

Oracle® Communications Billing and Revenue Management

Release Notes

Release 12.0

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Release Notes

This document describes the features and components introduced or enhanced in Oracle Communications Billing and Revenue Management (BRM), Business Operations Center, Oracle Communications Billing Care, Oracle Communications Pricing Design Center (PDC), Pipeline Configuration Center (PCC), and Oracle Communications Billing and Revenue Management Elastic Charging Engine (ECE) for the 12.0 release. It also lists the known problems and unsupported components in that release.

For information about new and changed opcodes, storable classes, utilities, and notification events, see the information about upgrade impacts in the *BRM Upgrade Guide*.

New Features

This section lists new features introduced in BRM, Business Operations Center, Billing Care, PDC, PCC, and ECE for the 12.0 release.

New Features in BRM

This section describes the new features introduced in BRM 12.0.

OUI for Installing BRM Server and Clients

BRM 12.0 uses Oracle Universal Installer (OUI) to install BRM server components, Pipeline Manager, and the BRM client applications.

For more information on installing BRM server and clients using OUI, see *BRM Installation Guide*.

Enhanced Security in BRM

BRM 12.0 includes the following security enhancements:

- Secure Sockets Layer (SSL)/Transport Layer Security (TLS) is enabled by default for secure communications between BRM server components. Client applications

and all supported cipher suites are set to use SSL/TLS for secure communications.

For more information, see the discussion about enabling secure communication between BRM components in *BRM System Administrator's Guide*.

- Sensitive information, such as account and database passwords, are not stored in the **Infranet.properties** and **pin.conf** configuration files. The BRM Installer stores the sensitive information in the BRM server and client Oracle wallets. BRM server components and client applications retrieve the information from these wallets. You can also create Oracle wallets for testing purposes by using the new **pin_create_server_cert** script. You can view, store, or retrieve data stored in these wallets by using the **pin_crypt_app** and new **pin_config_editor** utilities.

For more information, see the discussion about Oracle wallet and working with SSL/TLS Certificates and Oracle Wallets in *BRM System Administrator's Guide*.

- BRM now uses the Oracle ZT PKI encryption scheme for encrypting passwords and data and the PBKDF-2 hashing algorithm to store all the service passwords in the hash format. AES and MD5 encryption schemes are not supported in BRM 12.0.

For more information, see the discussion about encrypting data in *BRM System Administrator's Guide*.

- Password restrictions are applied for all the passwords provided during installation.
- Credit card tokenization and sensitive data masking are enabled by default.

BRM Now Applies Proration Rules to All Product Purchases or Cancellations

By default, BRM does not apply proration rules to product purchases or cancellations that align with the start of the product cycle. This allows you to apply full cycle fees or refunds for such purchases or cancellations. For example, if the start date of the product cycle is July 14 and the product is purchased on the same day, proration rules are not applied and full cycle fees are applied for that product. However, if the product is purchased on July 20, proration rules are applied, and the cycle fee is prorated.

You can now configure BRM to apply proration rules for all product purchases or cancellations, regardless of whether they align with the start of the product cycle. You can configure this by enabling the **ApplyProrationRules** business parameter in the **subscription** instance of the **/config/business_params** object.

For more information, see "[Enabling BRM to Apply Proration Rules](#)".

Enabling BRM to Apply Proration Rules

To enable BRM to apply proration rules:

1. Go to the **BRM_home/sys/data/config** directory, where **BRM_home** is the directory where you installed the BRM software.
2. Run the following command, which creates an editable XML file from the subscription instance of the **/config/business_params** object:

```
pin_bus_params -r BusParamsSubscription bus_params_subscription.xml
```

This command creates the XML file named **bus_params_subscription.xml.out** in your working directory. To place this file in a different directory, specify the path as part of the file name.

3. Open the **bus_params_subscription.xml.out** file in a text editor.
4. Search the file for the following line:

```
<ApplyProrationRules>disabled</ApplyProrationRules>
```

By default, the **ApplyProrationRules** parameter is disabled.

5. Change **disabled** to **enabled**.
6. Save this file as **bus_params_subscription.xml**.
7. Go to the *BRM_home/sys/data/config* directory, which includes support files used by the **pin_bus_params** utility.
8. Run the following command, which loads this change into the **/config/business_params** object:

```
pin_bus_params PathToWorkingDirectory/bus_params_subscription.xml
```

where *PathToWorkingDirectory* is the directory in which **bus_params_subscription.xml** resides.

9. Read the object with the **testnap** utility or Object Browser to verify that all fields are correct.

For more information on reading objects by using Object Browser, see *BRM Managing Customers*. For instructions on using the **testnap** utility, see *BRM Developer's Guide*.

Bill-Level Adjustments Improved for Fully or Partially Paid Bills

In previous releases, you could perform bill-level adjustments only for the remaining due amount (current bill due) for a fully or partially paid bill.

You can now improve the performance of bill-level adjustments for fully or partially paid bills by setting the **BillPaymentDeallocation** field in the **ar** instance of the **/config/business_params** object to **enabled**.

When the **BillPaymentDeallocation** field is enabled, you can use **PCM_OP_AR_BILL_ADJUSTMENT** to adjust the total bill amount for a fully or partially paid bill. The adjustment amount for the bill can be more than the remaining due, but it cannot exceed the total bill amount. For example, if the total bill amount is \$5 and you have already made a partial payment of \$2, the remaining due is \$3. In this scenario, you can perform a credit adjustment for up to \$5 (total bill amount).

However, if an A/R action (such as an adjustment or a dispute) is already performed on the bill, you can perform adjustments for only up to the amount due after the initial A/R action is performed. For example, if an item-level adjustment of \$1 is made on a bill of \$5 and you have already made a partial payment of \$2, the remaining due is \$2. In this scenario, you can perform a credit adjustment for only up to \$4 (which is the amount due after item-level adjustment).

For more information, see "[Improving Bill-Level Adjustments for Fully or Partially Paid Bills](#)".

Improving Bill-Level Adjustments for Fully or Partially Paid Bills

By default, `PCM_OP_AR_BILL_ADJUSTMENT` does not perform bill-level adjustments for an amount more than the remaining due amount if the bill is fully or partially paid.

You can improve bill-level adjustments for fully or partially paid bills by setting the **BillPaymentDeallocation** field in the **ar** instance of the `/config/business_params` object to **enabled**.

To improve bill-level adjustments for fully or partially paid bills:

1. Use the following command to create an editable XML file for the **BusParamsAR** parameter class:

```
pin_bus_params -r BusParamsAR bus_params_AR.xml
```

This command creates the XML file named **bus_params_AR.xml.out** in your working directory. If you do not want this file in your working directory, specify the full path as part of the file name.

2. Search the XML file for following line:

```
<BillPaymentDeallocation>disabled</BillPaymentDeallocation>
```

3. Change **disabled** to **enabled**.

Caution:

BRM uses the XML in this file to overwrite the existing `/config/business_params` object for the **ar** instance. If you delete or modify any other parameters in the file, these changes affect the associated aspects of BRM's billing configuration.

4. Use the following command to load the change into the `/config/business_params` object:

```
pin_bus_params bus_params_AR.xml
```

You should execute this command from the `BRM_home/sys/data/config` directory, which includes support files used by the utility. To execute it from a different directory, see **pin_bus_params**.

5. Read the object with the **testnap** utility or the Object Browser to verify that all fields are correct.
6. Stop and restart the Connection Manager (CM).
7. (Multischema systems only) Run the **pin_multidb** script with the **-R CONFIG** parameter.

New Features in Business Operations Center

This section describes the new features introduced in Business Operations Center 12.0.

Enhanced Security in Business Operations Center

Business Operations Center 12.0 includes the following security enhancements:

- SSL/TLS is enabled by default for secure communications in Business Operations Center.
- Sensitive information, such as passwords, is not stored in the **Infranet.properties** configuration file. The Business Operations Center Installer stores the sensitive information in the Business Operations Center Oracle wallet, and Business Operations Center retrieves the information from this wallet. You can also store the configuration data in this wallet. For more information, see the discussion about storing configuration entries in the Business Operations Center wallet in *BRM Security Guide*.
- Password restrictions are applied for all the passwords provided during installation.
- Oracle Entitlements Server (OES) is replaced by Oracle Platform Security Services (OPSS) for authorization. OPSS is included in Oracle Identity and Access Management (IAM). The OPSS JRF-enabled domains are used to host deployed instances of Business Operations Center to connect to IAM for authentication and authorization. For more information, see *Business Operations Center Installation Guide*.

For more information, see the discussion about Business Operations Center security in *BRM System Administrator's Guide*.

New Features in Billing Care

This section describes the new features introduced in Billing Care 12.0.

For more information on the Billing Care feature enhancements, see the Billing Care Online Help.

Enhanced Security in Billing Care

Business Operations Center 12.0 includes the following security enhancements:

- SSL/TLS is enabled by default for secure communications in Billing Care.
- Sensitive information, such as passwords, is not stored in the **Infranet.properties** configuration file. The Billing Care Installer stores the sensitive information in the Billing Care Oracle wallet, and Billing Care retrieves the information from this wallet. You can also store the configuration data in this wallet. For more information, see the discussion about storing configuration entries in the Billing Care wallet in *BRM Security Guide*.
- Password restrictions are applied for all the passwords provided during installation.

- OES is replaced by OPSS for authorization. OPSS is included in IAM. The OPSS JRF-enabled domains are used to host deployed instances of Billing Care and connect to IAM for authentication and authorization. For more information, see *Billing Care Installation Guide*.

Support for Associating SIM Cards and Numbers to Services

Billing Care now allows you to associate SIM cards and numbers to services, such as GSM telephony, during account creation, purchase, and in the assets flow. You can also view the SIM cards and numbers associated with a service in the corresponding asset card.

Support for SEPA Payment method

Billing Care now supports SEPA as a payment method. You can use your SEPA account, with the International Bank Account Number (IBAN) and Bank Identifier Code (BIC), to pay your bills.

Support for Credit Limits and Thresholds

Billing Care now allows you to set credit limits, credit thresholds, and credit floors in Billing Care. You can set a credit limit to control the amount of charges or noncurrency resources that a customer can accumulate. Once the customers reach a noncurrency credit limit, the resource stops accumulating in the customer's account and an alert is triggered to notify the customers. Billing Care also allows you to extend the validity date for the noncurrency resources.

Support for Corrective Invoicing

Billing Care now allows you to generate corrective bills when you make corrections to a bill or a billing address.

Support for Item and Event Disputes

Billing Care now allows you to view and create item and event-level disputes. You can also settle any open disputes on items or events. You can allow full amount, partial amount, or deny any dispute.

Support for Adding New Bill Units and Moving Balance Groups

Billing Care is enhanced to do the following:

- Create new bill units during account creation and purchase.
- Move balance groups between bill units in the same account during account creation and purchase and also when configuring bill units using Financial Setup.

Support for Refunds

Billing Care now supports refunds for accounts and bill units. You can initiate a refund to a customer whose account or bill unit has a credit balance. Depending on the selected payment method, the customer receives the refund amount to their linked account or card.

Support for Grouping Services by Subscription

You can now group services by subscription and allow sharing of resources among them. You can also perform collective administrative operations for the entire group, such as activate, inactivate, or cancel services. Grouping services by subscription allows you to rate and bill services according to the customer's subscription rather than by account.

Support for Resource Sharing Groups

Billing Care now allows you to create resource sharing groups. You can create a resource sharing group by selecting members and services that you want to include. A resource sharing group can be of the following types: charge sharing, discount sharing, and profile sharing.

Support for Item/Bill Unit Write-Offs and Write-Off Reversals for Accounts

Billing Care now supports write-offs on bill units and items. It also allows you to reverse account write-offs. However, the reversals have to be performed in strict compliance with your company's guidelines.

Support for Collections or Debt Management

You can now use Billing Care for collections or debt management. It is a proactive process used by the businesses to collect overdue payments from the customers.

Collections includes identifying accounts that have overdue balances and take appropriate actions. While creating an account and the bill units, you can specify if the collections actions must be taken against an account or the bill unit. You can add or modify an action for a bill unit in collections. You can also assign the collection account to a collections agent, create collection sharing groups, exempt a bill unit from collections, make payments for bill units, replace collections scenarios, add promise-to-pay installment details, and manually exit collections.

Support for Transitioning Bundles and Packages

Billing Care now allows you to transition bundles and packages for accounts. Billing Care now allows you to transition bundles and packages and also map services for accounts.

News Feed Now Includes Additional Information

You can now view the following details in the News Feed: custom service life cycle states changes, collections, resource sharing groups, credit limits, and credit threshold changes, write-off reversals, package and bundle transitions, and service transfers.

CSR Name Displayed in Notes

In the notes, you can now view the name of the customer service representative (CSR) who added the notes.

REST APIs for Billing Care Operations

Billing Care now provides REST APIs to perform various operations, such as payments, collections, customer account management, bill history, and accounts receivables.

New Features in PDC

This section describes the new features introduced in PDC 12.0.

Enhanced Security in Pricing Design Center

PDC 12.0 includes the following security enhancements:

- SSL is enabled by default for secure communications between server and client components.
- Oracle Identity Manager (OIM) is used to authenticate and authorize users in PDC.

For more information, see the discussion about configuring authentication and authorization for PDC by using OIM in *BRM Security Guide*.

- Sensitive information, such as passwords, are not stored in the configuration files: **ImportExportConfiguration.xml**, **SyncPDCConfiguration.xml**, **TransformationConfiguration.xml**, and **MigrationConfiguration.xml**. The PDC Installer stores the sensitive information in the PDC and BRM Integration Pack Oracle wallets and PDC retrieves the information from these wallets. You can change the passwords stored in the wallets by using the new **PDCWalletUtil.sh** and **PDCBRMWalletUtil.sh** utilities.

For more information, see the discussion about changing the passwords in the PDC and BRM Integration Pack Oracle wallets in *BRM System Administrator's Guide*.

- Password restrictions are applied for all the passwords provided during installation.

New Features in PCC

This section describes the new features introduced in PCC 12.0.

Enhanced Security in PCC

PCC 12.0 includes the following security enhancements:

- SSL is enabled by default for secure communications in PCC.

- Sensitive information, such as passwords, are not stored in the configuration file. The PCC Installer stores the sensitive information in the PCC Oracle wallet and PCC retrieves the information from this wallet. You can also store the configuration data in this wallet. For more information, see the discussion about Oracle wallet in *BRM System Administrator's Guide*.
- Password restrictions are applied for all the passwords provided during installation.

Known Problems

This section describes known problems and workarounds for BRM, Business Operations Center, Billing Care, PDC, and PCC for the 12.0 release.

Known Problems in BRM

This section describes known problems and workarounds for BRM 12.0.

A/R Actions between Billing and Invoicing Not Captured in Invoice

The invoicing process does not pick up the details of any A/R action that occurs between the time when a bill is generated and when the invoice for that bill is produced.

Workaround: Run billing and invoicing as an atomic operation without other A/R actions in between. For more information, see *BRM Configuring and Running Billing*.

Bill Now Generates Two Audit Objects for Nonpaying Child Items

When you run Bill Now on an account, selecting items corresponding to a nonpaying child bill unit, two audit objects are created: one audit object with an amount of 0 as revenue for the account that owns the paying parent bill unit and another audit object for the account that owns the nonpaying child bill unit.

Currently, there is no workaround.

Default Invoices Do Not Display Custom Events and Items

The default BI Publisher invoice templates shipped with BRM do not display data from custom **/event** and **/item** objects.

Workaround: If you create custom **/event** or **/item** objects, you must also customize the BI Publisher invoice templates to display your custom data. For more information, see the discussion about customizing invoices in *BRM Designing and Generating Invoices*.

Error When Configuring or Modifying Security Policies for Web Services Manager for JAX-WS

If you have configured security policies for Web Services Manager for JAX-WS or if you have modified the security policies, the request sent by the client to the server fails and the following error message appears:

```
headers: [{http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd}Security] are not understood
```

Workaround: If your client caches service WSDLs, refresh the WSDLs before sending the requests to the server.

Event Browser Displays Data Internal to BRM in the Event Description

For usage events that were rated by Elastic Charging Engine (ECE), Event Browser displays data internal to BRM in the event description.

Currently, there is no workaround.

Invoices Do Not Display Charge Sharing Details Separately

The balances associated with charge sharing are not split into original charges and sponsored/shared charges in the invoices. The total balances are correct and include any effect of charge sharing.

Currently, there is no workaround.

Invoices Might Display Wrong Discount Amount

Invoices might display the wrong discount amount for accounts with nonpaying bill units in a discount sharing group.

Currently, there is no workaround.

pin_inv_accts Fails for Migrated Accounts if Business Intelligence Publisher Invoicing Integration Is Enabled

If Oracle Business Intelligence Publisher (BI Publisher) invoicing integration is enabled, the **pin_inv_accts** utility fails for migrated accounts and an error is logged in the **cm.pinlog** file.

Workaround: Do the following before migrating the accounts:

1. Open the *BRM_home/sys/amt/data/create_generate_amt_metadata.sql* file in a text editor.
2. Search for the following lines:

```
ELSIF (column_r.column_name LIKE '%POID_LIST') THEN
--
-- operation: rewrite the POID_DB reference in %_POID_LIST fields
-- (i.e. account_t.next_item_poid_list, account_t.item_poid_list)
-- while preserving the null value
--
-- assumption: POID_DB reference is starts at character position 1 and the
format is 0.0.0.x
```

```
--
-- call custom Java stored procedure convert_poid_list()
--
select_column_list := select_column_list||
', convert_poid_list('||column_r.column_name||', #)';
dbms_output.put_line('replace list reference with dest_db_id');
```

3. Add the following lines after the ELSIF condition you searched for in step 2:

```
ELSIF (column_r.column_name LIKE '%OBJ_LIST') THEN
select_column_list := select_column_list||
', convert_poid_list('||column_r.column_name||', #)';
dbms_output.put_line('replace list reference with dest_db_id');
```

4. Save and close the file.
5. Run the **pin_amt_install.pl** script.
6. Stop and start the Data Manager (DM) and Connection Manager (CM) services.
7. Start migrating the accounts.

Refund Is Incorrectly Calculated When Remaining Charge Discount Canceled

On cancelling a remaining charge discount on a cycle forward arrears event, the refund amount is calculated incorrectly.

Currently, there is no workaround.

Sample Prepaid Service Life Cycle Does Not Support Provisioning of Telco Services

The sample prepaid service life cycle does not support provisioning of telco services.

Workaround: Enable the sample prepaid service life cycle to support the provisioning of telco services by adding the following state transition to that life cycle before associating the life cycle with a telco service type:

- **From state:** Preactive (ID 101)
- **To state:** Suspended (ID 107)

For information about adding state transitions to service life cycles, see the discussion about managing service life cycles in *BRM Managing Customers*.

The SLM Feature Does Not Support Account Billing Relationships

The SLM feature does not support the following account relationships, which enable customers to pay other customers' bills:

- Parent/nonpaying child hierarchies
- Owner/member charge sharing or discount sharing
- Owner/member sponsorship

If a service involved in such a relationship uses a custom life cycle, the SLM feature does not consider the condition of the parent/owner account when an event occurs that triggers a service state change in a child/member account.

For example, Service A uses the sample prepaid service life cycle. For that service, a parent account has a credit limit of 100 euros and its nonpaying child account has a credit limit of 0 euros. In both the parent and the child, the state of Service A is Active. After an account adjustment of 2 euros is applied to the child account, however, the state of Service A in the child account changes to Recharge Only, even though the parent account's available credit limit is still 100 euros.

Therefore, service types involved in account billing relationships must use the default service life cycle (Active, Inactive, Closed). They cannot use custom service life cycles.

Workaround: Customize the PCM_OP_BAL_POL_CHECK_LIFECYCLE_STATE policy opcode to consider the condition of parent/owner accounts when a service state change is triggered in child/member accounts.

See the discussion about managing service life cycles in *BRM Managing Customers* for more information.

Settlement Taxes Might Be Incorrectly Calculated

If you adjust only the tax amount in an event (by calling the PCM_OP_AR_EVENT_ADJUSTMENT opcode with the PIN_EVENT_ADJ_TAX_ONLY flag) and then dispute the item containing the event, the settlement tax is not calculated correctly; therefore the total due amount of the item is incorrect. The settlement is calculated correctly only when the denied amount is 0. This occurs with both real-time and deferred taxation.

Currently, there is no workaround.

stop_eai_js Does Not Work

When you run **stop_eai_js**, the script does not work and the following error message appears:

```
stop_eai_js: ERROR: no pid file.
```

Workaround: Do the following:

1. Open the *BRM_home/bin/stop_eai_js* file in a text editor.
2. Search for the following entry:

```
LOGDIR=$PIN_LOG/dm_eai
```
3. Change this entry to:

```
LOGDIR=$PIN_LOG/eai_js
```
4. Save and close the file.

Summary Invoices Do Not Show Real-Time Discount and Tax Details for Items

Summary invoices display data related to charges at the item level. Details of real-time taxes or real-time discounts are not displayed separately on summary invoices. The charges for the billable items include this data.

Workaround: To view these details on invoices, generate the invoices in one of the following ways:

- Use the detailed format.
- Customize the item assignment configuration to aggregate the discounts and taxes into their own separate items.

The invoices will contain separate lines for the discounts and taxes. For more information, see *BRM Designing and Generating Invoices*.

Tax Not Recalculated after Rerating

When you rerate the bill amount after rerating the changes, the tax amount is not recalculated.

Workaround: Manually adjust the tax amount.

Known Problems in Business Operations Center

This section describes known problems and workarounds for Business Operations Center 12.0.

There are no known problems in Business Operations Center 12.0.

Known Problems in Billing Care

This section describes known problems and workarounds for Business Operations Center 12.0.

Duplicate Login Request When Using Single Sign-On

When Single Sign-On (SSO) with Oracle Identity and Access Management Lifecycle Management is implemented for your Billing Care environment, users are redirected to the Billing Care login screen after authenticating in the SSO login screen.

Workaround: On each Oracle Platform Security Services (OPSS) JRF-enabled domain where Billing Care is deployed:

1. Comment out the **<variable-definition>** and **<module-override>** entries in the *Middleware_home/setup/Plan.xml* file as shown below, where *Middleware_home* is the WebLogic home directory on the OES Client domain host of the user who installed Billing Care.

```
<?xml version='1.0' encoding='UTF-8'?>
<deployment-plan xmlns="http://xmlns.oracle.com/weblogic/deployment-plan"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://xmlns.oracle.com/weblogic/deployment-plan http://
xmlns.oracle.com/weblogic/deployment-plan/1.0/deployment-plan.xsd" global-
variables="false">
```

```

<application-name>BillingCare.war</application-name>
<!--variable-definition>
  <variable>
    <name>CONFIG_SSL_REDIRECT</name>
    <value>CONFIDENTIAL</value>
  </variable>
</variable-definition>
<module-override>
  <module-name>BillingCare.war</module-name>
  <module-type>war</module-type>
  <module-descriptor external="true">
    <root-element>web-app</root-element>
    <uri>WEB-INF/web.xml</uri>
    <variable-assignment>
      <name>CONFIG_SSL_REDIRECT</name>
      <xpath>/web-app/security-constraint/user-data-constraint/
transport-guarantee</xpath>
    </variable-assignment>
  </module-descriptor>
</module-override> -->
</deployment-plan>

```

2. Restart the domain.

Firefox and Internet Explorer Fail to Connect Securely to Billing Care

The **Plan.xml** file deployed by the Billing Care Oracle Universal Installer enables mandatory use of an SSL-enabled port when connecting with all browsers. Firefox and Internet Explorer may fail to connect to Billing Care, producing a secure connection failure error.

Workaround: For Firefox, no workaround exists. For Internet Explorer, start a Command Prompt session with administrative rights, and run the following command before launching Internet Explorer:

```
certutil -setreg chain\EnableWeakSignatureFlags 8
```

Known Problems in PDC

This section describes known problems and workarounds for PDC 12.0.

PDC Search Functionality Not Working As Expected

Basic Search

When you perform a basic search in the PDC user interface, clicking a search result does not open it.

Workaround: Double-click a search result to open it.

Advanced Search

If you are using Internet Explorer 11 on Windows 10, the search results do not appear as expected when you perform an Advanced search in the PDC user interface.

Workaround: Use Mozilla Firefox on Windows 10 or use Internet Explorer 11 on Windows 8.1 to perform Advanced search in the PDC user interface.

Migrating Pricing Data Fails in a PDC System with BRE and RRE

When the zone result validity period set in a zone model exceeds the validity period set for the associated rate plan, migration fails with an validation error.

Workaround: Modify the zone result validity in BRM to ensure that the zone result validity overlaps or falls within the associated rate plan validity.

Adding Balance Groups and Setting Credit Limits in a Package Displays Exceptions

Setting Credit Limits Exception

In the Balance Groups section of the Create Package page, when you set the credit limit for a balance element and save it, the changes are saved successfully but PDC displays an exception.

Workaround: Navigate to any other section in the Create Package page and save the changes to avoid exceptions.

Adding Balance Groups Exception

When you add another balance group immediately after setting the credit limit for a balance element, the balance group is created successfully but PDC displays an exception instead of displaying the newly created balance group.

Workaround: Click the existing balance group to view the newly created balance group.

Migration Fails Even When the Migration Process is Enabled to Skip Errors

During migration, when a critical error is encountered while migrating a discount filter or a discount trigger, migration fails with errors even when the migration process is enabled to skip errors and continue migration.

Workaround: Manually fix the errors encountered during migration and restart the migration process.

You Are Not Warned to Save Your Changes

After modifying a setup or pricing component, you are not warned that you have unsaved changes when you do the following:

- Close the tab
- Log out of PDC

If you perform any of the above actions before saving your changes, the changes are lost.

Workaround: Save your changes before closing a tab or logging out of PDC.

Known Problems in PCC

This section describes known problems and workarounds for PCC 12.0.

There are no known problems in PCC 12.0.

Unsupported BRM Components

The following table lists the components that are no longer supported in BRM 12.0:

Component	Description
Brand Manager	BRM no longer supports Brand Manager for creating new brands.
Collections Center	BRM no longer supports Collections Center. You must now use Billing Care instead for collections or debt management tasks handled by Collections Center. For more information, see Billing Care Online Help.
Configuration Center	BRM no longer supports Configuration Center.
Content SDK	BRM no longer supports Content SDK and the AAA Opcodes associated with Content Manager. You must now use Oracle Communications Billing and Revenue Management Elastic Charging Engine (ECE) instead for authentication, authorization, and accounting (AAA) functions. For more information, see <i>ECE Implementation Guide</i> .
Customer Center	BRM no longer supports Customer Center (including Customer Center SDK and GSM Manager Customer Center Extension). You must now use Billing Care instead for customer management tasks. For more information, see Billing Care Online Help.
Email Manager	BRM no longer supports Email Manager to integrate BRM with the UNIX sendmail mail transfer agent and provide real-time authorization of incoming mail messages.
Field Validation Editor	BRM no longer supports Field Validation Editor to define how to validate customer data.
French Direct Debit	BRM no longer supports French Direct Debit payment processing.
GPRS AAA Manager	BRM no longer supports GPRS AAA Manager. You must now use ECE instead for processing AAA requests for BRM services. For more information, see <i>ECE Implementation Guide</i> .
GSM AAA Manager	BRM no longer supports GSM AAA Manager. You must now use ECE instead for processing AAA requests for BRM services. For more information, see <i>ECE Implementation Guide</i> .

Component	Description
IMDB Cache Manager	BRM no longer supports IMDB Cache Manager (dm_tt), which was an in-memory database for caching only performance-critical data from the BRM database.
IMT Manager	BRM no longer supports IMT Manager to rate IMT (International Mobile Telecommunications) and PDC (Personal Digital Cellular) services.
Node Manager	BRM no longer supports Node Manager (nmgr), which was used to manage a BRM Server on a single node.
Payment Center	BRM no longer supports Payment Center. You must now use Billing Care instead for payment management tasks. For more information, see Billing Care Online Help.
Payment Tool	BRM no longer supports Payment Tool. You must now use Billing Care instead for processing payments. For more information, see Billing Care Online Help.
PCM SDK	PCM SDK is a part of BRM SDK now and it is installed along with the BRM server. You cannot install PCM SDK independent of the BRM server.
pin_amt_tt	BRM no longer supports the pin_amt_tt utility, which migrated accounts from one logical partition to another logical partition in the same Oracle IMDB Cache grid.
Pricing Center	BRM no longer supports Pricing Center. You must now use Pricing Design Center instead for creating product offerings for BRM. For more information, see <i>PDC Creating Product Offerings</i> .
RADIUS Manager	BRM no longer supports the legacy RADIUS Manager. You must now use ECE RADIUS Gateway instead for AAA tasks. For more information, see <i>ECE Implementation Guide</i> .
Resource Reservation Manager	BRM no longer supports Resource Reservation Manager. You must now use ECE to reserve customer account balance resources in advance of a network session. For more information, see <i>ECE Implementation Guide</i> .
Services Framework AAA Manager	BRM no longer supports Services Framework AAA Manager. You must now use ECE instead for processing AAA requests for BRM services. For more information, see <i>ECE Implementation Guide</i> .
SNMP utilities	BRM no longer supports SNMP utilities to monitor pipeline processes.
System Manager	BRM no longer supports System Manager (infmgr), which allowed you to check or manage BRM servers.
Taxware Manager	BRM no longer supports tax calculation with Taxware.
ThirdParty	BRM server software pack no longer includes the ThirdParty package. You must install or download the required third-party libraries and software. For more information, see <i>BRM Installation Guide</i> .

Component	Description
Vertex Quantum Manager	BRM no longer supports Vertex Quantum Manager to integrate BRM with the Vertex Sales Tax Q Series software.
Voucher Manager	BRM supports Voucher Manager to track vouchers only if you already have it installed. If you are installing BRM for the first time, you must use Oracle Communications Convergent Charging Controller Voucher Management Server instead to track the contents and attributes of a voucher.

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