Mobile Add-On for ERP Installation Guide
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Before you begin reading this guide, be sure that you have the latest version. Find the latest version at https://help.sap.com/viewer/product/SAP_MOBILE_ADD_ON/latest/en-US.

The following table provides an overview of the most important document changes.

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2.1</td>
<td>SEP 2016</td>
<td>Original release</td>
</tr>
<tr>
<td>6.2.1.0</td>
<td>NOV 2016</td>
<td>Added two additional SAP Note links in the Relevant SAP Notes section of Installing the Mobile Add-On for ERP [page 8]</td>
</tr>
<tr>
<td>6.2.1.1</td>
<td>JAN 2018</td>
<td>Added 6.5 to available releases in Mobile Add-On for ERP Installation Overview [page 5]</td>
</tr>
</tbody>
</table>
1  Before You Begin

This document is intended for system administrators, technical architects, and IT personnel involved in the installation, setup, and configuration of software for the SAP ERP mobile application. It is assumed that the personnel performing the installation and setup are aware of SAP ERP installation. SAP ERP and SAP setup knowledge is helpful while carrying out the steps for the mobile setup of SAP ERP.

This document is intended to be used along with appropriate SAP documentation and covers only setting up and enabling the SAP ERP mobile application. The configurations described in this guide are effective only if done on top of the configuration maintained in the SAP Customizing Implementation Guide in SAP ERP.

Leveraging SAP Conversion Agent Capabilities

The following functional areas are handled using standard SAP Conversion Agent processes and functionality:

- High Availability Concept
- Starting and Stopping
- Software Maintenance
- Support Desk Management

Additional functionality includes:

- System administration and monitoring for mobile
- Mobile application configuration
- Custom development
- Troubleshooting

For detailed information on these items, refer to the appropriate topics of the Configuration Guide.
The Mobile Add-On for ERP supports integration to the SAP ERP system, configuration, system administration, and monitoring.

Mobile Add-On for ERP includes three components:
- Integration foundation
- Application integration services for SAP ERP
- Application integration services for IS Utility

The Mobile Add-On for ERP supports most NetWeaver ABAP 7.x-based systems (for a full list, see SAP Note 1828657). The application add-on supports standard business processes provided by the SAP ERP system.

The industry solution add-on supports utility industry solutions provided by IS-UT 600.

The Mobile Add-On for ERP SP01 also supports SAP S/4HANA, on-premise edition 1511 FPS 01.

The Mobile Add-On for ERP supports the following complex mobile applications from SAP:
- SAP Work Manager releases: 5.2, 5.3, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5
- SAP Inventory Manager releases: 3.1, 3.2, 4.0, 4.1, 4.2, 4.3
- SAP Rounds Manager releases: 2.2, 2.3, 3.0
- Vehicle Stock ERP extension for CRM Service Manager releases 4.0, 4.1, 4.2, 4.3

The Mobile Add-On for ERP is backwards-compatible. The latest version of the Mobile Add-On for ERP supports older releases of the mobile applications for SAP ERP.

Mobile Add-On for ERP is the successor release for ABAP add-on SYCLO and SYCLOU for SAP ERP systems. If the software components SYCLO or SYCLOU already exist in the SAP ERP system, upgrade the SAP system to Mobile Add-On for ERP. After you complete the upgrade procedure, the SYCLO or SYCLOU components are removed from the SAP system and replaced with the Mobile Add-On for ERP.

- SAP ERP system with software component SYCLO: After the upgrade, the SYCLO component is replaced with new components SMERP 620_700 and SMFND 620_700.
- SAP ERP system with software component SYCLOU: After the upgrade, the SYCLOU component is replaced with new component SMISU 620_700.

The Mobile Add-On for ERP also supports delta change detections for OData-based offline applications.

### Installation Tasks

The installation of the Mobile Add-On for ERP includes the following main tasks:

1. Verify the system requirements.
2. Prepare for installation, including downloading the software and support packages to install.
3. Install the Mobile Add-On for ERP software and support packages.
4. Activate the Administration Component in the target client for the SAP ERP system.
5. Define and schedule background jobs that maintain the synchronization components within the Integration Framework.

Once the installation of the Mobile Add-On for ERP and the other software components within the SAP ERP-based mobile solution are complete, the standard functionality as provided by SAP is available.
3 Mobile Add-On for ERP Requirements

The following software and support package requirements are the minimum versions of the listed items required for the Mobile Add-On for ERP Administration Component installation to the SAP ERP system.

Verify that these minimum software versions are met before installing the Mobile Add-On for ERP. Later versions of these components are fully supported; these items represent only the minimum versions.

Software Requirements

<table>
<thead>
<tr>
<th>Software Component</th>
<th>Release</th>
<th>Support Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP_ABA</td>
<td>700</td>
<td>Enhancement Package 0 or higher, with SP18 or higher</td>
</tr>
<tr>
<td>SAP_APPL</td>
<td>600</td>
<td>Enhancement Package 0 or higher, with SP15 or higher</td>
</tr>
<tr>
<td>EA_APPL</td>
<td>600</td>
<td>SP15 or higher</td>
</tr>
<tr>
<td>SAP_BASIS</td>
<td>700</td>
<td>Enhancement Package 0 or higher, with SP18 or higher</td>
</tr>
<tr>
<td>IW_BEP</td>
<td>200</td>
<td>SP06 or higher</td>
</tr>
<tr>
<td>IS_UT*</td>
<td>600</td>
<td>SP15 or higher</td>
</tr>
</tbody>
</table>

*This component is only required if you are using the Utilities industry functionality.

<table>
<thead>
<tr>
<th>Software Component</th>
<th>Release</th>
<th>Support Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP S/4HANA, on-premise edition</td>
<td>1511</td>
<td>Feature Pack Stack (FPS) 01</td>
</tr>
</tbody>
</table>
4 Installing the Mobile Add-On for ERP

Prerequisites

- An SAP NetWeaver ABAP-based system is required to install the Mobile Add-On for ERP.

  **i Note**
  
  We recommend performing an embedded deployment for your SAP Gateway system when you install the Mobile Add-On for ERP.

- Ensure that you have the current versions of kernel, TP, and R3trans.
- Current SPAM / SAINT update: Compare the short text of the last SPAM / SAINT update you imported with the SPAM / SAINT update in the SAP Service Marketplace. If the version of the SPAM / SAINT update in the SAP Service Marketplace is more recent, import the update.
- Verify that the required software components have been installed, as listed in the system requirements for the Mobile Add-On for ERP Administration Component.
- Ensure that your security settings to trust the certificate are configured properly. For more information, see Configure Principal Propagation to an ABAP System for HTTPS.
- No SAP password is required.

Additional Information

- Space required in the transport directory: Approximately 10 MB
- Total runtime: Approximately 0.5 hours
- Mobile Add-On for ERP:
  - **installation and upgrade packages:**
    - SAPK-630AGINSMFND.SAR
  - **installation and upgrade packages:**
    - SAPK-630AGINSMERP.SAR
  - **installation and upgrade packages:**
    - SAPK-630AGINSMISU.SAR

  **i Note**
  
  If upgrading from the software component SYCLO, use installation packages, and installation package. Perform the upgrade using SAINT with a single queue.

Language Support

The Mobile Add-On for ERP supports the following languages for the SAP Asset Manager application:
The Mobile Add-On for ERP supports the following languages for all other mobile applications:

- enUS - English
- deDE - German
- frFR - French
- ptBR - Portuguese
- esES - Spanish

Relevant SAP Notes

- SAP Note 2577248: Release Information Note: Mobile Add-On for ERP 6.30
- SAP Note 1828657: Release Strategy for ABAP Add-Ons SMFND, SMERP, SMISU, and SMCRM
- SAP Note 2565237: SAP Work Manager ABAP Add-On for ERP 6.3 Installation Master Note
- SAP Note 2388711: Enable SAP Work Manager and SAP Inventory Manager Applications for an SAP S/4HANA Back-End System
- SAP Note 1982598: GIS Integration Support for Mobile Add-On
- SAP Note 2016828: SAP Inventory Manager ABAP Add-On Installation Master Note
- SAP Note 2016829: SAP Rounds Manager ABAP Add-On Installation Master Note

Support


Procedure Overview

The following tasks comprise the installation procedure for the Mobile Add-On for ERP. When this procedure has been completed, the mobile add-on is installed to the SAP ERP system and activated. This procedure also includes the following post-installation changes or additions:

- Activation of the B/C Set in the SAP target client
- Activation of the service for the Web Dynpro ABAP application
- Definition of the background jobs for system operation, including exchange data processing and optional push processing.
4.1 Preparation for Installation of Mobile Add-On for ERP

Procedure

1. Log on to your SAP system as client 000 and as a user that has system administrative privileges. Do not use the SAP® or DDIC users.
2. Import the required user language or multiple languages for all components that have already been installed. Perform the language import before the installation of the Mobile Add-On for ERP.

4.2 Installing the Mobile Add-On for ERP Software

Context

There are two different deployment scenarios, depending on which add-on component you install. Select the correct path for your appropriate deployment scenario.

Deploying the mobile add-on in an SAP ERP System

- Install and configure the SAP ERP system with a minimum support package of 15 and an enhancement package of 0. Refer to the appropriate documentation on http://service.sap.com/instguides, SAP Business Suite Applications > SAP ERP.

Deploying the Mobile Add-On in an SAP IS-Utility System

- Install and configure the SAP for Utilities SAP ERP system with a minimum support package of 15 and an enhancement package of 0. Refer to the appropriate documentation on http://service.sap.com/instguides, Industry Solutions > SAP for Utilities.
- Install and configure the mobile add-on software components on the related SAP for Utilities system. The software is available for download at http://service.sap.com/swdc, Installations and Upgrades > Browse our Download Catalog > SAP Mobile Solutions > Add-On for Mobile Integration with SAP > Mobile Add-On for ERP.

Procedure

1. Load the software package into your system through the add-on manager, using the transaction code SAINT.
For more information about loading software packages, see the online documentation for the add-on installation tool. Select the help function in the application toolbar and navigate to [Online Documentation]

Loading Installation Packages.

2. Start the installation of the Mobile Add-On for ERP using the add-on installation tool, accessed from the transaction SAINT.

For more information about the add-on installation tool, see the online documentation by selecting the Help function on the toolbar.

The add-on installation tool imports the ABAP add-on installation packages from your DVD or the SAP Service Marketplace into your SAP system landscape. For more information, see the following SAP notes:

- 1828657: Release Strategy for the ABAP Add-Ons, SMFND, SMERP, SMISU, and SMCRM
- 1936049: How to Upgrade ABAP Add-On SYCLO 3XX_700 to SMCRM 610_700, 620_700

3. Load the support packages into your system through the Support Package Manager, using the transaction code SPAM.

4. Install the support packages for the Mobile Add-On for ERP, accessed from transaction code SPAM.

### 4.3 Post Installation - Required

#### Prerequisites

Meet the following requirements to access the Mobile Add-On for ERP from the gateway oData services for SAP ERP 6.0 EHP 7 SP14+ installations with the SAP Gateway either activated in an embedded deployment or the SAP Gateway activated in a Gateway hub deployment:

- The SAP Gateway is activated (see [SAP Gateway Foundation Configuration Guide](#))
- The SAP Gateway system aliases are configured (see [Creating an SAP System Alias](#))

#### Context

As a part of the post installation procedure, there are both required and optional tasks. The following procedure covers the required tasks, which include activating both the B/C set and the service for the Web Dynpro ABAP application, the definition of intervals for certain number objects, and the configuration of the exchange table purge background job, and the activation of gateway oData services.

**i Note**

If the SAP Gateway is an embedded deployment, begin the following procedure at Step 1. If the SAP Gateway is activated as a hub deployment, begin the following procedure at Step 2.
Procedure

1. Activate the relevant oData service for your application:
   a. Log on to the target client for the SAP ERP application as a user with administrative privileges.
   b. Start the transaction /IWFND/MAINT_SERVICE.
   c. Add a new service from the local system alias, adding services with the following properties as necessary:

<table>
<thead>
<tr>
<th>Technical Service Name</th>
<th>Service Description</th>
<th>External Service Name</th>
<th>Namespace</th>
</tr>
</thead>
<tbody>
<tr>
<td>/MERP/</td>
<td>SAP Asset Manager 2.0</td>
<td>SAP_ASSET_MANAGER_20</td>
<td>/MERP/</td>
</tr>
<tr>
<td>SAP_ASSET_MANAGER_20</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>/MISU/</td>
<td>SAP Asset Manager 2.0 - ISU extension</td>
<td>SAP_ASSET_MANAGER_20</td>
<td>/MISU/</td>
</tr>
<tr>
<td>SAP_ASSET_MANAGER_20*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If meter readings are enabled in the back-end system and ISU components are available, the MISU service replaces the existing MERP SAP Asset Manager service.

d. Once you have added the appropriate services, set the proper system aliases.

e. Ensure that you have updated the offline oData settings. See Updating Offline Settings for SAP Asset Manager Overview and associated topics for more information.

f. Continue to Step 5 to set the system mapping.

2. Ensure that the system alias pointing to the back end SAP system from the Gateway hub has a correct RFC configuration in the back end. For more information, see Creating an SAP System Alias.

3. Ensure that trust relationships are correctly established between the Gateway hub and the SAP ERP back end. For more information, see RFC Trusted/Trusting Systems.

4. Activate the relevant oData service for your application:
   a. Log on to the target client for the SAP ERP application as a user with administrative privileges.
   b. Start the transaction /IWFND/MAINT_SERVICE.
   c. Add a new service from the local system alias, adding services with the following properties as necessary:

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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If meter readings are enabled in the back-end system and ISU components are available, the MISU service replaces the existing MERP SAP Asset Manager service.

d. Once you have added the appropriate services, set the proper system aliases.
e. Continue to Step 5 to set the system mapping.

5. Ensure your oData services, whether your SAP Gateway is an embedded deployment or a hub deployment, are available from the . For more information, see Setting up the SAP Cloud Platform Cloud Connector System Mapping.

6. Activate the relevant B/C set for your application:
   a. Log on to the target client for the SAP ERP application as a user with administrative privileges.
   b. Start the transaction SCPR20.
   c. Activate the appropriate B/C set for your application:

   1. **SAP Asset Manager 2.0 B/C set options:**
      - Base SAP Asset Manager 2.0 standard configuration:
        - /MERP/SAP_ASSET_MANAGER_20_REF
      - SAP Asset Manager 2.0 with the Meter Management component running the IS-Utility solution:
        - /MISU/SAP_ASSET_MANAGER_20_REF

   2. **Work Manager 6.5 B/C set options:**
      - Base Work Manager 6.5 standard configuration:
        - /SMERP/SAP_WORK_MANAGER_65_REF
      - Work Manager 6.5 with the Customer Service component:
        - /SMERP/SAP_CUST_SERVICE_24_REF
      - Work Manager 6.5 with the Meter Management component running IS-Utility industry solution:
        - /SMISU/SAP_METER_MGMNT_23_REF
      - Base Work Manager 6.4 standard configuration:
        - /SMERP/SAP_WORK_MANAGER_64_REF
      - Work Manager 6.4 with Linear Asset Management support requires a B/C set and a business function set:
        - /SMERP/SAP_WORKMGR_64_EHP5_REF (B/C set)
        - /SMERP/EHP5_EAM_BUS_FUNC (business function set)
      - Work Manager 6.4 with the Customer Service component:
        - /SMERP/SAP_CUST_SERVICE_23_REF
      - Work Manager 6.4 with the Meter Management component running IS-Utility industry solution:
        - /SMISU/SAP_METER_MGMT_22_REF

   **Work Manager 6.3 B/C set options:**
   - Base Work Manager 6.3 standard configuration:
     - /SMERP/SAP_WORK_MANAGER_63_REF
   - Work Manager 6.3 with Linear Asset Management support requires a B/C set and a business function set:
     - /SMERP/SAP_WORKMGR_63_EHP5_REF (B/C set)
     - /SMERP/EHP5_EAM_BUS_FUNC (business function set)
   - Work Manager 6.3 with the Customer Service component:
     - /SMERP/SAP_CUST_SERVICE_22_REF
   - Work Manager 6.3 with the Meter Management component running IS-Utility industry solution:
Work Manager 6.2 B/C set options:
Base Work Manager 6.2 standard configuration:
- /SMERP/SAP_WORK_MANAGER_62_REF

Work Manager 6.2 with Linear Asset Management support requires a B/C set and a business function set:
- /SMERP/SAP_WORKMGR_62_EHP5_REF (B/C set)
- /SMERP/EHP5_EAM_BUS_FUNC (business function set)

Work Manager 6.2 with the Customer Service component:
- /SMERP/SAP_CUST_SERVICE_21_REF

Work Manager 6.2 with the Meter Management component running IS-Utility industry solution:
- /SMISU/SAP_METER_MGMNT_20_REF

Work Manager 6.1 B/C set options:
Base Work Manager 6.1 standard configuration:
- /SMERP/SAP_WORK_MANAGER_61_REF

Work Manager 6.1 with Linear Asset Management support requires a B/C set and a business function set:
- /SMERP/SAP_WORKMGR_61_EHP5_REF (B/C set)
- /SMERP/EHP5_EAM_BUS_FUNC (business function set)

Work Manager 6.1 with the Customer Service component:
- /SMERP/SAP_CUST_SERVICE_20_REF

Work Manager 6.1 with the Meter Management component running IS-Utility industry solution:
- /SMISU/SAP_METER_MGMNT_15_REF

3. Inventory Manager 4.3 B/C set options:
- /SMERP/SAP_INVENTORYMGR_43_REF - Inventory Manager 4.3 with the Warehouse Management component

Inventory Manager 4.2 B/C set options:
- /SMERP/SAP_INVENTORYMGR_42_REF - Base Inventory Manager 4.2
- /SMERP/SAP_WAREHOUSE_MAN_12 - Inventory Manager 4.2 with the Warehouse Management component

Inventory Manager 4.1 B/C set options:
- /SMERP/SAP_INVENTORYMGR_41_REF - Base Inventory Manager 4.1
- /SMERP/SAP_WAREHOUSE_MANAGER_11 - Inventory Manager 4.1 with the Warehouse Management component

Inventory Manager 4.0 B/C set options:
- /SMERP/SAP_INVENTORYMGR_40_REF - Base Inventory Manager 4.0
- /SMERP/SAP_WAREHOUSE_MANAGER_10 - Inventory Manager 4.0 with the Warehouse Management component

- /SMERP/SAP_ROUNDS_MGR_30_REF - Rounds Manager 3.0

Rounds Manager 3.0 B/C set:
- Inventory Manager 4.0 with the Warehouse Management component

CRM Service Manager Vehicle Stock B/C set options:
- /SMERP/SAP_CRM_VEHICLE_STOCK_40_REF - CRM Service Manager 4.0 ERP extension for Vehicle Stock
7. Activate the Services for the Web Dynpro ABAP Applications.
   a. Start transaction SICF.
   b. Activate all services under the node default_host/sap/bc/webdynpro/Syclo.

8. Define intervals for number range objects /SYCLO/C_2, /SMFND/IQ1, and /SMFND/DS1.
   a. Start transaction SNRO.
   b. Enter the number range for object /SYCLO/C_2:
      - Interval 01, Value 0000000001 – 0099999999: Push instance record ID
      - Interval 02, Value 0100000000 – 0199999999: System statistic record ID
      - Interval 03, Value 0200000000 – 0299999999: Mobile transaction history record ID
      - Interval 04, Value 0300000000 – 0399999999: Subscription queue record ID
   c. Enter the number range for object /SMFND/DS1.
      - Interval 01, Value 0000000001 – 0199999999: Staging data store record ID
   d. Enter the number range for object /SMFND/IQ1.
      - Interval 01, Value 0000000001 – 0199999999: Inbound transaction record ID
   e. Enter the number range for object /MFND/CS1.
      - Interval 01, Value 0000000001 – 0199999999: Dependent Object Queue record number

9. Define the background job: Exchange table purge.
   a. Define a variant for the program /SYCLO/CORE_EXCH_PURGE_PROG with the Mobile Application attribute set to the application you are installing. For example, SAP_WORK_MANAGER_65 or SAP_INVENTORY_MANAGER_43.
   b. Define a periodic background job for the /SYCLO/CORE_EXCH_PURGE_PROG program with transaction code SM36, using the variant defined in the previous step. Set the frequency so you perform purges daily.

10. For more information, see the following SAP Notes and help topics for your relevant mobile applications:
    - SAP Note 2565237: SAP Work Manager ABAP Add-On for ERP 6.3 Installation Master Note
    - SAP Note 2016828: SAP Inventory Manager ABAP Add-On Master Note
    - SAP Note 2016829: SAP Rounds Manager ABAP Add-On Installation Master Note
    - SAP Note 1982598: GIS Integration Support for Mobile Add-On
    - Updating Offline Settings for SAP Asset Manager Overview
4.4 Post Installation - Optional

Context

The following post installation tasks cover the definition of background jobs and are optional based on the desired functionality for the implementation. Following is a list of these optional tasks and the situations in which they should be defined:

- **Define Background Job: Push Scenario** - Define this background job only when the implementation includes server push functionality. Implementation of this behavior includes this background job, as well as other possible changes to the standard application.

- **Define Background Job: Push Registry Purge** - Define this background job only when server push functionality is implemented. Push registry purge periodically removes data stored in relation to push synchronization. The data is needed only for a finite time period and can be safely removed once all business objects are pushed to clients by the server. Always define the background job for the push registry purge when you have defined the push scenario background job.

- **Define Background Job: System Statistic Calculation** - Define this background job only if system statistics are enabled in the Administration and Monitoring Portal for the Mobile Add-On for ERP. This job performs statistic calculations on the data generated by the system statics feature.

- **Define Background Job: System Statistic Records Purge** - Define this background job only if the system statistics are enabled in the Administration and Monitoring Portal for the Mobile Add-On for ERP. This job purges unneeded records generated by the system statistic calculation job.

The details on defining each of these jobs is provided next. It is not necessary to define all of the background jobs, and you can skip the background jobs not applicable to your implementation.

Procedure

1. **Define Background Job: Push Scenario**
   a. Define a variant for program `/SYCLO/CORE_PUSH_PROC_PROG` with the `Mobile Application` attribute set to the mobile application you are installing.
   b. Define a job for `/SYCLO/CORE_PUSH_PROC_PROG` as either a periodic job or a trigger by event job with transaction SM36, using the variant from the previous substep. For a periodic job, set the frequency according to the requirements of the push processing. This interval defines the frequency for object pushes to the client applications. For a trigger by event job, the event is `/SYCLO/BACKGROUND_JOB_EVENT` with a parameter value of `EXCHOBJ_PUSH_EVENT`. If the event does not exist in the system, define a custom event of `/SYCLO/BACKGROUND_JOB_EVENT` using transaction code SM64.

2. **Define Background Job: Push Registry Purge**
   a. Define a variant for program `/SYCLO/CORE_PUSH_PURGE_PROG` with the `Mobile Application` attribute set to the application you are installing.
   b. Define a periodic background job for program `/SYCLO/CORE_PUSH_PURGE_PROG` with transaction SM36, using the variant created in the previous step. Set the frequency so that the process runs once daily.
3. **Define Background Job: System Statistic Calculation**
   a. Define a variant for program `/SYCLO/CORE_SYSSTATS_UPD_PROG` with the `Mobile Application` attribute set to the application you are installing.
   b. Define a periodic background job for program `/SYCLO/CORE_SYSSTATS_UPD_PROG` with transaction code `SM36`, using the variant defined in the previous substep. Set the frequency so that the job runs once per hour.

4. **Define Background Job: System Statistic Records Purge**
   a. Define a variant for program `/SYCLO/CORE_SYSSTAT_PURGE_PROG` with the `Mobile Application` attribute set to the application you are installing.
   b. Define a periodic background job for program `/SYCLO/CORE_SYSSTAT_PURGE_PROG` with transaction code `SM36`, using the variant from the previous step. Set the frequency so that the process runs once daily.

### 4.5 Activating SAP Lockout / Tagout Service in SAP Gateway (Optional)

#### Context

If you plan to use SAP Work Clearance Manager, activate the OData service SAP Lockout / Tagout in the SAP Gateway.

Before you activate the service, ensure that you have configured the system alias for your SAP back-end system in the SAP Gateway.

**Note**

Set the software version to `DEFAULT`.

For detailed instructions, go to the Customizing: Execute Project page and open SAP Reference IMG (Transaction `SPRO`). From there, select `SAP NetWeaver` ➔ `SAP Gateway` ➔ `OData Channel` ➔ `Configuration` ➔ `Connection Settings` ➔ `SAP Gateway to SAP System` ➔ `Manage SAP System Aliases`.

#### Procedure

1. Start transaction `/iwfnd/maint_service`. The list of services displays.
2. Add SAP Lockout/Tagout to the Service Catalog.
   a. Select `Add Service`.
   b. Enter the System alias of your back-end system.
   c. Select the `/SMERP/E5_WCM_TOLO_OP_APVL_SRV` service.
   d. Enter all required information and click `Enter` to add the service. The service is now displayed in the Service Catalog.
3. Activate SAP Lockout/Tagout.
   a. Select the `/SMERP/E5_WCM_TOLO_OP_APVL_SRV` service.
   b. In the ICF Nodes section, select and activate the ODATA node. Note: Do not activate the SDATA ICF node.

4. Select a package from the customer namespace.

Next Steps

Maintain the authorizations for the users of SAP Lockout / Tagout as described in the User Role Administration of AS ABAP section of the SAP SAP NetWeaver Application Server ABAP Security Guide. Be sure to use the activated service name `/SMERP/E5_WCM_TOLO_OP_APVL_SRV`.

For further information, refer to the Administrator’s Guide: SAP Lockout / Tagout SDK1.0.0.
5 Security Settings

Security settings are used to perform authorization checks at various levels of mobile data object processing. The security checks are carried out by the SAP integration framework at runtime.

Security check rules can be defined at three different levels:

- **System security**: These checks are application independent and apply to all components of the SAP integration framework. There are no prerequisite rules defined for system security.

- **Product security**: These checks are performed at a product level, meaning they are application dependent checks. There are no prerequisite rules defined for the product.

- **SAP class handler security**: These checks are performed at the data object class handler level. You can perform these authorization checks to individual mobile data objects at runtime. There are no prerequisite rules defined for class handler objects.

5.1 Web Application Security in NetWeaver AS ABAP

The Mobile Add-On for ERP Administration Component is a Web application based on Web Dynpro for ABAP. NetWeaver AS ABAP supports various logon scenarios such as basic authentication and logon ticket. Basic authentication requires the user to enter a user name and a password when the Web application is launched for the first time. Weak encryption technique is used during data transmit. Therefore, SAP strongly recommends enabling SSO2 in NetWeaver AS ABAP to allow logon ticket.

For information on how to configure authentication using a logon ticket in NetWeaver AS ABAP, refer to the topic User Authentication and Single Sign-On on the SAP help portal.

5.2 SAP ERP Authorizations for Mobile Users

All mobile users need the following minimum authorizations to connect to SAP ERP through the applicable application server.

**S_RFC Object**

The following rights are needed for the S_RFC object:

- Activity: Execute
- Name of RFC:
  - RFC1
P_PERNR Authorization Object

The following rights are needed for the P_PERNR authorization object:

- Authorization Level: R
- Infotype:
  - 0002
  - 0002
- Interpretation of assigned personnel number: *
- Subtype: ”

Additional Business Application Authorizations

Mobile users must have additional authorizations assigned in SAP to perform activities such as create or change notifications, or to create or change work orders by using the SAP ERP mobile application. These additional authorizations are implementation-specific.

System Operation Utility Programs Authorization Requirement

System utility programs such as:

- /SYCLO/CORE_CACHE_PURGE_PROG
- /SYCLO/CORE_EXCH_PURGE_PROG
- /SYCLO/CORE_PUSH_PURGE_PROG
- /SYCLO/CORE_SYSSTAT_PURGE_PROG
- /SYCLO/CORE_PURGE.Utility_PROG
- /SYCLO/CORE_SUBQ_PURGE_PROG
- /SMFND/CORE.V3_UPD_EXEC_PROG
- /SMFND/IBQ_TRANS_PURGE_PROG

require the following authorization:

Authorization Object: S_MI_CCMS
Authorization Field: ACTVT
5.3 SAP Service User Authorization for the SAP Mobile Platform Server

All SAP service users need the following authorization.

S_RFC Object

The following rights are needed for the S_RFC object:

- Activity: Execute
- Name of RFC:
  - RFC1
  - SDIFRUNTIME
  - SYST
  - SG00
  - SRFC
  - SYSU
  - /SAP*/
- Type of RFC Object: Function Group

5.4 Activate Security Access Restriction for SAP ConfigPanel and Admin Portal

By default, security access restriction to the SAP ConfigPanel and Admin Portal is not activated. The system administrator activates the security restriction to the ConfigPanel and Admin Portal manually after installation of the ABAP add-on. To activate security restrictions, specify the required SAP user role for the tool usage of the specified user.

ABAP add-on does not provide predefined SAP user roles for the SAP Mobile Suite. Customers can define mobile suite related SAP user roles based on internal business processes and security procedures. Once mobile suite related SAP user roles are defined, specify the roles in the ConfigPanel by navigating to **Menu Authorization Settings > System Security** tab.
In the following example screen shot, these SAP user roles are created:

- **Z_SAP_MOBILE_ADMIN**: Full access to the Admin Portal
- **Z_SAP_MOBILE_ADMIN_DIS**: Display only access to the Admin Portal
- **Z_SAP_MOBILE_CONFIG_DIS**: Display only access to the ConfigPanel
- **Z_SAP_MOBILE_CONFIG**: Full access to the ConfigPanel

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Object Name</th>
<th>Authorization Field Name</th>
<th>Authorization Field Value</th>
<th>Sys Admin Ind.</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Role</td>
<td>Z_SAP_MOBILE_ADMIN</td>
<td></td>
<td></td>
<td>SYSADMIN</td>
</tr>
<tr>
<td>User Role</td>
<td>Z_SAP_MOBILE_ADMIN_DIS</td>
<td></td>
<td></td>
<td>ADMINVIEW</td>
</tr>
<tr>
<td>User Role</td>
<td>Z_SAP_MOBILE_CONFIG_DIS</td>
<td></td>
<td></td>
<td>CONFIGVIEW</td>
</tr>
<tr>
<td>User Role</td>
<td>Z_SAP_MOBILE_CONFIG</td>
<td></td>
<td></td>
<td>SYS CONFIG</td>
</tr>
</tbody>
</table>

Once the security access restriction is activated, users without the proper authorization receive the following message when trying to access either the ConfigPanel or Admin Portal: *You do not have authorization to use this application. Please contact system administrator for more information.*
5.5 Configuring SSO between the SAP Portal and the SAP ABAP System

Prerequisites

Ensure that you have the following roles in the Configuration Panel:

- pcd:portal_content/administrator/super_admin/super_admin_role
- Administrator

Context

This procedure configures the single sign-on between the SAP Configuration Panel and the SAP ABAP system. Steps 1 - 8 configure the SSO in the Configuration Panel. Steps 9 - 11 configure the SSO in the SAP ABAP system.

Procedure

1. Navigate to System Administration ➤ System Configuration in the Configuration Panel.
2. Expand the Portal Content Director (PCD) by expanding the folder named Portal Content.
3. Create a new folder to hold the new system by right-clicking on Portal Content and selecting New Folder.
4. Set up the following properties in the new system folder. Note that all properties may not be required for ITS or Gateway systems.

<table>
<thead>
<tr>
<th>Property</th>
<th>Example</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Host</td>
<td>xxx.xxx.xxx.xxx</td>
<td>FQD name of SAP ERP server</td>
</tr>
<tr>
<td>Authentication Ticket Type</td>
<td>SAP log on ticket</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>&lt;SID&gt;</td>
<td></td>
</tr>
<tr>
<td>Gateway Host</td>
<td></td>
<td>FQD name of SAP ERP Gateway server</td>
</tr>
<tr>
<td>Gateway Service</td>
<td></td>
<td>Port or service name of Gateway server</td>
</tr>
<tr>
<td>ITS Description</td>
<td>&lt;SID&gt;&lt;CLIENT PORT&gt;</td>
<td></td>
</tr>
</tbody>
</table>
**Property** | **Example** | **Notes**
--- | --- | ---
ITS Host Name | xxx.xxx.xxx.xxx:<port> | You can take this host name and port from the back-end system with transaction SMICM and select [GOTO Services](#).<ref>

ITS Path | /xxx/xxx/xxx/xxx/webgui/ | Search for `<WEBGUI>` in transaction SICF to get this path.<ref>

ITS Protocol | http | Logical system name of client: you can find the system name through transaction SCC4.<ref>

Logical System Name | `<SID><CLIENT PORT>` | Logical system name of client: you can find the system name through transaction SCC4.<ref>

Log On Method | SAPLOGONTICKET | Log On Method

SAP Client | 800 | Log On Method

SAP System ID (SID) | `<SID>` | Log On Method

SAP System Number | 11 | Log On Method

Server Port | 3211 | Log On Method

System Name | `<SID><CLIENT PORT>` | Log On Method

System Type | SAP_R3 | Log On Method

---

5. Set up a default alias for the new system. Right-click on the new system and select [Open System Aliases](#).

6. (Optional) Create a Configuration Panel Role and an Iview to test the connection.

7. Download the certificate of the Configuration Panel server as a ZIP file.
   - a. In the Configuration Panel, select [System Administration > System Configuration > Keystore Administration](#).
   - b. On the Content tab, select Download verify.der File.
   - c. Extract the verify.der file from the archive.

8. Obtain the Configuration Panel system ID and client.
   - b. Note the System ID and Client from the screen that displays.

9. Log on to the target client, not Client 0000.

**i Note**

See SAP Note 761917, point 2

10. Import the Configuration Panel certificate to the back end ABAP system.
    - a. Navigate to transaction STRUSTSSO2.
    - b. On the left side (PSE Status frame), select System PSE.
    - c. On the right side, in the Certificate section, click the Import Certificate button.
    - d. Click the file path dropdown button to select the verify.der file that you exported in Step 7.
    - e. Verify that the file format is set to Binary.
f. Choose Add to ACL, to add the Configuration Panel server to the ACL list.
g. In the dialog box that appears, enter the System ID and Client of the Configuration Panel in the fields and click Enter (check mark) when complete.
h. Click Save.

11. Set the profile parameters.
   a. In Client 000, navigate to transaction RZ10.
   b. Enter DEFAULT in the Profile field.
   c. Select the latest version in the Version field.
   d. In the Edit Profile section, select Extended Maintenance.
   e. Click the Change button.
   f. Ensure the profile parameter login/accept_sso2_ticket is set to a value of 1.
   g. Repeat the process for the latest version of the instance profile.

5.6 Adding BDS Graphics Authorization

Some businesses require that a signature graphic is imbedded into a PDF rather than added as an attachment. To add a signature file to the PDF, you can use the Business Documentation Service (BDS) graphics feature.

To use this feature, make BDS authorization part of the user authorization profile. When creating your user role, include the authorization S_BDS_DS to the authorization profile.

5.7 Authorizations Related to Document Management System (DMS)

When using the SAP Document Management System (DMS), set the proper authorizations in order for the mobile user to use the upload and download attachment functionality.

If the SAP Document Management System (DMS) is used to manage the document and attachment repository in SAP, assign the mobile user the appropriate authorizations with authorization object C_DRAW_TCD to use the attachment download and upload functionality in the mobile applications.

In addition, assign the service user for push processing read authorization with authorization object C_DRAW_TCD to read attachments during attachment push processing.
6 Backing up the Mobile Add-On for ERP

Use standard SAP backup and restore procedures for the Mobile Add-On for ERP. Specific procedures vary depending on the database for the SAP system. For more information, refer to the SAP NetWeaver 7.4 portal. See the Database Administration topic and its subtopics for specific details.
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