Upgrade Master Guide
SAP Event Management 9.0
Using SAP Enhancement Package 1 for SAP NetWeaver® 7.3

Target Audience
- Technical Consultants
- System Administrators

CUSTOMER
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Documentation in the SAP Service Marketplace
You can find this document at the following address: http://service.sap.com/instguides

Typographic Conventions

Example	Description
<>	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, "Enter your <**User Name**>".
▶ → ↵	Arrows separating the parts of a navigation path, for example, menu options
Example	Emphasized words or expressions
Example	Words or characters that you enter in the system exactly as they appear in the documentation
Example	Textual cross-references to an internet address, for example, `http://www.sap.com`
/example	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
123456	Hyperlink to an SAP Note, for example, SAP Note 123456
Example	■ Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options. ■ Cross-references to other documentation or published works
Example	■ Output on the screen following a user action, for example, messages ■ Source code or syntax quoted directly from a program ■ File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE
EXAMPLE	Keys on the keyboard

Document History

⚠️ **CAUTION**

Before you start the implementation, make sure you have the latest version of this document. You can find the latest version on SAP Service Marketplace at `http://service.sap.com/instguides`.

The following table provides an overview on the most important document changes:

Version	Date	Description
1.2	2013-08-13	Revisions for SAP HANA with some minor updates
1.1	2013-05-09	Formal revision for general availability
1.0	2012-11-09	First version

Table of Contents

1   Getting Started

1.1 About This Document

Purpose

This Upgrade Master Guide is a central starting point for the technical upgrade of SAP Event Management. You can find cross-scenario upgrade information as well as scenario-specific information in this guide.

This Upgrade Master Guide is relevant if you currently work with SAP Event Management lower than 9.0.

For more information about the add-on upgrade to EHP 1 for SAP Netweaver 7.3 or EHP 5, see SAP Note 1755495.

> 💡 **NOTE**
>
> The central starting point for the **technical implementation** of your SAP application/solution is the Master Guide. You find it on SAP Service Marketplace at `http://service.sap.com/instguides`.

Use the Upgrade Master Guide to get an overview of the upgrade paths, the upgrade of the involved software units and scenarios from a technical perspective. The Upgrade Master Guide is a planning tool that helps you to decide what software units you have to upgrade, taking into account the dependencies between the software units. It refers you to the required detailed documentation consisting of the following:

- Upgrade guides for single software units
- SAP Notes
- Configuration documentation
- SAP Library documentation

The Upgrade Master Guide consists of the following main sections:

- *Getting Started* contains valuable information about using this document and related information (documentation and SAP Notes) crucial to the installation and upgrade.

- *Event Management Upgrade Overview* provides an overview of main developments and changes that have been made with the new release. It contains upgrade paths, information on the upgrade of software components, and the technical system landscape for SAP Event Management.

- *Business Processes of SAP Event Management* contains the following information for each business process of SAP Event Management:

  - Business process overview

- Information about the required technical system landscape
- *Application-Wide Topics* provides general information for upgrade projects.
- Depending on the specific business process, different installation and master guides are required during the business process implementation. In *List of Documents*, you find an overview of all documentation referenced in this Upgrade Master Guide.

> 💡 **NOTE**
>
> For the most current information about the technical upgrade of SAP Event Management and the latest upgrade, installation, and configuration guides, see SAP Service Marketplace at `http://service.sap.com/instguides`. We strongly recommend that you use the documents available here. The guides are regularly updated.

Constraints

- The business scenarios that are presented here serve as examples of how you can use SAP software in your company. The business scenarios are only intended as models and do not necessarily run the way they are described here in your customer-specific system landscape. Ensure to check your requirements and systems to determine whether these scenarios can be used productively at your site. Furthermore, we recommend that you test these scenarios thoroughly in your test systems to ensure they are complete and free of errors before going live.
- This Upgrade Master Guide primarily discusses the overall technical upgrade of SAP Event Management, rather than its subordinate components. This means that additional software dependencies may exist without being mentioned explicitly in this document. You can find more information about component-specific software dependencies in the corresponding upgrade guides.

1.2 Related Information

1.2.1 Planning Information

Planning Information

For more information about planning topics not covered in this guide, see the following content on SAP Service Marketplace:

Content	Location
Latest versions of installation and upgrade guides	`http://service.sap.com/instguides`
SAP Upgrade Info Center − general information about upgrade topics and solution-specific upgrade information	`http://service.sap.com/upgrade`
General information about SAP Event Management	▶ `http://service.sap.com/scm` → *Event Management* ◀
SAP Business Maps − information about solutions and business scenarios	`http://service.sap.com/businessmaps`

Content	Location
Sizing and calculation of hardware requirements — such as CPU, disk, and memory resource	`http://service.sap.com/sizing`
Released platforms and technology-related topics such as maintenance strategies and language support	▶ `http://service.sap.com/platforms` ↵ To access the Product Availability Matrix directly, enter ▶ `http://service.sap.com/pam` ↵
Network Security	`http://service.sap.com/securityguide`
High Availability	`http://service.sap.com/ha`
Performance	`http://service.sap.com/performance`
Information about Support Package Stacks, latest software versions, and patch level requirements	`http://service.sap.com/sp-stacks`
Information about Unicode technology	`http://service.sap.com/unicode@sap`

1.2.2 Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Content	Location
Information about creating error messages	`http://service.sap.com/message`
SAP Notes search	`http://service.sap.com/notes`
SAP Software Distribution Center (software download and ordering of software)	`http://service.sap.com/swdc`
SAP Online Knowledge Products (OKPs) — role-specific Learning Maps	`http://service.sap.com/rkt`

1.3 Important SAP Notes

Read the following SAP Notes before you start the upgrade. These SAP Notes contain the most recent information about the upgrade, as well as corrections to the upgrade documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at `http://service.sap.com/notes`.

SAP Note Number	Title
1812713	Add-on compatibility of SAP NW AS ABAP 7.4 for Suite on HANA
1755495	Installation/Upgrade SCEMSRV 900
1769182	Implementation recommendations for SAP Event Management 9.0
677373	Release Information Visibility Processes
1144099	Own activity methods when upgrading SAP Event Management
1769112	SAP Event Management 9.0: Online Documentation Corrections including SOA
1224284	Enterprise Services Bundles — Required Technical Usages and Business Functions
1515223	SAP NetWeaver Process Integration: Release Recommendation
1468349	Installation Options with SAP NetWeaver 7.3 (for Java Hubs)

2 SAP Event Management Upgrade Overview

2.1 Upgrade at a Glance

The following table shows the possible mapping of components between previous releases of SAP Event Management and SAP Event Management 9.0:

SAP Event Management Previous Release	SAP Event Management 9.0	Action/Further Information
SCEMSRV 701	SCEMSRV 900	Upgrade with SAP Event Management 9.0
SCEMSRV 700	SCEMSRV 900	Upgrade with SAP Event Management 9.0
SCEMSRV 510	SCEMSRV 900	Upgrade with SAP Event Management 9.0

BI Content Previous Release	SAP Event Management 9.0	Action/Further Information
BI_CONT 703	BI_CONT 705	Import/Distribute on BI

2.2 Upgrade Paths

SAP Event Management 9.0 is an add on of SAP Enhancement Package 1 for SAP NetWeaver® 7.3. This means that it can be deployed on any application system with the release level 7.31. An upgrade to SAP Event Management 9.0 no longer depends on deployment options described for former SAP Event Management releases.

> 💡 **NOTE**
> - SAP Event Management 9.0 and higher is not part of SAP Supply Chain Management Server stack.
> - Enhancement Package 2 for SAP Supply Chain Management Server 7.0 uses Enhancement Package 1 for SAP Event Management 7.0.

2.3 SAP Event Management on SAP HANA

SAP Event Management 9.0 is released to run on the SAP HANA database from Service Package 03 on.

Notes

- The required SAP Netweaver® release is SAP NetWeaver® 7.4. For more information, see SAP note 1812713.

- SAP enhancement package 2 for SAP Supply Chain Management 7.0, is the version for SAP HANA and contains SAP Event Management 7.0 enhancement package 1. To run SAP Event Management on SAP HANA, SAP Event Management must be upgraded to 9.0 Service Package 03 or above.

- The release on the SAP HANA database does not imply any functional changes or functional enhancement to SAP Event Management. All scenarios and all functions in SAP Event Management can be used on SAP HANA in the same way as on any other supported database.

- The Object Event Repository is also available on SAP HANA based on SAP Event Management 9.0 Service Package 03, and Auto-ID Infrastructure 7.1 Service Package 11.

Hardware Sizing

Precise sizing rules are not yet available for SAP Event Management on SAP HANA. Currently, use the following, as guidelines only, for SAP Event Management on a mid-size 40 CPU server running SAP HANA:

- On the capture side, a capture rate of more than 1000 events per second, based on creating 5 event handlers and processing 50 related event messages per second in a single process

- On the query side, a query rate of 25 queries per second in a single process for a typical SAP Event Management search

Note that, these numbers are indications only rather than guaranteed values. Changes without prior notice are possible due to evolving SAP HANA technology.

2.4 Upgrade of Involved Software Components

2.4.1 Application Components

2.4.1.1   SAP Event Management

For an upgrade to SAP Event Management 9.0, the following components are required or optional:

- SAP enhancement package 5 or higher for SAP ERP 6.0 if you install SAP Event Management as an add-on for SAP ERP

- SAP enhancement package 1 for SAP NetWeaver 7.3 usage type PI (optional)

- SAP enhancement package 1 for SAP NetWeaver 7.3 usage type BI (optional)

SAP Visual Business

SAP Visual Business is a user interface that enables you to visualize data from various sources in interactive geographical applications. SAP Visual Business only runs on Microsoft Windows.

In SAP Event Management 9.0, SAP Visual Business is used to display SAP Event Management data (such as transport execution data) on geographical maps. This enables the maps to be seamlessly integrated into the user interface of SAP Event Management 9.0. For more information about SAP

Visual Business, see the corresponding Installation and Configuration Guide on SAP Service Marketplace at `http://service.sap.com/instguides`.

To use the Geographical map with SAP Event Management, you need to install the following:

- ACF Whitelist certificate on a client machine
- SAP Visual Business Front-End Component

For more information, see Customizing for SAP Event Management under ▶ *General Settings in SAP Event Management → Geographical Map → Visual Business → ACF* ↵.

2.4.1.2   SAP ERP – ECC Server

SAP enhancement package 5 or higher for SAP ERP 6.0 is the supported base release for SAP Event Management 9.0.

For more information, see the SAP ERP 6.0 Upgrade Master Guide on SAP Service Marketplace at

▶ `http://service.sap.com/instguides` → *SAP Business Suite Applications → SAP ERP → SAP ERP 6.0 → SAP enhancement packages for SAP ERP 6.0 → SAP enhancement package <5 or higher> for SAP ERP 6.0* ↵.

2.4.2   Technology Components

2.4.2.1   SAP NetWeaver Usage Type PI (Process Integration)

For upgrade information, see the Upgrade Master Guide for SAP NetWeaver 7.3 Including Enhancement Package 1 on SAP Service Marketplace at `http://service.sap.com/instguides`.

2.5   Enhancement Package Key Concept

We have adapted our major release strategy to better fit your adoption cycle. To ensure that you benefit from new developments and innovations while minimizing the impact on your core operational systems, SAP uses enhancement packages to speed up the delivery of new functions.

With SAP enhancement packages, you can install and activate new functions depending on your business needs without having to perform a system upgrade.

You can selectively implement the new functions and activate the software upon business demand. As a result, you can isolate the impact of software updates and make new functions available faster due to shortened test cycles.

Implementation

There are three different scenarios to implement an enhancement package:

- Installation of an enhancement package on an existing SAP system (update)
- New installation of an SAP system including an enhancement package (installation)
- Upgrade of an SAP system including an enhancement package (upgrade)

To implement new business functions you carry out the following two steps:

- Technical installation of an enhancement package
- Activation of business functions using the switch framework technology

You have a choice on both levels – installation and activation. You do not need to install a full enhancement package. Instead, you can update the software components that are related to the functional enhancements you want to use.

> **NOTE**
>
> Keep in mind that you cannot mix the installation of different enhancement package versions in your ABAP-based SAP system. You can have just one enhancement package version in the SAP system.

From a business point of view, functional enhancements are grouped into business functions (BFs). The technical installation of the business functions does not change the system behavior. The new functions are available in the system, but are not active. After the installation, no user interface or process change takes place. You must explicitly activate new functions so that they become visible in the system. As a result, changes are predictable and there are no side effects as only the activated areas change.

With the switch framework technology (transaction SFW5), it is possible to control the activation of new SAP objects in ABAP-based SAP systems. The activation process triggers a background job that automatically performs all changes in the SAP system.

> **CAUTION**
>
> You cannot reverse most business function once they are activated. Due to technical restrictions, only a limited number of business functions are reversible.

After you have activated a business function, you can see the changes and new developments in the SAP system, for example:

- Menu entries
- New screens
- New fields on the application user interfaces
- IMG activities required for the implementation
- New table entries in Customizing tables and system tables

You can create a transport request with the current settings of the switch framework. You can check functional changes and the impact of an activated business function in advance in the business function documentation.

> **RECOMMENDATION**
>
> Test the installation and activation on a sandbox system.

Maintenance

SAP enhancement packages have Support Packages of their own that are equivalent to the Support Package versions of the underlying SAP system. We highly recommend installing the enhancement package in combination with the latest available Support Package stack. This approach reduces installation, modification adjustment, and testing effort. Using this strategy, you can install SAP enhancement packages as a normal maintenance activity together with Support Package stacks. An enhancement package requires a specific Support Package stack level in the source release SAP system.

> **NOTE**
>
> If the SAP system is on a lower Support Package stack level, all relevant Support Package stacks for the EHP installation are **automatically included** into the download queue by the Maintenance Optimizer, as well as the latest available Support Packages for the enhancement package.

Tools

The enhancement package installation requires the following tools:

- SAP Solution Manager

  > **NOTE**
  >
  > Use of SAP Solution Manager is **mandatory**.
  >
  > You require at least one of the following versions of SAP Solution Manager.
  > - SAP Solution Manager 7.0 EHP1, SPS23 or higher
  > - SAP Solution Manager 7.1, SPS01 or higher
  >
  > SAP Solution Manager 7.0 EHP1, SPS23 supports all update and maintenance processes (for example, transaction `SMSY` or `Maintenance Optimizer`) There is no need to upgrade to SAP Solution Manager 7.1.
  >
  > For more information, see SAP Service Marketplace at ▶ `http://service.sap.com/solutionmanager` ↵.
  >
  > Make sure that you have correctly defined and maintained your system landscape in SAP Solution Manager (transaction `SMSY`). To verify and correct your system landscape SAP highly recommends that you use Landscape Verification 1.0 for SAP Solution Manager 7.0, which is an add-on to your SAP Solution Manager 7.0 system. This add-on allows you to identify and correct issues in your SAP Solution Manager landscape (transaction `SMSY`) before they cause problems, for example during a system update. Examples for errors are a missing connection to the System Landscape Directory or the wrong assignment of products to technical systems. For each type of error, a generic description for the solution is provided.
  >
  > For more information about the landscape verification add-on, see SDN at ▶ `http://www.sdn.sap.com/irj/sdn` → *Application Lifecycle Management* → *Technical Enablement* → *Update and Upgrade* → *Related Areas on Upgrade and Update Management* → *Landscape Verification* ↵ (`http://`

> `www.sdn.sap.com/irj/sdn/alm?rid=/webcontent/uuid/`
> `70fc3790-7ec9-2d10-57ad-95b2d0d1185d`).

> **⬆ RECOMMENDATION**
>
> Before installing the enhancement package, we recommend that you install the landsape verification add-on to check your landscape setup and your data (transaction SMSY) and to correct data should ii be necessary.

- Installation or upgrade tools (depending on your scenario)

The SAP Solution Manager Maintenance Optimizer (transaction `DSWP`) supports the download of a consistent queue that includes all necessary Support Packages and enhancement packages. In addition, SAP Solution Manager calculates a valid import queue for the selected SAP system and generates the enhancement package stack configuration file that you require for the installation.

For the new installation of an SAP system including enhancement package you use the standard installation tool (`SAPinst`).

To install an enhancement package on an existing SAP system, as well as for the upgrade of an SAP system to a higher release including an enhancement package, you use the Software Update Manager (`SUM`).

2.6 Key Facts About Enhancement Packages

The following list summarizes important facts about the enhancement package concept and recommended approaches:

- Install only selected parts of the enhancement package. The selection is driven by the functional need from a business point of view.
- You cannot mix the installation of different enhancement package versions in your ABAP-based SAP system. You can have just one enhancement package version in the SAP system. This means, if you have already updated technical usages to a previous EHP you need to apply the current EHP to those components as well.
- SAP enhancement packages are cumulative, meaning that each new enhancement package includes new innovations of its own as well as all innovations delivered with prior packages.
- We recommend installing the latest available enhancement package version.
- Install enhancement packages and Support Packages in one single step (this includes the preconditioned Support Packages).
- SAP enhancement packages have Support Packages of their own that are equivalent to the Support Package versions of the underlying SAP system.
- SAP enhancement packages have the same maintenance period as the underlying core application.
- The installation of an enhancement package is irreversible.
- As long as you do not activate a business function, the installation of an enhancement package has no impact on existing business processes or user interfaces.

You can only activate business functions in ABAP-based systems, not in Java-based SAP systems.

- The activation of most business functions and extension sets is irreversible. Only a small number of business functions is reversible.

  Test the installation process and activation of new functions in advance on a sandbox system.

  Ensure that you evaluate the runtime and the SAP system behavior, its dependencies and impacts.

  Make sure that your SAP system is free of errors before going live.

2.7 Integration of SAP BusinessObjects

The integration of SAP BusinessObjects Crystal Reports and SAP BusinessObjects Xcelsius in SAP Business Suite provides you with analysis functions that are integrated in the user interface and processes: Embedded Analytics.

Predefined reports and dashboards provide a detailed, graphical, or interactive display of (transaction) data from SAP Business Suite or from SAP NetWeaver BW.

Embedded Analytics contains the following integrations:

- Crystal Reports as an alternative for displaying simple lists in SAP GUI ALV Grid, Web Dynpro ABAP ALV, and POWER list (not in SAP CRM)
- Crystal Reports for the formatted display of data from queries
- Xcelsius for the graphical or interactive display of data from queries in dashboards

Users can call these functions in SAP NetWeaver Business Client, SAP NetWeaver Portal, or SAP CRM.

Technical Requirements

- Crystal Reports for Displaying Simple Lists

  You require Crystal Reports Viewer for Business Suite Applications 1.0 or higher. Note the corresponding license terms.

- Crystal Reports with Queries

  To display the Crystal Reports provided, you require SAP BusinessObjects Enterprise XI 3.1 (SP02) and SAP BusinessObjects Integration for SAP XI 3.1 (SP02). Note the corresponding license terms for SAP BusinessObjects.

  To create your own Crystal Reports, you require Crystal Reports 2008 V1 (SP02). Note the corresponding license terms.

- Xcelsius Dashboards with Queries

  To display the Xcelsius dashboards provided, you require Adobe Flash Player version 9. You must also check the license terms for SAP BusinessObjects.

  To create your own dashboards, you require SAP BusinessObjects Xcelsius Enterprise 2008 (SP03, FP1). Note the corresponding license terms for SAP BusinessObjects.

For displaying data from queries via the predefined content, the following system requirements also apply:

- SAP NetWeaver 7.0 including enhancement package 2 (SP04) or higher

- SAP NetWeaver 7.0 BI Content Add-On 5 or higher
- Extension for SAP NetWeaver 7.02 BI Content Add-On 5 or higher

More Information

For more information about the different topics, see the information sources in the following table.

Topic	Information Source
General Information	SAP Library for SAP ERP or SAP Library for SAP Customer Relationship Management on SAP Help Portal at ▶ http://help.sap.com/erp606 ◀ or ▶ http://help.sap.com/crm ◀ In SAP Library, choose ▶ *SAP Business Suite → Processes and Tools for Enterprise Applications (CA-EPT) → Embedded Analytics* ◀.
Installation Information	SAP Service Marketplace at ▶ http://service.sap.com/bosap-instguides ◀ and SAP Help Portal at ▶ http://help.sap.com *→ SAP BusinessObjects → All Products* ◀
Configuration Information	SAP Solution Manager under ▶ *Solutions/Applications → Basic Configuration → Embedded Analytics* ◀
Installation Instructions	SAP Notes 1353044 (*Crystal Reports Viewer for Business Suite Applications 1.0*) and 1345320 (*Crystal Reports with Queries*)

2.8 Software Component Matrix

This section provides an overview of the components used by each business process in SAP Event Management.

For the latest component version and patch level requirements, see SAP Service Marketplace at http://service.sap.com/sp-stacks.

> 💡 **NOTE**
>
> This Upgrade Master Guide provides just one way of implementing each business scenario. For other ways of implementing business scenarios, see the Scenario & Process Component List in SAP Service Marketplace at http://service.sap.com/scl. The Scenario & Process Component List helps you to find realization alternatives for SAP applications/solutions, business scenarios, and processes. It shows you which application components are needed to realize a business scenario or process.

SAP Event Management as Add-On for SAP ERP

SAP Event Management Business Processes	Key: X = mandatory; (X) = optional; ( ) = not required				
Business Process	SAP Event Management	SAP Supply Chain Management	SAP ECC	SAP Net-Weaver Usage Type BI	SAP Net-Weaver Usage Type PI
Procurement Processing	X		X	(X)	(X)
Fulfillment Processing	X		X	(X)	(X)

SAP Event Management Business Processes	Key: X = mandatory; (X) = optional; ( ) = not required				
Business Process	SAP Event Management	SAP Supply Chain Management	SAP ECC	SAP Net-Weaver Usage Type BI	SAP Net-Weaver Usage Type PI
Outbound/Inbound Delivery	X		X	(X)	(X)
Transportation Processing	X		X	(X)	(X)
Production Malfunction Processing	X	X[1]	X	(X)	(X)

1) This component is only mandatory as an application system to enable the indicated business process.

2.9 Technical System Landscapes

SAP Event Management 9.0 is an add-on of SAP Enhancement Package 1 of SAP NetWeaver® 7.3. SAP Basis Plug-In 7.31 is a prerequisite for the installation of SAP Event Management. Usually it is installed with SAP NetWeaver. If it is not installed, you have to install it separately.

We do not recommend installing all components on one host. Instead, you can distribute the components among several hosts. There are several ways to distribute the components and distribution depends on many factors, such as sizing, security, and available hardware. In practice, any distribution of components among hosts is possible.

> **NOTE**
>
> We strongly recommend that you use a minimal system landscape for test and demo purposes only. For performance, scalability, high availability, and security reasons, do **not** use a minimal system landscape as your production landscape.

2.10 Overall Upgrade Sequence

The following table describes the overall upgrade sequence for SAP Event Management. This table contains all available software units. However, to run a specific business process, you only need a subset of available software units. Some are only required for special processes. For information about which software is required to run a specific business process, see *Business Processes of SAP Event Management* [page 21].

For the latest component version and patch level requirements, see SAP Service Marketplace at `http://service.sap.com/sp-stacks`.

For documentation listed in the following table, see *List of Documents* [page 33].

Procedure

Upgrade Sequence for SAP Event Management

Step	Action [Required Documentation]	Remarks/Subsequent Steps
1	Upgrade to SAP NetWeaver 7.3 enhancement package 1 (PI) Upgrade Master Guide for SAP NetWeaver 7.3	Import new XI_CONTENT Versions
2	Upgrade to SAP Event Management 9.0 Upgrade Master Guide for SAP Event Management 9.0	See SAP Note 1755495.
3	Upgrade to BI CONT 7.05 or compatible	Optional SAINT Upgrade on BI System
4	Upgrade to SAP enhancement package 5 or higher for SAP ERP 6.0 SAP ERP 6.0 Upgrade Master Guide	Optional Include SAP Event Management 9.0 ABAP Packages in the upgrade

Upgrade Sequence for the Other Deployments

For the other deployments, you also have to upgrade on SAP enhancement package 1 for SAP Event Management 7.0. For more information, see the respective Upgrade Master Guides.

Migration from the Java-Based Web User Interface to the Standard Web User Interface

The JAVA-based Web UI (WCL UI), previously called "Web Interface (Classic)", is no longer part of SAP Event Management from release on. It will not be supported in future releases. Existing installations can still be used with SAP Event Management 9.0, but new features from SAP Event Management 7.0 on are not available in the JAVA-based UI. For more information, see SAP Note 1430143.

Given that all included features are supported, tracking scenarios maintained for the Java-based Web user interface also work out-of the box in the Web Dynpro ABAP-based Web user interface, because the screen configuration for both Web user interfaces is based on the same settings. If you access the Web user interface with the appropriate event handler details through alerts that contain a URL in their text, you have to make sure that all relevant alert categories are adjusted to the appropriate user interface. For more information, see Customizing for SAP Event Management under ▷ *Reactions to Event Messages → Define Alert Framework Connection → Define Alert Framework Integration to SAP Event Management* ◁.

3   Business Processes of SAP Event Management

This section describes visibility processes provided by the event management standard, for which detailed descriptions and configuration guides are available in the SAP service market place. Further visibility processes and the related configuration guides are available as part of the SAP Solution Manager content of the applications. This is especially the case for the new visibility processes for SAP Transportation Management (SAP TM), which are described in the scenario configuration guides of SAP TM.

3.1 Procurement Processing

Overview

The procurement visibility process for production materials covers events from purchase order creation to payment, including order acknowledgment, shipping notifications, goods receipt, and invoice functions. This process can be combined with the transportation visibility process to also cover shipment-related events. Role-based access for suppliers and buyers is available. Key Performance Indicators (KPIs) are provided on the supplier cycle time, changes to the purchase order, and the percentage of specific attributes.

Procurement processing in SAP Event Management typically comprises the following activities:

- Purchase requisition
- Payment
- Order acknowledgment
- Shipping notification
- Goods receipt
- Invoice functions

For more information about the setup of the underlying application process, see the Inbound Processing & Receipt Confirmation with Warehouse Management process documentation, for example, in the SAP Solution Manager.

Technical System Landscape

The following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way of implementing the business process. For other combinations, see `http://service.sap.com/scl`.

For more information about the minimum release requirements concerning the productive use of the procurement visibility process, see SAP Note 677373.

SAP Event Management integration with SAP ERP

Component	Mandatory	Optional
SAP Event Management 9.0	X	
SAP enhancement package 5 or higher for SAP ERP 6.0	X	
SAP NetWeaver BI		X
SAP NetWeaver PI		X

1) This component is only mandatory as an application system to enable the business process.

3.2 Fulfillment Processing

Overview

The fulfillment visibility process monitors the delivery process and provides active tracking of the delivery for the customer. Events are reported from within the company as well as by business partners. Follow up activities are triggered in the form of e-mails to the customers if there is a delay. SAP NetWeaver Business Intelligence (SAP NetWeaver BI) may be updated, so the business process can be analyzed. Fulfillment processing covers events from warehouse activities to the point-of-delivery (PoD) at the customer site.

Fulfillment processing in SAP Event Management typically comprises the following activities:

- Warehouse activities
- Monitoring and controlling the delivery process
- Tracking the delivery
- Notification and follow-up

For more information about the setup of the underlying application process, see the Outbound Processing with/Without Warehouse Management process documentation, for example, in the SAP Solution Manager.

Technical System Landscape

The following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following tables provide just one way of implementing the business process. For other combinations, see http://service.sap.com/scl.

For more information about the minimum release requirements concerning the productive use of the fulfillment visibility process, see SAP Note 677373.

SAP Event Management integration with SAP ERP

Component	Mandatory	Optional
SAP Event Management 9.0	X	
SAP enhancement package 5 or higher for SAP ERP 6.0	X	
SAP NetWeaver BI		X
SAP NetWeaver PI		X

3.3 Transportation Processing

Overview

The transportation visibility process is similar to the fulfillment process but concentrates solely on transportation for international inbound and outbound shipments. It covers international sea shipments including customs and road transportation. This visibility process also deals with complex transportation networks using transportation chains.

For more information about the setup of the underlying application process, see the Transportation Execution process documentation, for example, in the SAP Solution Manager.

Technical System Landscape

The following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way of implementing the business process. For other combinations, see http://service.sap.com/scl.

For more information about the minimum release requirements concerning the productive use of the transportation visibility process, see SAP Note 677373.

SAP Event Management integration with SAP ERP

Component	Mandatory	Optional
SAP Event Management 9.0	X	
SAP enhancement package 5 or higher for SAP ERP 6.0	X	
SAP NetWeaver BI		X
SAP NetWeaver PI		X

3.4 Outbound/Inbound Delivery Processing

Overview

You can use this process to provide visibility throughout outbound delivery processing, based on deliveries and their handling units. It covers events from warehouse activities to the point-of-delivery (PoD) at the customer site. Role-based access for customers (sales executives) and warehouse managers is supported. You have the option of posting the packing and loading events with the help of SAP Auto-ID Infrastructure. Outbound/Inbound delivery processing in SAP Event Management typically comprises the following activities:

- Notification of goods
- Packing
- Loading

For more information about the setup of the underlying application process, see the RFID-Enabled Outbound Processing Without Warehouse Management and RFID-Enabled Inbound Processing and Receipt Confirmation process documentation, for example, in SAP Solution Manager.

Technical System Landscape

The following software components are either mandatory or optional, as indicated below, for the technical implementation of this process. The following table provides just one way to implement the business process. For other combinations, see `http://service.sap.com/scl`.

For more information about the minimum release requirements concerning the productive use of this visibility process, see SAP Note 677373.

SAP Event Management integration with SAP ERP

Component	Mandatory	Optional
SAP Event Management 9.0	X	
SAP enhancement package 5 or higher for SAP ERP 6.0	X	
SAP Auto-ID Infrastructure 7.1		X
SAP NetWeaver BI		X
SAP NetWeaver PI		X

3.5 Production Malfunction Processing

Overview

The production malfunction process describes the visibility within production. It covers events from the release of the manufacturing order to the related goods receipt, including machine breakdowns. This process closes the gap between planning and execution by notifying the planner in the event of a machine breakdown, and combines production and plant maintenance-related information. Role-based access for production planners and supervisors is available. The system provides KPIs on the manufacturing orders affected by a machine breakdown, including rescheduled orders.

For more information about the setup of the underlying application process, see the Manufacturing Execution (Discrete/Repetitive/Process Manufacturing) process documentation, for example, in the SAP Solution Manager.

Technical System Landscape

The following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way of implementing the business process. For other combinations, see `http://service.sap.com/scl`.

For more information about the minimum release requirements concerning the productive use of the production malfunction process, see SAP Note 677373.

SAP Event Management integration with SAP ERP

Component	Mandatory	Optional
SAP Event Management 9.0	X	
SAP enhancement package 5 or higher for SAP ERP 6.0	X	
SAP enhancement package 2 for SAP SCM 7.0		X
SAP NetWeaver BI		X
SAP NetWeaver PI		X

4 Application-Wide Topics

4.1 SAP Solution Manager

SAP provides the SAP Solution Manager as a platform to efficiently support the implementation and upgrade of your solution. Using SAP Solution Manager significantly accelerates the implementation and upgrade process and helps you to achieve your business goals. At the same time, SAP can deliver Support Services based on the business scenarios designed and documented in SAP Solution Manager. Implementation content for your solution may further accelerate the implementation and upgrade process. For information about availability of content specifically tailored to your solution, see SAP Service Marketplace at `http://service.sap.com/solutionmanager`.

The Upgrade Roadmap, which is part of SAP Solution Manager, provides methodologies for planning and executing the upgrade project.

For more information about other shared services provided by SAP NetWeaver that are required to run the system landscape (for example, System Landscape Directory, Software Lifecycle Manager, and the support infrastructure), see the master guide and upgrade master guide for SAP NetWeaver 7.0 and the component upgrade guide for SAP NetWeaver 7.0 including enhancement package 3 on SAP Service Marketplace at `http://service.sap.com/instguides`.

4.2 Service-Oriented Architecture (SOA)

SAP´s delivery on SOA (service-oriented architecture) differs from the pure architectural concept of SOA in the delivery of ready-to use enterprise services. Enterprise services are SAP-defined Web services which provide end-to-end business processes or individual business process steps that can be used to compose business scenarios while ensuring business integrity and ease of reuse. SAP designs and implements enterprise service interfaces to ensure semantic harmonization and business relevance. This section deals with the service-enablement of SAP Business Suite 7.

4.2.1 Service Enablement

The service enablement of SAP Business Suite consists of one or more of the following SAP components:

- **SAP Business Suite 7**
  Enterprise services are an integral part of the software components of the SAP Business Suite applications. Enterprise services are the technical interfaces to the functionality available in the business application.

- **SAP NetWeaver PI 7.0 or higher**

  SAP NetWeaver Process Integration (SAP NetWeaver PI) is an open integration and application platform that provides tools enabling you to set up a service-oriented architecture for business applications. You can use the platform for providing, discovering, and consuming services, integrating applications using the integration server, and managing business processes. Process integration is required in a runtime environment to consume enterprise services in a mediated scenario.

  We recommend that you use the highest version of SAP NetWeaver Process Integration (PI). For more information, see SAP Note 1515223 and SAP Note 1388258.

  > **NOTE**
  >
  > Starting with SAP NetWeaver Process Integration (PI) 7.3, SAP provides a new installation option Advanced Adapter Engine Extended (AEX). Since AEX is based on AS Java alone, it is easier to install and maintain as well as it needs less memory and data storage. Therefore, AEX is a cost-saving option compared to a full installation of SAP NetWeaver PI. For more information about the AEX, see the SAP Library at: ▶ http://help.sap.com/nw73 → *SAP NetWeaver 7.3 Library English → SAP NetWeaver Process Integration → Concepts → Installation and Connectivity Options → Advanced Adapter Engine Extended* ↵ and SAP Note 1573180.

  > **NOTE**
  >
  > Asynchronous services that are enabled for *Web Services Reliable Messaging (WS-RM)* can be called in a point-to-point communication scenario. Otherwise asynchronous services can only be consumed in a mediated scenario.

- **Enterprise Services Repository**

  The Enterprise Services Repository (ES Repository) is the central repository that contains the definition of all enterprise services and models. The ES Repository is shipped with SAP NetWeaver PI and with SAP NetWeaver Composition Environment (CE) starting with SAP NetWeaver PI 7.1 and with SAP NetWeaver CE 7.1. The Enterprise Services Repository is a design time environment that enables you to create and enhance enterprise service definitions and to view enterprise service models.

  > **NOTE**
  >
  > In a SAP NetWeaver 7.0x landscape you will require the Integration Repository to create and enhance enterprise service definitions in a design time environment.

- **Services Registry**

  The Services Registry is shipped with SAP NetWeaver PI and SAP NetWeaver CE starting with SAP NetWeaver PI 7.1 and SAP NetWeaver CE 7.1. The Service Registry is required for the publication of enterprise service end-points (Web services) that have been configured and activated in the SAP Business Suite.
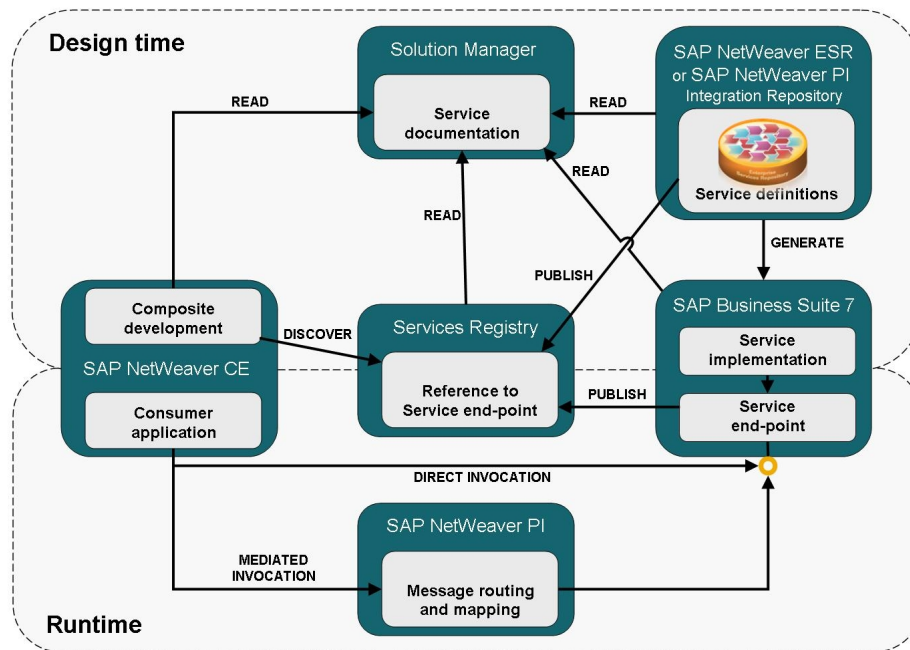
- **SAP NetWeaver CE 7.1 or higher**

The SAP NetWeaver Composition Environment (SAP NetWeaver CE) provides a robust environment for the design and implementation of composite applications.

The design time environment of SAP NetWeaver CE can be used for the model-driven design and development of composite applications based on enterprise services. SAP NetWeaver CE offers the tools and the environment necessary for running composite applications fast and efficiently in a runtime environment.

- **SAP Solution Manager 7.0 EHP 1**

  The Solution Composer, shipped with SAP Solution Manager 7.0 EHP 1 SP 23, is required to host the enterprise service online documentation.

Figure 1: Overview: SAP's Applications for SOA Enablement

The following table describes the SAP applications required or recommended for different runtime and design time use cases:

	SAP Applications					
	SAP Business Suite	SAP NetWeaver PI 7.0x (Integration Repository)	SAP NetWeaver PI 7.1 or higher (ES Repository)	SAP NetWeaver CE 7.1 or higher (ES Repository)	SAP Solution Manager 7.0 EHP1 or higher (Solution Composer)	SAP NetWeaver 7.1 or higher Services Registry
Runtime Usage:						
Enterprise Service Provisioning	Required					Optional
Process integration and		One option required				

mediated communication					
Design Time Usage:					
Create and enhance enterprise service definitions	Required	One option required		Recommended	
View enterprise service models			One Option Required	Recommended	
Design and develop composite applications				Required	Recommended	Recommended
Enterprise service online documentation					Required	
Publications of enterprise service end-points					Optional	Required

4.2.2 Installation of the Service-Oriented Architecture (SOA)

The installation of service interfaces, and therefore the service enablement of SAP Business Suite, consists of one or more of the following phases:

■ **Identification of software components and required business functions**

You use the technical data section of the enterprise service documentation to identify the following data for each enterprise service:

- the software component version with which the service was shipped
- the business function(s) required to be activated

■ **Identification of technical usages** (relevant for SAP ERP only)

SAP Note 1566412 provides a mapping of business functions and software component versions to technical usages. You use this documentation to identify the required technical usages for your list of software component versions and business functions.

■ **Installation of the software component ECC-SE** (relevant for SAP ERP only)

The software component ECC-SE contains service implementations for ECC (the ERP Central Component). This component must be explicitly installed if you intend to use enterprise services for ECC functionality. In this case you must also select the technical usage "ESA ECC-SE" during the enhancement package installation.

■ **Selection and installation together with the other parts of the enhancement package**

In the enhancement package installation process you must select all the technical usages you have identified for service enablement together with the technical usages you identified for enhanced

features in SAP Business Suite. The selected technical usages will install the corresponding software components that contain the enterprise services interfaces and implementations.

■ **Enterprise service definitions for SAP NetWeaver PI 7.0x or ES Repository (SAP NetWeaver 7.1 or higher)** (optional)

To install the content required for the enterprise service definitions you must select the technical usage "XI Content" in the enhancement package installation process. This usage type downloads the content files for SAP NetWeaver 7.0 or higher. Unpack the ZIP file and copy the tpz files corresponding to your SAP NetWeaver version into the import directory of your Integration Repository (for SAP NetWeaver PI 7.0x) or Enterprise Services Repository (for SAP NetWeaver ES Repository 7.1 or higher). Use the import function to import the content files into the corresponding repository (Integration Repository or Enterprise Services Repository). (Choose ▐▶ *Tools → Import Design Objects* ◀▌)

■ **Enterprise service models for ES Repository (SAP NetWeaver 7.1 or higher)** (optional)

To install the content required for the enterprise service models you must select the technical usage "ESR Content" in the enhancement package installation process. This usage type downloads the content files for SAP NetWeaver ES Repository 7.1 or higher. Unpack the ZIP file and copy the tpz files into the import directory of your Enterprise Services Repository. Use the import function to import the content files into the Enterprise Services Repository. (Choose ▐▶ *Tools → Import design objects* ◀▌)

> 💡 | **NOTE**
> | The enterprise service models are not available for the Integration Repository (SAP NetWeaver PI 7.0x)

■ **Enterprise service online documentation for Solution Composer** (optional)

To install the content required for the enterprise service online documentation you must download the content file for the corresponding Business Suite application product version from the Service Marketplace. Then you must import the content file into your Solution Composer. Refer to SAP Note 1224284 for further information.

■ **Services Registry** (optional)

The services registry is shipped starting with SAP NetWeaver PI 7.1 and CE 7.1. You must install the services registry and then publish the enterprise services from the Business Suite application to the registry using the transaction SOAMANAGER in the backend.

For further information regarding the installation of SAP NetWeaver PI, CE and ES Repository, refer to the corresponding SAP NetWeaver Installation and Master Guides.

4.2.3 Related Documentation

For more information about the service-oriented architecture (SOA), see the following information sources:

- SDN Community in the SAP Network at `https://www.sdn.sap.com/irj/sdn/soa` (registration required)
- The SAP Enterprise Service Workplace at `http://ESWorkplace.sap.com`
- The Enterprise Services Wiki in the SAP Network at `https://wiki.sdn.sap.com/wiki/x/LQ0` (registration required)
- SAP Note 1224284: Enterprise Services, Installing and Accessing the SOA Documentation
- SAP Note 1359215: Technical prerequisites for using enterprise services (relevant for *ERP* only)
- SAP note 838402: Problems with non-Unicode system landscapes

A   Appendix

A.1 List of Documents

The following table lists all documents mentioned in this Upgrade Master Guide:

Title	Location on SAP Service Marketplace
Installation Guides	
Installation Guide - SAP NetWeaver 7.3 Including Enhancement Package 1	http://service.sap.com/installnw70
Installation Guide – SAP Solution Manager	▌▶ http://service.sap.com/instguides → *SAP Components* → *SAP Solution Manager* ◀
Master Guides	
SAP NetWeaver 7.3 Including Enhancement Package 1	http://service.sap.com/installNW70
Upgrade Master Guides	
SAP NetWeaver 7.3 Including Enhancement Package 1	http://service.sap.com/instguides
Component Upgrade Guides	
SAP NetWeaver 7.3 Including Enhancement Package 1	http://service.sap.com/instguides

A.2 List of SAP Notes

The following table lists all SAP Notes mentioned in this Upgrade Master Guide:

SAP Note Number	Title
1812713	Add-on compatibility of SAP NW AS ABAP 7.4 for Suite on HANA
1755495	Installation/Upgrade SCEMSRV 900
1769182	Implementation recommendations for SAP Event Management 9.0
677373	Release Information Visibility Processes
1722079	WD ABAP ALV Support for ColumnResizeMode
1144099	Own activity methods when upgrading SAP Event Management
1769112	SAP Event Management 9.0: Online Documentation Corrections including SOA
1224284	Enterprise Services, Installing and Accessing the SOA Docu
1468349	Installation Options with SAP NetWeaver 7.3 (for Java Hubs)

A.3 Media List

The following table provides you with information about which data carrier contains which software unit:

Installable Software Unit	Media Name
SCEMSRV 9.0	SAP EM 9.0/0001 (Mat: 51044314)

If you want to install Java hubs on SAP NetWeaver 7.3, see SAP Note 1468349 and Media List for SAP NetWeaver 7.3.

For installation documentation and Media List for SAP NetWeaver 7.3, see SAP Service Marketplace at http://service.sap.com/instguidesnw73.

A.4 Tools and Resources for Planning Your System Landscape

To plan your system landscape, you can use a few tools and resources that are available to you as SAP customer.

Tools

On SAP Service Marketplace, we provide some tools that allow you to look up more detailed information about business scenarios, business processes and implementable steps. These tools include the following:

Tools for Looking Up Information about Business Processes, Scenarios, and Implementable Steps

Tool	Purpose
Business process repository (BPR) viewer	To look up descriptions of business scenarios, business processes, and implementable steps
Scenario and process component list	To look up the required components and releases for a business scenario, business process, or implementable steps

In addition, there are tools in SAP Solution Manager that support you before, during, or after the installation of your SAP product or SAP enhancement package.

These tools include:

Tools for Supporting Installations and Upgrades

Tool	Purpose
Solution Manager System Landscape (transaction SMSY)	To model and set up your system landscape
SAP Solution Manager Maintenance Optimizer (transaction DSWP	To install support packages and SAP enhancement packages
Business process repository	To access configuration documentation, links to Customizing activities and master data transactions, specifically tailored for individual business

Tool	Purpose
	processes, business scenarios, or implementable steps
Business process change analyzer (available with SAP enhancement package 1 for SAP Solution Manager 7.0)	To analyze the effects of transports and support packages as well as activation logs for business functions

> **NOTE**
>
> You require at least one of the following versions of SAP Solution Manager.
>
> - SAP Solution Manager 7.0 EHP1, SPS23 or higher
> - SAP Solution Manager 7.1, SPS01 or higher
>
> SAP Solution Manager 7.0 EHP1, SPS23 supports all update and maintenance processes (for example, transaction `SMSY` or `Maintenance Optimizer`) There is no need to upgrade to SAP Solution Manager 7.1.
>
> For more information, see SAP Service Marketplace at ▶ `http://service.sap.com/solutionmanager` ◀.

SAP Solution Manager: Implementation Content

To get implementation content that supports you during the configuration of your business processes and business scenarios, you need the SAP Solution Manager add-on *Implementation Content* ST-ICO 150_700 (SP31).

Landscape Verification for SAP Solutions Manager

To verify and correct your system landscape SAP highly recommends that you use Landscape Verification 1.0 for SAP Solution Manager 7.0, which is an add-on to your SAP Solution Manager 7.0 system. This add-on allows you to identify and correct issues in your SAP Solution Manager landscape (transaction `SMSY`) before they cause problems, for example during a system update. Examples for errors are a missing connection to the System Landscape Directory or the wrong assignment of products to technical systems. For each type of error, a generic description for the solution is provided.

For more information about the landscape verification add-on, see SDN at ▶ `http://www.sdn.sap.com/irj/sdn` → *Application Lifecycle Management* → *Technical Enablement* → *Update and Upgrade* → *Related Areas on Upgrade and Update Management* → *Landscape Verification* ◀ (`http://www.sdn.sap.com/irj/sdn/alm?rid=/webcontent/uuid/70fc3790-7ec9-2d10-57ad-95b2d0d1185d`).

SAP Business Suite: Landscape Implementation — Technical Planning Guide

To get an overview of the necessary steps for planning a system landscape, use the *Landscape Implementation — Technical Planning Guide* on SAP Service Marketplace at `http://service.sap.com/instguides` under ▶ *SAP Business Suite Applications* ◀. The guide also provides you with more information about the following:

- Examples of reference system landscapes

- Planning tools such as the business process repository
- Deployment options
- Typical implementation process

A.4.1 Business Process Repository (BPR) Viewer

The business process repository viewer (BPR viewer) is a tool on SAP Service Marketplace that allows you to preview the existing business scenarios, business processes that are shipped as part of SAP Solution Manager content. You can make use of the information in SAP Solution Manager during your implementation project by taking the pre-delivered implementation content as the starting point for your project scope. The implementation content is delivered with the following assigned information:

- Description of the business scenario, process, or implementable step
- Configuration content (Customizing activities or configuration documentation)

A.4.2 Using the BPR Viewer

Procedure

Calling Up the BPR Viewer

You can call up the BPR viewer directly using the Internet address `https://implementationcontent.sap.com/bpr`. Alternatively, you can also call up the Internet address `http://service.sap.com/bpr` first, to see more background information about the BPR viewer and additional material on SAP Service Marketplace.

Working with the BPR Viewer

To call up information about business scenarios, business processes, or implementable steps, navigate the following paths in the BPR viewer:

BPR Object	Location
Business scenario	Under *Solutions/Applications*
Business process	Under *Organizational Areas*
Implementable step	Under *Solutions/Applications*

For each business scenario, business process, or implementable step, you can select between different versions that depend on varying components and releases. To display the descriptions of a business scenario, business process, or implementable step, choose the *Documentation* tab page. To display configuration documentation, choose the *Configuration* tab page.

> **NOTE**
>
> The BPR Viewer displays all descriptions, but only a selection of the configuration documentation. To view all configuration documentation, install and use SAP Solution Manager at your customer site.

A.4.3 Scenario and Process Component List (SCL & PCL)

The scenario and process component list (SCL/PCL) is a tool on the SAP Service Marketplace that allows you to find realization alternatives for SAP solutions, business scenarios, and processes for your SAP enhancement package installation. You find the tool at `http://service.sap.com/scl`.

The SCL/PCL helps you to bridge the gap between the business view and the technical view in SAP's products. It shows you which application components are needed to realize a business scenario or a process and which business scenarios are possible with a given set of application components.

A.4.4 Using the SCL/PCL

Procedure

1. Go to SAP Service Marketplace at `http://service.sap.com/scl`.
2. To start the SCL/PCL, choose *Start Application*.

    The following selection options are provided:
    - SAP Scenarios and Realization Alternatives

      With this option you can browse SAP's solutions, business scenarios, and processes. You can find out which components are needed and the available alternatives.
    - SAP Components and Possible Scenarios

      This option allows you to browse SAP's products and components and to find out, which business scenarios and processes you can realize using the components.

    For more information on how to use the tool, refer to the *Help* section.
3. Select *SAP Scenarios and Realization Alternatives*.

    Select one or several scenarios, processes, and variants you want to realize. You can make your selection by using an alphabetical index or a full-text search. It is also possible to see all scenarios for a certain solution. You will then get a list of the alternative ways to realize these scenarios. You can also search for the identified business functions of a SAP enhancement package.

    In the following steps we chose the scenario *Billing Analysis in ERP* as an example.
4. Add the scenario *Billing Analysis in ERP* to the *Selected Scenarios/Processes/Variants* list and choose *Show Realization Alternatives*. The SCL/PCL then lists the different possibilities. With options like *Validity* you can switch between possible and impossible realization alternatives. The *Optional Comp.* dropdown list helps you to find the minimum required SAP product versions.