# Implementation Guide

SAP Fiori Front-End Server 4.0



# **Document History**

Version	Date	Change
1.0	2017-09-18	First version
1.1	2017-11-16	" Landscape Planning for SAP Fiori Front-End Server (On Premise)" has been updated

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### 1 About This Document

This document is intended for administrators and developers who plan to implement SAP Fiori front-end server 4.0 in their SAP system landscapes.

### 1.1 Purpose

This guide contains general information on planning SAP Fiori front-end server 4.0 implementation as well as information on installing and updating SAP Fiori front-end server 4.0.

SAP Fiori front-end server 4.0 is an add-on product for SAP NetWeaver Application Server (AS) ABAP and delivers the technology front-end software components required to run SAP Fiori 2.0 apps with the required stack definition.

For general information on SAP Fiori front-end server 4.0, see the central SAP Note 2484979.

## 1.2 Additional Important Information

- · SAP Fiori product page the central entry point for all information about SAP Fiori.
- SAP Fiori Overview page a starting point for exploring help information delivered for SAP Fiori-based products and Fiori technology, plus related training & education material.
- SAP Fiori 2.0 What You Need to Know information on how to get SAP Fiori 2.0, including implications if you perform an upgrade or develop SAP Fiori 2.0 apps.
- SAP Fiori apps reference library a comprehensive library that enables you to explore, plan, and implement SAP Fiori. Use it also to explore SAP Fiori-based products/apps that run on SAP Fiori front-end server.
- SAP Fiori Implementation Information general implementation information about setting up an on-premise system landscape to enable SAP Fiori apps.

# 2 Planning SAP Fiori Front-End Server 4.0 Implementation

### 2.1 Planning an SAP Fiori On-Premise Landscape (Overview)

# 2.1.1 System Landscape Components for SAP Fiori (On Premise)

A typical SAP Fiori implementation contains the following system landscape components:

Front-End Server

To host and provide SAP Fiori app content to the client, you need to install and configure several UI components for your front-end server. SAP Gateway software is normally required but not mandatory for all SAP Fiori apps.

Back-End Server

The back-end server hosts the SAP business applications for which the SAP Fiori apps have been created. To access the corresponding business logic and business data (including users, roles, and authorizations), services for SAP Fiori apps must be deployed.

Database

For SAP Fiori apps in SAP S/4HANA, the front-end server requires an SAP database, the back end requires SAP HANA. Other SAP Fiori apps typically can use any database on the front-end server.

Client Device

SAP Fiori apps and the SAP Fiori Launchpad run on various mobile devices, tablets, laptops, or desktop computers that support HTML5 browsers. SAP Fiori Client is the recommended hybrid application runtime on mobile devices.

Reverse Proxy Server

For communication between client devices and your front-end server, we recommend installing a reverse proxy server, for example, SAP Web Dispatcher. Due to standard browser limitations, using a reverse proxy server is mandatory for some SAP Fiori apps.

# 2.1.2 Planning SAP Fiori Implementation with SAP Best Practices

With SAP Best Practices (also known as SAP Rapid Deployment Solutions), SAP delivers standardized business practices, implementation methods, and accelerators for implementing SAP Fiori.

SAP provides this content free of charge as an added value for licensed customers, with the aim of driving down implementation costs, accelerating deployment, and adding benefit to their investment in SAP products.

The packaged solutions are published in SAP Best Practices Explorer with assets covering solution design, configuration, and software and delivery requirements. Note: To be able to download, you need an account for SAP Service Marketplace.

The SAP Fiori apps rapid-deployment solution offers overview and implementation information for different types of SAP Fiori apps and technology components of the SAP Fiori landscape. For more information, see "User Experience" in SAP Best Practices Explorer and the "Accelerator" Software and delivery requirements, which lists all prerequisites that are needed for deployment to start, including those for the system, content, tools, and project.

# 2.1.3 Planning an Installation or Upgrade with SAP Maintenance Planner

SAP Solution Manager's cloud-based Maintenance Planner enables easy and efficient planning of all changes in your SAP system landscape. It is the successor of Maintenance Optimizer, Landscape Planner, and Landscape Management Database (LMDB) Product System Editor. It combines their functionalities and is mandatory for planning SAP S/4HANA and systems based on SAP NetWeaver 7.5 and higher. Maintenance Planner consolidates critical tasks such as definition of product maintenance dependencies, generation of a stack configuration file, and selection of archives in a single tool.

With Maintenance Planner, you can:

- Get an overview of the system landscape, including system dependencies, before planning a change.
- Determine the impact of a system change on your landscape, with features like product maintenance dependency.
- Download the stack XML that contains all the planned changes, and put the required files in a download basket.
- · Use integrated processes for installing SAP Fiori apps and conversion to SAP S/4HANA.

For more information, see Maintenance Planner on SAP Support Portal.

# 2.2 Landscape Planning for SAP Fiori Front-End Server (On Premise)

SAP Fiori front-end server is an add-on product for SAP NetWeaver Application Server (AS) ABAP and delivers the technology software components for the front end required to run SAP Fiori apps with the required stack definition.

Before implementing SAP Fiori front-end server, you should decide how the main components of this product will be deployed in your system landscape. SAP Fiori front-end server allows various deployment options, which result in different system landscape architectures.

Basically, you have the following options to set up SAP Fiori front-end server in an (existing) SAP system landscape:

• Embedded deployment: The front-end server is deployed into the (existing) AS ABAP of an SAP Business Suite or SAP S/4HANA back-end system.

- Hub deployment for single back-end systems: A dedicated AS ABAP-based front-end server is deployed in a standalone system "in front of" the SAP Business Suite or SAP S/4HANA back-end system.
- Hub deployment for multiple back-end systems: A dedicated AS ABAP front-end server with SAP Fiori
  front-end server is deployed "in front of" several back-end systems. This deployment option is only available
  for specific scenarios for more information, see *Landscape Deployment Recommendations for SAP Fiori Front-End Server* in the SAP Enterprise Architecture Explorer at https://eaexplorer.hana.ondemand.com.

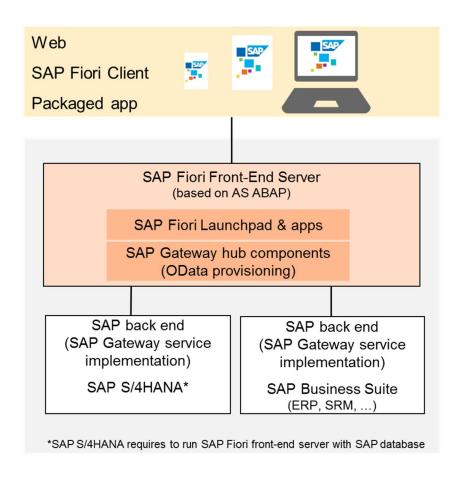
Each option has both advantages and potential drawbacks in terms of lifecycle, operations, and sizing.

For more information on the various deployment options, see Landscape Deployment Recommendations for SAP Fiori Front-End Server and the SAP Gateway deployment options in a nutshell blog.

#### Note

SAP Fiori apps for SAP Business Suite or SAP S/4HANA may have additional requirements for system landscape setup. For more information, see SAP Fiori apps reference library and the release-specific Notes for the apps you want to deploy.

### 2.3 Planning SAP Fiori Front-End Server 4.0 Implementation



SAP Fiori front-end server 4.0 runs on SAP NetWeaver AS for ABAP and delivers the front-end components required to run SAP Fiori apps in the right stack definition. These software components are:

- User Interface Technology 7.52 (SAP\_UI 752) the SAPUI5 framework to run the SAP Fiori Launchpad on the ABAP stack
- SAP Gateway Foundation (version depends and the underlying AS ABAP 7.40-7.51) the SAP Gateway core components on the ABAP stack
- SAP NetWeaver Application Server for ABAP 7.52 as of this release, SAP Gateway is included in AS ABAP Stack only and a prerequisite for SAP Fiori front-end server
- Optional: SAP Fiori app implementation foundation (SAPUIFT 100) administrative tools for configuration tasks
  - For important information on SAPUIFT component, see SAP Note 2486528.
- · Optional: UI for Basis Applications 300 SAP Fiori Apps for SAP NetWeaver

The complete stack constitutes a "Fiori front-end server". For more information about SAP-Fiori-Frontend-Server 4.0, see SAP Note 2484979.

SAP Fiori apps are delivered separately as add-on products for SAP Business Suite or SAP S/4HANA (on premise). Front-end parts must be installed on top of the SAP Fiori front-end server.

The SAP Fiori front-end server version defines the version of User Interface Technology (SAP UI): SAP Fiori front-end server 4.0 always contains SAP UI 7.52.

The optional "UI for Basis Applications" component, named "SAP Fiori Apps for SAP NetWeaver" is the SAP Fiori front-end component for the back-end server AS ABAP. It is released for AS ABAP on SAP HANA database only, and is available as of AS ABAP 7.50 (back-end version). It is not backward-compatible, which means that for each AS ABAP version there is a corresponding front-end version.

SAP Fiori front-end server 4.0 can be installed in 4 variants (alternatives):

- based on SAP NetWeaver AS ABAP 7.4 (not released for SAP S/4HANA)
- based on SAP NetWeaver AS ABAP 7.50 (SP04 required as minimum for SAP S/4HANA 1610)
- based on SAP NetWeaver AS ABAP 7.51 (full support for the Fiori 2.0 features is granted with this variant AS ABAP 7.51 only)
- based on SAP NetWeaver Application Server for ABAP 7.52 (recommended)

However, lower SAP NetWeaver AS ABAP may not provide the full functionality of the latest version for SAP Fiori (see release notes of SAP Gateway Foundation versions).

#### Recommendation

Typically, for a new hub deployment, we recommend using the latest SAP NetWeaver AS ABAP version.

### 2.4 Additional Planning Information for SAP Fiori Front-End Server 4.0

### 2.4.1 SAP Fiori Front-End Server Product Road Map

The SAP Fiori Front-end Server product road map describes briefly the specifics of this Add-On Product and the dependencies to SAP Fiori, SAP User Interface Technology and SAP Gateway, planned upcoming versions and the difference to SAP Fiori Cloud.

The SAP Fiori Front-end Server product road map is an addendum to the SAP Fiori product road map.

### 2.4.2 Product Availability Matrix (PAM)

The Product Availability Matrix (PAM) on SAP Support Portal is the single point of release information for SAP Fiori front-end server and its contained components, such as availability, end of maintenance dates, upgrade paths, related product versions and technical release information (database platforms, operating systems and so on).

When planning to install from scratch or upgrade SAP Fiori front-end server to version 4.0, familiarize with Platform Availability Matrix for SAP Fiori Front-End Server 4.0.

## 2.4.3 Sizing

Sizing means translating business requirements into technical requirements, such as memory, CPU power, disk space, I/O capacity, and network bandwidth. The Quick Sizer tool helps you do an initial sizing for SAP Fiori apps of SAP standard delivery. If you want to size SAP Fiori apps, you should size the front-end server part and backend server parts accordingly.

For detailed information about sizing SAP Fiori front-end server for SAP S/4HANA, see http://service.sap.com/sizing à Sizing Guidelines à Others à SAP Fiori Front-End Server Sizing for SAP S/4HANA.

For information about sizing the front-end network bandwidth for SAP Fiori apps, see SAP Note 2240690.

# 3 Installing SAP Fiori Front-End Server 4.0

### 3.1 Installing SAP Fiori Technology (On Premise)

To run SAP Fiori apps, you first need to set up an SAP Fiori system landscape. SAP Fiori apps require front-end components to host the web-based user interface and the connection to the back end and back-end components to provide the business data.

In an on-premise scenario, the front-end components typically run on SAP Fiori front-end server, based on an SAP NetWeaver Application Server ABAP.

SAP Fiori front-end server 4.0 delivers the front-end components required to run SAP Fiori 2.0 apps in the right stack definition.

For general information about implementing and configuring SAP Fiori system landscape based on SAP Fiori front-end server 4.0, see SAP Fiori Implementation Information on the SAP Help Portal,



SAP Fiori front-end server 4.0 provides the technology for SAP Fiori 2.0.

## 3.2 Installing SAP Fiori Front-End Server with SL Toolset

To install SAP Fiori front-end server, we recommend that you use the Software Provisioning Manager and Software Update Manager that are shipped as part of the software logistics toolset (SL Toolset) 1.0. You can download these tools from the download center on SAP Support Portal at <a href="https://support.sap.com/sltoolset">https://support.sap.com/sltoolset</a>. For the installation of a new SAP NetWeaver AS ABAP, you use the Software Provisioning Manager in combination with the Maintenance Planner.

For installing SAP Fiori front-end server 4.0 add-on, you need to use Software Update Manager (SUM) in combination with the Maintenance Planner.

Maintenance Planner is a solution hosted by SAP that helps you plan and maintain systems in your landscape. You can plan complex activities like installing a new system or updating existing systems. All changes can be scheduled to be deployed at a convenient time, to minimize downtime. It simplifies the maintenance process by consolidating critical tasks such as definition of product maintenance dependencies, implementing changes by generating stack configuration, downloading archives, and so on, in one tool.

You can find more information on SAP Help Portal at http://help.sap.com/viewer/p/MAINTENANCE\_PLANNER. You can launch the Maintenance Planner on SAP Support Portal at https://apps.support.sap.com/sap/support/mp.

### 3.2.1 Installation with Software Provisioning Manager

Software Provisioning Manager covers the use cases system installation, system copy, migration, and renaming, and is therefore the tool for installing the required SAP NetWeaver AS ABAP for SAP Fiori front-end server.

The installation documentation for the supported SAP NetWeaver AS ABAP releases, database and operating system platforms is available at https://support.sap.com/sltoolset à System Provisioning à Installation Option of Software Provisioning Manager.

### 3.2.2 Add-On Installation with Software Update Manager

The Software Update Manager (SUM) is a multi-purpose tool that supports various processes, such as performing a release upgrade, installing enhancement packages, applying support package stacks, installing add-ons (such as SAP Fiori front-end server), or updating single components.

#### **Process**

Overview of the installation process using SUM in combination with the Maintenance Planner:

1. Plan your maintenance activity (using the Maintenance Planner). See section *Maintenance Planner-Based SAP Fiori Installation and Upgrade* in the Maintenance Planner User Guide on SAP Help Portal: http://help.sap.com/viewer/p/MAINTENANCE\_PLANNER.



You can combine the installation of the front-end server and the back-end server in one step. When you plan an installation using the Maintenance Planner, the Maintenance Planner creates a consolidated stack configuration file for all required software components.

Please also refer to your SAP Fiori product documentation on SAP Help Portal in case you are performing a combined installation of the front-end server and back-end server, where you find product-specific installation information:

- o SAPS/4HANA
- o SAP Fiori for SAP Business Suite
- 2. Download the Software Update Manager and its documentation from SAP Support Portal at: http://support.sap.com/sltoolset.
- 3. Extract the archive to a folder on the primary application server (central instance) of your SAP system.
- 4. Update SAP Host Agent to the latest patch level and configure SAP Host Agent.
- 5. Connect from your local PC through a browser.
- 6. Configure SUM and provide the *stack.xml* file generated by the Maintenance Planner.
- 7. Execute the add-on installation on your SAP system.

Detailed documentation about installing SAP Fiori front-end server as an add-on to an existing SAP NetWeaver AS ABAP is available in the Software Update Manager Guide at: https://support.sap.com/sltoolset à System Maintenance à Software Update Manager (SUM) 1.0.

## 3.3 Administration and Configuration

Before installing individual apps in your SAP Fiori system landscape, the SAP NetWeaver AS ABAP and the components of SAP Fiori front-end server must be configured. The relevant configuration tasks depend on your system landscape and the app types that you want to implement. For more information, see SAP Fiori Implementation Information à Configuration and SAP Fiori apps rapid-deployment solution in SAP Best Practices Explorer.

## 4 Upgrading SAP Fiori Front-End Server to Version 4.0

### 4.1 Maintenance and Upgrade Strategy for SAP UI in SAP Fiori Front-End Server

For information about the maintenance and upgrade strategy for SAPUI5, SAP UI, SAP NetWeaver AS ABAP in SAP Fiori front-end server, see SAP Note 2217489.

### 4.2 Upgrade with Software Update Manager

Update Manager (SUM) tool in combination with the Maintenance Planner.

There are various upgrade paths depending on your existing system landscape. One of the possible upgrade scenarios is: you are already using SAP Fiori with your SAP Business Suite or SAP S/4HANA system (on-premise) and you want to upgrade to the latest release based on SAP NetWeaver AS for ABAP 7.52.

To upgrade an existing SAP Fiori front-end server (version 2.0 or 3.0) to version 4.0, you need to use Software

The Maintenance Planner calculates the required software components with their dependencies, enables the download of archives, and creates a stack configuration file. You can find more information on SAP Help Portal at http://help.sap.com/viewer/p/MAINTENANCE\_PLANNER.

The Software Update Manager (SUM) is a multi-purpose tool that supports various processes, such as performing a release upgrade, installing enhancement packages, applying support package stacks, installing add-ons (such as SAP Fiori front-end server), or updating single components.

#### Process



Before the upgrade, make sure that you familiarize with the prerequisites and recommendations about SAP Fiori front-end server 4.0 that are described in SAP Note 2484979.

Overview of the upgrade process using SUM in combination with the Maintenance Planner:

1. Plan your maintenance activity (using the Maintenance Planner). See section *Maintenance Planner-Based SAP Fiori Installation and Upgrade* in the Maintenance Planner User Guide on SAP Help Portal: http://help.sap.com/viewer/p/MAINTENANCE\_PLANNER.



You can combine the upgrade of the front-end server and the back-end server in one step. When you plan an update/upgrade using the Maintenance Planner, the Maintenance Planner creates a consolidated stack configuration file for all required software components.

Please also refer to your SAP Fiori product documentation on SAP Help Portal in case you are performing

a combined upgrade of your front-end server and back-end server, where you find product-specific upgrade information:

- o SAPS/4HANA
- o SAP Fiori for SAP Business Suite
- 2. Download the Software Update Manager and its documentation from SAP Support Portal at: http://support.sap.com/sltoolset.
- 3. Extract the archive to a folder on the primary application server (central instance) of your SAP system.
- 4. Update SAP Host Agent to the latest patch level and configure SAP Host Agent.
- 5. Connect from your local PC through a browser.
- 6. Configure SUM and provide the *stack.xml* file generated by the Maintenance Planner.
- 7. Execute the upgrade of SAP Fiori front-end server on your system.
  - i Note

Before the upgrade, you might need to implement additional SAP Notes (for example, those listed in the *CHECKS.LOG* file).

Detailed documentation about upgrading SAP Fiori front-end server as an add-on product is available in the Software Update Manager Guide at: https://support.sap.com/sltoolset à System Maintenance à Software Update Manager (SUM) 1.0.

## 5 Appendix: Important Disclaimers and Legal Information

### Coding Samples

Any software coding and/or code lines / strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, unless damages were caused by SAP intentionally or by SAP's gross negligence.

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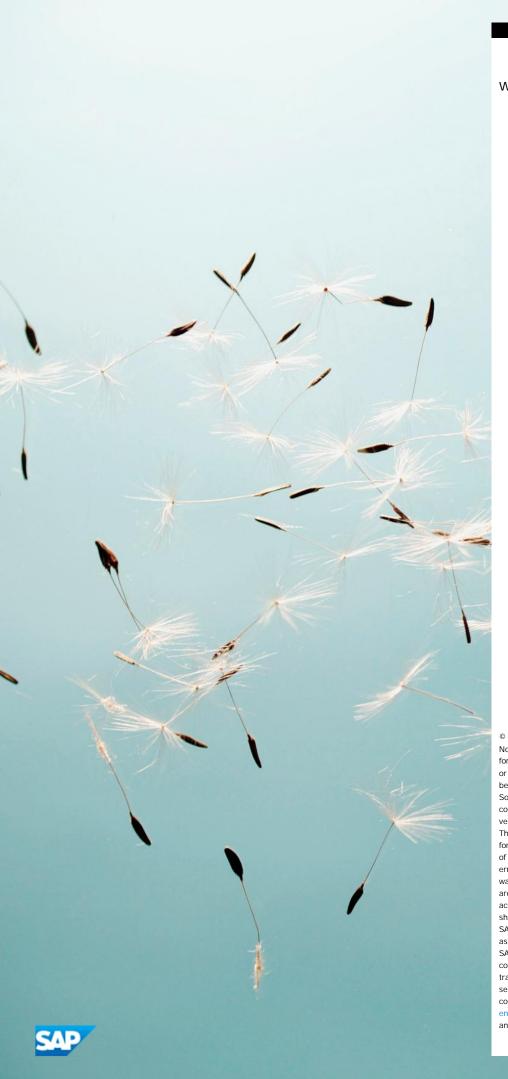
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