Oracle Retail RPAS Common Technical Issues and their Solutions

Whitepaper

By Quickborn Consulting LLC

Preface

This document describes two cases where the standard, documented approach to administering and maintaining/patching an RPAS server did not help to fix issues which come up during administration and maintenance and two respective solutions for them.

The two cases described are both encountered during the technical maintenance of RPAS servers.

The first case description focuses on rebuilding a corrupted administration database in an RPAS domain with practically no information lost to users.

The second case description describes an exception and how to work around it during the RPAS domain patching process.

For further information about these and further issues and solutions encountered during installation, configuration, sizing, maintenance, operation and administration of RPAS domains and servers, please do not hesitate to contact the author: Quickborn Consulting LLC on our website: www.quickbornconsulting.com.

Restoring a corrupted admin database in an RPAS domain

When the RPAS domain admin database becomes corrupted and it cannot be repaired using the standard utilities, the database has to be rebuilt in a new domain.

The problem

A user account was being deleted from the RPAS domain while another admin user was editing the same account on the User Administration UI screen. As the account was locked, the delete operation could not finish completely and successfully. Some information about the deleted user account was left behind in one of the admin database's array file.

This resulted in the following problems:

- The admin database of the domain was corrupted. A user showed up in the admin database arrays without any specific information

- The user administration workbook could be used, but a user without ID, label and groups appeared in the admin database.

- The empty user could not be deleted or edited on the GUI.

- Because of this the security administration workbook could not be built in Fusion Client, because it couldn't handle the empty user. In Classic Client the 'security administration' workbook could be built, but resulted in error messages when navigating to any of the worksheets, that contained users.

- The admin database could not be fixed with standard, public RPAS utilities.

- The user could not be deleted from the domain with standard RPAS command line tools.

The Array files of the admin database were still accessible directly via RPAS command line utilities.

The fix of the issue was to rebuild the same admin database in a structurally identical domain, and replace the broken database with the rebuilt one.

The solution

We have experienced that RPAS can handle without error the array files in a domain being replaced with the array files of another domain. The structure of data – hierarchies that concern the array file (for example the hierarchies in the base intersection of the measure) – should be the same in both domains.

As this issue happened on a production environment the loss of any user account was unacceptable, as deleting a user account would have resulted in losing all the workbooks of a user. Our solution did the trick, after rebuilding the administration database all users were able to access their workbooks. The only negative effect was that all passwords have been reset to a generic one.

Below are the steps we took to solve the problem.

1. Create a backup of the entire domain.

2. Stop Welblogic and RPAS server processes including the user sessions

3. Build a new, empty domain based on the same configuration as the 'broken domain'. (The new domain will be called 'source domain' and the 'broken' one will be called 'target domain' from here on).

4. Extract the necessary information for building a user xml (conforming the specification in the RPAS Admin guide) from the array files using printArray from the 'target domain'. (This includes userIDs and labels, group IDs and labels, user-group associations, admin and locked statuses.)

5. Convert the xml to database for import (using the usermgr command line tool).

6. Import the database into the 'source domain'.

7. Copy the array files that were latest modified from the 'source' domain's admin database to the 'target' domain's admin database directory.

After these steps, the user database was OK again, and the security administration workbook could be built and used from the Fusion and Classic Client also.

Special handling of dimension attributes while applying a domain patch

During patching an RPAS domain with a modified configuration, the patch install seems to be unable to handle the changes of dimension attribute measures. Because of this the changes that are in the new configuration and affect the dimension attribute measures are not always appearing in the patched domain.

The problem

A change in the RPAS configuration was made that included the altering of some dimension attribute measures. After applying the patch the changes were not reflected in the domain, although in the end the patching process reported to be successful. We later found error messages in the log of the patching indicating that it could not register the dimension attribute measures.

The solution

In the end to apply the changes we had to take the following steps, only standard and public RPAS command line tools were used.

1. Remove the dimension attribute status of the measures, as the measure could not be unregistered as long it was a dimension attribute

2. Remove the measure (if the data content of the measure is needed it should be exported first at its base intersection or on the intersection it will be after the change)

3. Apply the configuration patch on the domain, this time it will register the dimension attribute measures as new measures and all the changes will be made on the domain.

4. Reload the exported measure data

By taking above steps the desired changes to the dimension attribute measure(s) can be made and their data kept.

Learn more

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