Oracle® Communications
Cloud Native Core Release Notice

Release 2.1.0
F25408-01
December 2019

ORACLE®

Oracle Communications Cloud Native Core Release Notice, Release 2.1.0

F25408-01

Contents

List of Tables

1
Introduction

This Release Notice includes feature descriptions, and media and documentation pack contents. This document includes listings for both the resolved and known bugs for this release. Directions for accessing key Oracles sites and services are also identified in the Oracle References and Services chapter. Release Notices are included in the documentation pack made available with every software release.

5G Cloud Native Core Release 2.1.0 Introduction

Oracle Communications Cloud Native network functions debut with this release. Each of the new network functions are described in Feature Descriptions under their respective Cloud Native headings. These functions allow you to access the database for storing application, subscription, authentication, service authorization, policy data, session binding, and application state information.

Documentation Admonishments

Admonishments are icons and text throughout this manual that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage.

Table 1-1   Admonishments

Icon	Description
DANGER	Danger: (This icon and text indicate the possibility of *personal injury*.)
WARNING	Warning: (This icon and text indicate the possibility of *equipment damage*.)
CAUTION	Caution: (This icon and text indicate the possibility of *service interruption*.)
TOPPLE	Topple: (This icon and text indicate the possibility of *personal injury* and *equipment damage*.)

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, http://docs.oracle.com. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com.

2. Click `Industries`.

3. Under the Oracle Communications subheading, click the `Oracle Communications documentation` link.

    The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."

4. Click on your Product and then the Release Number.

    A list of the entire documentation set for the selected product and release appears.

5. To download a file to your location, right-click the `PDF` link, select `Save target as` (or similar command based on your browser), and save to a local folder.

Customer Training

Oracle University offers training for service providers and enterprises. Visit our web site to view, and register for, Oracle Communications training at http://education.oracle.com/communication.

To obtain contact phone numbers for countries or regions, visit the Oracle University Education web site at www.oracle.com/education/contacts.

My Oracle Support

My Oracle Support (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support can assist you with My Oracle Support registration.

Call the Customer Access Support main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request.

2. Select **3** for Hardware, Networking and Solaris Operating System Support.

3. Select one of the following options:

    *   For Technical issues such as creating a new Service Request (SR), select **1**.

    *   For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability

- Significant reduction in system capacity or traffic handling capability

- Loss of the system's ability to perform automatic system reconfiguration

- Inability to restart a processor or the system

- Corruption of system databases that requires service affecting corrective actions

- Loss of access for maintenance or recovery operations

- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

2
Feature Descriptions

This chapter provides a summary of each feature released in Cloud Native Core features releases 2.1.0.

Cloud Native Core Applications, Release 2.1.0

Oracle Communications Cloud Native Core is a market-leading core network solution utilizing Cloud Native principles and architecture to deliver Service Agility, Innovation, Efficiency and Adaptability for 4G and 5G network functions including an optional on premise Cloud Native Environment.

Unified Data Manager (UDM)

The UDM product from Oracle communications is a combination of the Authentication Server Function (AUSF) and Unified Data Manager (UDM) network functions as detailed out by 3GPP.

The UDM consolidates the data sources to create a single data narrative within a data warehouse. The resources, data model and usage are defined to access the subscription data through the Unified Data Repository services.

Oracle 5G UDM, implemented as cloud native function, offers a combination of the AUSF and UDM NF's as detailed out by 3GPP.

1. The Authentication Server Function (AUSF) supports authentication for 3GPP access as specified in 3GPP TS 33.501.

2. The Unified Data Manager Function (UDM) supports following functionalities:

    *   Generate 3GPP 5G AKA Authentication Vectors

    *   User Identification Handling (e.g. storage and management of SUPI for each subscriber in the 5G system)

    *   UE's Serving NF Registration Management (e.g. storing serving AMF for UE, storing serving SMF for UE's PDU Session)

    *   Supports retrieval of the UE's individual subscription data for slice selection, AM data, SM data, SmfSelection data, smf ue context data and supports acknowledgment of SoR & UpU function

For more information, refer to *Unified Data Management User's Guide* under Cloud Native documents on OHC.

3
Media and Documentation

Oracle Communications software is available for electronic download on the Oracle Software Delivery Cloud (OSDC). Documentation is delivered electronically on the Oracle Help Center (OHC). Both the software Media Pack and Documentation Pack are listed in this chapter.

Media Pack

All components available for download from the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) are in Table 3-1.

> **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 2.1.0

Part Number	Description
V984387-01	Oracle Communications Cloud Native Core Network Function Cloud Native Environment 1.3.2.0.0
V984388-01	Oracle Communications Cloud Native Core Unified Data Management 1.0.0.0.0

Load Line Up for Cloud Native Core

The Load Line Up for Cloud Native Core Release 2.1.0 is:

Table 3-2   Load Line Up for Cloud Native Core Release 2.1.0

Components	Versions
Network Function Cloud Native Environment	1.3.2.0.0
Binding Support Function	1.0.0.0.0
Diameter Routing Agent	1.0.0.0.0
InterWorking and Meditation Function	1.0.0.0.0
Network Exposure Function	1.0.0.0.0
Network Repository Function	1.2.0.0.0
Network Slice Selection Function	1.0.0.0.0
Policy and Charging Rules Function	1.0.0.0.0
Policy Control Function	1.0.0.0.0
Security Edge Proxy Protection	1.1.0.0.0

Table 3-2   (Cont.) Load Line Up for Cloud Native Core Release 2.1.0

Components	Versions
Service Communication Proxy	1.2.1.0.0
Unified Data Management	1.0.0.0.0
Unified Data Repository	1.3.0.0.0

Documentation Pack

All documents available for download from the Oracle Help Center (OHC) site (http://docs.oracle.com/en/industries/communications/) are listed in Table 3-3.

> **Note:**
>
> This list is accurate at the time of release, but it is subject to change. See the Oracle Help Center for the latest information.

Table 3-3   Documentation Pack Contents

Release Notes and Licensing Information User Manuals Document Set
Cloud Native Core Release Notice
Cloud Native Core Licensing Information User Manual
Unified Data Management
Unified Data Management Installation and Upgrade Guide
Unified Data Management Custom Templates
Unified Data Management User's Guide

4

Resolved and Known Bugs

This chapter lists the resolved and known bugs for Cloud Native Core release 2.1.0.

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

The problem report sections in this document refer to bug severity levels. Definitions of these levels can be found in the publication, *TL 9000 Quality Management System Measurement Handbook*.

Problem Report: A report from a customer or on behalf of the customer concerning a product or process defect requesting an investigation of the issue and a resolution to remove the cause. The report may be issued via any medium.

Problem reports are systemic deficiencies with hardware, software, documentation, delivery, billing, invoicing, servicing, or any other process involved with the acquisition, operation, or performance of a product. An incident reported simply to request help to bring back the service or functionality to normal without the intent to investigate and provide a resolution to the cause of the incident is not a problem report.

1. **Critical**: Conditions that severely affect the primary functionality of the product and because of the business impact to the customer requires non-stop immediate corrective action regardless of time of day, or day of the week as viewed by a customer on discussion with the organization such as:

    *   Product inoperability (total or partial outage),

    *   A reduction in the capacity capability, that is, traffic/data handling capability, such that expected loads cannot be handled,

    *   Any loss of emergency capability (for example, emergency 911 calls), or

    *   Safety hazard or risk of security breach.

2. **Major**: Product is usable, but a condition exists that seriously degrades the product operation, maintenance, or administration, etc., and requires attention during pre-defined standard hours to resolve the situation.
    The urgency is less than in critical situations because of a less immediate or impending effect on product performance, customers, and the customer's operation and revenue such as:

    *   Reduction in product's capacity (but still able to handle the expected load),

    *   Any loss of administrative or maintenance visibility of the product and/or diagnostic capability,

    *   Repeated degradation of an essential component or function, or

    *   Degradation of the product's ability to provide any required notification of malfunction.

3.   **Minor**: Other problems of a lesser severity than "critical" or "major" such as conditions that have little or no impairment on the function of the system.

The numbered severity levels in the tables below correspond to these definitions of 1-Critical, 2-Major, or 3-Minor.

Customer Known Bug List

Table 4-1 lists the known bugs and associated Customer Impact Statements. This information is provided for information purposes only.

Table 4-1   Cloud Native Core Customer Known Bugs

Bug Number	Severity	Found in Release	Title	Customer Impact
30542078	3	1.0.0	Encrypted authentication key support is not handled in UDM	The data stored on UDR is accessible for only UDM and hence minimal impact for customer/user.
OCCNE-1318	Enhancement	1.3.0	Add external IPs to SQL nodes (vCNE)	Cross-site replication will not function properly without external IPs. This is not an issue for applications not requiring replication to multiple sites.
OCCNE-1642	Enhancement	1.3.0	OCCNE 1.3 Automation not correctly handling management IPs migrated from db-1 to Bastion 1	Not able to perform automated deploy of DB servers and bastion hosts due to insufficient number of IP addresses. A workaround is available. **Workaround:** As a work-around, if the Management subnet allocated for the bastion hosts is a /29, then the oam_host address for the first db-storage node (hosting bastion-1) can be omitted from the machine definition line in the hosts.ini inventory file, and the bastion-1 virtual-machine can take on the address initially used for the machine when it serves as the bootstrap-host.