Oracle® Real User Experience Insight

Release Notes

Release 6.5.1 for Linux x86-64

E18051-01

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Oracle Real User Experience Insight (RUEI) provides you with powerful analysis of your network and business infrastructure. You can monitor the real-user experience, define Key Performance Indicators (KPIs) and Service Level Agreements (SLAs), and trigger alert notifications for incidents that violate them.

RUEI is a Web-based utility to report on real-user traffic requested by, and generated from, your Web infrastructure. It measures the response times of pages and user flows at the most critical points in your network infrastructure. An insightful diagnostics facility allows Application Managers and IT technical staff to perform root-cause analysis.

This document provides information about the changes introduced to Oracle Real User Experience Insight (RUEI) in release 6.5.1. Known issues and limitations are also described. It is recommended that you review its contents before installing the product or upgrading to this version of the product.

This document contains the following sections:

- Section 1, "New Features Included In The Release"
- Section 2, "Installation/Upgrade Procedure"
- Section 3, "Known Issues And Limitations"
- Section 4, "Compatibility Issues"
- Section 5, "Bugs Fixed"
- Section 6, "Product Documentation"
- Section 7, "Documentation Accessibility"

Important: Please review Section 4, "Compatibility Issues" for important information about the new user flow model that replaces transactions.

1 New Features Included In The Release

User flow support replaces transactions

Support for user flows (called transactions in previous versions) has been extensively enhanced. This includes the ability to define abort conditions, assign monetary values to ended user flows, the definition of steps in terms not only of pages but also other definitions (such as EBS modules or Siebel view and screen combinations), and enhanced reporting. If you are upgrading from a previous version, see Section 4, "Compatibility Issues" for important information about changes introduced in this



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release. For further information on user flow support, see section 6.6 of *The Oracle Real User Experience Insight User's Guide*.

Ability to specify Reporter degree of parallelism

It is now possible to specify the degree of parallelism (DOP) used for database queries by the Reporter interface. In the case of installations with a dedicated database server or multi-core servers, significant user interface performance improvements (for example, in the rendering of dashboards) can be achieved by increasing the DOP to the number of cores available for the database server. This is fully described in Appendix Q of *The Oracle Real User Experience Insight User's Guide*.

Application-specific replay data storage

The maximum amount of Error Page Replay (EPR) and Full Session Replay (FSR) data storage can now be specified via the Reporter interface for individual applications, suites, and services. This means that is now possible to assign the same granularity of detail to high-traffic volume applications as it is to low-traffic applications. For further information, see section 9.6.2 of *The Oracle Real User Experience Insight User's Guide*.

Matching rules

In previous versions, matching rules could only be specified for the URL advanced page-naming scheme. These allowed you to specify additional matching rules that should be used to refine the selected scheme. It is now also possible to specify them for all automatic page-naming schemes. This provides greater flexibility in the mapping of monitored traffic to meaningful page names. Note that this facility remains unavailable for manually identified pages, and the "URL advanced" scheme has been renamed to "URL". For further information, see section 6.2.2 of *The Oracle Real User Experience Insight User's Guide*.

Searching of headers for functional errors

It is now possible to specify that request and response headers should be examined for application functional errors. This enables the provision of additional information about the context of errors in order to facilitate troubleshooting. For example, in the case of a 404 return code, this could be supplemented when by a translation of the applicable internal application code, such as for a failed database connection. For further information, see section 6.2.9.5 of *The Oracle Real User Experience Insight User's Guide*.

Network segmentation using client IP addresses

It is now possible to segment monitored network traffic based on the client IP addresses retrieved from HTTP headers. This facility is particularly useful if a Collector is installed behind a NAT device. Previously, all segmentation was based on the physical IP addresses fetched from IP packets. For further information, see section 8.2.3 of *The Oracle Real User Experience Insight User's Guide*.

Redirect support within page-naming schemes

The client request page-naming schemes (such as URL base) have been enhanced with support for page identification based on page redirects. Using this facility, you can specify how redirects within URLs should be handled. For example, that the redirect should become the actual identified page. For further information, see section 6.2.1 of *The Oracle Real User Experience Insight User's Guide*.

Support for SSL traffic routed via a proxy tunnel

Support has been added for the monitoring of SSL-encrypted traffic routed via an internal proxy server in a high-security environment. For further information, see section 8.3.3 of *The Oracle Real User Experience Insight User's Guide*.

Custom tag and response support within user identification

It is now possible to specify that a custom start and (optionally) an end string, or a custom tag, should be used as an application's user identification (user ID) scheme. For further information, see section 6.2.10 of *The Oracle Real User Experience Insight User's Guide*.

Ruling facility available for all user-identification schemes

The ruling facility has been extended to be available for all user-identification schemes. This allows you to specify additional matching rules that should be used to refine the selected scheme. For further information, see section 6.2.2 of *The Oracle Real User Experience Insight User's Guide*.

Highlighting events that may result in incomplete data

The Data Browser and reports facility can now be configured to provide an indication of when an event has occurred that could mean that complete data for a specific period is not available. An example of such an event is a Collector restart resulting in a brief period of time when no network data is being recorded. In addition, this highlighting can be configured to only appear when the percentage of affected data within a selected period is above a specified threshold. For further information, see section 9.16 of *The Oracle Real User Experience Insight User's Guide*.

Reporting of the current period

In previous versions, information about the current (in progress) period was always shown within selected periods that extend to the present time. In graphical visualizations, this was indicated with a dotted line. It is now possible to specify whether the in-progress period should be reported within particular graphical visualizations, as well as value lists, reports, and exports. For further information, see section 9.17 of *The Oracle Real User Experience Insight User's Guide*.

1.1 New features in Suites

Oracle E-Business Suite (EBS) support

Support for the monitoring of EBS applications contains the following new features and enhancements:

- RUEI is now able to automatically distinguish servlet-based traffic from other HTTP traffic. Therefore, the URL prefix field has been removed from the settings within the suite's overview Forms section.
- Enhancements have been made to correctly identify actions within Forms traffic.
- Diagnostics has been extended to identify problem and/or failing pages.

For further information, see Appendix M of *The Oracle Real User Experience Insight User's Guide*.

PeopleSoft support

Support has been added for the reporting of actions (based on the PeopleSoft ICaction URL argument). For further information, see Appendix J of *The Oracle Real User Experience Insight User's Guide*.

Oracle FLEXCUBE support

Support has been added for the monitoring of both Oracle FLEXCUBE Universal Banking and Direct Banking applications. This includes the identification of appropriate module, user flow, screen, and action details. The monitoring support provided by RUEI has been verified against Oracle FLEXCUBE Universal Banking version 10.3, and Oracle FLEXCUBE Direct Banking version FC V.DB5.0 to FC V.DB5.4. Note that Oracle FLEXCUBE Universal Banking version 11g is not supported. For further information, see Appendix L of the *Oracle Real User Experience Insight User's Guide*.

2 Installation/Upgrade Procedure

The installation procedure, together with the procedure to upgrade an existing RUEI 5.x or 6.x installation to version 6.5.1, is fully described in the *Oracle Real User Experience Insight Installation Guide*.

As of version 6.5.1, all supported accelerators are automatically installed as part of the Reporter installation procedure.

Important: The use of some suites requires additional Oracle product licenses. You should ensure that you are licensed to use a product before configuring suites based upon it. Product licensing details are available at the following location:

http://download.oracle.com/docs/cd/E11857_01/license.111/e11987/toc.htm

3 Known Issues And Limitations

Vertical bar chart visualizations not available within dashboard items

Due to size constraints, the vertical bar chart visualization is only available for time-based dashboard items.

External JavaScript files need to be downloaded within Replay viewer

If you are using the Internet Explorer browser within the Replay viewer, when clicking a link to an external JavaScript file, you are first prompted to download the external file. In addition, when replaying a page which includes a download hit file (such as an .exe or .rpm), you are prompted to save the file. This does not occur with Mozilla Firefox.

Long dimension level names are truncated

All dimension level names are limited to 254 characters. If a name is longer than this, it is automatically truncated. Note truncated data is indicated by ending with an ellipse (...).

Non-application traffic not represented in Traffic summary

Currently, the Traffic summary facility (select **System**, then **Status**, and then **Data processing**) is based on application logic. Therefore, non-application traffic (such as suites, services, and SSOs) is not represented in the processing overviews.

Mismatches between previewed reports and generated PDFs

Some characters are not rendered in the generated PDF file as they appear in the preview. This is because the preview facility uses locally installed client fonts, while the PDF generation facility uses the RUEI server installed fonts. The default font will cover most customer requirements. However, there are known issues with Asian and Eastern European bold characters. If necessary, you can install a suitable alternative font to resolve this issue. For further information, see the *Oracle Real User Experience Insight Installation Guide*.

URL reporting

RUEI reports URLs in a human-readable format. This means the reported URLs, although they appear to be real URLs, cannot always be copied and pasted into the browser address bar. It is not possible to distinguish between the raw format (received by the Web server) and the more readable format (reported by RUEI). As a result, the following characters might receive a different meaning:, (comma), [,], :, @, !, \$, ', (,), *, and +.

Pages within the Replay Viewer

Application pages may not be available via the Replay Viewer within the Session diagnostics facility, or may appear garbled, if they are based on Rich Internet Applications (RIAs). Examples of RIA frameworks include Ajax, Curl, GWT, Adobe Flash/Adobe Flex/AIR, Java/JavaFX, Mozilla's XUL, OpenLaszlo, and Microsoft Silverlight. However, if the page contains JavaScript code, the JavaScript replay facility can be used to modify the rendering of replayed pages. This is described in section 6.3 of the *Oracle Real User Experience Insight User's Guide*.

Overlapping or repeated tagging definitions

Specifying identification definitions, as well as functional error definitions, that overlap (or are identical) across multiple applications, suites, or services can lead to unexpected results. This restriction applies to page-naming schemes, and any configuration based on custom tags, custom functions, and response content.

Group names incorrectly assigned within advanced ruling facility

Pages whose group is already present in the source structure (for example a URL), are not always correctly reported when using the advanced ruling facility.

Fields not updated in suites' overviews

In suites' overviews, the number of unique pages and the time/date of the last identified page fields do not reflect monitored traffic.

POST request message bodies truncated within FSR facility

Within the Full Session Replay (FSR) facility, the message body of POST requests are truncated to 64 KB.

Definition of duplicate user ID items

It is possible that duplicate items within the user ID facility are created when existing items are edited. This is because the duplicate test is not applied to items that are considered deleted.

Not possible to create KPIs based on application-specific user flows

It is not possible to create KPIs based on application-specific user flow-related metrics (such as user-flows-completed-per-min). As a workaround, it is recommended that you define the required user flow as generic.

Users with application-specific permissions unable to access All user flows group

Users who have only application-specific permissions are unable to access the All user flows group within the Data Browser.

Oracle E-Business Suite (EBS) support

Currently, the monitoring of EBS applications does not support all EBS functionality. In particular, the following issues are known to exist:

- The Forms framework includes functionality to create reports. This functionality is highly configurable by customers. As a result, it is not possible to track reports automatically. Therefore, it is recommended that you create a separate application in order to monitor reports.
- When a user views two Forms in two different browser windows simultaneously, reporting of a user action (such as clicking an OK button) is based on the last activated area. Note that if the activated area has Form information within it, this is used in the user action's reporting.
- Currently, the create_EBS_info.sh script only runs on Unix EBS servers.
- Currently, only applications based on the OA and JTT frameworks are supported.
 Therefore, such packages as Oracle Applications Manager (OAM) and Oracle
 Portal are not supported at this time.

JD Edwards support

Currently, the monitoring of JD Edwards EnterpriseOne applications does not support with all JD Edwards functionality. In particular, the following known limitations exist:

- Reporting is based on the last activated area. Hence, when an end user is browsing simultaneously in multiple browser windows, the reported page name may contain incorrect information.
- Currently, the create_JDE_info.sh script only runs on Unix JD Edwards servers.
- An error is not immediately reported if an invalid connect string is specified when running the create_JDE_info.sh script. You will need to press Enter several times before the error is reported.
- When users start multiple applications simultaneously, the load and server time for the application start page is sometimes incorrectly booked on one of the started applications.
- JD Edwards pages may not be available within the Replay Viewer facility if they are based on re-directs or partially updated frames, or contain AJAX or Flash constructions.

Siebel support

Currently, the monitoring of Siebel applications does support all Siebel functionality. In particular, the following known limitations exist:

■ RUEI attempts to report URLs in a human-readable format. This means the reported URLs, although they appear to be real URLs, cannot always be copied

and pasted into the browser address bar. It is not possible to distinguish between the raw format (received by the Web server) and the more readable format (reported by RUEI). This is particularly important in the case of Siebel URLs. Consider the following argument examples that might appear in a Siebel URL, and how they are reported within RUEI:

```
&SWEView=Program Expense Trend Analysis View &SWEView=Program+Expense+Trend+Analysis+View
```

The first URL probably went over the line as follows:

```
&SWEView=Program%20Expense%20Trend%20Analysis%20View
```

However, the second URL could have gone over the network as either of the following:

```
&SWEView=Program+Expense+Trend+Analysis+View &SWEView=Program%2bExpense%2bTrend%2bAnalysis%2bView
```

If it did not go over the network in the second format, the value may very well have been interpreted incorrectly by the Web server.

 Siebel pages may not be available within the Replay Viewer facility if they are based on re-directs or partially updated frames, or contain AJAX or Flash constructions.

PeopleSoft support

Currently, the monitoring of Oracle Real User Experience Insight accelerator for PeopleSoft does not support all PeopleSoft functionality. In particular, the following known limitations exist:

- Reporting is based on the last activated area. Hence, when an end user is browsing simultaneously in multiple browser windows, the reported page name may contain incorrect information.
- Currently, the create_PSFT_info.sh script only runs on Unix PeopleSoft servers.
- An error is not immediately reported if an invalid connect string is specified when running the create_PSFT_INFO.sh script. You will need to press Enter several times before the error is reported.
- PeopleSoft pages may not be available within the Replay Viewer facility if they are based on re-directs or partially updated frames, or contain AJAX or Flash constructions.

Oracle FLEXCUBE support

Currently, the monitoring of Oracle FLEXCUBE applications does not support all Oracle FLEXCUBE functionality. In particular, the following issues are known to exist:

- Reporting is based on the last activated area. Hence, when an end user is browsing simultaneously in multiple browser windows, the reported page name may contain incorrect information.
- Currently, the create_FCDB_info.sh and create_FCUB_info.sh script only run on Unix servers.
- An error is not immediately reported if an invalid connect string is specified when running the create_FCDB_info.sh or create_FCUB_info.sh scripts. You will need to press **Enter** several times before any error is reported.

■ The Error Page Replay facility indicates the underlying source files rather than the rendered HTML.

4 Compatibility Issues

If you are upgrading from a previous release, you should be aware of the reporting differences highlighted in this section.

User flows (replaces transactions)

In version 6.5.1, transactions are renamed to *user flows*, and there are important differences in the way they are processed and reported. It is *strongly* recommended that you carefully review the information below.

Previously, user flow information was not available until 30 minutes after completion of a session. Now, information about both complete and in-progress user flows is updated every 5 minutes. In addition, a user flow performed multiple times by the same visitor was only reported as one user flow. Now, each user flow iteration is separately reported.

Support for custom dimensions has also changed. Previously, session-based custom dimensions could be defined for user flows. A new user flow-based source option now supersedes this.

Previously, the order in which user flow steps were performed by users was not taken into consideration. Now, user activity must occur in the order specified in the user flow definition. In addition, steps can now be defined as optional.

A number of new configuration options are introduced. Steps can be defined not only based on page names, but also other dimensions, such as Siebel methods and EBS responsibilities. Because some steps can take longer to complete than others, individual step idle times can be specified.

Monetary values can now be reported for ended user flows (that is, user flows that are completed, aborted, or timed out). For example, using this facility, you could determine the cost of a server upgrade in terms of lost user flows.

In order to facilitate migration to the new model, historical user flow data will remain available through an "old" transaction data group, while a new group (All user flows) will report using the new user flow model. This new group offers a number of important enhancements. In particular, it is structured to reflect that not only pages, but also other dimensions, can be the basis for steps.

Information access management has been extended to regulate access to user flow information. Note that as part of the upgrade procedure, all currently defined transactions receive the data access generic. Therefore, users with Overview permission can no longer view user flow information. To resolve this issue, it is recommended that you review the data access assignment for all defined user flows after upgrading to ensure that they meet your information management requirements.

Note that user flows now requires at least two steps. This is to facilitate identification of user flow start and completion. Existing user flows with less than two steps are not migrated.

Important: Be aware that when upgrading to version 6.5.1, KPIs, dashboards, and reports that use user flow-related metrics are retained, but only provide access to historical data (that is, data gathered prior to upgrading to 6.5.1). Therefore, you will need to re-create these KPIs, dashboards, and reports to reflect new data after the upgrade procedure is completed. All existing transaction definitions are automatically updated to reflect the new user flow model. However, it is recommended that you review them after upgrade.

The transaction flush time setting (Configuration > Advanced settings > Session processing > Session transaction time) is no longer relevant, and has been removed. The default user flow step idle time setting (Configuration > Advanced settings > Session processing > Default user flow step idle time) has been added.

Session idle time

In previous versions of RUEI, the default session idle time was 15 minutes. In order to better reflect visitor usage, and facilitate more accurate user identification, the default has been increased to 60 minutes.

5 Bugs Fixed

The following bugs have been fixed in this release:

- User IDs not correctly identified from URLs (9677072).
- Core dumps of log file processor (9697862).
- The page delivery dimension shows the status "NA" (9708095).
- Internal errors reported in event log (9752320).
- Pages sometimes identified as spurious objects (9852618).
- Error reported when viewing pages within the FSR facility (9905643).
- The output of the export.php facility becomes unavailable (9909211).
- The Collector status window loads very slowly when a large number of Collectors are configured (9959955).
- Errors reported in event log when processing large amounts data (9979682).
- Internal errors reported in event log (10058650).
- KPI alerts not correctly generated (10096640).
- High volume exports can result in memory leaks (10101017).
- No traffic measured after upgrading with a port number in the filter (9588385).
- Empty cookies should not be logged (9751393).
- The ruei-prepare.sh script should allow additional users to install the Oracle database (9843360).
- The SNMP alert message should contain a description of the KPI (9351355).
- Client abort hits which contain content errors are reported as successful (9727692).

 Performing a restore system to factory default generates an Oracle database error in the event log (9765864).

JD Edwards EnterpriseOne support

Large numbers of page views reported as "none" (9501922).

Siebel support

- Page names using the SWEView argument reported under "other" (9543768).
- Pages are not identified correctly when short forms are used (9540835).

6 Product Documentation

The latest version of the product documentation is available via the link below:

http://www.oracle.com/technetwork/documentation/realuserei-091455.html

The following documents have been incorporated into the *Oracle Real User Experience Insight Installation Guide* and are no longer available as separate documents:

- Oracle Real User Experience Insight Accelerator for Oracle E-Business Suite Guide.
- Oracle Real User Experience Insight Accelerator for Siebel Guide.
- Oracle Real User Experience Insight Accelerator for PeopleSoft Guide.
- Oracle Real User Experience Insight Accelerator for JD Edwards EnterpriseOne Guide.

The following documents have been incorporated into this document and are no longer available as separate documents:

- Oracle Real User Experience Insight Accelerator for Oracle E-Business Suite Release Notes.
- Oracle Real User Experience Insight Accelerator for Siebel Release Notes.
- Oracle Real User Experience Insight Accelerator for PeopleSoft Release Notes.
- Oracle Real User Experience Insight Accelerator for JD Edwards EnterpriseOne Release Notes.

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