Service Gateway 4.2.3.0 MR

Release Notes and Installation Instructions

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Contents

Introduction

This document describes the changes included in this patch to Service Gateway, along with the patch installation instructions. This patch can only be applied directly to version 4.2.2 of Service Gateway. Earlier versions must first be upgraded to 4.2.2.

Issues Addressed

The following issues have been addressed by this patch.

EE 23289 - CWMP logging content is being lost

When CWMP Logging is turned on, there was the potential for log data to be lost if the transfer of a batch of logs failed for any reason. Also, there was no limit to the size of a batch, and large batches could lead to a failure.

A batch of CWMP Logging information is now sent in smaller chunks, size specified in ACS.properties. Additionally, it is sent over JMS using a separate thread within the ACS to avoid impacting the time between status updates. The asynchronous nature of JMS means that the thread does not need to wait for the data to be committed to the database. Also, if there is a failure during the transfer, the data is not discarded, but will be sent when the JMS connection resumes.

EE 24375 - Infinite loop handling empty GetParameterValues response

An empty GetParameterValuesResponse from a device would result in an error in the ACS which would abort the RPC processing without dequeuing the request. That request would then be sent again. The error in the XML parsing that resulted in the error has been corrected. Empty responses will now be handled properly.

EE 24982 - Record purging dropping too many partitions after db error

When encountering an error while splitting a partition, an internal timestamp was not being properly reset, resulting in subsequently purging too many days worth of partitions. This has been corrected.

EE 24999 - Parameter mapping not working for device without a PPP Username.

Attribute changes resulting from Parameter Mappings were not being saved unless the PPP Username was present in the incoming Inform. This has been corrected.

EE 25086 - Lack of bind variable for CSR search by realm user.

The SQL statement used to search for devices by a realm-constrained CSR user now uses a bind variable for the user ID in order to improve performance.

EE 25110 - Unable to copy/paste the Unique ID String from the CSR Device Summary Module

It was previously difficult to copy the values of the Unique ID String or IP Address from the Device Summary module. An option has been added to the Flash Player context menu called "Copy to Clipboard", when right-clicking on these field values.

EE 25191 - ACS API Results do not account for tickling a connected device

ACS API Result information will now contain correct detail when device is detected as already connected, yet still required a connection request.

EE 25192 - ACS API result - deviceId is zero

DeviceId is now set before the ACSAPIResult is logged, thus no longer showing "deviceId=0". Previously the message was logged before this value was set.

EE 25196 - Partition Purging issues

Several issues related to partition purging have been addressed.

1) Locking has been added to ensure that only one instance of the job that purges partitions can run at a time.

2) When performing a partition split, Oracle marks local indexes with a status of UNUSABLE. Service Gateway now checks and repairs unusable indexes before performing partition related operations so that local indexes may be used.

3) The Record Purging screen was previously displaying a record count for each partition based on current record counts. The record count queries could take a very long time to execute for large partitions. This has been changed to display the record count from the partition metadata, populated when the table was last analyzed.

EE 25255 - Can't compare system keys with empty string

System key conditions can now be used to select devices where the system key value is empty.

EE 25331 - Caching of high-frequency queries

Result caching by the application server has been added to three queries that are executed very frequently:

```
SELECT * FROM sprt_ec_obj_type WHERE name = :1
SELECT 1 FROM sprt_ec_attr_def_obj_xref WHERE obj_type_guid = :1 AND
attr_def_guid = :2
SELECT * FROM sprt_sg_cwmpparam_val WHERE sg_cwmpparam_map_guid=:1
```


Patch Contents

In addition to this document, the patch includes the following files:

- ears/sprt-050-ServiceGateway4.2.3.0.007-jb40cl.ear
- ears/sprt-050-ServiceGateway4.2.3.0.007-jb40.ear
- ears/sprt-050-ServiceGateway4.2.3.0.007-wl92.ear
- ears/servicegateway-integration.jar
- ears/ACS-server.war
- ears/ACS-api.war
- ears/sprtWeblogicSecurityProviders.jar
- etc/login-config.xml
- sql/OracleDBChangesFrom4.2.2.0_DML.sql

These files will be updated in various locations to address the issues described above.

This patch updates the Service Gateway EAR file. Once this patch is applied to Service Gateway 4.2.2, the Service Gateway EAR file version will be:

- ServiceGateway4.2.3.0.007

Additionally, the patch also includes the following directories which contain files required by the installer itself:

- bin
- classes
- configuration
- interface
- lib
- scripts

Before Patching

Backups

Regular backups of the database and file systems should be performed prior to performing an upgrade.

Installation Instructions

This patch is packaged with a web-based installer to ease the upgrade process. The installer is used in the same way as during a new install.

It is necessary to run the installer on all servers that make up the Service Gateway installation. This is so that the installer can update, at minimum, patch level information on each server.

Prior to upgrading any server, the ACS servers must be shut down and all user interface and EAI activity must cease.

Perform the upgrades to the Application Servers and Database Schema first. When patching a WebLogic clustered environment, the Admin server must be patched before any managed servers are patched. WebLogic servers must be running before the patch process can be started. Ensure that the WebLogic configuration is not locked.

Once the application servers and database schema have been successfully upgraded, proceed with the upgrade of each ACS server. The ACS upgrade will automatically restart the ACS.

The steps to upgrade each server are as follows:

1. Extract the contents of the patch archive to a temporary location.

2. Copy the JDBC driver for the database to the root directory of the extracted patch contents. For Oracle 10g, this file is ojdbc14.jar. For Oracle 11g, this file is ojdbc5.jar.

3. Enter the "bin" directory and start the run script appropriate to the operating system. run.bat for Windows, and run.sh for Solaris.

4. Under Windows, the default web browser is automatically launched and directed at http://localhost:8888/. On Solaris, a web browser must be launched from any computer on the network and directed at the installation site manually. The installer listens for HTTP connections on port 8888 of the server the installer is running on.

5. After accessing the installer web UI, select "Update an existing instance" and click "Next".

6. Once the target instance has been selected and the license agreement has been accepted, the patch prerequisite scripts will run. If they are all successful, clicking "Next" will start the upgrade process.

Troubleshooting and Manual Installation

If the installer fails for any reason, installer.log should be backed up to a safe location so that there is no loss of information needed to diagnose the problem and understanding the current state of the application. This file should be sent to Consona Technical Support for review. Manual patch instructions are available to Consona technicians to assist in recovery from a failed upgrade.

Updated Service Gateway Integration JAR

The patch contains a new copy of servicegateway-integration.jar, which is used by all utilities that interface with Service Gateway. Any custom code or integration applications must be updated to use the new integration jar file.

New UI Properties for Translation

New UI properties have been added. These are already present in the EAR file that has been deployed, so no action is required. However, if any translations have been created for the installation, the following tokens will need to be translated and added to the translated properties files:

```
system_pref_purge_partitions_execution_timeout=Purge Partitions Execution
 Timeout (seconds)
csr_module_devicesummary_copy_to_clipboard=Copy to Clipboard
```


Database Changes

There has been one change made by this release that would affect a disaster recovery plan.

A new table has been added for this release to facilitate locking of the partition purging mechanism. This table is called SPRT_EC_PARTITION_PURGING_LOCK and will only contain a single record. Regarding backup and disaster recovery, this table should be treated the same way as existing lock tables, SPRT_SG_POLICY_HIST_LOCK and SPRT_SP_POLICY_EXECUTION. As with those tables, it is recommended that after a restore, the record in this table be reset to an unlocked state, using the following query:

```
UPDATE SPRT_EC_PARTITION_PURGING_LOCK SET IS_LOCKED = 'false';
```


Integration Interface Changes

There are no changes to the signatures of the operations within the EAI Web Services, and no new operations have been added.

