

Leading Practice: CA PPM Backup and Migration Strategy



Abstract

This document describes the backup and migration strategy of the various environments used during the implementation of CA Project and Portfolio Management (CA PPM). This document focuses on the backup and code migration of CA PPM deployed in an onsite environment.

Concepts

Concept	Definition
CA Productivity Accelerator	CA PPM accelerator that contains user-training lessons and activities that the team can upload into the CA Productivity Accelerator editor, giving the users a library of training content.
Organizational Business Structure (OBS)	A hierarchical representation of your company structure that you can use to align resources and projects.
WIP Classes	Use work-in-process (WIP) classes to categorize companies and investments. WIP is also used to indicate methods of revenue recognition. You can use the WIP class to define the rates and costs for transactions, and to group transactions for posting to the general ledger. For projects, you can use them to calculate recognized revenue.
CA PPM System Administration (CSA)	CA PPM System Administration is where a system administrator would manage the CA PPM system settings. (i.e., services, logs, database connection settings, application server settings, background server settings, data warehouse settings, etc.)

CA PPM Components

Before CA PPM can be backed up, note where CA PPM components are deployed. The CA PPM solution includes application, database and report servers and, optionally, a server for hosting CA Productivity Accelerator

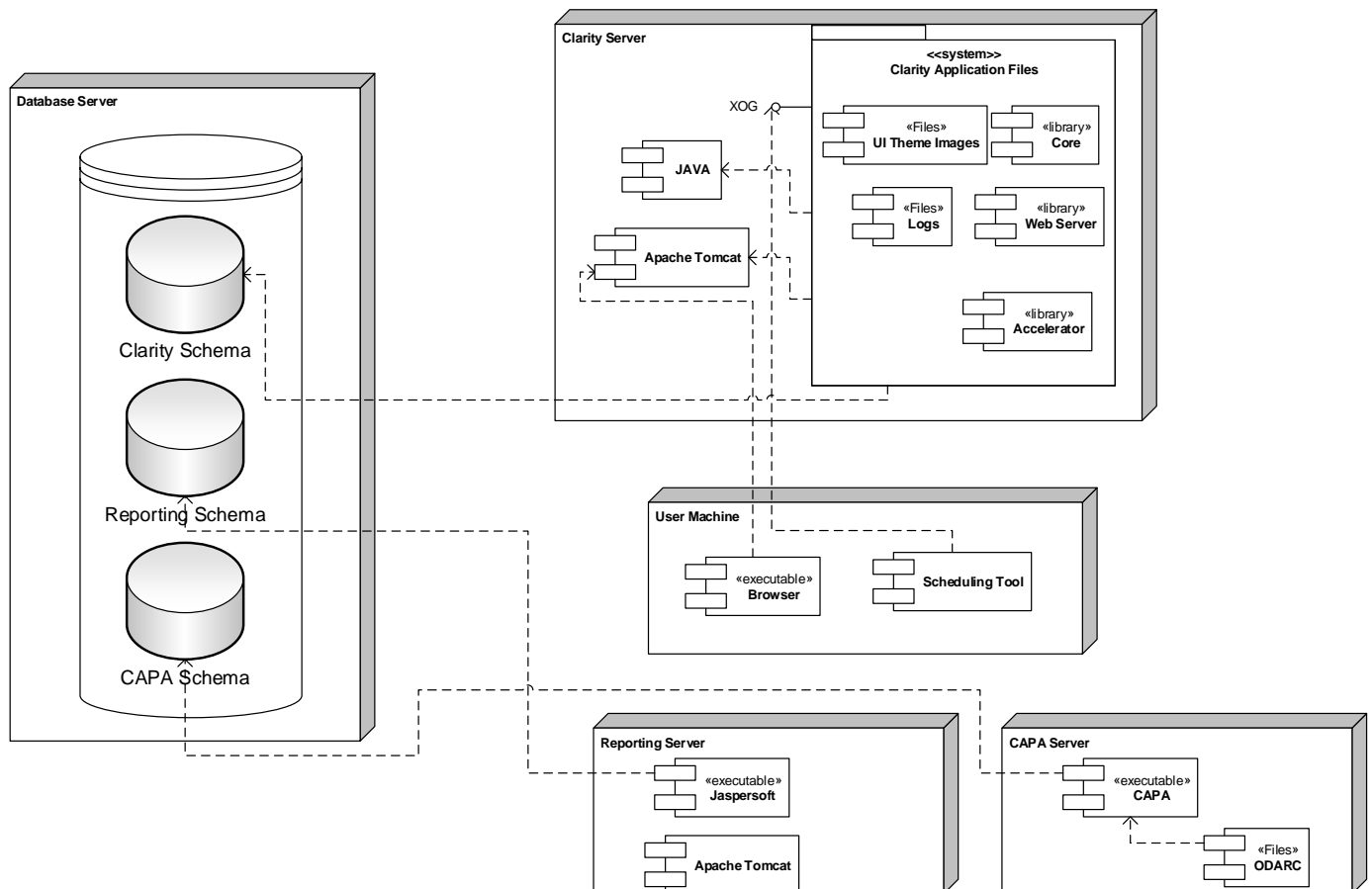
CA PPM is hosted on one or multiple application servers, depending on the size and complexity of the organization. These contain CA PPM files and any custom user interface (UI) theme image files.

Using Java Database Connectivity (JDBC), the application server(s) connect to a database server. CA PPM has a single database schema which houses all CA PPM tables. All CA PPM configurations (UI, objects), user settings, and data are stored in the database tables.

The report server, which connects directly to the database server using its own database schemas, is installed on a server of its own.

CA Productivity Accelerator (CAPA) can also be installed on a server of its own storing out-of-the-box or custom created education modules. CAPA also connects to the database and has its specific tables in a schema.

The component diagram below depicts where CA PPM each component can be found in a simple environment.



For accessing the CA PPM user interface, there are no requirements that CA PPM components be installed on user machines or devices. For example, users accessing CA PPM via the user interface will not have any components installed on their machine. Users accessing CA PPM via Microsoft Project or Open Workbench integration will have CA PPM Schedule Connect installed.

Component Backup

The steps below are used to backup individual components

CA PPM Application Server Backup

The following steps are necessary to backup CA PPM application servers:

- All CA PPM services should be stopped
- Full CA PPM Database Schema should be exported by a database administrator to a database dump file.
- Backup all CA PPM files on the CA PPM server by using the following command on the CA PPM server:
 - admin backup

CA PPM Configuration and Data Backup

CA PPM configuration are stored in the database and can be exported out using the CA PPM API called XML Open Gateway (XOG). XOG can be used to export the following CA PPM configuration items or data:

- Object definitions including attributes, view and security for specific object such as project, task etc.
- Object data such as projects with associated tasks, resources and financials, incidents data, ideas data, etc.
- User definitions such as resources, skills etc.
- Security definitions such as groups, organizational business structures (OBS) etc.
- User interface configuration items such as portlets, pages, processes, WIP classes, transaction classes, charge codes, time periods, OBS, location, department etc.

Report Server Backup

The following steps are necessary to back up the CA PPM Jaspersoft database schemas.

- Full PPM_JASPERSOFT Database Schema exported by a database administrator to a database dump file.
- Full PPM_DWH Database Schema exported by a database administrator to a database dump file.
- A list of the attributes included in the data warehouse should be kept
The same list of attributes must be checked in the environment, or the Load Data Warehouse job may fail

CA Productivity Accelerator Server Backup

CAPA components can be backed up using the CAPA Developer to an .odarc file.

Data Migration

For any CA PPM implementation that has more than one CA PPM installation, organizations must migrate changes from one environment to other. Depending on the type of migration, one of the following method should be used.

Migration Type: Configuration Changes

If CA PPM configuration needs to be migrated from one environment to another, the following steps should be used:

- Install CA PPM XOG client on the admin machine
- Based on what configuration needs to be migrated, use the sample XML files located in the XML folder under the XOG client installation. Update that sample XML to use the ID of the components to be exported.
- Run the XOG client against the CA PPM server from where the configuration changes must be exported.
- After the component is exported, use the exported XML file as an input and run the XOG against the target CA PPM server.

Migration Type: Data Changes

If CA PPM data or data changes must be migrated from one environment to another, follow these steps:

- Install CA PPM XOG client on the admin machine
- Based on what data needs to be migrated, use the sample XML files located in the XML folder under the XOG client installation. Update that sample XML to use the ID of the data that needs to be exported.
- Run the XOG client against the CA PPM server from where the data changes must be exported.
- After data is exported, use the exported XML file as an input and run the XOG against target CA PPM server.

Migration Type: Full CA PPM Restore

If full CA PPM restore is needed in a different environment based on the backup taken earlier, such as restore production environment on the development server, the following steps should be performed:

- Install supported Web Server (Tomcat) and JAVA on the CA PPM server.
- Copy the backup CA PPM files to the CA PPM server.
- Upload the backup CA PPM database schema.
- Upload reporting schemas if Jaspersoft needs to be restored.
 - PPM_JASPERSOFT schema
 - PPM_DWH schema
- Upload CAPA schema if CAPA components needs to be restored.
- Add and deploy CA PPM NSA Service

- Start CA PPM System Administration (CSA) service and login to CA PPM server administrator client
- Update the database values to point to the new CA PPM schema
- Update values for all the components such as JAVA, Jaspersoft, CA PPM URL, CA PPM background URL etc.
- Add and deploy CA PPM application and background services
- Start CA PPM application and background services.
- Update XDM by executing the following command on the CA PPM server
 - Admin xdm install
- Update search index by executing the following command on the CA PPM server
 - Admin search recreate-index-data
- Delete leftover process engines (This step removes orphan records.)
 - Run Select to determine if there are any orphans to delete. If no orphans are found, skip step 2.
 - Execute the following SQL commands in the database (IPT)

```
DELETE FROM BPM_RUN_PROCESS_ENGINES
WHERE id NOT IN
( SELECT process_engine_id
FROM BPM_RUN_PROCESSES )
AND END_DATE IS NOT NULL
DELETE FROM BPM_RUN_PROCESS_ENGINE_RUNS
WHERE engine_id NOT IN (SELECT id FROM
BPM_RUN_PROCESS_ENGINES)
```

Authored by CA Services