

Oracle® Communications Network Charging and Control

Release Notes



Release 12.0.5

April 2022

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About the Release Notes

This document provides the release notes for the new and enhanced features introduced between Oracle Communications NCC release 12.0.4 and Oracle Communications NCC release 12.0.5.

New Features

NCC 12.0.5 includes enhancements to the following components:

- Advanced Control Services
 - Extended Tracing Capabilities
- RESTClient Support
- Improvements in Periodic Charge Handling in case of VWS Failovers
- Oracle Linux 8 and Oracle Database 19.13 Certification

Extended Tracing Capabilities

NCC now supports more flexible and extended subscriber tracing feature. This provides the capability to selectively trace a call flow for a list of subscriber ids and/or network sessions flowing through the NCC server.

Earlier, enabling the debug for a system impacted the system performance and generated debug logs for all flows thereby overloading the system in terms of latency and system usage.

With this release, tracing can be enabled per subscriber or even per subscriber session. CSPs can now analyse their configurations, network mapping, and expected results for specific flows.

For more information, see *Advanced Control Services Technical Guide*.

RESTClient Support

With this release, a new RESTClient interface is added to NCC. The RESTClient interface is used for sending REST requests from NCC to REST server endpoints. RESTClient accepts the requests in xml format and translates the xml request to JSON format. JSON request is then forwarded to the REST server. RESTClient encapsulates the response received from the REST server, transforms it to xml, and sends it back to the requesting process (DAP).

RESTClient supports requests to Balance Transfer and Apply Loan endpoints in the Oracle Communications Billing and Revenue Management (BRM) REST server. RESTClient also supports generic request types, which can be forwarded towards any REST server endpoints with required design time customizations.

For more information, see *REST Client Technical Guide*.

Improvements in Periodic Charge Handling in case of VWS Failovers

Start-up's and failovers are now more robust. NCC now provides options to hold periodic charge plugin execution, expiry bucket processing and grovelling for a configured duration, in case of VWS start-ups or VWS failovers from active VWS to non-active VWS. This helps in controlling double Periodic Charge renewals in case of VWS failovers.

With the following new configurations in VWS eserv.config, you can now control how long to wait before starting to execute periodic charge plugin, expiry bucket processing and grovelling during a VWS restart or failovers:

- pluginSkipTimeOnStartup

- gapBeforeRestartingPluginSkip

For more information, see *Voucher and Wallet Server Technical Guide*.

Oracle Linux 8 and Oracle Database 19.13 Certification

NCC is now certified to run on Oracle Linux 8 and Oracle Database 19.13.

Known Problems

List of Known Problems

- If you see the following error in the updateLoader log of SLC and VWS nodes after installation:

```
updateLoader() WARNING: Oracle unavailable after 5 seconds with error: ORA-12578:
TNS:wallet open failed
updateLoader() WARNING: Oracle unavailable after 65 seconds with error: ORA-12578:
TNS:wallet open failed
```

Perform the following task in the SMS, SLC, and VWS nodes:

1. Navigate to /IN folder in the SMS, SLC, and VWS nodes.
2. Change the group details using the command:

```
chown -R <InstallUser:esg> wallet
```

3. Restart the updateLoader in the SLC and VWS nodes.

- If you get the following error in **/IN/service_packages/PI/tmp/PImanager.log** while running voucher query:

```
UNKNOWN COMMAND CCSVR1=QRY
```

1. Log in as smf_oper (application user) in the SMS node and run the following:

```
export LOGFILE=< file name>
export SMFPASSWORD=<Database password for smf user>
```
2. Run the script from **/IN/service_packages/PI/db/install/create/SMF/scripts** path.

```
./install_PlcCommands_OC3C.sh.
```

Fixes in This Release

List of Fixes

The following table lists service request issues reported by external sources that have been fixed in this release. The issues are listed component-wise.

Service Request (SR) Number	Bug DB Number	Component	Title
3-28711826851	33891969	CCS	beVWARS Crashing When PC Bucket ID Exceeds Max 32bit Int
	33735117	COMMON	CVE-2021-44832: APACHE LOG4J UPDATE TO 2.3.2, 2.12.4, OR 2.17.1
3-28846976351	33932136	PI	PI User Last Change Date Pulled from Incorrect Table

Service Request (SR) Number	Bug DB Number	Component	Title
3-28545429501	33864610	DCD	CCDB FN reads call cost over DCD Interface considers a zero-cost as unsupported
3-28558293101	33844799	BE	SLEE call ID is greater than max int32 causes VWS sync errors
3-28543570771	33838050	PI	Request for porting fix for Bug 33571715 on 12.0.3.0 to NCC 12.0.4.0 Version
3-28533236441	33835677	DCA	DCA core dumping in response to EVENT_REQUEST when MSCC Indicator is set
3-28526090141	33830915	ACS	NCC 12.0.4 does not support multiple buckets when total value exceeds max int32
3-28504176011	33825943	CCS	CCS EDR Viewer Calculates New Balances in 32-bit
3-28478743791 3-28558293101	33819023	ACS	Invalid Escher type conversion while extracting Map key CMID
3-28409852841	33805614	ACS	Call doesn't use units from the next balance on the cascade
3-28250704571	33768286	CCS	Issues with the import of control plans
3-28270070271	33755247	CCS	Custom Product Type Panels are empty
3-28202342861	33747408	ACS	PAPV node fails to send announcement to ussdgw in 12.0.4
3-28191009621	33739530	ACS	Buckets are not expired on wallet expiry
3-28216728301 3-28265664521	33734943	PI	PI SOAP Response Encoding Broken
3-27596564051	33723604	BE	Unable to Test CP PCs with VWARDS_sysdate.cfg
3-28080154641 3-28558293101	33703702	ACS	renewPCAtMidnightTZ No Longer Works
	33691812	COMMON	CVE-2021-45105: APACHE LOG4J UPDATE TO 2.17 OR LATER, OR 2.12.3 OR LATER
3-28018273791	33681184	ACS	Further Fun with Integer Sizes
	33673064	COMMON	ALERT: CVE-2021-45046: APACHE LOG4J UPDATE TO AT LEAST 2.16.0
	33660504	COMMON	PROBABLE ALERT: CVE-2021-44228: APACHE LOG4J UPDATE TO AT LEAST 2.15.0
3-27722958971 3-28674626711	33580429	ACS	beVWARDS dumps core when fetching the reservation chunk from MFile in 12.0.4
3-27716091898	33578560	ACS	DOZE FN does not reuse the dialog with timerIF
3-27514762651	33573160	ACS	OSD operation with same name for separate ACS customers causes "error: Operation
3-27575838601 3-28543570771 3-28544392111	33571715	PI	Need PI FIFO Changes on 12.0.3.0
3-27648879701	33567628	ACS	[12.0.4] DAP much stricter on XML templates; doesn't allow namespaces
3-27658456371	33564243	DAP	dapIF core dumps randomly in NCC 12.0.4

Service Request (SR) Number	Bug DB Number	Component	Title
3-27575499201	33550099	CCS	slee-ctrl status shows process not started
3-27597718711	33549625	DCD	diameterBeClient Process is crashing after SLEE start on NCC 12.0.4
	33329291	COMMON	OJDBC CVE-2021-2351
3-27640302671 3-28478743791 3-26643108601	33231165	CCS	ccsBeResync will never synchronise wallets with an active reservation.
3-24648222511 3-24390027351	32095323	ACS	Core dump by smsMaster
3-22129052414	30897902	BE	Diagnostics for Intermittent beVWARS Latency
3-27959098221	33684193	CCS	increase of END_CALL_REASON=2 with DURATION=0
3-26643108601	33586742	CCS	Plugins Running when Executing ccsBeResync
3-28138614401	33731555	ACS	acsProfileCompiler Fails to Start with ORA-01012: not logged on
3-27602969211	33541300	BE	soloBE parameter not working as expected
3-27084487191	33437003	DCA	DCA to allow Termination Request of failed session
3-29081898711	34014572	SIGTRAN	CI/PI in Shipped SIGTRAN Files
3-28138614417	33730924	SMS	Screens Erroneously Reports Replication File Transfer Failure if Debug Enabled.
3-28848798371	33932670	ACS	Many support tools don't match a username with more than 8 characters.
3-28849540711	33957657	BE	Revoked named event request results in erroneous EDR record written by VWS.
3-28097147771	34073657	ACS	slee_acs SIGSEVs in NumOldestCallsToDump Logic
3-28837410561	34073577	CCS	Failure to flush PC subscription bucket after failed subscription
3-23262355551	34041742	SMS	NCC processes usage of remote databases lacks resilience

About NCC Documentation

Where to Start

NCC product documentation is available on Oracle Help Center:
https://docs.oracle.com/communications/F53847_01/index.htm

The first guides to look at should be those that help with the installation and configuration of the NCC software.

The next set of guides should be those pertaining to your usage of the NCC software.

The guides have been generally classified according to their use.

Third-Party Products and Licensing

For all the Oracle Communications Network Charging and Control licensing information and all related third-party product acknowledgments, see *Oracle Communications Network Charging and Control Licensing Information User Manual*.