



How To Install and Configure a Non-Central Advanced Adapter Engine with Local User Management

Applicable Releases:

SAP NetWeaver Process Integration 7.1 EhP1

Topic Area:

SOA Middleware

Capability:

Service Bus

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Document History

Document Version	Description
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
< Example text >	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons

Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. Business Scenario

A non-central Advanced Adapter Engine should continue to run when for any reason the connected Integration Server is not available, for example during a downtime or caused by network issues. Especially the Advanced Adapter Engine should not reject an incoming web service call when the user logon cannot be verified. Incoming asynchronous web service calls should be stored in the Messaging System until the connection to the Integration Server is available again, and then processed automatically.

For this purpose the User Management of the Advanced Adapter Engine is decoupled from the User Management of the Integration Server. That means the users of Integration Server and Advanced Adapter Engine have to be maintained independently. This can be done by creating the users in the systems manually or with help of SAP Identity Management.

2. Background Information

In a standard installation of an Advanced Adapter Engine, the connected Integration Server has to be available at runtime of the Advanced Adapter Engine. One reason is the storage of the users of the Advanced Adapter Engine in the Integration Server. If there is a logon to the Advanced Adapter Engine, the user has to be validated against the User Management of the Integration Server which is not possible, when it is not available. Another reason is the connection to the System Landscape Directory. This is only necessary when the Advanced Adapter Engine is starting.

This guide describes how the User Management and the System Landscape Directory connection can be configured to enable the Advanced Adapter Engine to run independently from the Integration Server.

3. Prerequisites

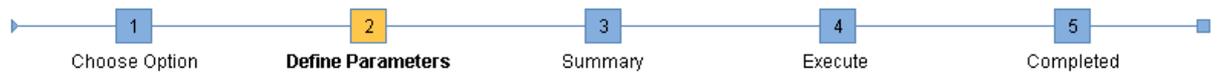
The guide is based on the installation guide of the Advanced Adapter Engine. The scenario is tested with Advanced Adapter Engine in SAP enhancement package 1 for SAP NetWeaver Process Integration 7.1 (SP 1). Before installing the Advanced Adapter Engine, you need a running Integration Server of same version.

4. Step-by-Step Procedure

Following steps describe the installation and initial setup of the Advanced Adapter Engine

4.1 Installing the Advanced Adapter Engine

1. Find the Installation guide for the Advanced Adapter Engine under <https://service.sap.com/installNWPI71>
Expand **3 - Installation - Standalone Engines** and choose the Installation Guide for the Advanced Adapter Engine according to your database and operating system.
2. Follow the Installation Guide and perform all steps until *Running SAPInst*.
3. After Starting *SAPInst*, you have to choose the Parameter Mode. In opposite to the installation guide, you may choose the value *Typical*.



Parameter Settings

Choose whether you want to run the installation in a typical or a custom mode.

Parameter Settings

Parameter Mode Typical
 Custom

Additional Information

- If you choose *Typical*, the option is performed with default settings. As a result, you only have to respond to a small selection of prompts. If you want to change any of the default settings, you can do so on the *Parameter Summary* screen.
- If you choose *Custom*, you are prompted for all parameters. At the end, you can still change any of these parameters on the *Parameter Summary* screen.

4. If you choose the value *Custom*, make sure that you choose *UME Configuration Use Java Database* on screen *User Management Engine* screen. This is very important as it cannot be changed later. This step is skipped, when you have chosen Parameter Mode *Typical*.



UME Configuration

Decide which option you want to use for the management of users and groups in your Java EE engine.

User Management Engine (UME)

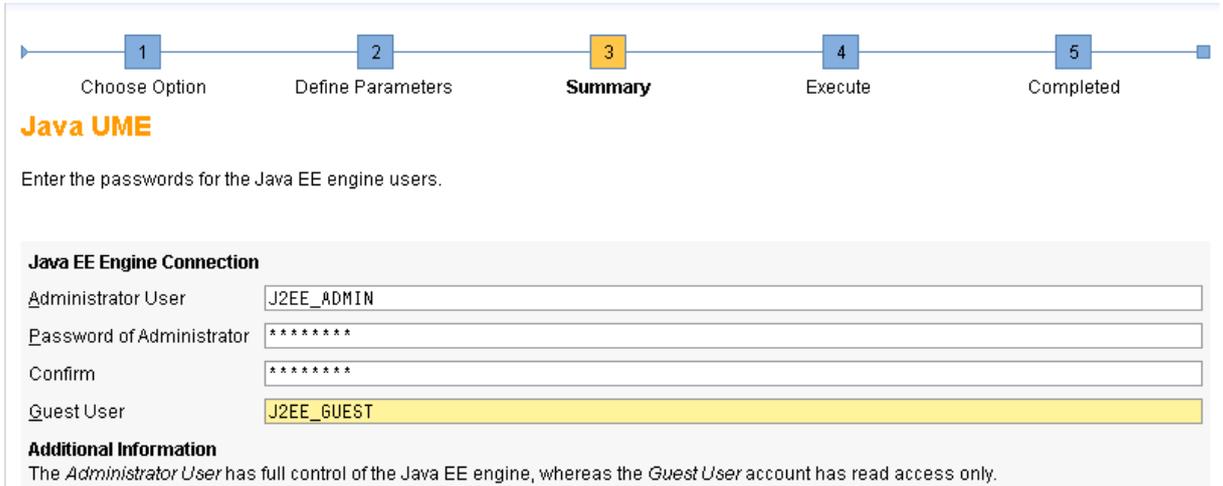
UME Configuration Use Java Database (Default)
 Use ABAP

Additional Information

For more information, see <http://help.sap.com> or [SAP Note 718383](#).

- With the option *Use Java database*, administrators can manage users and groups with the UME Web admin tool and SAP NetWeaver Administrator only. For LDAP, use this configuration for installation and change the configuration to LDAP after installation
- With the option *Use ABAP*, administrators can manage users with the transaction SU01 and, depending on the permissions of the communication user, also with the UME Web admin tool and SAP NetWeaver Administrator.

- If you want to have the same administrator user in the central and in the non-central Advanced Adapter Engine, you may change the default users Administrator and Guest to J2EE_ADMIN and J2EE_GUEST. If you have chosen Parameter Mode Typical, this step is omitted, but you can change the user names from the summary screen by checking *Java UME* and clicking on *Revise*.



Java UME

Enter the passwords for the Java EE engine users.

Java EE Engine Connection

Administrator User	J2EE_ADMIN
Password of Administrator	*****
Confirm	*****
Guest User	J2EE_GUEST

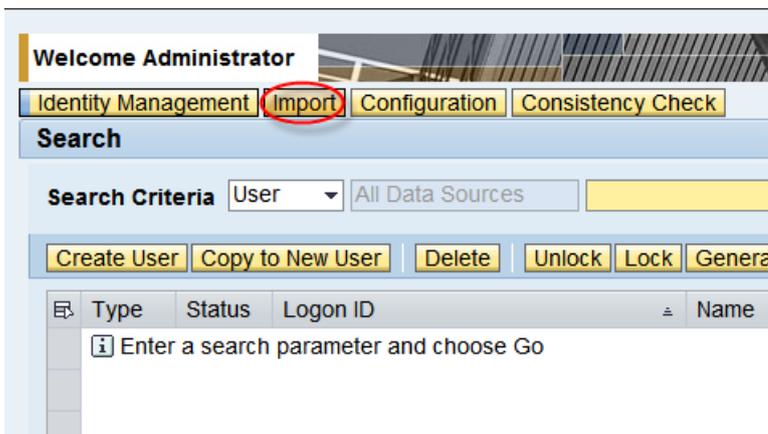
Additional Information
The *Administrator User* has full control of the Java EE engine, whereas the *Guest User* account has read access only.

- Continue with the installation as described in the installation guide.

4.2 Upload the User File

Before you start the post-installation steps, you must upload the file with the users, roles and groups. Otherwise the post-installation steps cannot run successfully.

- In the appendix of this document you find the user file. It provides all standard PI users, like PIAPPLUSER, PIDIRUSER, and so on. Edit that file and replace the passwords of the users. The default passwords in the file are abcd1234. Replace the default passwords with the passwords that the users have in the Integration Server.
- Log on to the User Management of the Advanced Adapter Engine with a user with administration rights.
- Choose *Import*.



Welcome Administrator

Identity Management **Import** Configuration Consistency Check

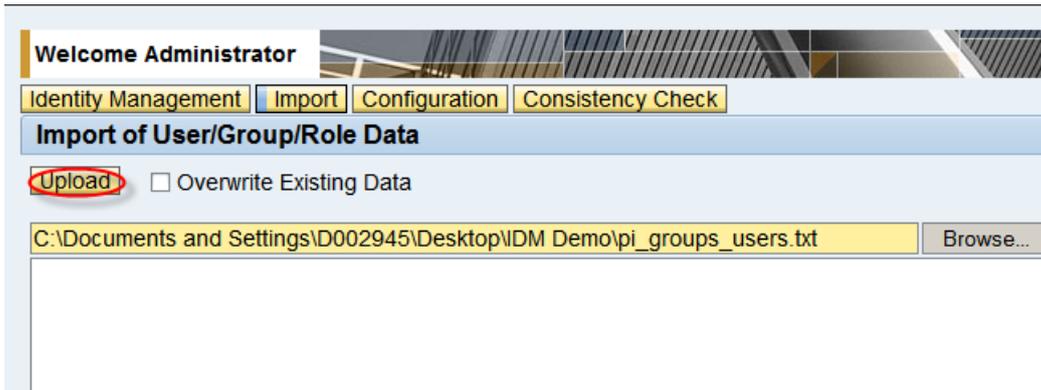
Search

Search Criteria User All Data Sources

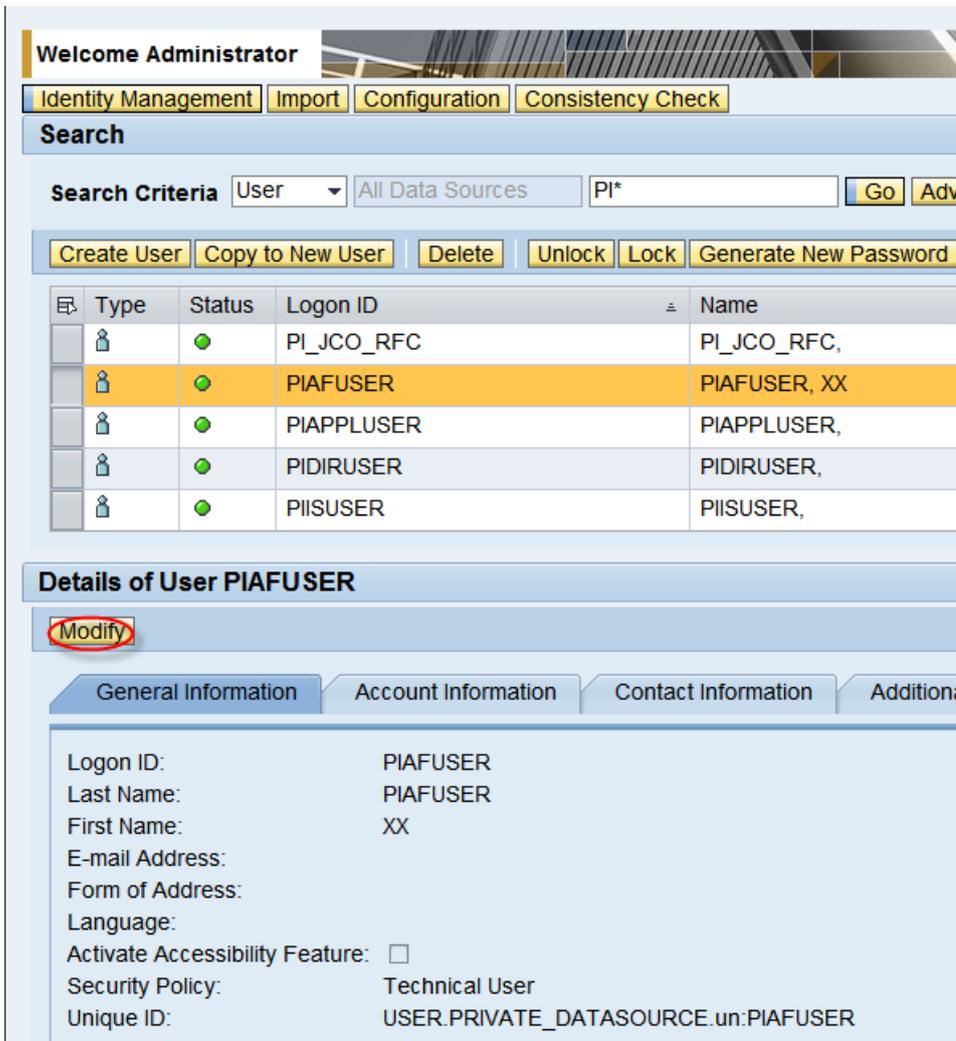
Create User Copy to New User Delete Unlock Lock Genera

Type	Status	Logon ID	Name
Enter a search parameter and choose Go			

- Browse for the user file and choose *Upload*.



- After the upload, choose Identity Management, search for all users starting with PI and change the *Security Policy* to *Technical User* for all users one by one, except PISUPER.



4.3 Perform the Post-Installation Steps

After uploading the users, you proceed with the installation guide and run the configuration wizard. During the post-installation process, the connection the Integration Server and System Landscape Directory must be ensured.

After finishing the post-installation steps, logon to the Runtime Workbench of the Integration Server and choose *SLD Registration*. Here the non-central Advanced Adapter Engine must be visible under *Non-Central Components*; otherwise you have to repeat the post installation steps.

When you click under Status on the light corresponding to the Advanced Adapter Engine, you find the CPA cache update URL and the Messaging URL of Integration Server stored in SLD, which you need in the following steps.

Non-Central Components

Register

Component Name	SLD-Instance Name	HTTP Host Name	Database Host Name	Port	Status
Adapter Engine DA1 (wdfd00227506a)	af.da1.wdfd00227506a	WDFD00227506A	wdfd00227506a	50600	✖
Adapter Engine DAE (wdfd00227506a)	af.dae.wdfd00227506a	WDFD00227506A	wdfd00227506a	50200	✖

Details for Component Adapter Engine DA1 (wdfd00227506a)

- AdapterFramework reports registration status: completely registered
- CPA cache update URL used by Adapter Engine: http://wdfd00227506a:50000/dir/hmi_cache_refresh_service/ext?method=CacheRefresh&mode=<Mode>&consumer=af.da1.wdfd00227506a
- CPA cache update URL stored in SLD: http://wdfd00227506a:50000/dir/hmi_cache_refresh_service/ext?method=CacheRefresh&mode=<Mode>&consumer=af.da1.wdfd00227506a
- CPA cache update URL: URL currently used by Adapter Engine and URL stored in SLD are the same
- Messaging URL of Integration Server used by Adapter Engine: <http://localhost:50080/sap/xi/engine?type=entry>
- Messaging URL of Integration Server stored in SLD: <http://WDFD00227506A:50000/sap/xi/engine?type=entry>
- ✖ Messaging URL of Integration Server: URL currently used by Adapter Engine and URL stored in SLD are different!
- SLD-instance Integration Server is.00.wdfd00227506a: The SecureMsgUrl of Integration Server is.00.wdfd00227506a is not set (null). This can cause problems if secure messaging is configured.

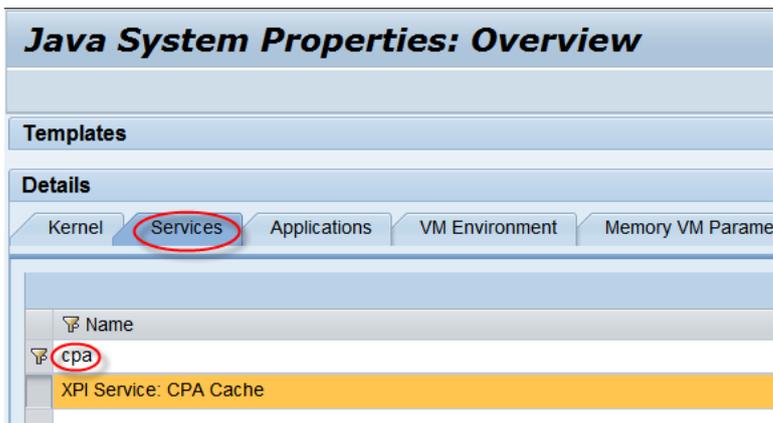
4.4 Maintain Java System Properties

In the Java System Properties, you enable the Advanced Adapter Engine to work without connection to the System Landscape Directory. You have to configure the settings of the CPA cache and the XPI adapter.

1. Go to the SAP NetWeaver Administrator of the Advanced Adapter Engine and log on with a user with administration rights.
2. Choose from Menu: Configuration Management → Infrastructure → Java System Properties.

4.4.1 Maintain Settings for CPA cache

3. On screen *Details*, select tab *Services* and search for the service: *XPI Service CPA Cache*.



Java System Properties: Overview

Templates

Details

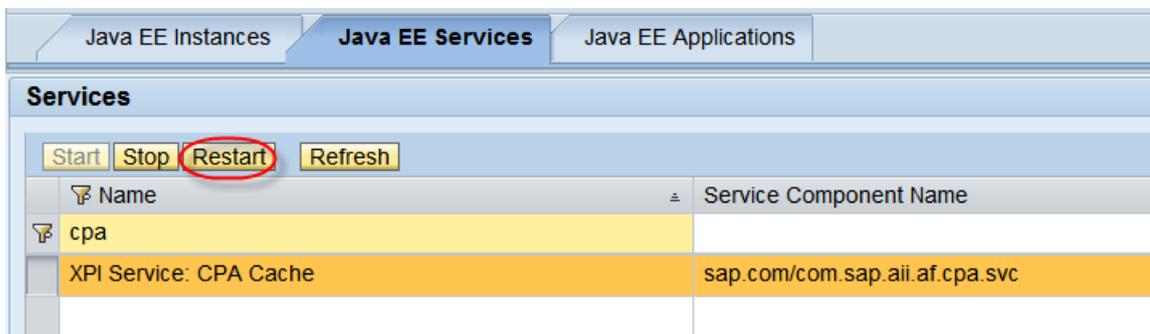
Kernel **Services** Applications VM Environment Memory VM Paramete

Name

cpa

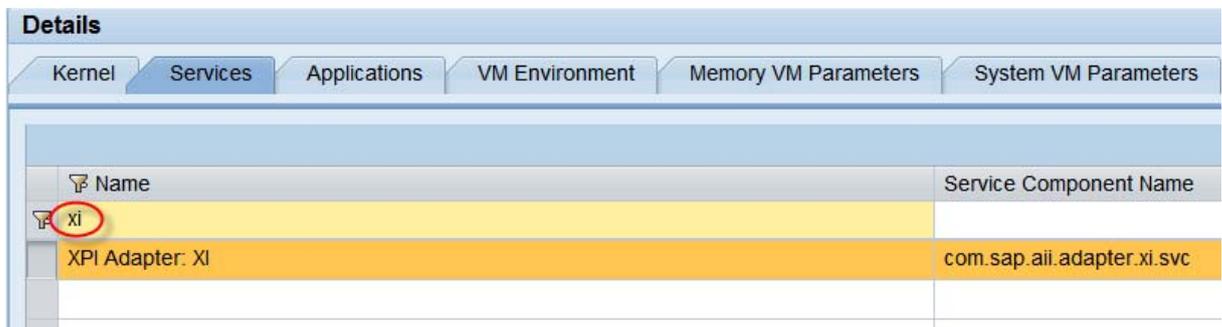
XPI Service: CPA Cache

4. On screen *Extended Details* change following values:
 - SLDAccess:** false
 - directoryURL:** http://<PI-host>:<PI-port>/dir/hmi_cache_refresh_service/ext?method=CacheRefresh&mode=<Mode>&consumer=af.<sid>.<af-host>
 - directoryUser:** PIDIRUSER
 - directoryPwd:** password of PIDIRUSER in PI system
5. Choose *Save*
6. Choose from Menu: *Related Links -> Start & Stop: Java EE Services.*
7. Search for the service: *XPI Service CPA Cache.*
8. Choose *Restart.*



4.4.2 Maintain Settings for XPI Adapter

9. On screen *Details*, select tab *Services* and search for the service: *XPI Adapter: XI.*



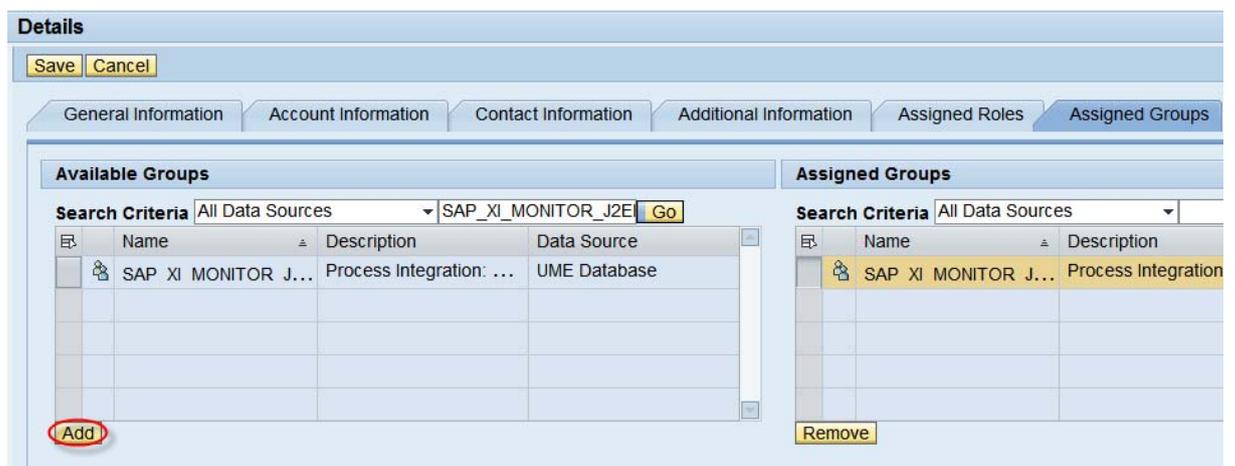
10. On screen *Extended Details* change following values:
 - xiadapter.isconfig.password:** <password of PIAFUSER>
 - xiadapter.isconfig.sapClient:** <Client of Integration Server>
 - xiadapter.isconfig.sapLanguage:** <any Language>
 - xiadapter.isconfig.sapSysid:** <System ID of Integration Server>
 - xiadapter.isconfig.url:** <URL of Integration Server>
 - xiadapter.isconfig.username:** PIAFUSER
11. Choose *Save.*
12. Choose from Menu: *Related Links -> Start & Stop: Java EE Services.*
13. Search for the service: *XPI Service CPA Cache.*
14. Choose *Restart.*

4.5 Adding Users to the Advanced Adapter Engine

4.5.1 Adding Users for Monitoring

To access the Message Monitor or the Channel Monitor from Runtime Workbench, you have to provide users, as the users of the Integration Server are not available in the Advanced Adapter Engine by default.

1. Log on to the User Management of the Advanced Adapter Engine.
2. Choose *Create User*.
3. Provide at least User name, password and last name.
4. Choose on tab *Assigned Groups*.
5. Search for Group *SAP_XI_MONITOR_J2EE*.
6. Choose *Add*.
7. Choose *Save*.

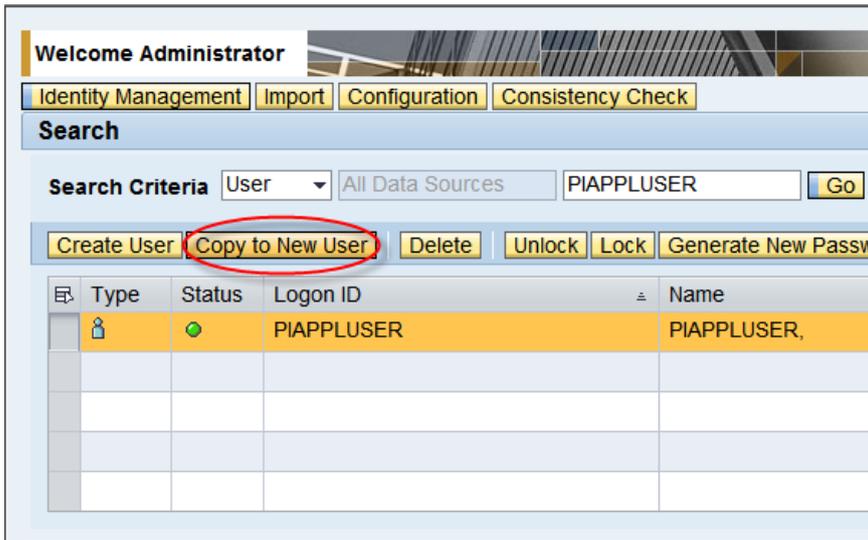


4.5.2 Add Users for Incoming Web Service Calls

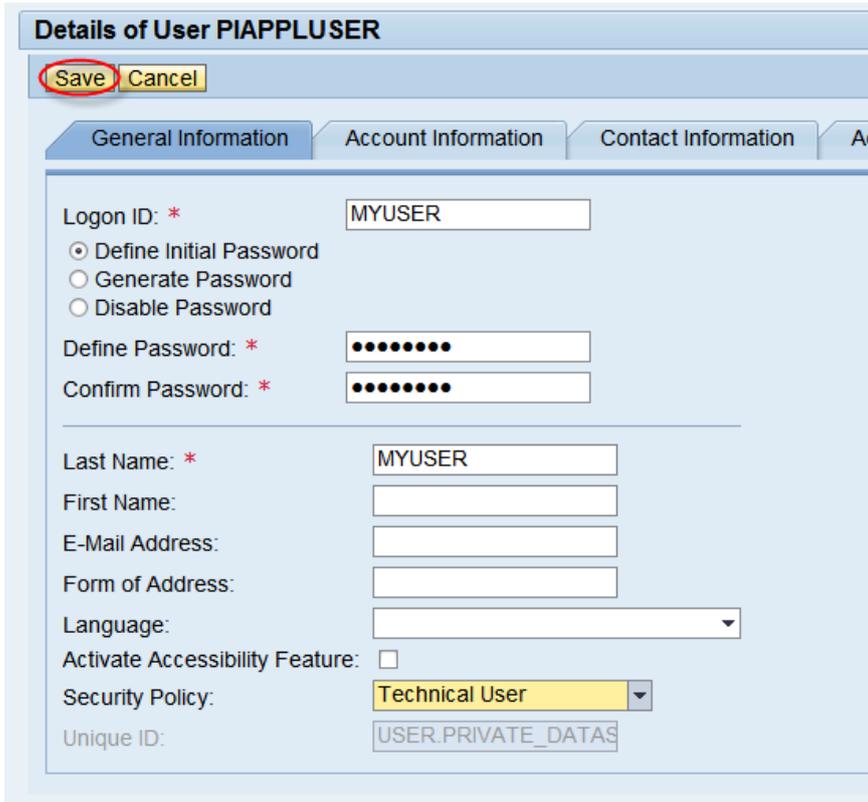
When you want to perform web service (SOAP) calls to the non-central Advanced Adapter Engine, you have to provide user credentials in the web service call. For this reason you have to create a user in the Advanced Adapter Engine.

1. Log on to the User Management.
2. Search for the user *PIAPPLUSER*.

- Copy the user.



- Provide user name and password and as Security Policy select Technical User. Save the user.



5. Connecting SAP Identity Management

If you want to connect the SAP NetWeaver Identity Management to the non-central Advanced Adapter Engine, make sure that you have uploaded the user File (step 4.2) before. This is necessary not only to complete the post-installation steps, but also to provide the groups and roles that are necessary to perform monitoring tasks on the Advanced Adapter Engine.

In the SAP NetWeaver Identity Management you create a repository for the Advanced Adapter Engine and upload users and groups. You create also a repository for the Integration Server and upload the users and roles. The groups of the Advanced Adapter Engine correspond to the roles of the Integration Server.

For users that should be able to monitor in both systems, you create a business role and assign the relevant roles from the Integration Server and groups from the Advanced Adapter Engine. Assign this business role to the users which should work in the systems.

6. Appendix

User File

The user file which is needed in step 4.2 is attached to the article

www.sdn.sap.com/irj/sdn/howtoguides