custom Templates. The **CNC Policy Custom Templates.zip** file can be downloaded from [MOS](#).

## Inter-Working Function (IWF)

There are no new features or updates implemented in CNC 2.3.3 release.

## Service Communication Proxy (SCP)

SCP 1.11.0 has been updated with the following enhancements:

- **Ingress Rate Limiting Support:** SCP secures the network when aggregated ingress traffic from an NF instance exceeds the allowed limit. If the traffic exceeds the allowed limit, SCP does not process the traffic and responds with an error code. For more information about the feature, see *Oracle Communications Cloud Native Core Service Communication Proxy (SCP) User's Guide*.
- **Egress Rate Limiting Support:** The Egress Rate Limiting feature stops the producer NF instance from getting overloaded. SCP secures the network when aggregated egress traffic from any registered NF instance exceeds the allowed limit. If the traffic exceeds the allowed limit, SCP performs the alternate routing by default. In case alternate routing is not configured, SCP responds with an error



code. For more information about the feature, see *Oracle Communications Cloud Native Core Service Communication Proxy (SCP) User's Guide*.

- **REST APIs to support Helm based configurations changes runtime:** SCP supports updating Helm configurable options after deployment using REST API parameters. For more information about the feature, see *Oracle Communications Cloud Native Core Service Communication Proxy (SCP) User's Guide*.
- **NRF Preventive Audit check:** SCP controls NRF failure scenarios in the network by performing the preventive audit (discovery). This audit is performed with all the configured regional NRFs before removing the last NF instance of a particular NF type. For more information about the feature, see *Oracle Communications Cloud Native Core Service Communication Proxy (SCP) User's Guide*.
- **Not consider Serving Scope while calculating profile hash:** SCP is optimized Audit and Notification to not consider serving scope while hash calculation. For more information about the feature, see *Oracle Communications Cloud Native Core Service Communication Proxy (SCP) Installation Guide*.

## Security Edge Proxy Protection (SEPP)

There are no new features or updates implemented in CNC 2.3.3 release.

## Network Exposure Function (NEF)

There are no new features or updates implemented in CNC 2.3.3 release.

## Network Repository Function (NRF)

OCNRF 1.11.1 has been updated with the following enhancement:

- **Enabling OAuth2 Token caching at OCNRF:** OCNRF supports catching of OAuth2 token for SLF communication at OCNRF. For more information about this feature, see *Oracle Communications Cloud Native Core NRF User's Guide*.

OCNRF 1.11.0 has been updated with the following enhancements:

- **Alerts for change in NF Status and NF Service Status at NRF:** New alerts are added to notify the operators on any change in NF status and NF services. For more information about these alerts, see *Oracle Communications Cloud Native Core NRF User's Guide*.
- **Support for configurable Primary/Secondary/Tertiary Locality for Locality based Discovery response:** OCNRF Extended Preferred Locality Priority Handling feature allows the operator to set priority of NF profiles in response of 3GPP defined NFDISCOVER service operation of NRF. For more information about Extended Preferred Locality Priority Handling feature, see *Oracle Communications Cloud Native Core NRF User's Guide*.
- **CNC Console support for configuring Key details for AccessToken:** Key-ID feature allows the operator to add "kid" header in Access Token Response generated by OCNRF. OCNRF allows configuring KeyID using CNC Console. For more information about configuring KeyID, see *Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide*.
- **Automation of Control Plane Configuration using Helm Chart:** With this enhancement, the control plane configuration can be done at the time of OCNRF

installation using helm chart. For more information, see *Oracle Communications Cloud Native Core Network Repository Functions (NRF) Installation and Upgrade Guide*.

- **Support for Dynamic Logging for all micro-services using REST/CNCC:** OCNRF allows the operator to change the log level of individual services dynamically (without POD restart). It also allows the operator to retrieve the current log level of all the services. This feature can be configured using REST API or CNC Console. For more information, see *Oracle Communications Cloud Native Core Network Repository Functions (NRF) User's Guide*.
- **Support for Per NF Type Alert for Active Registered NFs:** OCNRF allows to configure the alerts for a specific type of NF. It also allows to configure the threshold value per NF. For more information, see *Oracle Communications Cloud Native Core Network Repository Functions (NRF) User's Guide*.

## Network Slice Selection Function (NSSF)

OCNSSF 1.5.0 has been updated with the following enhancements:

- **Support for multiple PLMN at NSSF:** This feature enables single NSSF instance to cater to multiple PLMNs. This enables operator to define slice selection policies for multiple PLMNs, and gives the option for operator to span a network slice across PLMNs. For more information about this feature, see *Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF) User's Guide*.
- **Two site GR Support for NSSF :** OCNSSF supports two site georedundancy to ensure service availability when one OCNSSF site is down. For more information on this feature, see *Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF) User's Guide*.
- **Integrated Debug tool:** Debug tool provides third-party troubleshooting tools, for debugging the runtime issues for lab and production environment. Debug Tool is integrated with different command line and diagnostic tools, such as:
  - Netstat
  - Ping
  - tcpdump

For more information on the usage of this tool, see *Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF) Installation Guide*.

- **Supports Integration with ASM:** With this enhancement, the ASM configures automatically at the time of NSSF installation. For more information on the usage of this configuration, see *Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF) Installation Guide*.
- **Dynamic log level update:** Common Configuration Service lets OCNSSF centralize its configuration and update it dynamically without a restart. For more information, see the Runtime Log Level Update section of the *Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF) User's Guide*.
- **ATS support:** OCNSSF supports Automated Testing Suite for validating the functionalities. Georedundancy and Multiple PLMN are part of NSSF new features pipeline. Jenkins plugin of Test Result Analyzer is also added. For more

information, see *Oracle Communications Cloud Native Core Automated Test Suite (ATS) Guide*.

## Unified Data Management (UDM)

There are no new features or updates implemented in CNC 2.3.3 release.

## Unified Data Repository (UDR)

UDR 1.11.0 has been updated with the following enhancements:

- **Automated ASM configurations during NF installation:** With this enhancement, the ASM configures automatically at the time of UDR installation. For more information, see Chapter 4 - ASM Data Plane Configuration using Helm of the *Oracle Communications Cloud Native Core Unified Data Repository Installation and Upgrade Guide*.
- **Enhancements to Helm install (Automatic DB creation):** The UDR database user, password and granting of permissions to the user are currently manual action as part of the UDR Installation. With this enhancement, the operator can install UDR via Helm and all these manual operations are automated. For more information, see the Planning Your Installation section of Chapter 2, Installing Unified Data Repository in the *Oracle Communications Cloud Native Core Unified Data Repository Installation and Upgrade Guide*.
- **Support of XFCC header at SLF:** With this enhancement, UDR/SLF supports XFCC header validation for the ingress traffic that originates via SCP. It provides a way to validate the origin SCP from which requests are received on UDR/SLF. For more information, see the Configuring User Parameters section of the *Oracle Communications Cloud Native Core Unified Data Repository Installation and Upgrade Guide*.
- **Common Config Service APIs Integration:** With this enhancement, common services like Ingress Gateway, Egress Gateway, Alternate Route Service are now configurable using REST based APIs. For more information, see *Oracle Communications Cloud Native Core Unified Data Repository REST Specification Guide*.
- **Logging and Tracing Improvements for UDR:** With this enhancement, UDR logging level and tracing practices are improved. For more information, see Understanding Log Attribute Details section of the *Oracle Communications Cloud Native Core Unified Data Repository Installation and Upgrade Guide*.
- **Logging and Tracing Improvements for Provisioning Gateway:** With this enhancement, Provisioning Gateway logging level and tracing practices are improved. For more information, see Understanding Log Attribute Details section of the *Oracle Communications Cloud Native Core Provisioning Gateway Guide*.
- **Addition of Non-SLF Features to UDR ATS:** With this release, Non-SLF features like policy data, udm data, diameter etc are added to UDR ATS. For more information, see *Oracle Communications Automated Testing Suite Guide*.

# 3

## Media and Documentation

### Media Pack

This section lists the media package for Cloud Native Core 2.3.3. For downloading the package, refer to [MOS](#).



**Note:**

This list is accurate at the time of release but is subject to change. See the Oracle software delivery website for the latest information.

**Table 3-1 Media Pack Contents for Cloud Native Core 2.3.3**

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Console (CNCC)	1.6.2	NA	<ul style="list-style-type: none"><li>• Upgrade from CNCC 1.5.x to 1.6.x is supported</li><li>• Upgrade from CNCC 1.6.x to 1.6.2 is supported</li></ul>	Compatible with: <ul style="list-style-type: none"><li>• SCP 1.11.0</li><li>• NRF 1.11.1</li><li>• UDR 1.11.0</li><li>• Policy 1.11.0</li><li>• BSF 1.8.0</li><li>• CNDBTier 1.8.0</li><li>• OSO 1.6.2</li><li>• ASM 1.5.7-am3 and ASM 1.4.6-am9</li><li>• CNE 1.8.0, CNE 1.7.x, and CNE 1.6.0</li></ul>

Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Console (CNCC)	1.6.1	NA	<ul style="list-style-type: none"> <li>Upgrade from CNCC 1.5.x to 1.6.x is supported</li> <li>Upgrade from CNCC 1.6.0 to 1.6.1 is supported</li> </ul>	Compatible with: <ul style="list-style-type: none"> <li>SCP 1.11.0</li> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>Policy 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.2</li> <li>ASM 1.5.7-am3 and ASM 1.4.6-am9</li> <li>CNE 1.8.0, CNE 1.7.x, and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Automated Testing Suite (ATS)	1.6.0	NA	Supports fresh installation only	Compatible with: <ul style="list-style-type: none"> <li>CNE 1.6.0 and CNE 1.7.0</li> <li>CNDBTier 1.6.0.0.0, 1.8.0.0.1, 1.8.0.0.3</li> <li>OSO 1.6.x</li> <li>ASM 1.5.10-am2</li> </ul>
Oracle Communications Cloud Native Core Binding Support Function (BSF)	1.8.1	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Consistent Logging Level Support</li> </ul>	BSF 1.8.1 supports fresh installation as well as upgrade from 1.7.x/1.8.0 to 1.8.1.  For more information on installation/upgrading, see <i>Oracle Communications Cloud Native Core Binding Support Function Installation and Upgrade Guide</i>	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>CNC Policy 1.11.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Binding Support Function (BSF)	1.8.0	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Consistent Logging Level Support</li> </ul>	BSF 1.8.0 supports fresh installation as well as upgrade from 1.7.x to 1.8.0.  For more information on installation/upgrading, see <i>Oracle Communications Cloud Native Core Binding Support Function Installation and Upgrade Guide</i>	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>CNC Policy 1.11.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>

Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Console (CNCC)	1.6.0	NA	Upgrade from CNCC 1.5.x to 1.6.0 is supported	Compatible with: <ul style="list-style-type: none"> <li>• SCP 1.11.0</li> <li>• NRF 1.11.0</li> <li>• UDR 1.11.0</li> <li>• Policy 1.11.0</li> <li>• BSF 1.8.0</li> <li>• CNDBTier 1.8.0</li> <li>• OSO 1.6.2</li> <li>• ASM 1.5.7-am3 and ASM 1.4.6-am9</li> <li>• CNE 1.8.0, CNE 1.7.x, and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Cloud Native Environment (CNE)	1.8.4	NA	CNE 1.8.x requires fresh installation	NA
Oracle Communications Cloud Native Core Cloud Native Environment (CNE)	1.8.3	NA	CNE 1.8.x requires fresh installation	NA
Oracle Communications Cloud Native Core Cloud Native Environment (CNE)	1.8.2	NA	CNE 1.8.x requires fresh installation	NA
Oracle Communications Cloud Native Core Cloud Native Environment (CNE)	1.8.1	NA	CNE 1.8.x requires fresh installation	NA
Oracle Communications Cloud Native Core Cloud Native Environment (CNE)	1.8.0	NA	Upgrade supported from OCCNE 1.7.0 to OCCNE 1.8.0. For more information, see the <i>Oracle Communications Cloud Native Environment Upgrade Guide</i> .	NA

Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Policy (CNC Policy)	1.11.6	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Session Viewer REST API support for GET and DELETE</li> </ul>	CNC Policy 1.11.6 supports fresh installation as well as upgrade from 1.10.x/1.11.x to 1.11.6.  For more information on installation or upgrading, see <i>Oracle Communications Cloud Native Core Policy Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Policy (CNC Policy)	1.11.5	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Session Viewer REST API support for GET and DELETE</li> </ul>	CNC Policy 1.11.5 supports fresh installation as well as upgrade from 1.10.x/1.11.x to 1.11.5.  For more information on installation or upgrading, see <i>Oracle Communications Cloud Native Core Policy Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Policy (CNC Policy)	1.11.2	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Session Viewer REST API support for GET and DELETE</li> </ul>	CNC Policy 1.11.2 supports fresh installation as well as upgrade from 1.10.x/1.11.0/1.11.1 to 1.11.2.  For more information on installation or upgrading, see <i>Oracle Communications Cloud Native Core Policy Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>

Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Policy (CNC Policy)	1.11.1	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Session Viewer REST API support for GET and DELETE</li> </ul>	CNC Policy 1.11.1 supports fresh installation as well as upgrade from 1.10.x/1.11.0 to 1.11.1.  For more information on installation/upgrading, see <i>Oracle Communications Cloud Native Core Policy Installation and Upgrade Guide</i>	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Policy (CNC Policy)	1.11.0	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>Support for Debug Tool</li> <li>Session Viewer REST API support for GET and DELETE</li> </ul>	CNC Policy 1.11.0 supports fresh installation as well as upgrade from 1.10.x to 1.11.0.  For more information on installation/upgrading, see <i>Oracle Communications Cloud Native Core Policy Installation and Upgrade Guide</i>	Compatible with: <ul style="list-style-type: none"> <li>NRF 1.11.0</li> <li>UDR 1.11.0</li> <li>BSF 1.8.0</li> <li>CNDBTier 1.8.0</li> <li>OSO 1.6.1 and 1.7.0</li> <li>ASM 1.5.10</li> <li>CNE 1.7.0 and CNE 1.6.0</li> </ul>
Oracle Communications Cloud Native Core Diameter Routing Agent (CnDRA)	1.6.0	NA	Supports fresh installation only	NA
Oracle Communications Cloud Native Core Inter-Working Function (IWF)	1.5.0	NA	Supports fresh installation only	Compatible with: <ul style="list-style-type: none"> <li>BSF 1.5.0</li> <li>NRF 1.7.0</li> <li>UDR 1.7.0</li> <li>Compliant with 3GPP version 15.5</li> </ul>
Oracle Communications Cloud Native Core Network Exposure Function (NEF)	1.2.0	NA	Supports fresh installation only	NA



Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Network Repository Function (NRF)	1.11.4	Yes	OCNRF 1.11.4 supports fresh installation. Also, supports upgrade from 1.10.2 to 1.11.4 and 1.11.3 to 1.11.4. For more information about installation or upgrade, see <i>Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>• UDR 1.11.0</li> <li>• cnDBTier 1.8.7</li> <li>• OSO 1.6.2</li> <li>• ASM 1.6.14-am.4</li> <li>• OCCNE 1.7.0</li> <li>• Network functions which are compliant with 3GPP Release: 29.510 v15.5 (September 2019) and 29.510 v16.3 <ul style="list-style-type: none"> <li>– Support for NFSet parameter</li> <li>– Support for SCP as NfType</li> </ul> </li> </ul>
Oracle Communications Cloud Native Core Network Repository Function (NRF)	1.11.3	Yes	OCNRF 1.11.3 supports fresh installation. Also, supports upgrade from 1.10.2 to 1.11.3 and 1.11.2 to 1.11.3. For more information about installation or upgrade, see <i>Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>• UDR 1.11.0</li> <li>• cnDBTier 1.8.0.0.3 (with and without ASM)</li> <li>• OSO 1.6.2</li> <li>• ASM 1.16.4-am.4</li> <li>• OCCNE 1.7.0</li> <li>• Network functions which are compliant with 3GPP Release: 29.510 v15.5 (September 2019) and 29.510 v16.3 <ul style="list-style-type: none"> <li>– Support for NFSet parameter</li> <li>– Support for SCP as NfType</li> </ul> </li> </ul>

Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Network Repository Function (NRF)	1.11.2	Yes	OCNRF 1.11.2 supports fresh installation. Also, supports upgrade from 1.10.x to 1.11.2 and 1.11.x to 1.11.2. For more information about installation or upgrade, see <i>Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>• UDR 1.11.0</li> <li>• cnDBTier 1.8.0.0.3 (with and without ASM)</li> <li>• OSO 1.6.2</li> <li>• ASM 1.5.10-am2</li> <li>• OCCNE 1.7.0</li> <li>• Network functions which are compliant with 3GPP Release: 29.510 v15.5 (September 2019) and 29.510 v16.3 <ul style="list-style-type: none"> <li>– Support for NFSet parameter</li> <li>– Support for SCP as NfType</li> </ul> </li> </ul>
Oracle Communications Cloud Native Core Network Repository Function (NRF)	1.11.1	Yes	OCNRF 1.11.1 supports fresh installation. Also, supports upgrade from 1.10.x to 1.11.1 and 1.11.0 to 1.11.1. For more information about installation/upgrading, see <i>Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>• UDR 1.11.0</li> <li>• cnDBTier 1.8.0.0.3 (with and without ASM)</li> <li>• OSO 1.6.2</li> <li>• ASM 1.5.10-am2</li> <li>• OCCNE 1.7.0</li> <li>• Network functions which are compliant with 3GPP Release: 29.510 v15.5 (September 2019) and 29.510 v16.3 <ul style="list-style-type: none"> <li>– Support for NFSet parameter</li> <li>– Support for SCP as NfType</li> </ul> </li> </ul>

**Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3**

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Network Repository Function (NRF)	1.11.0	Yes	OCNRF 1.11.0 supports fresh installation as well as upgrade from 1.10.x to 1.11.0. For more information about installation/upgrading, see <i>Oracle Communications Cloud Native Core NRF Installation and Upgrade Guide</i> .	Compatible with: <ul style="list-style-type: none"> <li>• UDR 1.11.0</li> <li>• CNDBTier 1.8.0.0.3 (with and without ASM)</li> <li>• OSO 1.6.2</li> <li>• ASM 1.5.10-am2</li> <li>• OCCNE 1.7.0</li> <li>• Network functions which are compliant with 3GPP Release: 29.510 v15.5 (September 2019) and 29.510 v16.3 <ul style="list-style-type: none"> <li>– Support for NFSet parameter</li> <li>– Support for SCP as NfType</li> </ul> </li> </ul>
Oracle Communications Cloud Native Core Network Slice Selection Function (NSSF)	1.5.0	NA	Supports fresh installation only	Compatible with: <ul style="list-style-type: none"> <li>• CNE 1.7.x</li> <li>• cnDBTier 1.7.x</li> <li>• OSO 1.6.2</li> <li>• ASM 1.5.7-am3</li> </ul>
Oracle Communications Cloud Native Core Service Communication Proxy (SCP)	1.11.3	Yes	Supports fresh installation only	Compatible with CNE 1.6.0, CNE 1.7.0, CNE 1.8.0, OSO 1.6, cnDBTier 1.8.0 and ASM 1.5.10- am2
Oracle Communications Cloud Native Core Service Communication Proxy (SCP)	1.11.2	Yes	Supports fresh installation only	Compatible with CNE 1.6.0, CNE 1.7.0, CNE 1.8.0, OSO 1.6, cnDBTier 1.8.0 and ASM 1.5.10- am2
Oracle Communications Cloud Native Core Service Communication Proxy (SCP)	1.11.1	Yes	Supports fresh installation only	Compatible with CNE 1.6.0, CNE 1.7.0, CNE 1.8.0, OSO 1.6, cnDBTier 1.8.0 and ASM 1.5.10- am2

**Table 3-1 (Cont.) Media Pack Contents for Cloud Native Core 2.3.3**

Description	Versions	ATS Test Cases Included	Upgrade	Compliance
Oracle Communications Cloud Native Core Service Communication Proxy (SCP)	1.11.0	Yes	Supports fresh installation only	Compatible with CNE 1.6.0, CNE 1.7.0, CNE 1.8.0, OSO 1.6, cnDBTier 1.8.0 and ASM 1.5.10- am2
Oracle Communications Cloud Native Core Security Edge Protection Policy (SEPP)	1.4.1	Yes  <b>Note:</b> Not applicable to: <ul style="list-style-type: none"> <li>• Logging</li> <li>• Alerts</li> <li>• Metrics</li> </ul>	Supports fresh installation as well as upgrade from 1.4.0 to 1.4.1.  For more information on installation or upgrading, see <i>Oracle Communications Cloud Native Core Security Edge Protection Proxy (SEPP) Installation Guide</i> .	NA
Oracle Communications Cloud Native Core Unified Data Repository (UDR)	1.11.1	Yes	UDR 1.11.1 supports fresh installation as well as upgrade from 1.10.x to 1.11.1. For more information on installation/ upgrading, see <i>Oracle Communications Cloud Native Core Unified Data Repository Installation and Upgrade Guide</i> .	Compatible with <ul style="list-style-type: none"> <li>• CNE 1.6.0 and CNE 1.7.0</li> <li>• cnDBTier 1.6.0.0.0, 1.8.0.0.1, 1.8.0.0.3</li> <li>• OSO 1.6.x</li> <li>• ASM 1.5.10- am2</li> </ul>
Oracle Communications Cloud Native Core Unified Data Repository (UDR)	1.11.0	Yes	UDR 1.11.0 supports fresh installation as well as upgrade from 1.10.x to 1.11.0.  For more information on installation/ upgrading, see <i>Cloud Native Unified Data Repository Installation and Upgrade Guide</i> .	Compatible with <ul style="list-style-type: none"> <li>• CNE 1.6.0 and CNE 1.7.0</li> <li>• cnDBTier 1.6.0.0.0, 1.8.0.0.1, 1.8.0.0.3</li> <li>• OSO 1.6.x</li> <li>• ASM 1.5.10- am2</li> </ul>
Oracle Communications Cloud Native Core Unified Data Management (UDM)	1.1.0	NA	Supports fresh installation only	NA

## Security Certification Declaration

The following table lists the security tests and the corresponding dates of compliance for each network function.

**Table 3-2 Security Certification Declaration**

Compliance Test Description	BSF	CNC Consol e	CNC Policy	CNE	NRF	NSSF	SCP	UDR
Systems test on functional and security features	March 18, 2021	March 12, 2021	March 18, 2021	NA	NA (no new security feature)	NA	NA	NA (no new security feature)
Regression testing on security configuration	March 18, 2021	March 12, 2021	March 18, 2021	March 18, 2021	March 12, 2021	NA	NA	NA
Vulnerability testing	March 15, 2021	March 12, 2021	March 12, 2021	March 18, 2021	March 10, 2021	March 12, 2021	April 01, 2021	NA
Fuzz testing on external interfaces	March 05, 2021	February 24, 2021	March 05, 2021	March 18, 2021	March 12, 2021	March 12, 2021	March 26, 2021	NA

The following table lists the security tests and the corresponding dates of compliance for ATS.

**Table 3-3 Security Certification Declaration**

Compliance Test Description	UDR ATS 1.11.1
Systems test on functional and security features	NA (no new security feature)
Regression testing on security configuration	June 4, 2021
Vulnerability testing	June 4, 2021
Fuzz testing on external interfaces	NA

## Documentation Pack

All documents are available for download from the [MOS](#) site.

# 4

## Resolved and Known Bugs

This chapter lists the resolved and known bugs for Cloud Native Core release 2.3.3.

These lists are distributed to customers with a new software release at the time of General Availability (GA) and are updated for each maintenance release.

### Severity Definitions

Service requests for supported Oracle programs may be submitted by you online through Oracle's web-based customer support systems or by telephone. The service request severity level is selected by you and Oracle and should be based on the severity definitions specified below.

#### Severity 1

Your production use of the supported programs is stopped or so severely impacted that you cannot reasonably continue work. You experience a complete loss of service. The operation is mission critical to the business and the situation is an emergency. A Severity 1 service request has one or more of the following characteristics:

- Data corrupted.
- A critical documented function is not available.
- System hangs indefinitely, causing unacceptable or indefinite delays for resources or response.
- System crashes, and crashes repeatedly after restart attempts.

Reasonable efforts will be made to respond to Severity 1 service requests within one hour. For response efforts associated with Oracle Communications Network Software Premier Support and Oracle Communications Network Software Support & Sustaining Support, please see the Oracle Communications Network Premier & Sustaining Support and Oracle Communications Network Software Support & Sustaining Support sections above.

Except as otherwise specified, Oracle provides 24 hour support for Severity 1 service requests for supported programs (OSS will work 24x7 until the issue is resolved) when you remain actively engaged with OSS working toward resolution of your Severity 1 service request. You must provide OSS with a contact during this 24x7 period, either on site or by phone, to assist with data gathering, testing, and applying fixes. You are requested to propose this severity classification with great care, so that valid Severity 1 situations obtain the necessary resource allocation from Oracle.

#### Severity 2

You experience a severe loss of service. Important features are unavailable with no acceptable workaround; however, operations can continue in a restricted fashion.

#### Severity 3

You experience a minor loss of service. The impact is an inconvenience, which may require a workaround to restore functionality.

**Severity 4**

You request information, an enhancement, or documentation clarification regarding your software but there is no impact on the operation of the software. You experience no loss of service. The result does not impede the operation of a system.

## Resolved Bug List

The following Resolved Bugs tables list the bugs that are resolved in Cloud Native Release 2.3.3.

### CNC Console Resolved Bugs

**Table 4-1 CNC Console 1.6.0 Resolved Bugs**

Bug Number	Severity	Found in Release	Title
32611157	Minor	1.5.0	CNCC 1.5: ASM integration to wait for istio-proxy sidecar before executing application code
32151129	Minor	1.4.0	CNCC 1.4 : Policy bulk import screen progress bar is not getting updated
32291243	Minor	1.5.0	CNCC - OCCNE 1.7.0 Kibana API prefix is not working
32291262	Minor	1.5.0	CNCC : Disable Grafana login screen
32641844	Minor	1.5.2	VZW CNCC - Request to Change the Name of Alert Rules File

### BSF Resolved Bugs

**Table 4-2 BSF 1.8.1 Resolved Bugs**

Bug Number	Severity	Found in Release	Title
32377395	3	1.7.2	bsf-management-service deployment.yaml not checking <code>global.bsApiRoot</code> for <code>BSF_APIROOT</code>

## CNC Policy Resolved Bugs

Table 4-3 CNC Policy 1.11.6 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33717285	3	1.11.5	Remove GPSI,NAI Conditional Check In PolicyDs Database Search Query
33717291	3	1.11.5	Concurrency issue during Async CHF
33717286	3	1.11.5	SM Service - when saving the session to db use "UPDATE" instead of "INSERT INTO... ON DUPLICATE KEY UPDATE"

Table 4-4 CNC Policy 1.11.5 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33299610	3	1.11.2	DiamGW: infinite recursive call observed intermittently
33299631	3	1.11.2	UdrConnector: Failed to ped UDR request/response error flood
33299643	3	1.11.2	Policy Data Source restarts observed under high traffic
33299812	3	1.11.2	Diameter gateway pod sent RAR with Route-Record equals Diameter gateway itself, KT DRA trigger 5012

Table 4-5 CNC Policy 1.11.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32995046	3	1.11.2	PA session processing failures - exception: illegal character in the Rx session id URI

Table 4-6 CNC Policy 1.11.3 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32995046	3	1.11.2	PA session processing failures - exception: illegal character in the Rx session id URI

Table 4-7 CNC Policy 1.11.2 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32901265	3	1.11.0	Incremental Indexing Literal Header -----continue of CNCES-2129 The issue of "Incremental Indexing Literal Header"



Table 4-7 (Cont.) CNC Policy 1.11.2 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32901304	3	1.11.0	Diameter gateway pod sent RAR with Route-Record equals Diameter gateway itself, KT DRA trigger 5012
32901331	3	1.11.0	SM and Policyds svc truncates mysql hostname after 63 char
32901404	3	1.11.1	PCF sends PATCH request to UDR even in the absence of policies
32905381	3	1.10.0	NRF client stopped sending NF Heartbeat patch (SUSPENDED) until pod deleted

Table 4-8 CNC Policy 1.11.3 ATS Resolved Bugs

Bug Number	Severity	Found in Release	Title
32871735	3	1.11.0	For ATS feature Gx_SmPolicyData_Nudr_Lookup feature Seagull isn't sending the CER message to diam-gw.
32871754	3	1.11.0	PCF-ATS unable to handle "metric fetch retry" in version 1.11.0
32871769	3	1.11.0	UE_Policy-UE_Policy_Create_Install_Single_U PSI Test Cases failing in first Regression attempts
32871829	3	1.11.0	PCF -ATS (1.11.0): Import_Export_Policy_RestAPI.feature : Regression Tc failing with error "@POST 400 " & "@POST 500"
32871858	3	1.11.0	During Socket exception ATS shall retry instead of failing in single instance
32871850	3	1.11.0	ATS shall flush the log file after capturing logs from pod and shall print size of the file created
32871828	3	1.11.0	ats-data.tar file missing in CSAR package BSF ATS 1.8.1 and Policy1.11.1

Table 4-9 CNC Policy 1.11.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32772039	3	1.10.5	After restart one of diameter gateway pod, RAR message has discard by PCF in 1.10.5
32772111	3	1.11.0	Appinfo cannot get cluster status if a service has none selectors

Table 4-9 (Cont.) CNC Policy 1.11.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32772138	3	1.11.0	No BSF profile selected due to missing bsfInfo but should be optional
32772159	3	1.10.0 1.11.0	PCF am-service deployment.yaml not checking global.pcfApiRoot for AM_APIROOT
32772226	3	1.11.0	PCF 1.11.0 am-service helm chart hooks not using global.nfInstanceId like all other microservices
32772280	3	1.11.0	SM_Rx call fails on diam-gw when trying to send AAR to diam-connector with "No peer to send REQ" error after diam-connector pod is booted
32772299	3	1.10.0	HA issue : In loadbalance mode PDS trying to connect to unavailable DB and leading to call failures
32772346	3	1.11.0	CHF Connector: 500 Internal Server Error is seen in chf connector when SM Create and Delete Messages are sent

Table 4-10 CNC Policy 1.11.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32377213	3	1.8.0	Diameter connector to sm-service timer is hard coded to 2 sec
32377250	3	1.10.0	PCRF-Core should request to delete subscriber info from Policy-ds when subscriber detach
32388565	3	1.10.0	SM Service Memory Growth during ATS run
32388574	3	1.10.0	Audit Service getting hanged and thus not auditing the records
32388591	3	1.10.0	"udrconnector.apiroot" environment variable missing during helm upgrade from 1.9.1 to 1.10.0
32388592	3	1.10.0	SM Service getting hanged with 10 K TPS
32388606	3	1.10.0	Egress GW Internal Server Error while sending Notify Request (N7 Notification)
32388607	3	1.10.0	PCF Session Binding Issue in SM Service (Null Pointer Exception)

## CNE Resolved Bugs

Table 4-11 DBTier 1.8.9 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33218785	3	1.8	Modify messageTimestamp format for cnDBTier services to follow best practices.
33218824	3	1.8	ndbmysqld and db-replication-svc is getting restarted during the cnDBTier setup.
33218861	2	1.8	Replication channel is not established when 2 sites or 4 sites setup is brought up.
33218898	3	1.8	Backport MySQL to version 8.0.24 with new Bug Fixes.
33218914	3	1.8	The CNE 1.8.4 OCDBTIER-MIB.MIB.txt file has a duplicate MIB notification type for 2017.
33218930	3	1.8	Add namespace, kubernetes_pod_name attribute to the cnDBTier alerts.
33220550	3	1.8	Update CSAR to include cnDBTier MIB files as part of GA artifacts or files.
33220573	3	1.8	Modify the cnDBTier Grafana Dashboard according to the new cnDBTier metrics.

Table 4-12 CNE 1.8.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33064987	3	1.8.3	Universal fix to `dnf update` change in 1.8.3 for all packages
33064999	3	1.8.3	Configure OpenStack volume type for StorageClasses created by OC-CNE
32632681	3	1.8.3	LB Controller cannot talk to TLS-enabled OpenStack
33065015	3	1.8.3	Remove "failure domain" annotations from PV node affinity settings
33065050	3	1.8.3	Optionally disable K8s node self-ping during K8s install
33065065	3	1.8.3	Sample hosts.ini missing OAM IP addresses for 1st 2 K8s masters
33065069	3	1.8.3	retrieve_helm script should not refer to 'helm3' executable
33065084	3	1.8.3	BM bastions unable to reach K8S cluster services LB ports

Table 4-12 (Cont.) CNE 1.8.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33065098	3	1.8.3	Failure when using external DNS server to resolve DNS query
33065113	3	1.8.3	Disable standalone Ceph Dashboard

Table 4-13 DBTier 1.8.8 Resolved Bugs

Bug Number	Severity	Found in Release	Title
33073347	3	1.8	Not all data node to data node connections send heart beat messaging
33073763	3	1.8	NDB node prefers ipv4 over IPv6 on Kubernetes dual-stack and MySQLd ipv6 node fails to connect
33073773	3	1.8	NDB docker image should include MYSQLBINLOG
33073783	3	1.8	Stale GLOBALDNSCACHE causes data node connections to fail
33073795	3	1.8	Create user statement are repeatedly replicated to mate site in 3-sites replication topology
33073811	3	1.8	Usage of NDB_STORED_USER causes the revocation of grants in infinite loop and creates user as well in infinite loop
33073828	3	1.8	Node restart failed due to invalid LCP file at restore
33073834	3	1.8	NDB_RPL_CONFLICT_READ_TRACKING fails on 8.0

Table 4-14 CNE 1.8.3 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32961881	3	1.8.2	Metallb speaker daemonset runs on master nodes even with tolerations.
32961902	3	1.8.2	Bare metal installation fails while installing kvm packages on k8s nodes

Table 4-15 cnDBTier 1.8.7 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32876812	3	1.8	CnDBTier 1.8.5 DB-REPLICATION-SVC DEPLOYMENT.yaml does not apply POD annotations from HELM Custom Values file.
32930607	3	1.8	Handle the failure in replication switch over, which resulted because of one directional replication

Table 4-16 cnDBTier 1.8.5 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32780744	3	1.8	cnDBTier test job should run as user 27
32780849	3	1.8	Remove hard coded password from cnDBTier api helm chart
32780930	3	1.8	db-monitor-svc does not register few metrics after fresh install unless we restart it

Table 4-17 CNE 1.8.2 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32813942	2	1.8.1	Virtual CNE 1.8.1 LBVM does not support end-to-end HTTP2
32836709	2	1.8.1	bmCNE:Lack of time sync between worker nodes causes Ceph cluster failure
32836769	2	1.8.1	vCNE on Openstack install fails due to Terraform fails to create virtual resources due to signing error

Table 4-18 cnDBTier 1.8.0.0.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32632121	3	1.8	cnDBTier alert(s) not fired when all replication channel goes to standby. Also monitor service don't check replication_applier_status for correct replication status

Table 4-19 CNE 1.8.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32799964	3	1.8.0	/var partition on Bastion Host runs out of space
32800001	3	1.8.0	BM partitioning for Rook/Ceph fails on UEFI booted systems
32780744	3	1.8.0	cnDBTier helm test pods should run as user 27
32780849	3	1.8.0	Remove hard coded password from cnDBTier api helm chart

Table 4-19 (Cont.) CNE 1.8.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32632121	3	1.8.0	cnDBTier alert(s) not fired when all replication channel goes to standby. Also monitor service don't check replication_applier_status for correct replication status

Table 4-20 cnDBTier 1.8.0.0.3 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32607280	3	1.8	db-montor-svc and db-replication-svc names too long

Table 4-21 CNE 1.8.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title
OCCNE-2425	2	1.4.0	ES data not deleted when PV full
OCCNE-3896	2	1.8.0	OC-CNE 1.8 GA build fails
OCCNE-3751	2	1.7.0	Checking the status of the replication and switching the replication channel
OCCNE-3758	2	1.8.0	1.8 rc.1 Failure to install on BM with no CNDBTIER selected
OCCNE-3875	3	1.8.0	db-backup-executor-svc logs username/password
OCCNE-3876	3	1.8.0	cndbtier cross site replication does not work using loadbalancer ip in vCNE
OCCNE-3752	3	1.8.0	Upgrade fails for Elasticsearch Data
OCCNE-3810	3	1.8.0	lbvm ip rule/route is missing after some service created
OCCNE-3769	3	1.8.0	vCNE Openstack (at least) need to set MTU appropriately to communicate with cloud-provider
OCCNE-3803	3	1.8.0	cnDbTier fails to deploy in OCI environment
OCCNE-3802	3	1.8.0	haproxy_handler.py script creates haproxy configuration with error messages on lbvm which results in haproxy service failure
OCCNE-3766	3	1.8.0	Services exist from kubectl command, but failed for lookup lb-apiserver.kubernetes.local
OCCNE-3756	3	1.8.0	lbvm interfaces for haproxy are missing for ol8
OCCNE-3745	3	1.8.0	Upgrade fails for Grafana and Prometheus
OCCNE-3759	3	1.8.0	1.8 rc.1 Loadbalancer services are not assigned with ip address

Table 4-21 (Cont.) CNE 1.8.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title
OCCNE-2932	3	1.5.0,1.6.0	Openstack certificate not passed during upgrade results in upgrade failure during k8s stage
OCCNE-3455	3	1.6.0	Get Scanning working on clusters with multiple bastions
OCCNE-3861	4	1.8.0	db-backup-manager-svc runs as a user other than mysql (27)
OCCNE-3711	4	1.7.0	kubectl top command failing
OCCNE-3585	4	1.6.0	DBTier 1.8.0.0.1 CSAR descriptor_version value is not set to the software version in vnfd.yml file
OCCNE-3414	4	1.6.0	cndbtier deployment occasionally fails to create all mysql users
OCCNE-3760	4	1.7.0, 1.8.0	Implement resource limits on jaeger components
OCCNE-2543	4	1.4.0	The /etc/hosts names have duplicate names and additional very long names
OCCNE-1337	4	1.2.0	k8s_install produces non-executable kubectl binary in ../artifacts
OCCNE-3528	4	1.7.0, 1.8.0	Kibana default API Prefix in not working in CNCC setup for common services hyperlinks
OCCNE-3744	4	1.7.0, 1.8.0	Unable to drain worker nodes that host Istio pods
OCCNE-3532	4	1.7.0	Some of the OCCNE alert rules are not logically correct
OCCNE-3531	4	1.7.0	GRAFANA_DOWN alert not working
OCCNE-3345	4	1.6.0	k8s cannot verify user is non-root for db-monitor-svc and db-replication-svc

## NRF Resolved Bugs

Table 4-22 NRF 1.11.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
33067127	2	1.11.0	Faulty Replication detection logic in NRF is leading to assume replication is UP even if it down.	This will result in NRFs to mark all the other site NFs to suspended (even if they are heart beating with the georedundant NRF) when replication is down.

Table 4-22 (Cont.) NRF 1.11.4 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
33067232	4	1.11.0	Fixing typos in metric name/dimensions in Metric, KPIs and Alert section of User Document	Metric name or dimension in Grafana or Prometheus will not match with <i>Oracle Communications Cloud Native Core Network Repository Functions User's Guide</i> .
33067263	2	1.11.0	NRF failing to send Notification intermittently	Notification will not be generated and sent for valid subscriptions which will result into Consumer NF having stale Profile of the Producer NF.

Table 4-23 NRF 1.11.3 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
32940117	3	1.10.2	Geo-Redundancy - NRF is returning old SUSPENDED NF Profile instead of the latest NF profile which is REGISTERED	NRF will report a NF is suspended even if it is registered and heartbeating, if the NF had toggled between the georedundant NRFs.
32860828	4	1.10.2	Geo-Redundant NRF is returning 500 Error to discovery request with target-nf-type=AMF&guami=<>, if AMF sending heartbeat to both the NRF or toggling between them	AMF discovery with GUMI list will not work if the AMF had toggled between the georedundant NRFs.

Table 4-24 NRF 1.11.2 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
32860752	4	1.11.1	ocnrf_oauth_keyData_health Status metric is not getting pegged properly when a Key-Id is deleted	Alerts will not be raised if invalid Key-Id details is configured in NRF.



**Table 4-25 NRF 1.11.1 Resolved Bugs**

Bug Number	Severity	Found in Release	Title	Customer Impact
32751028	3	1.11.0	App-Info restarts continuously due to probe failure	While Deploying NRF, CPU of AppInfo micro-service needs to be increased
32751034	4	1.11.0	Alert file in the CSAR package needs to have static name	If Orchestrator's expects that the Alert Rule fine name needs to be a static name, then loading may fail
32751048	4	1.11.0	IGW's Cache service should not get assigned with LB IP	LB IP will get assigned to a non LB service if Operator uses Service section of IGW for assigning External LB annotations

**Table 4-26 NRF 1.11.0 Resolved Bugs**

Bug Number	Severity	Found in Release	Title
32623131	3	1.8.0	NRF is replacing an incorrect FQDN in PATCH request when FQDN header validation is enabled
32365728	3	1.10.0	OCNRF's Host scheme can not be changed to HTTPs
32365433	4	1.10.0	Invalid SupiRange is accepted during NFs Registering with NRF
32365453	4	1.10.0	Invalid Identity Range is accepted during NFs Registering with NRF
32623138	4	1.10.0	AccessToken-svc is non-responsive for requests with empty/invalid request body
32623151	3	1.10.0	NFSetId Support - Access Token Claims don't support producerNfSetId

## SCP Resolved Bugs

**Table 4-27 SCP 1.11.3 Resolved Bugs**

Bug Number	Severity	Found in Release	Title
33249040	3	1.11.0	Pod restarts observed with 61.2K TPS when SCP deployed with 31 worker pods.

Table 4-28 SCP 1.11.2 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32989894	4	1.11.0	Inconclusive value for "request processing time" metric between 100-128 millisecond bracket making values for 100-128 milliseconds metric values to fall under 2 second bucket
32989902	3	1.11.1	URI of notification from scp-w to scp-notification service has an extra '/' appended which is causing 301 error code responses for notifications. Applicable to notification URIs with no service name in URIs.
32989925	2	1.11.1	Incorrect port picked in URL in case of fqdn only virtual service match
32989911	3	1.11.0	SCP-W CPU Spikes observed when SCP generates 504s due to request timeouts if timeouts happening in large numbers

Table 4-29 SCP 1.11.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32792888	2	1.10.2	SCP worker is encoding already encoded query parameters to egress requests URI
32792904	3	1.10.2	Tuning of SCP-worker GC memory parameters
32803223	2	1.11.0	Update Circuit breaking count for egress throttled messages due to rate limiting
32860623	2	1.11.0	ATS framework changes to provide flexibility to update messages types for rate limiting

Table 4-30 SCP 1.11.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title
32653951	2	1.9.1	AuditMaster thread is getting killed during DB exception
32653962	3	1.10.0	SCP worker is crashing in handling inter-SCP case with location uri with relative URI
32653968	3	1.10.0	Log message to be included with exception stacktrace
32680387	3	1.10.1	SCP worker throws recursive call error in log with more response time for incoming messages

**Table 4-30 (Cont.) SCP 1.11.0 Resolved Bugs**

Bug Number	Severity	Found in Release	Title
32653111	3	1.10.0	Update InterSCP Audit testcase to avoid race condition between notification and audit
32653117	3	1.10.0	Update Default SCP response timeout and Increase stub resources in ATS
32653129	3	1.10.0	Enhance ATS to retry on stub connection Errors
32699327	4	1.9.1	Different log level shows for the same log
32714175	4	1.10.0	VZW SCP - API specification document (Swagger or YAML) for SCP configuration services
32714191	4	1.9.0	Change the name of Alert rules file in future releases in CSAR package
32714230	4	1.10.0	The 5G (SCP) ATS Stubs should be helm deployable and stay static

## UDR Resolved Bugs

**Table 4-31 UDR 1.11.1 Resolved Bugs**

Bug Number	Severity	Found in Release	Title	Notes
CNCES-2555	-	1.10.1	SLF/UDR oauth validates every request and ProvGW provision does not work	NA
CNCES-2747		1.11.0	SLF/UDR upgrade for adding oauth validator fails	NA
CNCES-2322		1.10.1	kubernetes_namespace parameter missing from OcuDrDbService Down alert in UDR 1.10.1	NA
CNCES-2751		1.11.0	SLF/UDR alert OcuDrTransaction ErrorRateAbove50Percent always fires	NA

Table 4-31 (Cont.) UDR 1.11.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Notes
CNCES-2635		1.10.1	SLF/UDR Grafana dashboard does not allow to update data source	Backport from 1.12.0
CNCES-2668		1.10.1	"Service Down" Alerts for Unused Services	Backport from 1.12.0

Table 4-32 UDR ATS 1.11.1 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Notes
CNCES-2646		1.11.0	VZW SLF PIF+ ATS weekend test run failures	NA
CNCES-2748		1.11.0	SLF1_PIA: SLF_Nrf_Client_S cenarios failed	NA
CNCES-2693		1.11.0	SLF3-Cust_Regression_feature_fail: SLF_Nrf_Client_S cenarios.feature failure	NA

Table 4-33 UDR 1.11.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Notes
32377421	3	1.10.0	nudr-config PUT request for DR-SERVICE fails with the error Internal Server Error	Occurs only when on-demand migration is enabled.
32377299	4	1.10.0	Duplicate key entries in the database for PUR requests	Occurs only when auto-enrolment is enabled.
32377325	4	1.10.0	subscription request fails with the error `Data field does not exist for Custom APIs	NA

Table 4-33 (Cont.) UDR 1.11.0 Resolved Bugs

Bug Number	Severity	Found in Release	Title	Notes
32377407	4	1.10.0	UDM SDM subscription PATCH giving Invalid data content instead of Schema validation failure	NA

## Customer Known Bug List

Customer Known Bugs tables list the known bugs and associated Customer Impact Statements. This information is provided for information purposes only.

## CNC Console Customer Known Bugs

Table 4-34 CNC Console 1.6.0, 1.6.1 and 1.6.2 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
31355530	Minor	1.1.0	CNCC IAM - Unable to remove assigned User Role	User will be able to add roles but user will not be able to remove the assigned roles. <b>Workaround:</b> Delete user and recreate user with required role.
32291223	Minor	1.5.0	CNCC : CNE Common Services type should be ClusterIP when accessed via CNCC	User will be able to access CNE common services directly using LoadBalancer IP. <b>Workaround:</b> CNE common services type can be set as ClusterIP manually.

## CNC Policy Customer Known Bugs

**Table 4-35 CNC Policy 1.11.3 ATS Customer Known Bugs**

Bug Number	Severity	Found in Release	Title	Customer Impact
32877378	3	1.11.3	DNS Core IP address configuration shall be automated in the DNS stub	Customer needs to configure Core DNS IP if DNS stubs reboot. This is updated in the ATS install guide.

**Table 4-36 CNC Policy 1.11.0 Customer Known Bugs**

Bug Number	Severity	Found in Release	Title	Customer Impact
32650908	2	1.11.0	Diam-GW does not connect to pcrf automatically	Diam-GW does not connect to pcrf automatically <b>Workaround</b> - In Diameter Config Map set "responseOnly=true" for PCRF Core.
32650916	2	1.11.0	Diamgw throws "No OCS/SH peer to send msg" even when it connected successfully	After diamgateway connects to OCS successfully, when it receives request to fetch for Sy, Sh datasource subscriber profile, diamgateway throws No OCS configured <b>Workaround</b> - Need to create Realm base Diamter Routing Table keeping both identity and name as hosts name
32654621	3	1.11.0	Sub-Policies which are called using "deprecated call Policy blocks" are not exported	"call Policy" block when used in a policy is not able to export sub-policy. This block is already deprecated and "call_policy_v2" is the new block to use.
32650967	3	1.11.0	Export Report not generating if the policy table of the policy got deleted	There is no impact in export functionality. Export report will skip reporting the failure for the record that was deleted.

Table 4-36 (Cont.) CNC Policy 1.11.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
32650938	3	1.11.0	Failed to process metrics with java.lang.NullPointerException on Sm-create when BSF_URL is used	No impact. Customers can use the real BSF URL. SM-service will throw exception when binding operation is enabled and local BSF configuration is used. This will lead to metric not getting pegged
32650943	3	1.11.0	SM Egress Metric is not pegged for BSF interactions	Following two metrics will not be useful for SM to BSF interations <ul style="list-style-type: none"> <li>ocpm_egress_request_total</li> <li>ocpm_egress_response_total</li> </ul>

## CNE Customer Known Bugs

Table 4-37 CNE 1.8.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
OCCNE-3903	4	1.7.0	Kubespray task for applying cert issuer fails due to race condition which results in installation failure	Installation fails on k8s install stage. <b>Workaround:</b> Skip cert manager installation on next rerun and continue with common services and db tier installation on failure.
OCCNE-3743	3	1.4.0, 1.5.0, 1.6.0, 1.7.0	Modify NETWORK_INTERFACE_FAILED alert to fire separate alert for gen10 and gen8 h/w	The current definition of NETWORK_INTERFACE_FAILED alert sends a false alarm for gen10 hardware. <b>Workaround:</b> Alerts can be modified on a per-site basis if this issue is of high importance.
OCCNE-3874	3	1.7.0	LB Controller cannot talk to TLS-enabled OpenStack	No load balancing service available <b>Workaround:</b> Manually copy the OpenStack certificate to the LB Controller.

Table 4-37 (Cont.) CNE 1.8.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
OCCNE-3453	4	1.7.0	Geo-replication met with "Error_code: 1296; handler error HA_ERR_ROWS_EVENT_APPLY" error	<p>We observed following behavior:</p> <ul style="list-style-type: none"> <li>Established replication between two sites 1 &amp; 2</li> <li>Records are getting replicated from Site 1 to Site 2</li> <li>Records are not getting replicated from Site 2 to Site 1</li> </ul> <p>This error is happening on both BM and vCNE installation.</p> <p><b>Workaround:</b> Set EventLogBufferSize to 64K. You can use mcm client to do this:</p> <pre>set EventLogBufferSize:n dbmtd=65536 occnendbcluster;</pre>
OCCNE-2534	3	1.4.0	The openstack LDAP password should be hidden from the pipeline logs	NA
OCCNE-1428	3	1.0.0, 1.2.0	node_exporter generating error logs	<p>Minor impact of an error be logged each minute from Prometheus Node Exporter.</p> <p><b>Workaround:</b> NA</p>
OCCNE-3897	2	1.8.0	CIS Based Linux Hardening - OL8	NA
OCCNE-1658	2	1.2.0	Pods failover takes approximately 6 mins to start when kubernetes node is failed is restarted	<p>When a worker node fails completely or is restarted, it takes up to 7 minutes for K8s to recognize the failure and migrate the workload.</p> <p><b>Workaround:</b> NA</p>



Table 4-37 (Cont.) CNE 1.8.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
OCCNE-3523	2	1.7.0	istio preventing teardown of clusters	Iterating cluster creation/ destruction in our lab environment is made much more laborious, as the cluster destruction hangs in Jenkins, and it needs manual intervention to delete all resource though the OpenStack GUI.  If the manual destruction is not performed, we orphan resources in our OpenStack tenancy, and this leads to collisions use of our limited allocated resources.  <b>Workaround:</b> NA
OCCNE-3485	3	1.4.0	Updating the Alerts, Varbind and alert groups of prometheus.	NA
OCCNE-2965	3	1.5.0	Updating the labels and annotations in the dbtier services	NA
OCCNE-3290	3	1.7.0	Install for fixedip deployment failed	NA
OCCNE-2080	3	1.4.0	k8s_install pipeline process fails due to time out trying to access yum.oracle.com	NA
OCCNE-3378	4	1.7.0	vCNE/Metallb - genLbCtrlData.py script fails using IP ranges	<b>Workaround:</b> Change the mb_configmap.yaml file IPs to a list or a cidr.
OCCNE-3294	4	1.8.0	Change in default namespace for PCF-ATS	<b>Workaround:</b> Log in to Jenkins GUI : Configure: Advanced Project Option: Pipeline Script: -d ocats (not working) Pipeline Script: -d ocpcf (modified to 'ocpcf'...in working case)  FIX: This should ideally be set to default value 'ocpcf' in 1.8.0.

Table 4-37 (Cont.) CNE 1.8.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
OCCNE-991	2	1.0.0, 1.1.0, 1.2.0	Correct osinstall yum update state	Possible significant impact if a new yum update picks up an incompatible RPM. Possible to restrict Yum channel subscription to specific channels on Bastion host and central repo. <b>Workaround:</b> NA
OCCNE-1398	4	1.0.0, 1.2.0	Can't ssh to enclosure switches after configure from procedure	Minimal impact since there is a simple workaround. The workaround is to ssh to OA then from OA "connect interconnect 1(1 for switch1 or 2 for switch2)" to access enclosure switches. It is an easy workaround. I will see how to fix the ssh access later.
OCCNE-3765	3	1.8.0	Can't open occne-kibana GUI	NA
OCCNE-3524	3	1.7.0	Sporadic k8s_install failure 'timeout (12s) waiting for privilege escalation prompt'	NA
OCCNE-3311	3	1.7.0	1.7.0-rc.3 services restarting often. Test failures on services periodically	NA
OCCNE-3310	3	1.7.0	BM Deploy CNE_SCAN fails on littlefinger (2 bastion) cluster	NA
OCCNE-3312	3	1.7.0	1..70-rc.3 BM deploy kubeflow failure	NA
OCCNE-1579	3	1.3.0	Bastion host udp port domain unreachable traffic from tcpdump	NA
OCCNE-3121	3	1.7.0	Security Hardening: Docker hardening in provision should be fixed/enabled	NA
OCCNE-3122	3	1.7.0	Security Hardening 'rpm_verify_permissions' should be fixed/enabled	NA
OCCNE-2386	3	1.4.0	Many network interface setting DEFROUTE=yes need to change to DEFROUTE=no	NA
OCCNE-2384	3	1.4.0	The pxe_config_nic_list in hosts.ini for Gen10 blade server doesn't work well	NA

Table 4-37 (Cont.) CNE 1.8.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
OCCNE-2505	3	1.4.0, 1.5.0, 1.6.0	Worker nodes randomly becoming Not Ready	NA

## NRF Customer Known Bugs

Table 4-38 NRF 1.11.2 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
32860828	4	1.10.2	Geo-Redundant NRF is returning 500 Error to discovery request with target-nf-type=AMF&guami=<>, if AMF sending heartbeat to both the NRF or toggling between them	AMF discovery with GUMI list will not work if the AMF had toggled between the georedundant NRFs.
32860876	4	1.0.2	Deleting bulk record from NRF table is creating some time locking issue	DB Replication channel may go down because of which NRF georedundancy will not work.

Table 4-39 NRF 1.11.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
32623176	4	1.10.0	RejectionReason to be added in NfAccessToken response metric	Reason for rejection of the AccessToken Request can't be known by looking into the metric
32623215	4	1.9.0	Add NfUpdate Patch Operation with Unknown attribute are getting dropped silently and returning 200	NF will not get notified that some of the attributes didn't get updated in NRF.

## SCP Customer Known Bugs

**Table 4-40 SCP 1.11.0 Customer Known Bugs**

Bug Number	Severity	Found in Release	Title	Customer Impact
30731782	Minor	1.2	Limit of VS size is limited to 1 Mb by etcd/k8s.	Impacts only if there are 100s of NFs with many service instances/NF. For now customer impact is minimal to no. <b>Workaround:</b> None. <b>Note:</b> This limitation is not present in SCP 1.10 onwards.
30731844	Minor	1.3	Processing time of NRF notifications increases if more profiles (>10) with more many service instances (more than 10/profile)are registered. increase observed is 2-3 seconds more than previous registered in case of new registration. Updates also increases with more number of registered profiles.	There may be delay in rule creation if profiles are large in numbers. <b>Workaround:</b> None.
30731829	Minor	1.4	SCPC-Pilot is taking high CPU while applying updates if number of equivalent profiles/ServiceInstances are exceeding 100	There may be delay in rule creation if profiles are large in numbers which can cause some call failures. <b>Workaround:</b> None. <b>Note:</b> This limitation is not present in SCP 1.10 onwards.

## UDR Customer Known Bugs

**UDR 1.11.1 Known Bugs**

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
30774742	4	1.3.0	UDR is not validating the conditional attributes for UDM APIs.	No impact. UDM(consumer of UDM APIs) does not send conditional attributes to UDR

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
30774750	4	1.3.0	Notify Service delays notifications to PCF during traffic run	Notifications rate is limited in initial release.
30774755	3	1.4.0	Headers for few resources are not implemented as per spec 29505-v15.4.0	No impact.
31877256	4	1.8.0	ProvGw: GET response sometimes does not have segment1 related data for subscriber does not exist case	No impact. It is intermittent issue.
32377439	4	1.10.0	De-Registration fails when egressgateway goes down before nrf-client during UDR deletion	No impact
32377341	4	1.10.0	Fetch UDM authentication subscription on UDR returns Internal Server Error	Occurs only with cnDBTier. Possible bug on MySQL Cluster
32631173	3	1.11.0	udr_rest_request_total not pegged for Unsupported Media Type messages.	No impact
32631219	3	1.11.0	PUT/POST request for policy-data/UDM with empty payloads returns 5xx errors	No impact
32631240	3	1.11.0	UDR returns 5012 when vsaLevel set to either dnn or nssai	No impact

#### UDR ATS 1.11.1 Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
30774755	3	1.4.0	Headers for few resources are not implemented as per spec 29505-v15.4.0	No impact.

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
32631173	3	1.11.0	udr_rest_request_total not pegged for Unsupported Media Type messages.	No impact
32631219	3	1.11.0	PUT/POST request for policy-data/UDM with empty payloads returns 5xx errors	No impact
32631240	3	1.11.0	UDR returns 5012 when vsaLevel set to either dnn or nssai	No impact
30774742	4	1.3.0	UDR is not validating the conditional attributes for UDM APIs.	No impact. UDM(consumer of UDM APIs) does not send conditional attributes to UDR
30774750	4	1.3.0	Notify Service delays notifications to PCF during traffic run	Notifications rate is limited in initial release.
31877256	4	1.8.0	ProvGw: GET response sometimes does not have segment1 related data for subscriber does not exist case	No impact. It is intermittent issue.
32377439	4	1.10.0	De-Registration fails when egressgateway goes down before nrf-client during UDR deletion	No impact
32377341	4	1.10.0	Fetch UDM authentication subscription on UDR returns Internal Server Error	Occurs only with cnDBTier. Possible bug on MySQL Cluster

#### UDR 1.11.0 Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
30774755	3	1.4.0	Headers for few resources are not implemented as per spec 29505-v15.4.0	No Impact
32631173	3	1.11.0	udr_rest_request_total not pegged for Unsupported Media Type messages.	No Impact
32631219	3	1.11.0	PUT/POST request for policy-data/UDM with empty payloads returns 5xx errors	No Impact

Bug Number	Severity	Found in Release	Title	Customer Impact/WA
32631240	3	1.11.0	UDR returns 5012 when vsaLevel set to either dnn or nssai	No Impact
30774742	4	1.3.0	UDR is not validating the conditional attributes for UDM APIs.	No impact. UDM (consumer of UDM APIs) does not send conditional attributes to UDR
30774750	4	1.3.0	Notify Service delays notifications to PCF during traffic run	Notifications rate is limited in initial release.
31877256	4	1.8.0	ProvGw: GET response sometimes does not have segment1 related data for subscriber does not exist case	No impact. It is intermittent issue.
32377439	4	1.10.0	De-Registration fails when egressgateway goes down before nrf-client during UDR deletion	No impact
32377341	4	1.10.0	Fetch UDM authentication subscription on UDR returns Internal Server Error	Occurs only with cnDBTier. Possible bug on MySQL Cluster