Oracle® Enterprise Communications Broker

Release Notes

Release P-CZ3.2.0
F29514-08
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Oracle Enterprise Communications Broker Release Notes, Release P-CZ3.2.0

F29514-08

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About This Guide

The Oracle Enterprise Communications Broker (ECB) Release Notes provides the following information about the ECB hardware and software.

- Specifications and requirements
- Upgrades and downgrades
- New features and enhancements
- Known issues, caveats, and limitations

Documentation Set

The following table describes the documentation set for the OECB.

Document Name	Document Description
Release Notes	Contains information about the current release, including specifications, requirements, new features, enhancements, inherited features, known issues, caveats, and limitations.
Administrator's Guide	Describes how to deploy the system.
User's Guide	Describes how to configure SIP signaling management and how to tailor the system to specific needs.
Help system	Contains task-oriented topics for configuring, administering, maintaining, and troubleshooting the ECB hardware and software.
SBC Family Security Guide	Provides information about security considerations and best practices from a network and application security perspective for the Session Border Controller family of products.

Related Documentation

The following table describes related documentation for the OECB.

Document Name	Document Description
Installation and Platform Preparation Guide	Contains conceptual and procedural information for system provisioning, software installations, and upgrades.

Revision History

The following table lists changes to this document and the corresponding dates of publication.

Date	Description
November 2019	• Initial Release
January 2020	• Adds "Web GUI Changes in P-CZ3.2.0p1" and updates "GUI Limitations" to coincide with the P-CZ3.2.0p1 release.
January 2021	• Updates the Known Issues table for P-CZ3.2.0p5.
April 2021	• Updates the following sections for P-CZ3.2.0p6: – Known Issues – Caveats – GUI Limitations and Deviations from Former GUI
August 2021	• Adds P-CZ3.2.0p7 GUI Updates and Limitations. • Updates Known Issues for P-CZ3.2.0p7.
October 2021	• Adds Resolved Known Issues and moves all resolved Known Issues from the open table to the resolved table. • Updates Known Issues for P-CZ3.2.0p7.
April 2022	• Updates for PCz-3.2.0p10.

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 (CAS) can assist you with My Oracle Support registration.

Call the CAS 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 call 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.

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 sub-header, click the **Oracle Communications documentation** link.
   The Communications Documentation page appears. Most products covered by these documentation sets appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click on your Product and then 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.

1

Specifications and Requirements

Oracle recommends that you review the following information before installing the software.

Supported Platforms

Platforms

- Netra X3-2 — Ships with the Operating System and software installed.
- Netra X5-2 — Ships with the Operating System and software installed.
- Netra X7-2 — You must install the Operating System and software from a USB memory device.
- Netra X8-2 — You must install the Operating System and software from a USB memory device.
- Go to My Oracle Support (MOS) at https://support.oracle.com to download the Operating System and software. See "Download Software from MOS."
- See the Software Installation information in the *Oracle Enterprise Session Border Controller Installation and Platform Preparation Guide* on https://docs.oracle.com/cd/E95619_01/index.htm for installation instructions.

Image and Boot Loader Files

The PCZ3.2.0 release uses the following image and boot loader files:

- Image—nnPCZ320.bz
- Boot loader—nnPCZ320.boot

Cores and Threads

The following list shows the recommended number of cores and the expected number of SIP threads per platform. Note that the number of SIP threads may vary, depending on the configuration of your deployment.

- VM—Recommended 8 cores. Yields 3 SIP threads.
- Oracle Servers X3-2, X5-2, X7-2, and X8-2—Recommended 16 cores. Yields 9 SIP threads.

Memory

Oracle recommends at least 16G memory for all P-Cz3.2.0 deployments.

While the above presents standard recommendations, optimum vSBC resource sizing depends individual deployments. Oracle recommends that you work with consulting and/or sales teams to determine the best sizing for your deployment.

Browser Requirements

The P-CZ3.2.0 version of the Oracle Enterprise Communications Broker supports the following browser versions for navigating and configuring the GUI:

Google Chrome (Recommended)—77.0.3865.120 and above

Download Software from MOS

When you want to get a software release or a patch from Oracle, go to My Oracle Support (MOS) and download it to your system or to a USB memory device.

- Establish an account with My Oracle Support.

The following procedure requires you to enter your MOS credentials to log on.

1. Go to https://support.oracle.com and log on.
2. Click the **Patches & Updates** tab.
3. On the Patch Search pane, click the **Search** tab.
4. On the Search dialog, do the following:
   a. Product is—Select a product from the drop-down list.
   b. Release is—Select a release from the drop-down list.
5. Click **Search**.
6. On the Patch Advanced Search Results page, click the patch that you want.

   The system displays information about the patch, and a dialog where you can open the Read Me file and download the software.
7. In the dialog, do the following:
   - Read Me—Click to see the build notes.
   - Download—Click to download the software.
8. Log off.

Platform Boot Loaders

The Oracle Enterprise Communications Broker (OECB) platforms require a boot loader to load the operating system and software.

All ECB platforms require that the boot loader and the software image match per release. For example, if the software image filename is nnPCZ320.bz, use the corresponding boot loader file named nnPCZ320.boot.

You must install the boot loader file as /boot/bootloader on the target system. When you plan to upgrade the system image, upgrade the boot loader before booting the new system image.

Upgrade Paths

The following in-service (hitless) upgrade and rollback paths are supported by both the OECB:

- PCZ3.0.0 to PCZ3.2.0
- PCZ3.1.0 to PCZ3.2.0

Upgrade earlier versions to PCZ3.0.0 before upgrading to PCZ3.2.0. All paths require that you meet recommended resource requirements before you upgrade.

When upgrading to this release from a release older than the previous release, read all intermediate Release Notes documents for notification of incremental changes.

Schema Changes

The Oracle Enterprise Communications Broker (OECB) requires the PCZ3.2.0 configuration schema to support creating multiple VLANS. You must upgrade the configuration schema after you upgrade the software.

After upgrading the software to PCZ3.2.0, the system prompts you to upgrade the configuration schema the first time you log on. The configuration upgrade creates a network called "ecb" and a SIP interface with the Realm ID set to "ecb." The upgrade also exposes the Realm ID parameter in the session agent, SIP interface, LDAP, and ENUM configurations. The configuration upgrade defaults all Realm IDs to "ecb" for existing configuration elements. After the system creates the "ecb" network and adds Realm ID parameter, you can add up to four VLANs. You can set the Realm ID, as needed, in the newly added VLANs.

The updated schema makes the following changes to the GUI to support configuring multiple VLANs.

LDAP Configuration

PCZ3.2.0 exposes the RealmID parameter in the LDAP configuration. The configuration upgrade sets Realm ID to "ecb" for existing LDAP configurations.

> **Note:**
>
> Only the "ecb" realm can support LDAP.

ENUM Configuration

PCZ3.2.0 exposes the RealmID parameter in the ENUM configuration. The configuration upgrade sets Realm ID to "ecb" for existing ENUM configurations. You can set the Realm ID, as needed, for newly added VLANs.

SPL Support

The Oracle Enterprise Communications Broker supports the following Session Plug-in Language (SPL) engines.

- C2.0.0
- C.2.0.1
- C2.0.2
- C2.0.9
- C2.1.0
- C3.0.0
- C3.0.1
- C3.0.2
- C3.0.3
- C3.0.4
- C3.0.5
- C3.0.7
- P1.0.0
- P1.0.1

TLS Cipher Updates

Note the following changes to the DEFAULT cipher list.

Oracle recommends the following ciphers, and includes them in the DEFAULT cipher list:

- TLS_DHE_RSA_WITH_AES_256_GCM_SHA384
- TLS_DHE_RSA_WITH_AES_256_CBC_SHA256
- TLS_DHE_RSA_WITH_AES_128_GCM_SHA256
- TLS_DHE_RSA_WITH_AES_128_CBC_SHA256
- TLS_RSA_WITH_AES_256_CBC_SHA256
- TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256

The following ciphers have been added and included in the DEFAULT cipher list in CZ810m1p6:

- TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
- TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
- TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384
- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256

Oracle supports the following ciphers, but does not include them in the DEFAULT cipher list:

- TLS_RSA_WITH_AES_256_GCM_SHA384
- TLS_RSA_WITH_AES_128_GCM_SHA256
- TLS_RSA_WITH_AES_128_CBC_SHA
- TLS_RSA_WITH_3DES_EDE_CBC_SHA

Oracle supports the following ciphers for debugging purposes only:

- TLS_RSA_WITH_NULL_SHA256 (debug only)
- TLS_RSA_WITH_NULL_SHA (debug only)
- TLS_RSA_WITH_NULL_MD5 (debug only)

Oracle supports the following ciphers, but considers them not secure. They are not included in the DEFAULT cipher-list, but they are included when you set the **cipher-list** attribute to **ALL**. Note that they trigger **verify-config** error messages.

- TLS_DHE_RSA_WITH_AES_256_CBC_SHA
- TLS_RSA_WITH_AES_256_CBC_SHA
- TLS_DHE_RSA_WITH_AES_128_CBC_SHA
- TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA

To configure TLS ciphers, use the **cipher-list** attribute in the **tls-profile** configuration element.

> **WARNING:**
>
> When you set **tls-version** to either **tlsv1** or **tlsv11** and you want to use ciphers that Oracle considers not secure, you must manually add them to the **cipher-list** attribute.

Documentation Changes

The following information lists and describes the changes made to the Enterprise Communications Broker documentation set for release 3.2

Accessibility Features

An Accessibility Features section has been added to "Getting Started" in the User's Guide.

2
New Features

The PCZ3.2.0 release delivers the following enhancements and new features to improve the functionality, look, and behavior of the Oracle Enterprise Communications Broker (OECB) software.

Support for an Increased Number of User Database Entries

As of PCZ3.2.0, the OECB User Database can contain up to one million entries.

Support for Call Admission Control and Access Control Lists

To improve security, you can restrict connections to the OECB with an access control list that limits access to peer nodes and management. The OECB also supports Admission Control for SIP session agents. Access Control determines which devices and agents can gain access and Call Admission Control determines where they can go in your network. When you enable the associated SNMP Trap Monitor, the OECB sends a trap message when a forbidden device or agent triggers the deny list. The OECB also works against Distributed Denial of Service (DDoS) attacks with configurable overload protection. See the "Admission Control" chapter in the *User Guide*.

Support for Paginating the Display of User Database Entries

Prior to PCZ3.2.0 the OECB displayed the User Database entries in a single, continuous list that required you to scroll through the listings with no page breaks. In the PCZ3.2.0 release, you can set the OECB to display the list in pages of 50, 100, or 200 entries. You can set the page display with the **Records per Page** control, located at the bottom right-hand corner of the Users table. See "Configure a User Entry" in the *User Guide*.

Support for REST APIs

Version 1.1 of the REST API adds support for OECB P-Cz3.2.0. See *REST API for Enterprise Communications Broker Release 3.2*(REST API) for full standardized REST documentation.

Support for the Oracle X8-2 Server

The OECB supports the Oracle X8-2 server, factory-configured as follows.

- One 24-core 2.4 GHz processor
- One 64 GB Load Reduced Dual In-line Memory Module
- One 1.2TB 10,000 RPM 2.5" Serial Attached Small Computer System Interface Hard Disk Drive with mounting bracket
- One 800 GB Serial Attached Small Computer System Interface Solid State Drive with mounting bracket

See "Oracle Server X8-2 Platform Preparation" in the *Administrator's Guide*.

Web GUI Display and Behavioral Changes

The GUI offered with PCZ3.2.0 presents major changes the previous GUI. See "Web GUI Changes" in the *Release Notes* for a centralized description of the changes, and the Oracle Enterprise Communications Broker *Administrator's Guide* and *User's Guide* for updated documentation on these changes.

Web GUI display and behavior changes do not change the behavior of service operation or any other system features.

Review the GUI Limitations section for a summary of changes to expect.

3
Web GUI Changes

The PCZ2.3.0 release changes the look, and some of the behavior, of the Web GUI to better align with Oracle's current styles and standards. Although most of the navigation and operations remain the same, some differences occur in the location and design of the controls you use to access and manipulate the objects on the Web GUI. The following information describes the new controls, operations, and behavior of the Web GUI.

Latency Recommendation

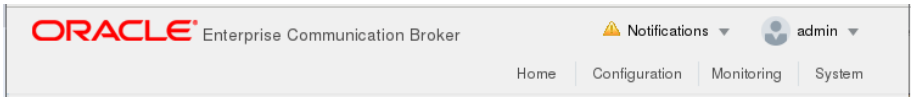
Oracle recommends the following guidelines for GUI operation:

- Ensure latency between your laptop browser and the OCECB server does not exceed 10ms for optimum performance of the GUI.
- Clear your browser cache (Ctrl -F5) or press-F5 after load of login page after an upgrade to ensure the system properly applies GUI changes.

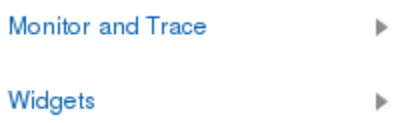
Cache Clearance Recommendation

Branding Bar

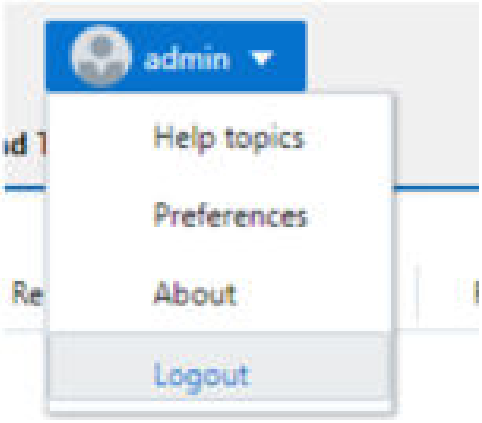
The branding bar now displays four tabs, instead of five, and the user menu adds the Preferences item. The following screen capture shows the new branding bar, displaying the Home, Configuration, Monitoring, and System tabs.



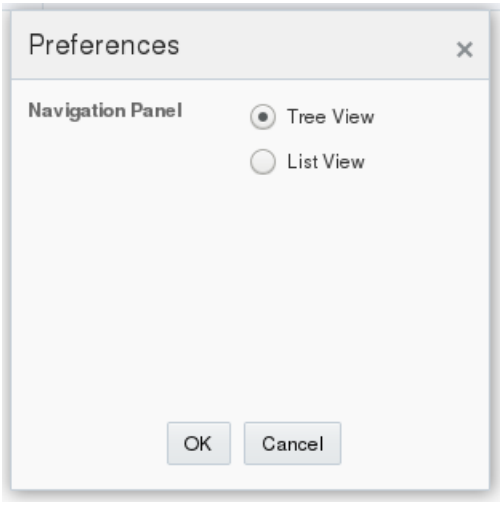
- **Widgets tab**—The former Widgets tab is removed, and its contents now display on the Monitoring tab under Widgets.
- **Monitoring tab**—Formerly named Monitor and Trace, the Monitoring tab now includes the functionality of the former Widgets tab as well as the pre-existing Monitor and Trace functions. The following screen capture shows the Monitoring tab with links to Monitor and Trace and Widgets.



- **User Menu**—Changes include the removal of the Screen Help link and the addition of the Preferences link, which displays a dialog where you can set the view of the navigation pane.
  The following screen capture shows the new User menu.

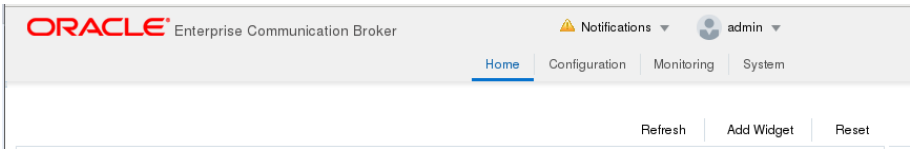


The following screen capture shows the new Preferences dialog, where you can choose either the Tree View (categorical) or the List View (alphabetical) for the objects in the navigation pane.



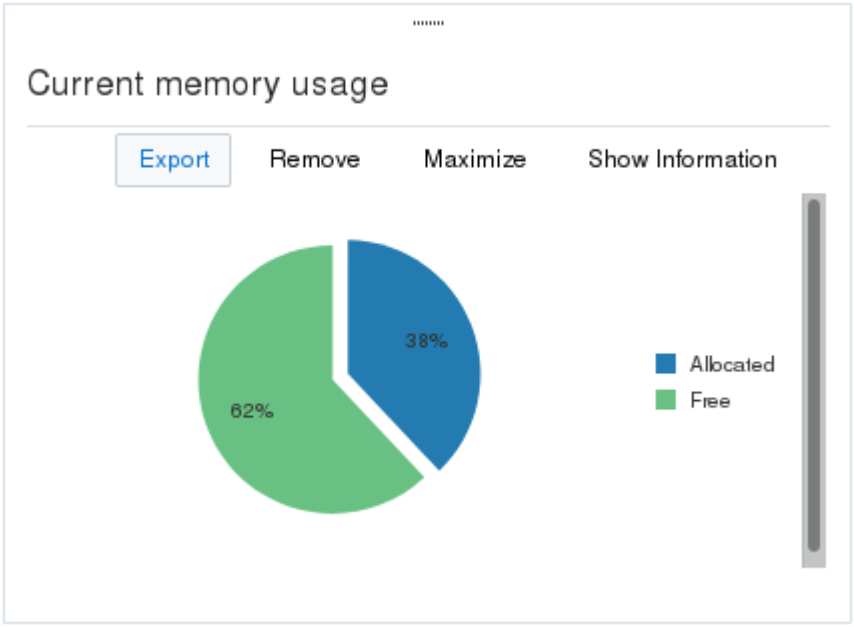
Home Tab

- General Widget Controls—The Refresh, Add Widget, and Reset controls now display all together in the upper right side of the Home page, as shown in the following screen capture.



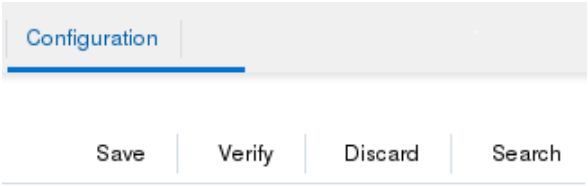
- Specific Widget Controls—As before, each Widget displays the operational controls related to its purpose. The controls now display as text, rather than as icons. When you hover over the text, it becomes a button that you click. For example, in the following screen capture, **Export** is shown as a button upon hover

and the other controls are shown as static text before hover.

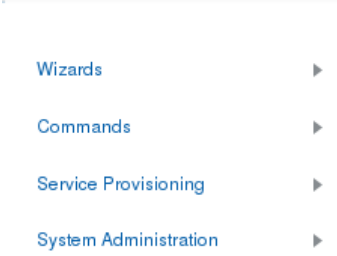


Configuration Tab

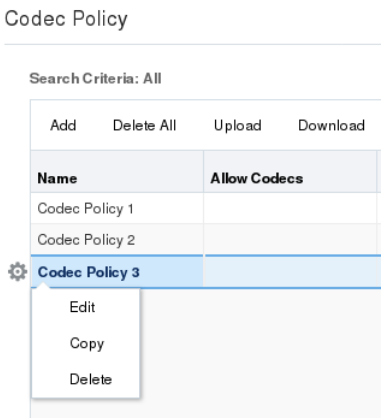
- Center pane header—Now displays only the Save, Verify (new), Discard, and Search controls. The Wizards and Commands controls now display in the navigation pane, rather than in the page header.



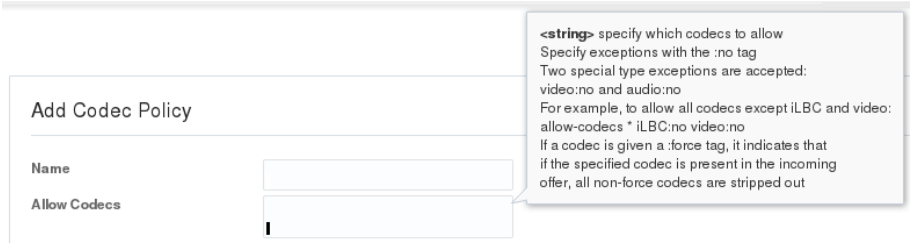
- Verify control—New. Lets you confirm that a configuration is valid before you save the changes. Displays a results report, including error messages and their severity.
- Navigation pane—Displays the Wizards and Commands controls, along with the Service Provisioning and System Administration configuration objects. From Preferences in the User menu, you can set the display to show the configuration objects in either the tree view (categorical) or the list view (alphabetical). The following screen capture shows the tree view.



- Edit, Copy, and Delete—The controls that you use to manage a row in a multi-instance configuration table are now listed in an context menu that displays when you right-click a row, as shown in the following screen capture.



- Tool Tips—You no longer need to hover over the field label to see the Tool Tip. The Tool Tip now displays as soon as you put the cursor in a field.

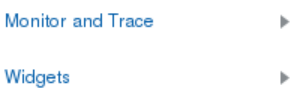


Limitations:

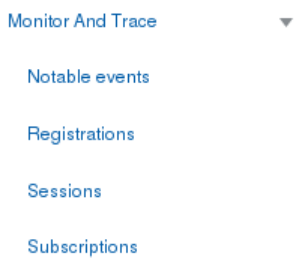
- Re-clicking the tab or configuration object that is currently displayed does not refresh the page.
- The Web GUI no longer displays the Discard Configuration confirmation dialog when you change tabs without saving the configuration.

Monitoring Tab

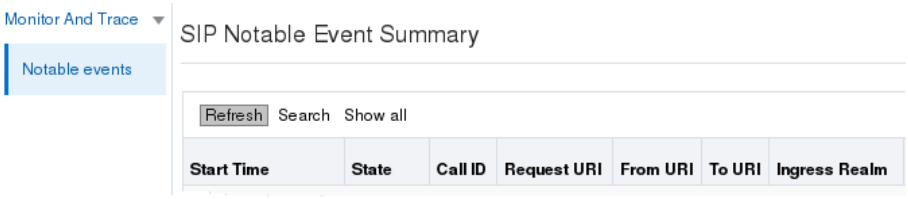
Navigation pane—Displays links to the Monitor and Trace summaries and the Widgets list.



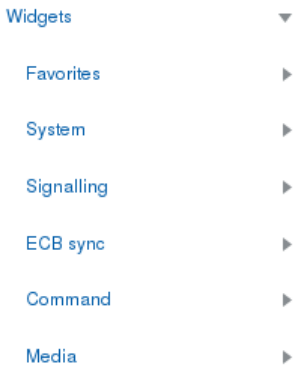
- Monitor and Trace—Click the arrow to expand the view to display links to the following summaries.



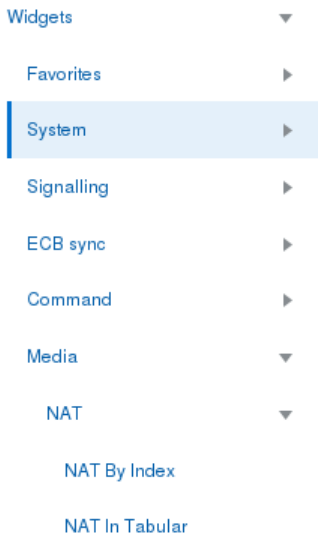
Summary Report—Click the link and the system displays the report with its corresponding controls displayed in text across the top of the summary. When you hover over the text, it becomes a button that you click. For example, in the following screen capture, **Refresh** is shown as a button upon hover and the other controls are shown as static text before hover.



- Widgets—Click the arrow to display links to the categories of widgets.



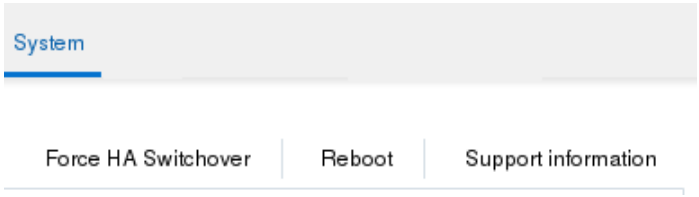
Click a category arrow to display links to the corresponding widgets. The following screen capture shows the Media category expanded to show the NAT object.



Click a Widget link and the system displays the widget with its corresponding controls displayed in text across the top of the widget. When you hover over the text, it becomes an active button.

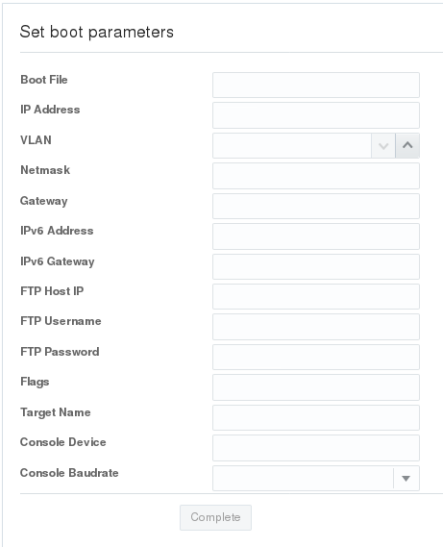
System Tab

- Center pane header—The Force HA Switchover, Reboot, and Support Information links move from the navigation pane to the center pane header, where they become active buttons upon hover.

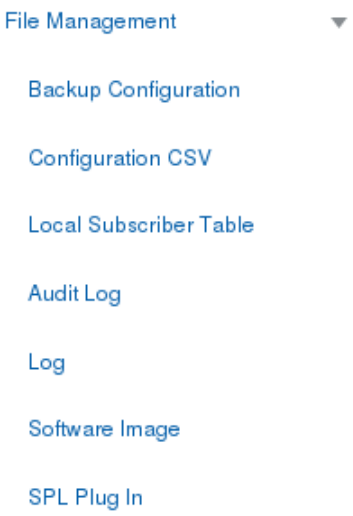


- Navigation pane—The File Management and Upgrade Software links remain in the navigation pane, which now includes the Set Boot Parameters link.

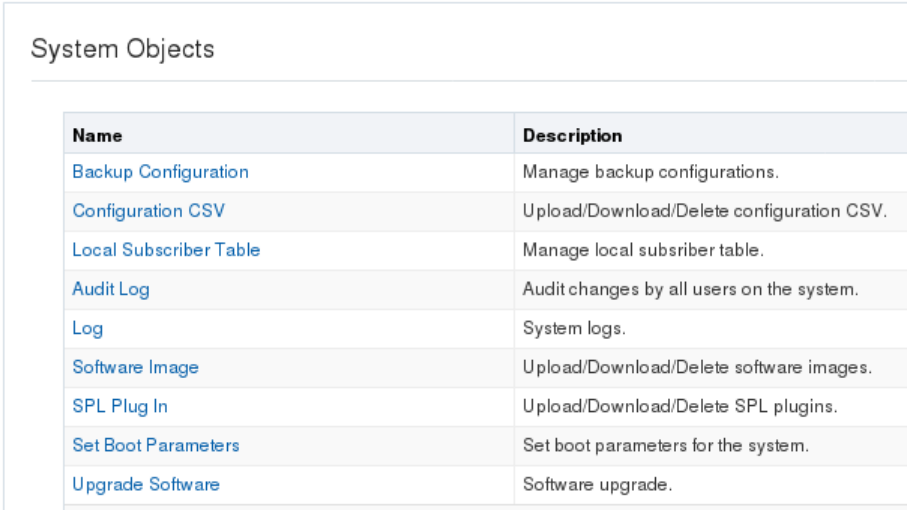
- Set Boot Parameters displays the following configuration dialog.



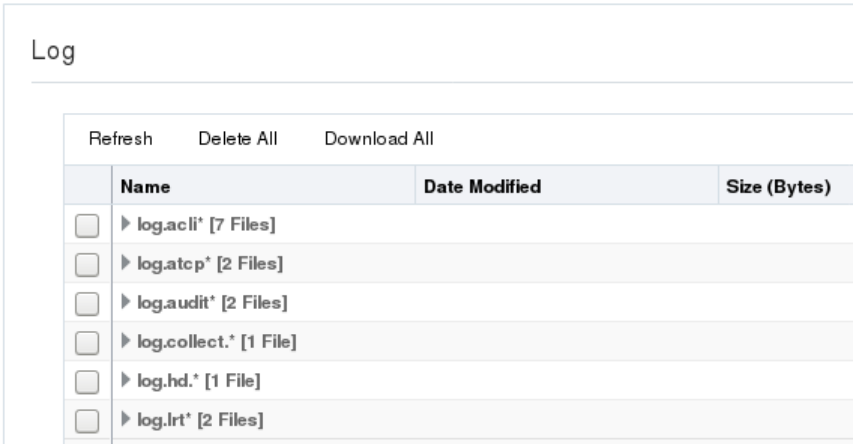
- The File Type drop down list is removed. Use the arrow control by File Management to display the File Types.



- Center pane—When you first land on the System page, the center pane displays an alphabetical list of links to the System objects.



Click a link to display the object. For example, click Log to display the Log table.



4

Web GUI Changes in P-CZ3.2.0

The following information describes the new controls, operations, and behavior of the Web GUI as of P-CZ3.2.0p1.

- Modification to "Latency Recommendation"—As of P-CZ3.2.0, a cache is not created in the browser. After upgrading from P-CZ3.2.0 GA to P-CZ3.2.0p1, you must manually clear the cache from your browser.
- The Branding bar has a slightly different look, however, the buttons and functionality remain the same.
- The **Monitoring** tab has been renamed **Monitor and Trace**.
- In the User menu, under **admin**, **Sign Out** has been renamed **Logout**.
- The Alarms Widget now provides a way to clear specific alarms.
- The Dashboard renders a better presentation of a maximized Widgets screen.
- The Policy Entries page no longer contains erroneous check boxes.
- All pages under the **Configuration** tab's Wizards page now have a **Cancel** button.
- The search functionality for all four options under the **Monitor and Trace** tab now include **username=user**.

5

P-Cz3.2.0p7 Web GUI Changes

The P-Cz3.2.0p7 release changes the look, and some of the behavior, of the Web GUI to better align with Oracle's current styles and standards. Although most of the navigation and operations remain the same, some differences occur in the location and design of the controls you use to access and manipulate the objects on the Web GUI. The following information describes the new controls, operations, and behavior of the Web GUI.

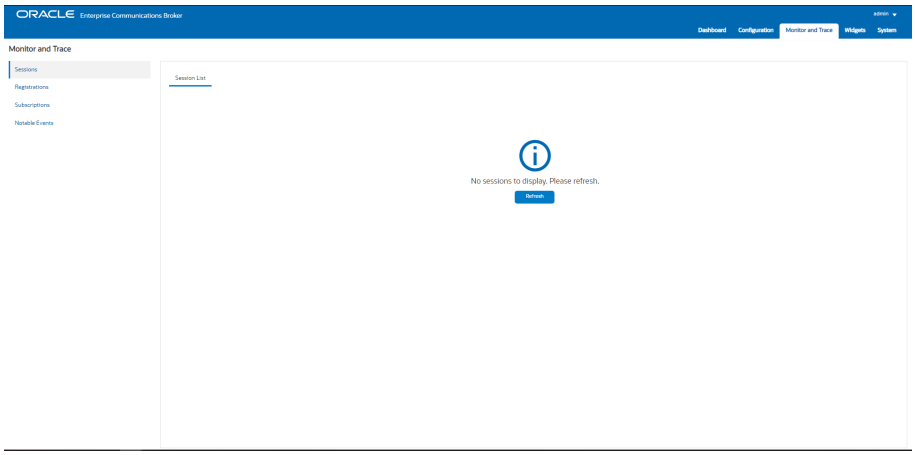
New Web GUI Behavior

Each part of the Web GUI received updates for the P-CZ3.2.0 release. The following information describes the visual and operational changes to the header and each tab. Note that the Branding bar has a slightly different look, however, the buttons and functionality remains the same.

Oracle Header

The header displays five tabs and the User Menu removes the Preferences item. The following screen capture shows the new header, displaying the Dashboard, Configuration, Monitor and Trace, Widgets and System tabs.

- **Monitor and Trace tab**—When you click the Monitor and Trace tab, the Web GUI displays navigation in the left pane and the SIP Sessions Summary page in the center pane. The following screen capture shows the Monitor and Trace tab landing page.

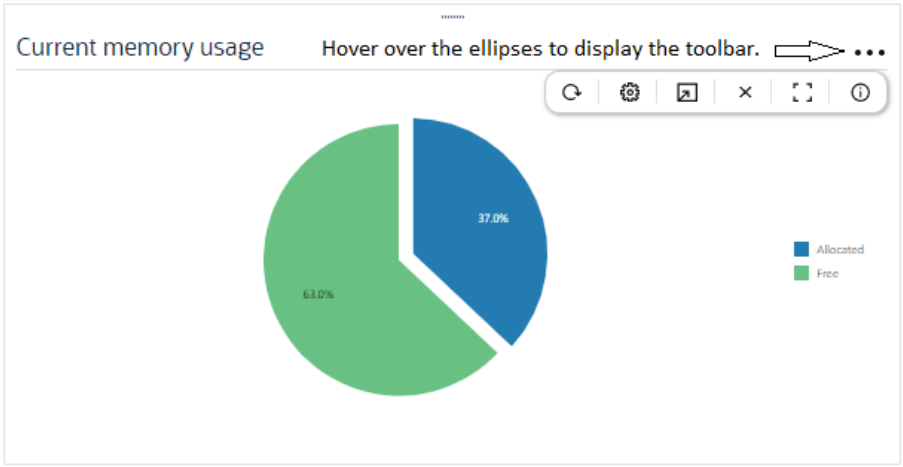


- **User Menu**—No longer includes the Screen Help link.

Dashboard Tab

- Dashboard Controls—The Refresh and Reset controls now display all together in the upper left side of the Dashboard page, as shown in the following screen capture. The Add Widget button appears in the upper right side.

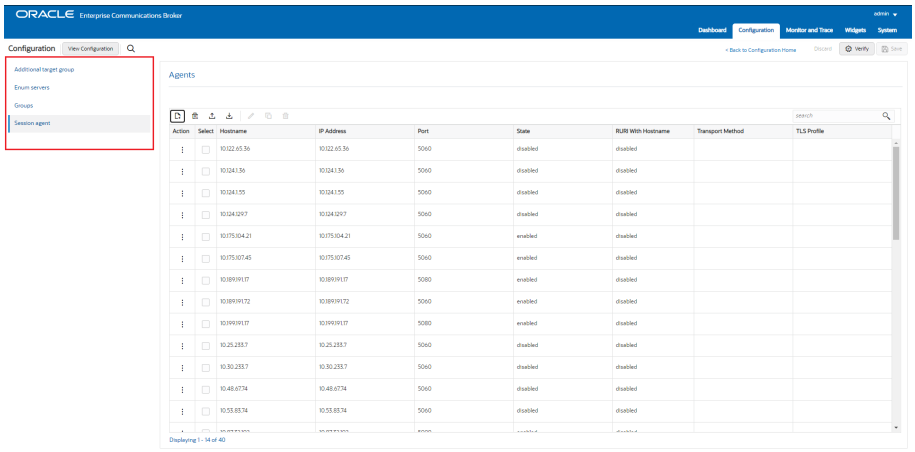
- Widget Controls—As before, each Widget contains the operational controls related to its purpose. The controls now display as icons in a tool bar when you hover over the three ellipses in top right corner of the Widget.



Configuration Tab

- Center pane header—Now displays only the Save, Verify, Discard, and Search controls. The save, discard, verify buttons are on the right side, identified with icons. Search is on the left side, identified by an icon and a text box. The Wizard tab is moved to within the system tab. The Commands button is changed to the View Configuration button.

- Navigation pane—Displays icon buttons with text that take you to the labeled configuration categories. The following screen capture shows the Navigation pane under the Session Agent configuration icon. When you are within individual configuration dialogs, the GUI includes the **Back to Navigation** button, which you click to return to the initial configuration tab display.

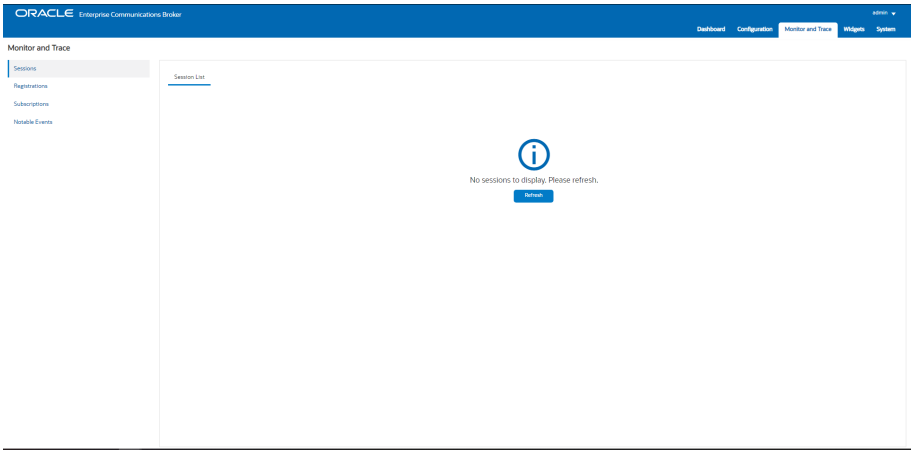


The Web GUI no longer displays the Discard Configuration confirmation dialog when you change tabs without saving the configuration. The system retains changes for when you return to the dialog, providing more flexibility with navigation while making, changing and saving configurations.

> **Note:**
>
> Re-clicking the tab or configuration object that is currently displayed does not refresh the page.

Monitor and Trace Tab

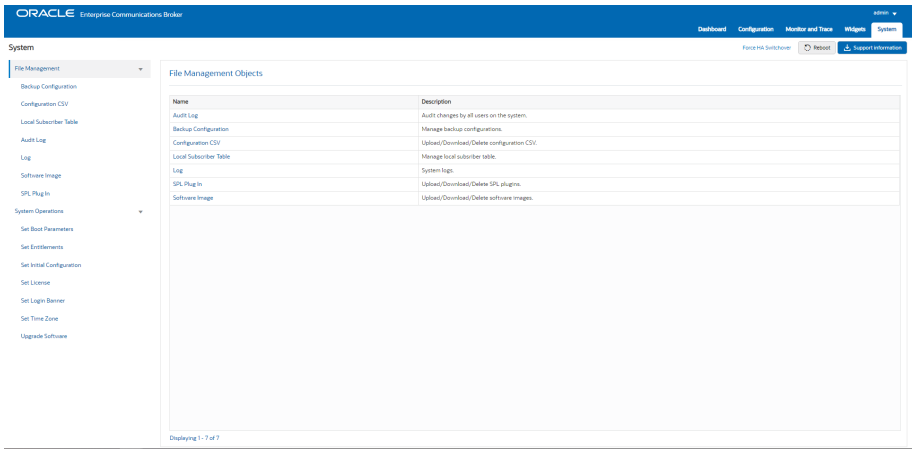
Navigation pane—Displays links to the Monitor and Trace summaries.



System Tab

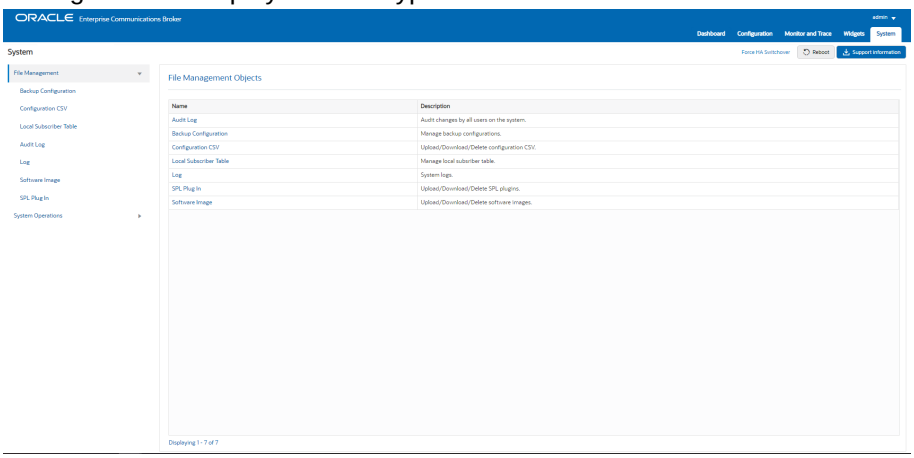
- Page header—The Force HA Switchover link is towards the right hand side of the toolbar, followed by the Reboot button and the Support Information buttons.

- Navigation pane—All functions formerly known as Wizards are moved to the System Operations link on the System tab.



– Set Boot Parameters link now within the System Operations group on the System tab.

– The File Type drop down list is removed. Use the arrow control by File Management to display the File Types.



For more information about the following enhancements, see the topics cited for each one in the applicable OECB documentation .

- SIP Sessions Widget—The **SIP Sessions All** option for this widget is removed.
- Drop-down lists in configuration dialogs—All configuration parameters that support lists of possible values now display a drop-down list of the values rather than a blank field where you previously had to type the value. The system populates some drop-down lists, and you can populate others with the entries you prefer. See “Drop-Down Lists” in the "Configuration Dialogs Behavior" topic.
- Configuration Options fields—Options fields in configuration dialogs allow you use selected delimiters between options.(commas, semi-colons, full stops, and parens) See "Options Fields" in the "Configuration Dialogs Behavior" topic.
- Infinite pagination for lists—You can scroll continuously through lists, rather than having to click through them page-by-page. The display provides a counter to help you keep oriented. See "Monitor and Trace" and "Configuration Tab Display".
- Context persistence—In certain situations, you can switch from one tab to another and find the data on the first tab displayed as it was when you return. See "Unsaved Changes Persistence", "Configuration Tab Buttons", and "Ladder Diagrams and Display Controls".

- Monitor and Trace ladder diagrams—The Monitor and Trace tab allows you open multiple ladder diagrams and switch back-and-forth among them. Also, you can open a ladder diagram, switch away to view something else (such as another tab), and return to find the ladder diagram displaying as it was before you switched away. See “Ladder Diagrams and Display Controls”, “Ladder Diagram Buttons”, and “Display a Ladder Diagram”.
- Multi-row select actions—You can select multiple rows in a table for certain actions. See “Controls for Managing Configuration Lists”, “Display a Ladder Diagram”, “Ladder Diagrams”, “Display Controls”, and “Monitor and Trace”.
- File upload—The system allows only the parens, full stop, and space characters in the names of files that you want to upload. The system verifies the syntax before allowing the upload and displays an error message when the syntax is incorrect. See "System File Management Types and Descriptions".

6
Caveats, Known Issues, and Limitations

Oracle provides behavioral information that you need to know about the release in the form of caveats, known issues, and limitations. A caveat describes behavior that you might not expect, and explains why the system works in a certain way. A known issue describes temporarily incorrect or malfunctioning behavior, and often includes a workaround that you can use until Oracle corrects the behavior. A limitation describes a functional boundary or exclusion that might affect your deployment.

Caveats

The following items describe caveats in the P-CZ3.2.0 release.

Default Subnet

After an upgrade, default subnet value overrides a manually configured value. Access the config file and update the value manually again.

HA Limitation

HA switchover causes TCP/TLS ports to be reset. This terminates the TCP/TLS calls that were in progress on the formerly active OECB. New call setup over TCP/TLS, however, is successful.

Logging Limitation

Setting Logging to DEBUG simultaneously with greater than 300k degrades system performance. Be sure to set Logging to WARNING or NOTICE under this condition, and only use DEBUG when absolutely required.

Console Access on the Oracle X7-2 and X8-2 Servers

"The Oracle X7-2 and X8-2 servers do not support the OECB (OESBC)) when its "Console Device" bootparameter is set to VGA. This setting prevents the device from booting. Note that this is the default setting, requiring you to change it whenever deploying over these platforms.

Workaround: Set your "Console Device" bootparameter to "COM1" when deploying your device over Oracle X7-2 and X8-2 servers. Do this by interrupting the boot process as documented in the section "Change Boot Parameters by Interrupting a Boot in Progress" within the *Installation and Platform Preparation Guide*. This section explains how to proceed when you see the following comment during the boot process.

```
Press the space bar to stop auto-boot ...
```

You use COM1 by either connecting your external terminal equipment directly to the physical serial port, or by starting an SSH session via iLOM and running Virtual Serial Port Emulation - http://docs.oracle.com/cd/E93361_01/html/E93392/gtibt.html.

LDAP Support

Only the default "ecb" network can support LDAP. Additional networks cannot.

Registrar Support

Only the default "ecb" network can act as the registrar. Additional networks cannot.

ECB Sync Compatibility

ECB SYNC is supported only between nodes with the same configuration platforms. For example, X3 to X3, X5 to X5, VM to VM are supported.

Deprecated Ciphers

The system deprecates the following ciphers, adhering to recent OpenSSL changes intended to eliminate weak ciphers:

- All DES-CBC ciphers, including:
  - TLS_DHE_RSA_WITH_DES_CBC_SHA
  - TLS_RSA_EXPORT1024_WITH_DES_CBC_SHA

Oracle recommends that you remove any prior version configuration that uses these ciphers, and that you do not configure a security profile with the expectation that these ciphers are available. Note also that TLS profiles using the **ALL** (default) value for the **cipher-list** parameter no longer use these ciphers.

> **Note:**
>
> The ACLI may still display these ciphers when you run **cipher-list ?**, but the system does not support them.

Known Issues

The following table lists Known Issues and provides the Service Request ID number, a description of the issue, any workaround, when the issue occurred, and when Oracle fixed the issue. This table includes issues from previous releases that either remain open or are resolved in this release. Issues from previous releases that do not appear here do not apply to this release. You can also find information about resolved issues in the Build Notes for this release.

ID Number	Description	Found In	Fixed In
32723531	Upon clicking Verify when adding an LST entry, the OECB incorrectly displays a logout prompt.	PCZ3.2.0	N/A
32671930	During sipd crashes, OECB is also becoming unavailable.	PCZ3.2.0	N/A

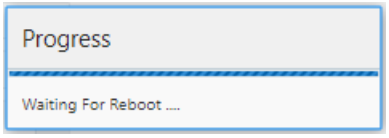
ID Number	Description	Found In	Fixed In
29582306	The Dial pattern's "Delete All" function does not work properly, causing system disruption including system reboot. Work-around: Delete the entire plan using the "Delete Dial Plan" function and recreate your Dial plan with the appropriate Dial patterns.	PCZ3.2.0	N/A
30509697	An OECB configured with 1 million user database entries stops accepting new calls for ~90 seconds after performing a save and activate. Work-around: Configure systems with user databases that approach 1 million entries during a maintenance window. In addition, Oracle recommends using the OECB's ACLI paste-config command or the automatic CSV import feature to perform uploads of these large user databases and avoid system interruption.	PCZ3.2.0	N/A

ID Number	Description	Found In	Fixed In
No ID number	If you want to establish a High Availability pair that uses IP addresses other than the defaults, perform the following procedure. Use this procedure regardless of whether the ECBs run on virtual or physical systems. The IP addresses you use must be available and valid in your network. If not, you must directly connect the two ECBs before performing this procedure to establish the HA pair initially. Note • Primary default—169.254.1.1 • Secondary default —169.254.1.2 Procedure 1. Perform the standard HA setup with the **run setup** command, and allow both systems to come up in an HA pair. 2. From the GUI, go to General, General, High Availability and assign the IP addresses that you want to use to the Primary and Secondary ECBs. 3. Move the wancom1 connection to the network that you want to use. (Either the physical connection, or for VMs, change the vswitch used by the wancom1 interface.)	PCZ3.0.0	N/A

ID Number	Description	Found In	Fixed In
	4. Double reboot both systems, and they will come back up in an HA pair.		

Resolved Known Issues

The following table provides a list of previous Known Issues that are now resolved.

ID Number	Description	Found In	Fixed In
30365359	The OECB is sending option ping messages at the wrong intervals.	PCZ3.2.0	PCZ3.2.0 p6
30563508	When attempting to run "Set Initial Configuration" from the GUI, the system may hang for as long as 5 minutes while displaying the message box shown below.  Work-around: If the OECB does not reboot in 5 minutes, refresh the browser, log back into the GUI, and run Set Initial Configuration again.	PCZ3.2.0	PCZ3.2.0p8
	The GUI does not allow you to edit a user database entry that contains an Address of Record. Work-around: Delete the entry and add it as a new entry with the changes that you want.	PCZ3.1.0	PCZ3.1.0p2 and PCZ3.2.0

ID Number	Description	Found In	Fixed In
No ID number	If you see mapping errors after upgrading, for example errors about redundancy or media traffic, you may need to swap interface addresses. Work-around: Compare the MAC addresses on your Virtual Machine (VM) to those on your hardware. If the addresses are different, you need to swap interface addresses. Set the addresses on the hardware to match those from your VM. Use the **swap** command from the ECB command line. 1. Use SSH to access the command line prompt on the ECB. 2. From the ECB prompt type **sho interface mapping**, and press ENTER. The system displays its mappings. 3. Compare the mappings to your VM mappings. 4. Type **interface-mapping**, and press ENTER. 5. Type **swap <eth-if-name_1 eth-if-name_2>**, and press ENTER. Example: swap wancom0 s1p0 The system displays the interface mapping information after the swap and a warning that the change can affect services and requires a reboot.	PCZ3.0.0	PCZ3.1.0

ID Number	Description	Found In	Fixed In
	6. At the Continue prompt, type **yes**, and press ENTER. 7. Exit the configuration. 8. Reboot the ECB.		

GUI Limitations and Deviations from Former GUI

The new Graphical User Interface (GUI) has limitations in the way it presents itself that the user may incorrectly identify as software defects in P-CZ3.2.0. Some users familiar with typical GUI mechanisms may find these limitations to be inconsistent with what they consider normal, expected behavior.

Deviations from Former GUI

Oracle has determined that the new GUI has deviations in the way it presents itself that the user may have become familiar with via former software versions. Some users familiar with the former GUI may find these deviations to be inconsistent with what they consider normal, expected behavior.

1. Refresh, Settings, Export and Show Information buttons are moved from the Home page widget display to the Maximized widget display.
2. The Home Page's Refresh, Add Widget and Reset controls now apply to the Home page only. You now refresh all widgets from Home page, and must maximize individual widgets to refresh them individually.
3. Pagination has been introduced for tables to account for large numbers of records. You can now specify the number of rows in the display. The OECB now uses that number to establish pages of rows, and allows you to quickly browse through these pages to access specific rows more quickly.
4. Widgets on the Home page now auto-arrange when you add and delete them.
5. All device Configuration is now accessible from the Configuration tab. The Preferences setting, now available from the User's drop-down menu, allows you to list configuration elements hierarchically or alphabetically.
6. Widget and Monitoring and Trace controls are now available from a single tab named "Monitoring".
7. File Management controls are now available from the System tab.
8. The Force HA Switchover, Reboot and Support information access controls are now provided as tabs at the top right corner of the System tab dialog.
9. The Set Boot Parameters dialog is now available from the System tab.
10. The Wizards and Commands categories of functions have been moved to the left panel of the Configuration tab.
11. All labels, headings, and text-based names are now displayed using an Initial Capital letter format.
12. Tool tips are moved from the text labeling configuration fields to the fields themselves.

13. The GUI displays a control (cog wheel icon) when you mouse over rows. Click this control to display a menu with applicable commands.
14. The verify-config command is available at multiple locations in the GUI, which now includes a button at the top of the Configuration tab towards the right side.
15. Fields that accept numeric values now include increment/decrement buttons to enhance your ability to set those fields.
16. Widget tiles on the home page no longer have tile-specific Settings and Collapse controls. Tile-specific widget controls now include only Export, Remove, Maximize and Move.
17. The GUI no longer includes any time/date selection controls. Instead, a text field is now available to specify time searches in the Monitor and Trace tools. A tool tip also provided the valid input format for those fields.

P-Cz3.2.0p7 GUI Deviations

The new Graphical User Interface (GUI) has limitations in the way it presents itself that the user may incorrectly identify as software defects in P-CZ3.2.0p7. Some users familiar with typical GUI mechanisms may find these limitations to be inconsistent with what they consider normal, expected behavior.

Deviations from Former GUI

Oracle has determined that the new GUI has deviations in the way it presents itself that the user may have become familiar with via former software versions. Some users familiar with the former GUI may find these deviations to be inconsistent with what they consider normal, expected behavior.

1. Refresh, Settings, Export and Show Information buttons are changed to icons and moved from the Home page widget display to the Maximized widget display.
2. The Home Page's Refresh, Add Widget and Reset controls now apply to the Home page only. You now refresh all widgets from Home page, and must maximize individual widgets to refresh them individually.
3. Scrolling has been introduced for tables to account for large numbers of records. Each scroll click now results in moving to the next or previous 100 records.
4. Widgets on the Home page now auto-arrange when you add and delete them.
5. All device Configuration is now accessible from the Configuration tab. The Preferences setting, now available from the User's drop-down menu, allows you to list configuration elements hierarchically or alphabetically.
6. Monitoring and Trace controls are now available from a single tab named "Monitoring and Trace".
7. Widgets are now available from a single tab named "Widgets".
8. File Management controls are now available from the System tab.
9. The Force HA Switchover, Reboot and Support information access controls are now provided as tabs at the top right corner of the System tab dialog.
10. The Set Boot Parameters dialog is now available from the System tab.
11. The Wizards and Commands categories of functions have been moved to the System tab. The word "Wizard" is no longer used. Those function collections are now called "System Operations".

12. All labels, headings, and text-based names are now displayed using an Initial Capital letter format.
13. Tool tips are moved from the text labeling configuration fields to the fields themselves.
14. The GUI displays a control (cog wheel icon) when you mouse over rows. Click this control to display a menu with applicable commands.
15. The verify-config command is available at multiple locations in the GUI, which now includes a button at the top of the Configuration tab towards the right side.
16. Fields that accept numeric values now include increment/decrement buttons to enhance your ability to set those fields.
17. Widget tiles on the home page no longer have tile-specific Collapse controls. Tile-specific widget controls now include only Refresh, Settings, Export, Remove, Maximize, Information and Move.
18. The GUI no longer includes any time/date selection controls. Instead, a text field is now available to specify time searches in the Monitor and Trace tools. A tool tip also provided the valid input format for those fields.

Limitations Removed

Oracle strives to improve the software and hardware with each successive release, which can sometimes modify or remove a previous limitation.

Number of VLAN Connections

The software no longer limits the number of VLAN connections to one. The software now allows up to four VLAN connections. See "VLAN Support."