

Oracle® Communications Network Charging and Control

Release Notes

Release 12.0.1

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About the Release Notes

This document provides the release notes for the new and enhanced features introduced between Oracle Communications Network Charging and Control release 12.0.0 and Oracle Communications Network Charging and Control release 12.0.1.

New Features

Network Charging and Control 12.0.1 includes enhancements to the following components:

- Charging Control Services
- Voucher Management
- PI Voucher Commands
- Password Policy for PI Users
- Sy SNR Single Notification

Charging Control Services

This section describes the enhancements to Charging Control Services.

Configurable Rounding

In the earlier versions, the default rounding method used in rating was Banker's rounding.

This release introduces Ceiling rounding and Commercial rounding that you can apply during rating calculations.

Ceiling rounding is a form of Round-Towards-Infinity rounding that you can apply to any fractional part. With ceiling rounding, you can round fractional parts to Unit-Small(1s), Deca-Small(10s), and Hecto-Small(100s).

Commercial rounding rounds positive .5 upwards and negative .5 downwards.

For rating calculations, you can now apply your preferred rounding method. The rounding algorithm is explicit and can be configured on a service basis.

For more information about rounding, see *Charging Control Services User's Guide*.

Voucher Management

This section describes the enhancements to Voucher Management.

Additional Voucher Fields

With this release, new additional fields have been added to support storing of distribution information and custom attributes against each voucher. The new fields are voucher barcode, card design, distributor channel details, retail channel details, provisioning date, recharge classification, and description. When a voucher is queried, all the additional information related to that voucher is displayed.

In the GUI, the Vouchers tab has been restructured to display all the voucher details in the following subtabs:

- Voucher
- Batch

- Subscriber
- Info

The Info subtab displays the new additional fields.

For more information about the subtabs, see the *Voucher Manager User's Guide*.

Functionality to modify these new fields (excluding Recharge Classification and Provisioning Date) is added to the CCSVR1=CHG PI command. The CCSVR1=QRY command has been enhanced to return details of all these additional voucher fields. For more information about the enhanced PI commands, see *CCS Provisioning Interface Commands*.

Voucher Expiry

In the earlier releases, you could set expiry of vouchers at the batch level only. You could not set expiry at the voucher level.

With this release, you can now set expiry of a voucher through the GUI and the provisioning interface.

In the Voucher subtab of the Vouchers tab, the new **Voucher Expiry** field enables you to set a voucher to expire on a specific day. If an expiry date is already set for a voucher, this field displays the date and time when the voucher expires. You can set the date by clearing the **Remove** check box. For more information about setting voucher expiry using GUI, see *Voucher Manager User's Guide*.

You can set expiry of vouchers using the CCSVR1=CHG PI command as well. For more information about setting voucher using PI, see *CCS Provisioning Interface Commands*.

PI Voucher Commands

With this release, Voucher Management is exposed as a SOAP API, allowing external query and management. You can now integrate Voucher Management into Business Support Systems such as Customer Care and Inventory Management.

Password Policy for PI Users

With this release, NCC supports defining a password policy for PI users. When a password policy is defined, when a new PI user is created, or when the password is changed, the password must comply with the password policy. The passwords for PI users are checked for their strength when they are assigned or changed. The checks include password verification function, password age, password reuse, and number of failed login attempts. The policy defined is applicable to all the PI users.

For more information about defining a password policy for PI users, see *Provisioning Interface User's and Technical Guide*.

Sy SNR Single Notification

The Sy interface has been enhanced to reduce signaling load on networks and to avoid race conditions.

For each SY session, a single SNR notification is generated for all balance impacts. The OCS to PCRF Sy SNR message has been enhanced so that all counters changed in top-up are communicated in a single SNR message.

Known Problems

List of Known Problems

In Oracle Database 12.1, the SYS.ora12c_strong_verify_function password verify function does not have **execute** for the public granted to it. This causes the installation to fail when creating the PI_USERS database profile for the PI password policy feature on SMS. This issue does not occur with Oracle Database 12.2.

If you use Oracle Database 12.1, before installing the patches, login to the database machine as sysdba and run the following command to grant execute on SYS.ora12c_strong_verify_function to public:

```
SQL> grant execute on SYS.ora12c_strong_verify_function to public;
Grant succeeded.
```

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
3-15813455151	26945595	ACS	ACS populates EDR RELC from CIR when no Release Cause requested or provided
3-15564108531	26644901	ACS	sms.jnlp parameters not taken into account
3-16757429411	27462667	ACS	Control plan stops processing when CIR received in mid-call BFT
3-16892915251	27579902	ACS	tBusy Busy Cause Defaults to 31
3-16208990341	27155047	ACS	Extend CdrCompressCall Parameter to be Flexible
3-16141555071	27111755	ACS	oBusy Busy Cause Defaults to 31
3-16892915251	27111755	ACS	oBusy Busy Cause Defaults to 31
3-16927926891	27587334	ACS	Prefix Changes in ACS Result in a Connect instead of Continue
3-16191317001	27139086	BCD	ACS/BCD Sends Messed up Timestamp
3-16270187961	27139086	BCD	ACS/BCD Sends Messed up Timestamp
3-17060718981	27683099	BCD	BCD connection failure causing NULL dialog errors
3-16095725291	27077046	BCD	BCD domain has no wallet capabilities for voucher recharge
3-16653501981	27407713	BCD	BCD logs (bcdActions.pinlog, brmBeClient) in SLEE/bin folder
3-16300349101	27231780	BCD	BCD Rating Status profile tag stored incorrectly
3-16456128451	27299388	BCD	Integer encoding incorrect when mapping in-session notifications.
3-16849771811	27540742	BCD	Integer Profile Tags Continue to be Misaligned
3-13509562361	25055349	BE	Calling card dump that includes all status

Service Request (SR) Number	Bug DB Number	Component	Title
3-15737022981	26800838	BE	Data session is not charged with Adaptive Reservation Config
3-16652559191	27389312	BE	Incorrect ACCOUNT_TYPE value in EDRs CDR_TYPE=3
3-15989664791	27013036	BE	Incorrect CCS_VOUCHER_BATCH CHANGE_TERM and CHANGE_USER Fields
3-12997106451	25716420	BE	Periodic Charge GUI - Days After Failed Charge cannot be edited
3-15629977681	26751763	BE	Voucher missing COSTS and BALANCE_TYPES (BRM-Subscriber)
3-16286573411	27207916	BE	VWS reservations created against wrong CMID
3-15950015101	26990319	BE	Wrong tax value reported in EDR tag - even if final cost is correct
3-16673501231	27411367	CCS	Calls Hang Due to slee_acs Waiting for a CR Response without Sending a CR Request
3-16078602411	27073369	CCS	Cannot generate voucher batch using GPG Public Key
3-16134950811	27099606	CCS	Cannot generate voucher batches across the entire voucher number range
3-16689682801	27427648	CCS	ccsBeResync failing voucher synchronisation
3-16289264861	27208048	CCS	ccsCDRLoader Fails to Convert TZ of First EDR it Processes
3-16215682071	27147333	CCS	ccsMFileCompiler Crashes When Creating an MFile
3-16410858481	27262779	CCS	CCSVCHRPART leaves behind datafiles
3-15091307709	26320183	CCS	elapsedTimesFromApplyChargingReport is enabled, CAET is set to CCET
3-16688875071	27415133	CCS	Explanation of specific CDR_TYPE=56 tags required
3-15157327591	26316501	CCS	Mid-call BFT in UATB takes wrong exit
3-16446663761	27284371	CCS	Post-session BFT taking wrong exit of the UATB node.
3-16673713191	27284371	CCS	Post-session BFT taking wrong exit of the UATB node.
3-14379401771	25642497	CCS	Promotion is not updating balances properly
3-16082625451	25642497	CCS	Promotion is not updating balances properly
3-16134950811	27215309	CCS	Randomly generated vouches do no use the entire range
3-16688449971	27421677	CCS	Redeemed voucher is wrongly presented as Active in the GUI
3-14882817061	26190827	CCS	Request for New CCSVCHPART SQL Procedure
3-16410858481	26190827	CCS	Request for New CCSVCHPART SQL Procedure
3-16648244021	27397632	CCS	UATB Node Can't Handle Negative Reserved Values
3-16395683071	27262083	CCS	Account Balancing screens incomplete and

Service Request (SR) Number	Bug DB Number	Component	Title
			ccsDomainMigration dumps core
3-15685948567	26791574	CCS	Unable to Edit Product Types More than Once in the Same Session
3-16534140101	27329043	CCS	VAT not applying for Billable Events
3-14334164521	25592083	CCS	VWARS Core dumped due to MFILE compilation
3-15876754521	26932815	CCS	Wrong COSTS tag in CDR_TYPE=16 (Reward)
3-15459936871	27194802	CCS_SMCB	SMCB Fails to Revoke Granted but Insufficient Funds
3-15365356033	26481493	CCSCDRPART	New entries in ccspart.cfg: RETAIN_OLD_TABLESPACES
3-16589265721	27357473	DAP	DAP Response at or over 1024 Bytes Always Fail
3-16341917371	27226879	DCA	ATPD node does not allow large duration to support DCA BFT.
3-16219379661	27181933	DCA	DCA returning DIAMETER_INVALID_AVP_VALUE for an origin host with an underscore
3-9608253171	19619301	OSD	Username/Password SOAP Error when Unregistered ASP Connects
3-14391077321	25651307	OUI	OUI installation - wrong owner of /IN/service_packages
3-15818065951	26909526	PI	PI fails because of PGA memory used by the instance exceeds PGA_AGGREG
3-15749974121	26896680	PI	PI not setting 'Language' and 'Wallet Type
3-15646698221	26726731	SLEE	check-SLEE Hangs if the SLEE is not Running
3-15631525071	26714009	SLEE	check-SLEE.sh Contains Bad awk Regex Expression
3-16096375621	27175938	SLEE	Configure CallInfoSMS to send notif based on Balance Types
3-16343025011	27229073	SLEE	Every interaction with BRM via BCD results in 3 warnings to the syslog.
3-16217943541	27148320	SLEE	Remove SLEE Parameters FASTSEMSPINLIMIT and SCHEDULERUSESUNIXSEM from VWS
3-15631679231	26719651	SLEE	Scripts requiring awk Don't Work from the Crontab
3-14929561241	26100321	SMS	Disk statistics are not recording ZFS values
3-16788794431	27487466	SMS	Replication stopped after launching new promotion with black list
3-15585012671	26992838	XMS	Disable Optional Parameters in multi part SMS
3-16797630551	27555941	XMS	MMX truncates last character of inbound SMPP GSM 7-bit
3-14855837331	26026586	XMS	SLEE process xmsTrigger crashed twice
3-14726440031	25921674	XMS	xmsTrigger core dump after cancel_sm cross-Over
3-15395942422	25921674	XMS	xmsTrigger core dump after cancel_sm cross-Over
3-14870183241	26076694	XMS	xmsTrigger disconnecting all SMSCs during unavailability of only one of SMSC

About NCC Documentation

Where to Start

NCC product documentation is available on Oracle Help Center:
https://docs.oracle.com/communications/E93413_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*.