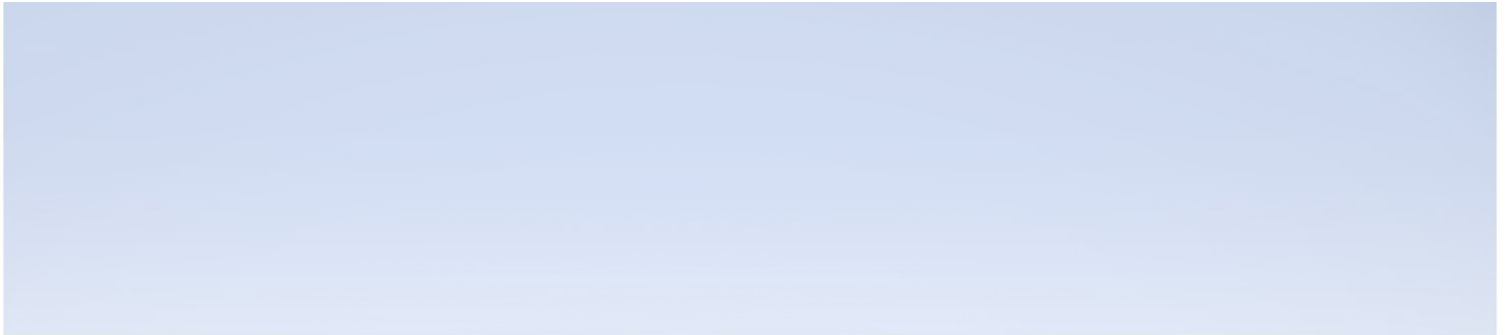**Hewlett Packard Enterprise**

Real User Monitor

Version 9.40, Released August 2017

Release Notes

Published September 2017

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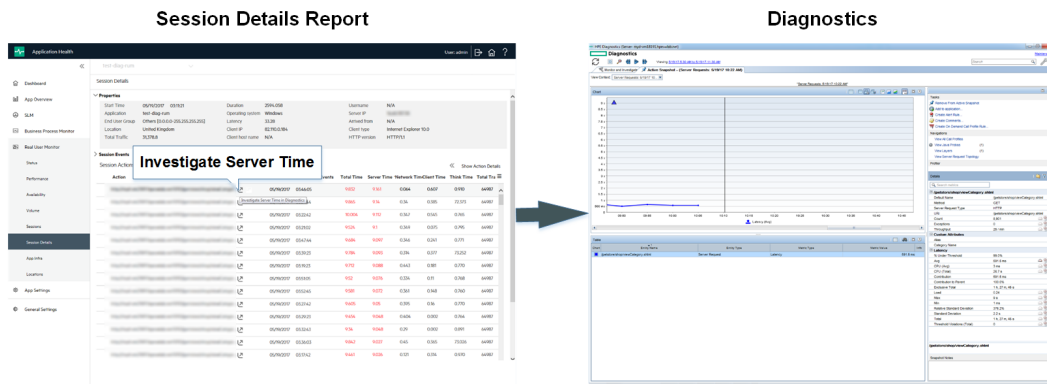
Contents

Real User Monitor Release Notes

This document provides information about Real User Monitor (RUM) 9.40.

What's New in This Release

- Rejuvenated UI – Application Health Reports
  - Drill down to Diagnostics from RUM reports – Completes the isolation flow to launch Diagnostics where applicable

Session Details Report   **Diagnostics**

- Complete Isolation flow – The drill through abilities and end to end isolation flow is enabled starting from the dashboard and continues to enable reviewing everything related to a session.

- Enhanced App Infra with a Topology Map to enable visualization of application topology. For Multi-tiered applications, the nodes and their relationship are demonstrated. Isolation of issues can be invoked from the respective nodes showing performance or availability issue.
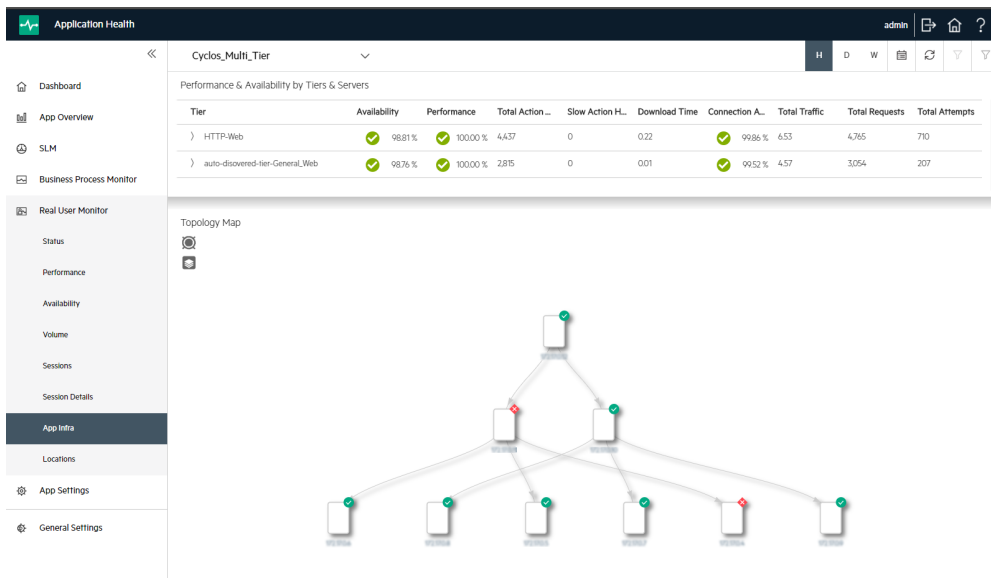
- Added application drop down list to provide users with the ability to change applications in the context of a single report

- Added enhanced filtering capabilities to enable users to focus on the necessary sessions

- Added Sessions report – Provides the ability to review all sessions within the application context. The time period can be selected. The columns can also be filtered to provide a better review of the reported data.

- Added drill down to Session Details report, that includes Action List, Action Details, Request, Response, and Events. This report enables completing the isolation flow for the selected context in Application Health. All session specific details are also displayed.

- Docker Report - Aligned to CMDB Docker model to enable consolidated status

- Application Health Admin
  - Web Application life cycle – Added ability to create, view, update, and delete web applications.

  - RUM / BPM application integrated support – Added ability to define applications that are configured for both RUM and BPM.

- Support basic configuration of RUM applications
  - General setting – Configure application location (URL and IPs), thresholds, attach engine, and TCP settings
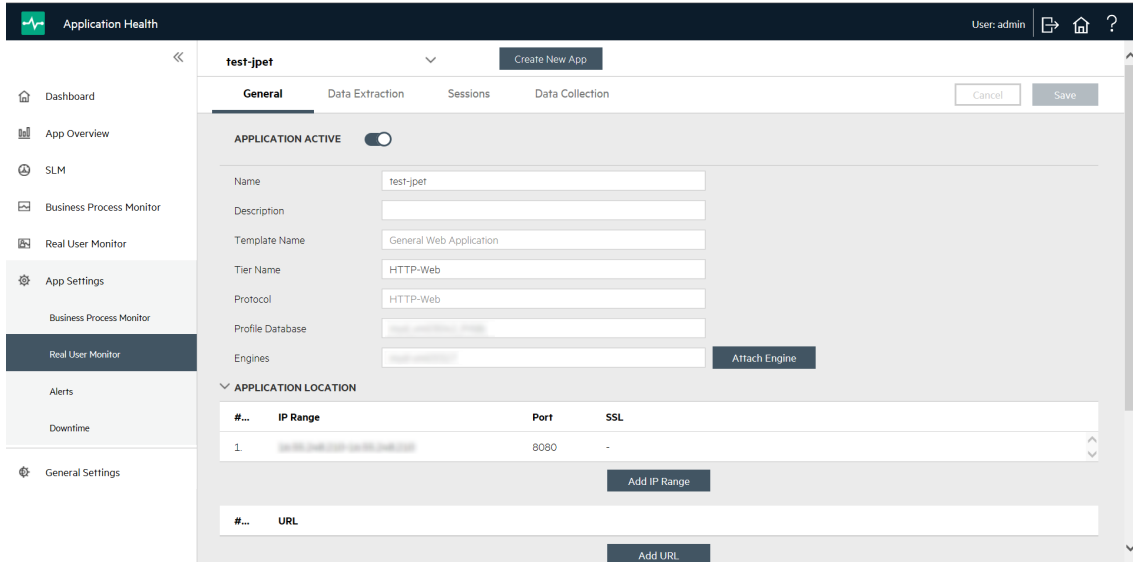
  - Data Extraction settings – Configure user name detection and parameter extraction
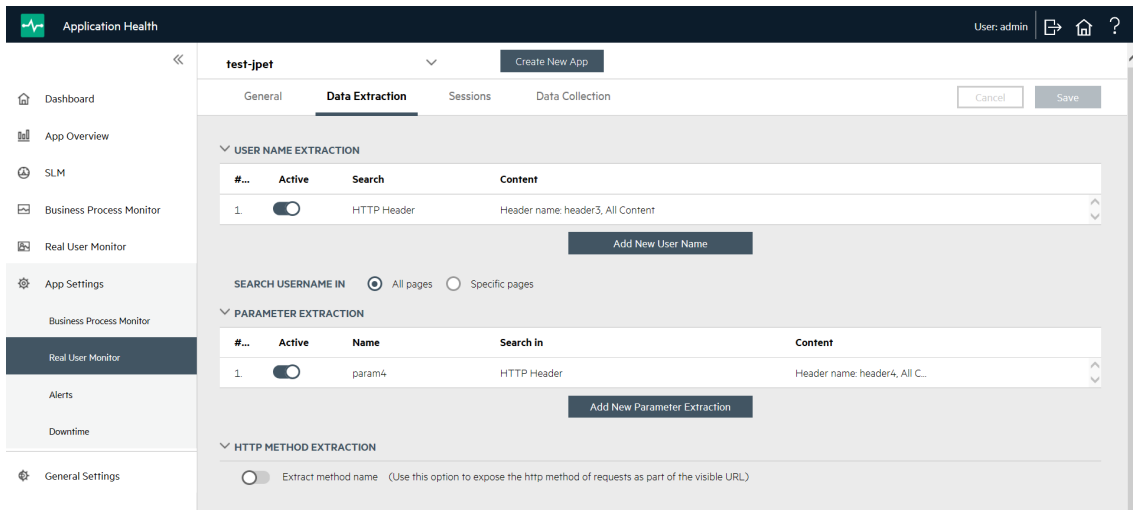
○ Session settings – Configure session identification, properties, and reset
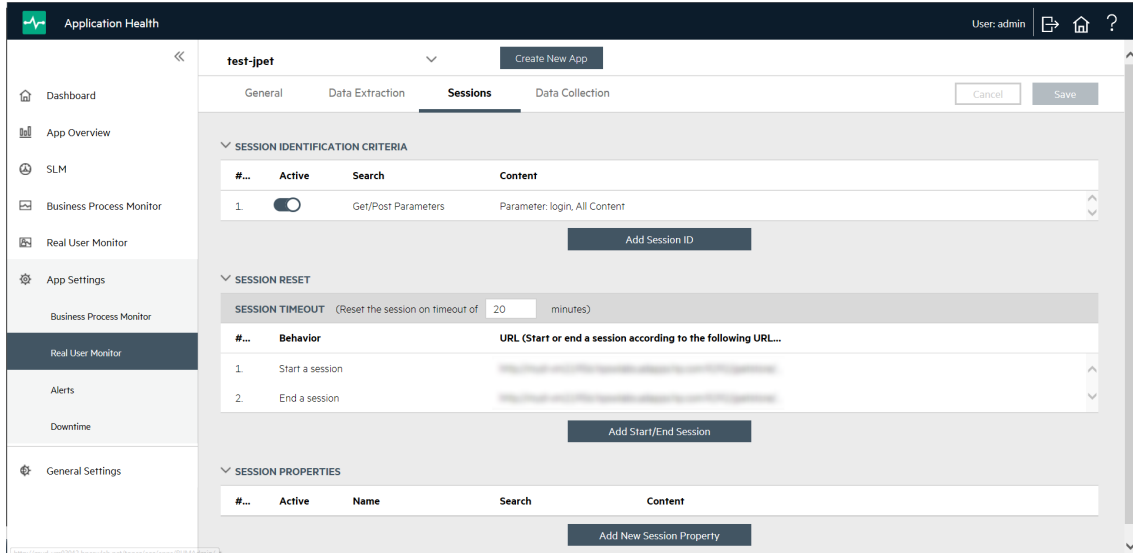
○ Data Collection settings – Configure data collection, sensitive data, and snapshot properties
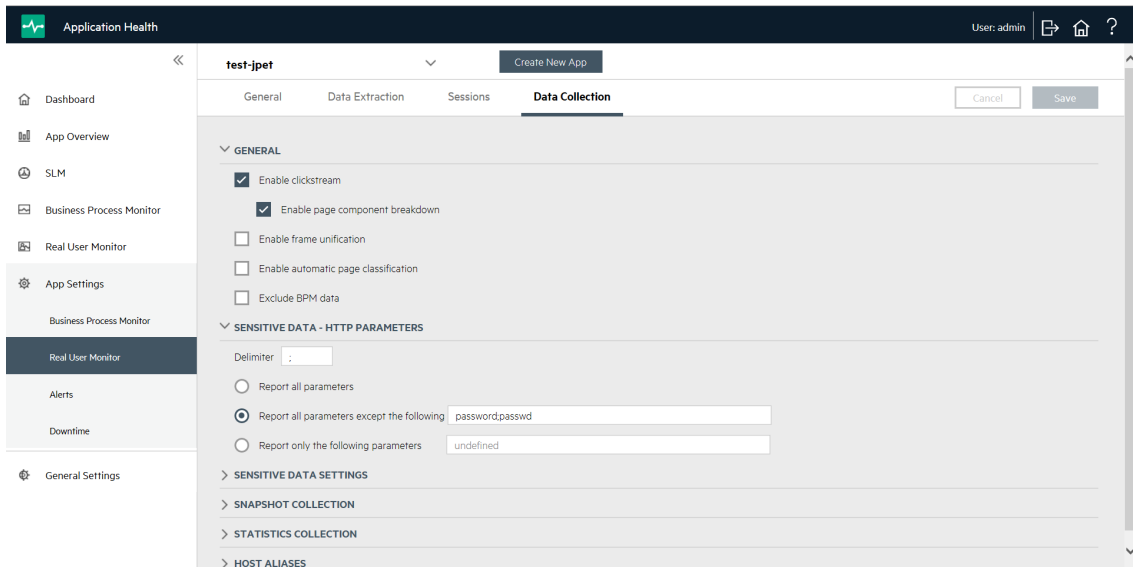
- Performance
  - Multi Instance Probe – A new RUM deployment for better resource utilization which offers increased traffic support
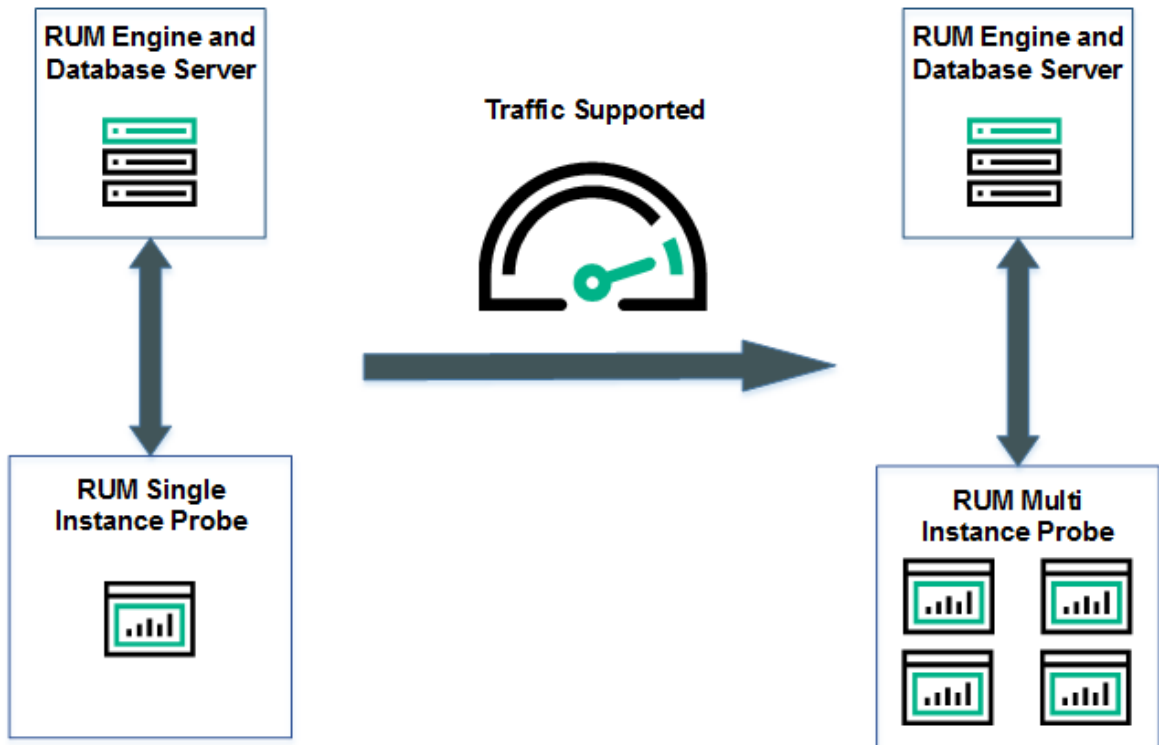
  - Optimized engine database cache handling

  - Optimized Kernel Filters for larger configurations: Kernel level optimization for better probe performance.

  - Optimized multiple SSL certificate handling

  - Probe performance calculator update – New benchmarking in updated hardware setting demonstrates a better performance number

- RUM Monitoring
  - Extended Master Secret SSL handshaking – During the Key Exchange phase of The Transport Layer Security (TLS) Handshake Protocol, the client and server exchange random numbers and a special number called the Pre-Master Secret. These numbers are combined with additional data permitting client and server to create their shared secret, called the Master Secret. The Master Secret is used by client and server to generate the write MAC secret, which is the session key used for hashing, and the write key, which is the session key used for encryption.

    A new TLS extension has been introduced (Extended master secret) that changes the way master_secret is generated.

    When this feature is on, Clients and servers DO NOT accept handshakes that do not use the extended master secret.

- MQ version 8 monitoring and sessions reporting – Support Message Queue (MQ) version 8 monitoring, sessions reporting, and providing correlation with session parameters

- ISO 8583 scalable monitoring solution with configurable parameters for encoding – With configurable message parameters, RUM gives an ability to decode ISO 8583 across vendors and service provides (for example, MasterCard, Visa, etc.) and show sessions in RUM reports.

- Monitor Virtual Extensible LAN (VXLAN) traffic – Virtual Extensible LAN (VXLAN) is a network virtualization technology that attempts to address the scalability problems associated with large cloud computing deployments. RUM is now able to monitor applications hosted in VXLAN environment.

- Monitor Kony mobile apps (beta) – Support instrumentation and monitoring of Kony mobile apps using RUM Mobile framework (beta)

- Security
  - RUM Engine Database MySQL upgraded to 5.7.16. Added instructions for upgrading MySQL
  - Tomcat version in Client Monitor upgraded to 8.5.4.
  - Open SSL version in sniffer probe upgraded to 1.1.0
  - Applied security vulnerabilities fixes

- Certifications
  - Support OpenJDK 8 for RUM Engine and Probe
  - Support MS Hyper-V 2012 R2
  - Browser versions
    - Internet Explorer 11.0
    - Firefox 52.x ESR
    - Google Chrome with the latest available version – for Application Health only.

Requirements

RUM System Requirements and Support Matrixes

RUM system requirements and support matrix information is located in the RUM Installation and Upgrade Guide(https://softwaresupport.hpe.com/km/KM02505679), located on the HPE Software Support site (https://softwaresupport.hpe.com/).

Installation Requirements

You can find requirements and steps to install and upgrade Real User Monitor in the RUM Installation and Upgrade Guide (https://softwaresupport.hpe.com/km/KM02505679), located on the HPE Software Support site (https://softwaresupport.hpe.com/)..

The Real User Monitor Deployment Planning Guide (https://softwaresupport.hpe.com/km/KM02505669) provides the information necessary for designing and planning the deployment of the RUM solution.

The Real User Monitor Hardening Guide (https://softwaresupport.hpe.com/km/KM02505678) covers hardening of the RUM Sniffer Probe, RUM Client Monitor Probe, and RUM Engine.

Notes and Limitations

RUM Engine

RUM engine currently does not work with APMs with a non-default root context (APM is accessed with /custom/topaz rather than /topaz). For updates see QCCR1I127091.

RUM Client Monitor Probe

Client Monitor Probe does not report HTTP error events, such as 400 series error (page not found, etc.) and 500 series error (server errors).

RUM Sniffer Probe

The Stopped Page feature is supported only in the Internet Explorer browser.

RUM cannot decrypt Diffie–Hellman secured traffic. Please configure your applications to use RSA security.

Before installing the RUM Probe on a Linux machine, you must either disable SELinux or make sure that it will not block the RUM Probe.

Load Balancing using the Client IP range is not possible when Tier Discovery is enabled for that application.

Mobile

After instrumenting a mobile app for monitoring by RUM, you must test the instrumented application to ensure that it functions properly before uploading it to the app store.

The android crash engine detects Java related crashes only.

iOS crash data includes only the class name and stack trace.

iOS crashes are reported in the following application launch if the application is re-launched within two hours of the crash.

If during instrumentation it is discovered that ACRA crash reporting (which is a third-party tool) is already instrumented on your application, the RUM crash reporting will be disabled, the instrumentation will succeed, but a warning message will appear on the console and RUM will not report crashes.

When running an application, a few of the initial crashes may be ignored.

There is limited support for Hybrid and Kony mobile apps.

VDI

The RUM VDI solution does not support multiple concurrent sessions on different applications from the same user.

When running Internet Explorer from a CMD line with a URL, the VDI agent does not report the first URL.

Fixed Defects

The reference number for each fixed defect is the Quality Center Change Request (QCCR) number. For more information about fixed defects, visit HPE Software Support site, or contact your HPE Support representative directly.

The Client Monitor Probe's Active Sessions count goes beyond the probe's maxSessions configuration value (QCCR1I121375)

Fix: The Client Monitor Probe's code logic was correct so that it now has an exact Active Sessions count.

RUM Session Analyzer report displays incorrect data with a future startTime (QCCR1I123241)

Fix: If a page has a gap in the start time, a new session is created.

Meaning of errors: Error while parsing Probe channel line. Error while parsing field "x-session-bytes [session bytes]" - bad int format (QCCR1I123670)

Fix: Changed x-sessions-bytes from int format to Long format.

Not able to save the settings for RUM applications when http front end and mobile back end are assigned to the same engine (QCCR1I122342)

Fix: Mobile applications are not listed in the available templates during back end tier definition.

Admin password is not retained during upgrade (QCCR1I121281)

Fix: Added the missing xml to the RUM 9.25 to 9.26 upgrade flow.

Sample thrown: No container was resolved (QCCR1I121054)

Fix: Fixed request sample processing in the RUM Engine which provides a way for non-Docker related request samples to pass through untouched.

Defining an application with 'Clickstream' disabled and 'Collect request snapshots' enabled causes errors when synchronizing configuration in RUM (QCCR1I117977)

Fix: Unnecessary configuration snapshots are not created when Clickstream is disabled.

Aggregation rules of "Connection Availability(%)" in RUM Application Infrastructure Summary Report (QCCR1I119927)

Fix: The aggregated status of the server element based on the underlying child software elements is now calculated correctly in the RUM Application Infrastructure Summary report.

RUM Client Monitor Probe does not use maxSessions and sessionMaxIdleTime values from the cm.properties file (QCCR1I120816)

Fix: Changed Client Monitor Probe to use maxSessions, enableGlobalSessionTimeout, and sessionMaxIdleTime from the cm.properties file. enableGlobalSessionTimeout must be set to true for the

Client Monitor Probe to use sessionMaxIdleTime.

RUM Engine Data Publisher should modify double-quotes before exporting data to CSVs (QCCR1I122900)

Fix: Double quotes have been replaced with single quotes in Crash Event data.

RUM Session Details report sometimes shows "There was a problem retrieving data from Real User Monitor Engines" when the RUM Engine has no data for the selected session (QCCR1I122448)

Fix: If data for a selected session was not found on the RUM Engine, it throws an exception: UnknownGUIDException. This in turn showed up as an error in the Session Details report. An UnknownGUIDException error now causes an empty row to be displayed for the data type in the report.

RUM Session Details report's General Event's section sometimes shows "There was a problem retrieving data from Real User Monitor Engines." when a crash event contains invalid Unicode characters (QCCR1I122450)

Fix: Replaced all characters that match the regex "\\u0000-\\u0008\\u000B-\\u000C\\u000E-\\u001f" with a blank space before sending the crash event to APM.

RUM Client Monitor Probe for mobile report issue. In the RUM Session summary report, if you select Application Version as the *group by* option, no application versions appear in the list (QCCR1I121176)

Fix: The responses from different engines are now merged manually and the data is processed on the report level.

Snapshot Replay button in RUM report is not working in non-English locales (QCCR1I123499)

Fix: Snapshot Replay button on RUM reports now works in non-English locales.

Set the default value of the flag 'check_uptodate_config' to true (QCCR1I125890)

Fix: Updated the default value of the flag 'check_uptodate_config' to true.

Incorporate security patches in RUM MySQL versions 5.5 and 5.6 (QCCR1I99991)

Fix: Engine Database MySQL upgraded to 5.7.16

RUM Web Console - Add sorting by status and regrouping on System Health (QCCR1I116942)

Fix: Enabled sorting options.

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