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1 Getting Started

1.1 Products Overview

SAP Data Services and SAP Information Steward are part of the Enterprise Information Management suite of products that target the Information Management personas: the administrator, the designer, and the subject matter experts in charge of data stewardship and data governance.

SAP Data Services delivers a single enterprise-class solution for data integration, data quality, data profiling, and text data processing that:

- Allows you to integrate, transform, improve, and deliver trusted data to critical business processes.
- Provides development user interfaces, a metadata repository, a data connectivity layer, a run-time environment, and a management console—enabling IT organizations to lower total cost of ownership and accelerate time to value.
- Enables IT organizations to maximize operational efficiency with a single solution to improve data quality and gain access to heterogeneous sources and applications.

SAP Information Steward provides business analysts, data stewards, and IT users with a single environment to discover, assess, define, monitor, and improve the quality of their enterprise data assets through the various modules:

- Data Insight: Profile data, create and run validation rules, monitor data quality through scorecards, and create data cleansing solutions based on your data's content-type identification results and SAP best practices for your specific data.
- Metadata Management: Catalog the metadata across their system landscape, analyze and understand the relationships of their enterprise data.
- Metapedia: Define business terms for data and organize the terms into categories.
- Cleansing Package Builder: Define cleansing packages to parse and standardize data.
- Match Review: Review results of automated matching on a regular basis and make any necessary corrections. Match Review maintains a list of records in the My Worklist tab that involves reviewers' actions for match decisions.

1.2 Components overview

In the typical SAP Data Services and SAP Information Steward landscape, you must first install one of the following products. These products provide platform services such as security, scalability, and high availability for Data Services and Information Steward.

- SAP BusinessObjects Information Platform Services (IPS) if you only want to use features of Data Services or Information Steward
- SAP BusinessObjects Business Intelligence platform (BI platform) if you also want to use Business Intelligence clients such as Web Intelligence documents or Crystal Reports
This guide uses the terms server and service with the following meanings:

- **Server** is used to describe an operating system level process (on some systems, this is referred to as a daemon) hosting one or more services. For example, the following diagram shows the Enterprise Information Management Adaptive Processing Server and Information Steward Job Server which each hosts multiple services. A server runs under a specific operating system account and has its own process id (PID).

- **Service** is a server subsystem that performs a specific function. The service runs within the memory space of its server under the PID of the parent container (server). For example, the following diagram shows that the Data Services Metadata Browsing Service is a subsystem that runs within the EIM Adaptive Processing Server.

The following diagram shows the order that the products should be installed.

1. Install BI platform or IPS, and select the servers and services shown on the left side of the diagram. The diagram shows only the servers and services in IPS that are relevant to Data Services and Information Steward. For a description of these servers and services and how Data Services and Information Steward use them, see BI platform components usage [page 10].

2. Install Data Services, which installs the servers and services shown in the middle of the diagram. The components marked with a yellow star are used by the Data Insight module of Information Steward. For a description of these servers and services, see Data Services components [page 13].

   **Note**
   
   For requirements for database connectivity, connections to SAP applications, and installing reference data for the Address Cleanse transform, see Implementation resources [page 21].

3. Install Information Steward, which installs the servers and services shown on the right side of the diagram. For a description of these servers and services, see Information Steward components [page 14].

   **Note**
   
   For requirements for database connectivity and reference data for Cleansing Package, see Implementation resources [page 21].
1.2.1 Data Services architecture overview

This section outlines the overall platform architecture, system, and service components that make up the SAP Data Services platform. The information helps administrators understand the system essentials and help to form a plan for the system deployment, management, and maintenance.
SAP Data Services is designed for high performance across a broad spectrum of user and deployment scenarios. For example:

- Developers can integrate SAP Data Services into your organization’s other technology systems by using web services, Java, or .NET application programming interfaces (APIs).
- End users can access, create, edit, and interact with Data Services projects and reports using specialized tools and applications that include:
  - Data Services Designer
  - Data Services Workbench
  - Data Services Management Console
    - Administrator
    - Impact and Lineage Analysis
    - Operational Dashboard
    - Auto Documentation
    - Data Validation
    - Data Quality
- IT departments can use data and system management tools that include:
  - BI platform Central Management Console (CMC)
  - Data Services Management Console
  - Data Services Server Manager
  - Data Services Repository Manager
  - License Manager
    License Manager lets you manage your product activation keycodes—the alphanumeric codes that are referred to each time that you run certain software. By using License Manager, you can view, add, and remove product activation keycodes for SAP Data Services. See the Data Services Administrator Guide for more information.

To provide flexibility, reliability, and scalability, SAP Data Services components can be installed on one or across many machines.

Server processes can be “vertically scaled” (where one computer runs several, or all, server-side processes) to reduce cost, or “horizontally scaled” (where server processes are distributed between two or more networked machines) to improve performance. It is also possible to run multiple, redundant versions of the same server process on more than one machine, so that processing can continue if the primary process encounters a problem.

### 1.2.2 Information Steward architecture overview

SAP Information Steward uses SAP BusinessObjects Business Intelligence (BI) platform and SAP Data Services and inherits the scalable architecture that these two platforms provide. This architecture allows deployment of server components from the following applications:

- SAP BusinessObjects BI platform
- Data Services
- Information Steward

The server components are located on different machines for flexibility, reliability, scalability, and better performance.
1.2.2.1 SAP BusinessObjects BI platform

SAP Information Steward requires SAP BusinessObjects BI Platform for the following functionality:

- Manage user and group security
- Schedule and run on-demand services for Metadata Management (integrator sources and utilities)
- Schedule and run on-demand services for Data Insight (profiling and rule tasks and utilities)
- Perform administrative tasks for Information Steward with the Central Management Console (CMC)
- Scalability by load balancing and high availability

1.2.2.2 Web Application Server

SAP Information Steward is deployed on:

- The Central Management Console (CMC) through which you perform administrative tasks for Information Steward
- A web application server through which you access the Information Steward modules:
  - Data Insight
  - Metadata Management
  - Metapedia
  - Cleansing Package Builder
  - Data Review

**Note**

The Information Steward web application must be installed on the same web application server as that of the SAP BusinessObjects Business Intelligence platform.


1.2.2.3 Data Services components usage

Information Steward requires the following components of SAP Data Services:

- The Data Services Job Server installed on the primary computer. The Data Services Job Server provides the following system management tools that are required during the first installation of Information Steward:

<table>
<thead>
<tr>
<th>System management tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository Manager</td>
<td>The Repository Manager creates the required Data Insight objects in the Information Steward repository. The Information Steward installer invokes the Repository</td>
</tr>
</tbody>
</table>
### System management tool

<table>
<thead>
<tr>
<th>System management tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>Manager automatically when creating the repository the first time the installer is run.</td>
</tr>
<tr>
<td>Server Manager</td>
<td>The Server Manager creates the Information Steward job server group and job servers and associates them to the Information Steward repository. To add job servers to the Information Steward job server group, you must manually invoke the Server Manager.</td>
</tr>
</tbody>
</table>

- The Data Services Job Server provides the engine processes that perform the Data Insight data profiling and validation rule tasks. The engine processes use parallel execution and in-memory processing to deliver high data throughput and scalability.
- The Data Services Metadata Browsing Service provides the capabilities to browse and import the metadata from Data Insight connections.
- The Data Services View Data Service provides the capabilities to view the source data from Data Insight connections.

**Note**

When you install Data Services, ensure that you select the following components:
- **Job Server** under the **Server** category
- **Data Services APS Services** which contain the **Data Services Metadata Browsing Service** and **Data Services View Data Service**.

### 1.2.3 Repository database

A database is required to operate Data Services and Information Steward. We recommend that you use a pre-installed enterprise database for your Data Services and Information Steward repositories. However, you can also use the bundled database available in BI Platform and Information Platform Services to get started with Data Services and Information Steward.

For more information about configuring your database repositories, including the bundled database, see the Data Services and Information Steward *Installation Guides*. 
# 2 Infrastructure

## 2.1 BI platform components usage

The following table describes how SAP Data Services and SAP Information Steward use each pertinent SAP BusinessObjects Business Intelligence (BI) platform component or SAP BusinessObjects Information Platform Services (IPS) if you are not using Business Intelligence clients such as Web Intelligence documents or Crystal Reports.

<table>
<thead>
<tr>
<th>BI platform or IPS component</th>
<th>Usage for Data Services</th>
<th>Usage for Information Steward</th>
</tr>
</thead>
</table>
| Web Tier                     | Deploys Data Services on the Central Management Console (CMC) through which administrative tasks for Data Services are performed. | Deploys Information Steward on:  
  - The CMC through which administrative tasks for Information Steward are performed.  
  - A web application server through which you access the Information Steward modules |
| Central Management Console (CMC) | Used by IT administrator to manage:  
  - SAP solutions for Information Management (EIM) Adaptive Processing Server and services  
  - User security (authentication and authorization)  
  - Repository and application settings | Used by IT administrator to manage:  
  - EIM Adaptive Processing Server and services  
  - Information Steward Job Server and services  
  - Metadata Management module  
  - Data Insight module  
  - Cleansing Package Builder module  
  - Data Review module connections and tasks  
  - Information Steward utilities  
  - User security (authentication and authorization)  
  - Repository and application settings |
<table>
<thead>
<tr>
<th>BI platform or IPS component</th>
<th>Usage for Data Services</th>
<th>Usage for Information Steward</th>
</tr>
</thead>
</table>
| Central Management Server (CMS) | Maintains a database of information about your SAP BusinessObjects BI platform system. The data stored by the CMS includes information about users and groups, security levels, schedule information, BI platform content, and servers. For more information about the CMS, see the SAP BusinessObjects Business Intelligence Platform Administrator Guide. If you installed IPS, see the SAP BusinessObjects Information platform services Administrator Guide. Data Services relies on the CMS for:  
  - Centralized user and group management  
  - Flexible authentication methods  
  - Password enforcement policies | Maintains a database of information about your BI platform system. The data stored by the CMS includes information about users and groups, security levels, schedule information, BI platform content, and servers. The following objects in the Metadata Management module of Information Steward are stored in the CMS.  
  - Integrator Source configurations  
  - Source groups  
  - Utilities configurations  
  - Data Insight connections  
  - Projects  
  - Tasks  

**Note**  
Because integrator source configurations and source group definitions are stored in the CMS, you can use the Upgrade management tool to move them from one version of the CMS to another. The schedules and rights information are considered dependencies of these configurations. For details, see the SAP BusinessObjects Information Steward Upgrade Guide. |
| Platform Scheduling Services | The Platform Scheduling Services is not required to run Data Services. If you will not install Information Steward, you can stop the Platform Scheduling Services. | Information Steward Job Server uses the Platform Scheduling Services for executing profiling tasks and integrator tasks. The server may host the following services for Information Steward:  
  - Task Scheduling Service  
  - Integrator Scheduling Service  
  - Data Review Scheduling Service |
<table>
<thead>
<tr>
<th>BI platform or IPS component</th>
<th>Usage for Data Services</th>
<th>Usage for Information Steward</th>
</tr>
</thead>
</table>
| Platform Processing Services | Required during Data Services installation to create the Enterprise Information Management (EIM) Adaptive Processing Server. The EIM Adaptive Processing Server uses the Platform Processing Services to host the following services:  
  - RFC Server Service, which Data Services requires for connectivity with SAP NetWeaver Business Warehouse  
  - Job Launcher Service, which Data Services uses to send batch jobs to the appropriate Data Services Job Server for execution.  
  - Data Services Metadata Browsing Service, which is used by other applications such as Information Steward to browse and import metadata from Data Insight connections  
  - Data Services View Data Service, which is used by other applications such as Information Steward to view data in Data Insight connections  
  The Data Services Workbench requires the Enterprise Information Management Adaptive Processing Server for operations such as testing connections and all communication with the repository to deploy object, run jobs, and so forth. | Required during Information Steward installation to create the Enterprise Information Management Adaptive Processing Server. The EIM Adaptive Processing Server uses the Platform Processing Services to host the following services:  
  - Metadata Search Service  
  - Metadata Integrator Service  
  - Data Services Metadata Browsing Service  
  - Data Services View Data Service  
  - Information Steward Administrator Task Service  
  - Cleansing Package Builder Core Service  
  - Cleansing Package Builder Auto-analysis Service  
  - Cleansing Package Builder Publishing Service  
  - Data Review Processing Service  
  - Data Cleansing Advisor Service  
  - Application Service |

**Note**  
The Platform Processing Service can be stopped after installation because the Enterprise Information Management Adaptive Processing Server is required for Data Services to run.

| File Input Repository Server and File Output Repository Server | Stores input and output files associated with:  
  - A published cleansing package. The stored information can be accessed by Data Services | Stores files associated with:  
  - A published cleansing package. The stored information can be accessed by Data Services  
  - History logs for Data Insight task and metadata integrator execution  
  - Search index for metadata integrator objects |
2.2 Data Services components

You can choose to install SAP Data Services components on one or more computers based on available resources and your deployment planning.

The following table shows the components that you can choose on the "Select Features" window of the Data Services installer. For information about how SAP Information Steward uses each Data Services component, see Information Steward architecture overview [page 7].

Table 2:

<table>
<thead>
<tr>
<th>Data Services category and component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Services Server &gt; Job Server</strong></td>
<td>The Job Server starts engine processes to perform data extraction, transformation, and movement. The Job Server is available on Windows, Linux, and UNIX platforms.</td>
</tr>
<tr>
<td><em>Note</em></td>
<td>Job Servers can also be configured after installation.</td>
</tr>
<tr>
<td><strong>Data Services Server &gt; Access Server</strong></td>
<td>The Access Server is a real-time, request-reply message broker that collects requests, routes them to a real-time service, and delivers a reply. The Access Server is available on Windows, Linux, and UNIX platforms.</td>
</tr>
<tr>
<td><em>Tip</em></td>
<td>An Access Server is required only for real-time processing. If you need only batch processing, you do not need to configure an Access Server.</td>
</tr>
<tr>
<td><em>Note</em></td>
<td>Access Servers can also be configured after installation.</td>
</tr>
<tr>
<td><strong>Data Services Client &gt; Designer</strong></td>
<td>The Designer is a graphical development tool that enables developers to define data management applications that consist of data mappings, transformations, and control logic.</td>
</tr>
<tr>
<td><em>Note</em></td>
<td>The Designer can be installed only on supported Windows platforms.</td>
</tr>
<tr>
<td><strong>Data Services Client &gt; Workbench</strong></td>
<td>The Workbench provides a graphical user interface (GUI) development environment in which you define data application logic to migrate data and database schema information between different databases in a data warehousing environment.</td>
</tr>
<tr>
<td><em>Note</em></td>
<td>The Workbench can be installed only on supported Windows platforms.</td>
</tr>
<tr>
<td>Data Services category and component</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Data Services Management Console</strong></td>
<td>The Management Console includes web applications that provide browser-based administration, analysis, and reporting capabilities for Data Services.</td>
</tr>
<tr>
<td><strong>Data Services APS Services</strong></td>
<td>Provides the following services:</td>
</tr>
<tr>
<td>● RFC Server Service</td>
<td>Used for BW loading and reading via Open Hub</td>
</tr>
<tr>
<td>● Administrator Service</td>
<td>Used for cleaning up log files and AL_HISTORY based on log retention period.</td>
</tr>
<tr>
<td>● Metadata Browsing Service</td>
<td>Used by external tools (for example, Information Steward, BW, and so on) to leverage Data Services’ connectivity to browse and import metadata from a data source</td>
</tr>
<tr>
<td>● View Data Service</td>
<td>Used by external tools (for example, Information Steward, BW, and so on) to leverage Data Services’ connectivity to view data from a source</td>
</tr>
<tr>
<td>● Job Launcher Service</td>
<td>Used to execute jobs from the Workbench or other tools that call the AL_RWJobLauncher (for example, scheduled jobs).</td>
</tr>
<tr>
<td>● Data Quality Service</td>
<td>Used to handle all Data Quality-related requests from the Management Console, such as viewing Data Quality reports.</td>
</tr>
<tr>
<td><strong>Data Services Message Client</strong></td>
<td>The Message Client API provides C++ and Java APIs that allow you to connect to Data Services real-time services with external applications.</td>
</tr>
<tr>
<td><strong>Text Data Processing Languages</strong></td>
<td>Supports processing of unstructured text in multiple languages.</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>Text Data Processing support for English is installed by default and cannot be uninstalled. Select additional languages if you want to process unstructured text in other languages.</td>
</tr>
<tr>
<td><strong>DataDirect ODBC Drivers</strong></td>
<td>The DataDirect drivers allow Data Services to connect to ODBC data source on UNIX and Windows platforms.</td>
</tr>
<tr>
<td><strong>Cleansing Package</strong></td>
<td>The SAP-supplied person and firm cleansing package is used by SAP Information Steward and the Data Cleanse transform in Data Services.</td>
</tr>
<tr>
<td><strong>Data Services Documentation</strong></td>
<td>Installs the complete Data Services documentation set. Documentation is also available on the SAP Business User Support site at <a href="http://help.sap.com/bods">http://help.sap.com/bods</a>.</td>
</tr>
</tbody>
</table>

### 2.3 Information Steward components

You can choose to install SAP Information Steward components on one or more computers based on available resources and your deployment planning. For prerequisites for each component, see Component installation prerequisites [page 16].
The following table shows the Information Steward components that you can choose on the Select Features window of the installer.

Table 3:

<table>
<thead>
<tr>
<th>Component in feature tree</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Steward Web Application</strong></td>
<td>Provides web applications that:</td>
</tr>
<tr>
<td></td>
<td>• Administer Information Steward in the Central Management Console (CMC)</td>
</tr>
<tr>
<td></td>
<td>• Display the Information Steward user interface</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
</tr>
<tr>
<td></td>
<td>If the BI Platform Web applications were manually deployed, manually deploy the Information Steward Web application with WDeploy after installation.</td>
</tr>
<tr>
<td><strong>Information Steward Task Server</strong></td>
<td>Processes profile and rule tasks for the Data Insight module of Information Steward.</td>
</tr>
<tr>
<td><strong>Application Service</strong></td>
<td>• Provides the Information Steward application the ability to access (read and write) the Information Steward repository.</td>
</tr>
<tr>
<td></td>
<td>• Processes object relationships (for example, impact and lineage).</td>
</tr>
<tr>
<td><strong>Information Steward Data Review Server</strong></td>
<td>Processes match review tasks for the Data Review module of Information Steward.</td>
</tr>
<tr>
<td><strong>Metadata Search Service</strong></td>
<td>Provides search capability on the Metadata Management module of Information Steward.</td>
</tr>
<tr>
<td><strong>Information Steward Cleansing Package Builder Service</strong></td>
<td>Provides the capability to create and refine cleansing packages using the Cleansing Package Builder module of Information Steward.</td>
</tr>
<tr>
<td><strong>Information Steward Data Review Service</strong></td>
<td>Checks if the input table contains new match groups and whether the match results are ready for review, and creates match review tasks for the Data Review module of Information Steward.</td>
</tr>
<tr>
<td><strong>SAP BusinessObjects Enterprise Metadata Integrator</strong></td>
<td>Collects information from an SAP BusinessObjects Business Intelligence platform repository that includes metadata objects such as SAP Crystal Reports, Web Intelligence documents, and universes.</td>
</tr>
<tr>
<td><strong>SAP NetWeaver Business Warehouse Metadata Integrator</strong></td>
<td>Collects information from a NetWeaver Business Warehouse system that includes metadata objects such as Queries, InfoProviders, InfoObjects, Transformations, and DataSources.</td>
</tr>
<tr>
<td><strong>Common Warehouse Model (CWM) Metadata Integrator</strong></td>
<td>Collects information from the CWM Relational Package that includes definitions of metadata objects such as catalogs, schemas, and tables.</td>
</tr>
</tbody>
</table>
### Component in feature tree

<table>
<thead>
<tr>
<th>Component in feature tree</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relational Databases (RDBMS) Metadata Integrator</strong></td>
<td>Collects information from an RDBMS that includes definitions of metadata objects such as catalogs, schemas, stored procedures, and aliases. Supported relational databases include DB2, MySQL, Oracle, SQL Server, Teradata, or a Universe connection using JDBC or ODBC. For more information, see the Product Availability Matrix.</td>
</tr>
<tr>
<td><strong>SAP HANA Metadata Integrator</strong></td>
<td>Collects information from an SAP HANA database that includes definitions of metadata objects such as databases, schemas, tables, and views.</td>
</tr>
<tr>
<td><strong>SAP Sybase PowerDesigner metadata integrator</strong></td>
<td>Collects metadata about various objects, such as folders and models, in the PowerDesigner repository. The metadata integrator collects details about physical data models including architectural and conceptual information that defines a physical data model for Metadata Management.</td>
</tr>
<tr>
<td><strong>SAP Data Services Metadata Integrator</strong></td>
<td>Collects information from an SAP Data Services repository that includes definitions of metadata objects such as source tables and columns for ETL jobs, datastores and configurations, and flat files.</td>
</tr>
<tr>
<td><strong>SAP Data Federator Metadata Integrator</strong></td>
<td>Collects information from an SAP Data Federator repository that includes definitions of metadata objects such as projects, catalogs, datasources, and mapping rules.</td>
</tr>
</tbody>
</table>
| **Meta Integration Metadata Bridge (MIMB) Metadata Integrator**     | Collects the following metadata from other sources:  
  - Data Modeling metadata, such as Embarcadero ER/Studio and Oracle Designer  
  - ETL metadata such as Oracle Warehouse Builder and Microsoft SQL Server Integration Services (SSIS)  
  - OLAP and BI metadata such as IBM DB2 Cube Views, Oracle OLAP, and Cognos 8 BI Reporting                                                                                                                                                    |

### Related Information

- Product Availability Matrix

### 2.3.1 Component installation prerequisites

In general, all Information Steward components require that the Information Steward repository has already been created or will be created during the installation process.
To create the Information Steward repository, you must perform the primary installation of Information Steward on the same computer as the SAP Data Services Job Server component. The Central Management Server (CMS) must be in the landscape (not necessarily on the same computer).

The BI platform landscape must have the CMS and File Repository Servers running when you install SAP Information Steward.

Component-specific prerequisites are described in the following table:

<table>
<thead>
<tr>
<th>Information Steward Component</th>
<th>Host system prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Steward Web Application</td>
<td>BI platform Web Tier</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
</tr>
<tr>
<td></td>
<td>If you are manually installing the web application, you must copy a .war file. For more information, see “Deploying web applications with WDeploy”.</td>
</tr>
<tr>
<td>Information Steward Task Server</td>
<td>BI platform Platform Processing Services</td>
</tr>
<tr>
<td>Information Steward Data Review Server</td>
<td>BI platform Platform Scheduling Services</td>
</tr>
<tr>
<td>Metadata Search Service</td>
<td>BI Platform Processing Services</td>
</tr>
<tr>
<td>Cleansing Package Builder Service</td>
<td></td>
</tr>
<tr>
<td>Information Steward Data Review Service</td>
<td></td>
</tr>
<tr>
<td>Application Service</td>
<td></td>
</tr>
<tr>
<td>Data Cleansing Advisor Service</td>
<td>BI Platform Processing Services</td>
</tr>
<tr>
<td>All metadata integrators</td>
<td>BI Platform Scheduling Services</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
</tr>
<tr>
<td></td>
<td>All metadata integrators can be installed only on supported Windows platforms.</td>
</tr>
</tbody>
</table>

**Related Information**

- Component run-time dependencies [page 19]
- Component installation prerequisites [page 16]
2.3.2 Component installation results

Installing an SAP Information Steward component creates one or more services or applications on the target host system.

The services and applications created by each component in the Information Steward installation program feature tree are described in the following table:

<table>
<thead>
<tr>
<th>Feature tree component</th>
<th>Installation result</th>
</tr>
</thead>
</table>
| Information Steward Web Application | Deploys Information Steward on the following user interfaces:  
  - A web application through which you access the Information Steward application:  
    ○ Data Insight  
    ○ Metadata Management  
    ○ Metapedia  
    ○ Cleansing Package Builder  
    ○ Worklist for Data Reviewer  
  - The CMC features through which administrative tasks for Information Steward are performed |
| Information Steward Task Server     | Creates the following services under the Information Steward Job Server (ISJobServer):  
  - Information Steward Task Scheduling Service  
  - Information Steward Integrator Scheduling Service (required for utilities)  
  Creates the following services under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer):  
  - Information Steward Administrative Task Service  
  - Information Steward Data Review Task Service |
| Application Service                 | Creates the following service under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer):  
  - Application Service |
| Data Cleansing Advisor Service      | Creates the following service under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer):  
  - Data Cleansing Advisor Service |
| Information Steward Data Review Server | Creates the following services under the Information Steward Job Server (ISJobServer):  
  - Information Steward Data Review Task Scheduling Service |
| Information Steward Data Review Service | Creates the following service under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer):  
  - Information Steward Data Review Service |
Feature tree component | Installation result
--- | ---
**Metadata Search Service** | Creates the following service under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer): • Search Service

**Cleansing Package Builder Service** | Creates the following services under the Enterprise Information Management Adaptive Processing Server (EIMAdaptiveProcessingServer): • Cleansing Package Builder Core service • Cleansing Package Builder Auto-analysis service • Cleansing Package Builder Publishing service

**All Metadata Integrators** | Creates the following services under the Information Steward Job Server (ISJobServer): • Information Steward Integrator Scheduling Service • Information Steward Integrator Service

### 2.3.3 Component run-time dependencies

This section describes other components in the landscape that must be running for SAP Information Steward modules to function correctly.

**Note**
The BI platform landscape must have the Central Management Server and File Repository Server running at all times.

Component-specific dependencies are described in the following table:

<table>
<thead>
<tr>
<th>Information Steward Component</th>
<th>Additional dependencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metadata Search Service</strong></td>
<td>The BI platform File Repository Server must be available and running in the landscape.</td>
</tr>
<tr>
<td><strong>Cleansing Package Builder Service</strong></td>
<td></td>
</tr>
<tr>
<td><strong>All Metadata Integrators</strong></td>
<td></td>
</tr>
<tr>
<td>Information Steward Component</td>
<td>Additional dependencies</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td><strong>SAP BusinessObjects Enterprise Metadata Integrator</strong></td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform) must be installed. The will not collect SAP BusinessObjects Enterprise Metadata Integrator objects from SAP BusinessObjects Information platform services (IPS). For Web Intelligence documents, the BI platform client tools must be installed on the host system. To collect metadata from an SAP BusinessObjects Enterprise XI 3.x system, you must install the Remote Job Server (see “Remote Job Server Installation” in the SAP Information Steward Installation Guide). In addition, for Crystal Reports or universes whose sources are SAP NetWeaver BW objects, you must install BusinessObjects XI Integration for SAP Solutions on Enterprise XI 3.x. The BI platform client tools requirement is for reports that were created with the Refresh on Open option because when the Metadata Integrator collects the metadata from the Enterprise XI 3.x system, the Enterprise XI 3.x system will connect to the source BW system to refresh the data automatically. The BusinessObjects Business Intelligence platform Metadata Integrator supports two drivers: SAP BW MDX Query and SAP Operational Data Store. The BusinessObjects XI Integration for SAP Solutions has prerequisites that you must install. For more information, see the BusinessObjects XI Integration for SAP Installation Guide.</td>
</tr>
</tbody>
</table>
| Information Steward web application | To view the Information Steward web application, you must have the latest Adobe Flash player installed. To browse and view data, the Data Insight module of Information Steward requires the following services in the Data Services APS Service:  
  - Metadata Browsing Service  
  - View Data Service |

**Related Information**

Information Steward components [page 14]  
Component installation prerequisites [page 16]
3 Implementation resources

Before you begin planning for installation and configuration, consult the following documentation.

Installation

Table 5:

<table>
<thead>
<tr>
<th>For information about</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation scenario instructions and selecting components of SAP BusinessObjects Business Intelligence platform that are required for SAP Data Services and SAP Information Steward</td>
<td>&quot;SAP BusinessObjects Business Intelligence Platform Installation Guide&quot; if you want to install the BusinessObjects Enterprise Metadata Integrator component of Information Steward</td>
</tr>
<tr>
<td></td>
<td>SAP BusinessObjects Information platform services Installation Guide</td>
</tr>
<tr>
<td>Installation scenario instructions for SAP Data Services</td>
<td>SAP Data Services Installation Guide</td>
</tr>
<tr>
<td>Installation scenario instructions for SAP Information Steward</td>
<td>&quot;Installation scenarios&quot; in the SAP Information Steward Installation Guide</td>
</tr>
<tr>
<td>Installation instructions for reference data that the Address Cleanse transform uses</td>
<td>&quot;Directory data&quot; in the SAP Data Services Installation Guide</td>
</tr>
<tr>
<td>Installation instructions for SAP-supplied cleansing packages</td>
<td>&quot;Installing SAP-supplied cleansing packages&quot; in the SAP Information Steward Installation Guide</td>
</tr>
<tr>
<td>Deployment instructions to install SAP BusinessObjects Business Intelligence Platform, SAP Data Services, and SAP Information Steward all on one computer</td>
<td>Scenario 1: Deploying all on one machine [page 23]</td>
</tr>
<tr>
<td>Distributed deployment scenarios and installation scenario instructions</td>
<td>Planning your Information Steward deployment [page 33]</td>
</tr>
<tr>
<td></td>
<td>Data Services Deployment [page 24]</td>
</tr>
</tbody>
</table>

Configuration

Table 6:

<table>
<thead>
<tr>
<th>For information about</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web application deployment</td>
<td>• “Deploying web applications” in the SAP Data Services Installation Guide</td>
</tr>
<tr>
<td></td>
<td>• “Deploying web applications with WDeploy” in the SAP Information Steward Installation Guide</td>
</tr>
<tr>
<td>For information about</td>
<td>See</td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Security configuration</td>
<td>• “Security” and “User and rights management” in the SAP Data Services Administrator Guide&lt;br&gt;• “Securing SAP Information Steward” and “Users and Groups Management” in the SAP Information Steward Administrator Guide</td>
</tr>
<tr>
<td>Tuning and performance</td>
<td>• Data Services Performance and Optimization Guide&lt;br&gt;• “Performance and Sizing Considerations” in the SAP Information Steward Administrator Guide</td>
</tr>
<tr>
<td>Connectivity configuration to access other database systems as sources and targets in your Data Services jobs. For supported database clients, see the Product Availability Matrix available at <a href="http://service.sap.com/PAM">http://service.sap.com/PAM</a></td>
<td>• “Configuring additional database connectivity” in the SAP Data Services Administrator Guide&lt;br&gt;• “Connection to SAP applications” in the SAP Data Services Supplement for SAP</td>
</tr>
<tr>
<td>Connectivity configuration for Metadata Management integrators sources and Data Insight connections (data sources to profile and databases to store data that failed validation rules)</td>
<td>• “Configuring sources for Metadata Integrators” in the SAP Information Steward Administrator Guide&lt;br&gt;• “Data Insight Connections” in the SAP Information Steward Administrator Guide&lt;br&gt;• “Extra requirements for Oracle, SAP HANA, and MySQL” in the SAP Information Steward Installation Guide</td>
</tr>
<tr>
<td>Configuration for Metadata Management integrator to collect metadata from SAP BusinessObjects Enterprise XI 3.x</td>
<td>• “To modify the configuration of a Remote Job Service” in the SAP Information Steward Installation Guide</td>
</tr>
</tbody>
</table>
4 Deployment

4.1 Scenario 1: Deploying all on one machine

This scenario installs all components of SAP Data Services and SAP Information Steward on one Windows computer which does not currently have the prerequisite components of SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS).

Note

If you are already a BI platform customer, it is recommended that you install IPS to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.

Table 7: Installation order and steps for single machine scenario

<table>
<thead>
<tr>
<th>Order</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>BI platform</td>
<td>1. Follow the procedure in the SAP BusinessObjects Information platform services Installation Guide to start the installation.</td>
</tr>
<tr>
<td></td>
<td>This can be either SAP BusinessObjects Business Intelligence platform or</td>
<td>2. Select the Full installation type. If you know which components you want to install, you can select the Custom installation type.</td>
</tr>
<tr>
<td></td>
<td>SAP BusinessObjects Information platform services (IPS)</td>
<td>If you choose to do a custom installation, you must have, at a minimum, the following components checked:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Central Management Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ File Repository Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Web Tier category of components</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Platform Processing Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Platform Scheduling Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Enter administrator-level connection information for the CMS that you created in the previous step.</td>
</tr>
</tbody>
</table>

Note

Keep this connection information. You will need it for the Data Services installation and the Information Steward installation.
2. SAP Data Services

On the same machine:

1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide for Windows.
2. Enter administrator-level connection information for the CMS that you created when you installed your BI platform.
3. Ensure that the following components are selected:
   - Job Server under Data Services Server
   - Data Services APS Server
   - Data Services Management Console
4. After Data Services installation completes, you must restart the computer.

### Note
This installation requires that you stop and start the Server Intelligence Agent (SIA). Therefore, it is recommended that you perform this installation during scheduled down time to limit the effect on your users.

1. Follow the procedure in “Standard installation” in the SAP BusinessObjects Information Steward Installation Guide.
2. For install type, select Primary Install.
3. Enter administrator-level connection information for the CMS that you created when you installed your BI platform.
4. Keep the default of all components selected on the Select Features window.
5. After Information Steward installation completes, configure the Data Services Job Server for Information Steward. For details, see “Configuring a Data Services Job Server for Data Insight” in the SAP Information Steward Installation Guide.
6. To verify that the servers and services are running after installation completes, see “Verifying Information Steward servers are running” and “Verifying Information Steward services” in the SAP Information Steward Installation Guide.

### 4.2 Data Services Deployment

SAP Data Services uses SAP BusinessObjects Business Intelligence (BI) platform (or SAP BusinessObjects Information platform services) and inherits the scalable architecture that this platform provides. This architecture allows deployment of BI platform and Data Services server components on separate machines to enhance flexibility, reliability, scalability, and performance. Server processes can be “vertically scaled” (where one computer runs several, or all, server-side processes) to reduce cost, or “horizontally scaled” (where server processes are distributed between two or more networked machines) to improve performance. You can also run duplicate instances of a server process across several networked machines to ensure high availability. For example, you can install multiple Data Services job servers or BI platform web applications on separate computers to distribute the workload and improve performance.

### Note
We recommend deploying Data Services on an Information platform services system to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.
4.2.1 Planning your Data Services deployment

This section provides guidelines for assessing your organization's needs, and suggestions for deployment scenarios. By evaluating your needs before you deploy your Data Services system, you can keep troubleshooting to a minimum.

The section includes examples and suggestions for deployment, but it is important to note that each deployment is unique. The flexibility of the Data Services service-based architecture allows you to tailor the deployment to serve your organization's requirements as precisely as possible.

Planning your deployment involves the following steps:

1. Decide which components of Data Services you want to install and determine the basic software and hardware requirements and dependencies for them. For more information, see the related topics and the Supported Platforms document (Product Availability Matrix) at: https://service.sap.com/PAM.

2. Determine your web application server needs and whether you want to deploy the default Tomcat Java web application server, provided by the BI platform.

   **Note**
   A Java web application server is required to host Information platform services web application (Central Management Console) and the Data Services Management Console and web services.

3. Determine your database needs and whether you want to deploy the database bundled with the BI platform.

   **Note**
   It is recommended that you use a separately installed enterprise database for the Data Services repositories, but database bundled with the BI platform (and Information platform services) is supported for getting started with Data Services.

4. Review the key concepts you need to consider for your deployment, including operating system, database, and application server considerations, in addition to security, performance and scalability, and high availability. See "Assessing your organization's environment" in the SAP BusinessObjects Business Intelligence platform Planning Guide.

5. Choose an initial deployment architecture. Which deployment architecture will serve your needs within the limits of your resources? For suggestions and common configurations, see Deployment scenarios [page 26].

**Related Information**

Data Services components [page 13]
BI platform components usage [page 10]
4.2.2 Deployment guidelines

Ideally, you should deploy SAP Data Services components across multiple computers based on the anticipated amount of processing and time of day when the processing will occur. The following are some general deployment guidelines.

1. When using a distributed environment, enable and run only the servers that are necessary. For more information, see the Business Intelligence platform Administrator Guide.
2. Use dedicated servers for resource intensive servers like the Data Services Job Server.
3. Make sure that the database server for the Data Services repository is tuned and has enough resources.
4. Allocate enough memory and hard disk space to individual servers as needed.
5. Follow good scheduling practices to make sure that resource intensive tasks do not overlap each other. Schedule them to run during non-business hours so that on-demand request performance is not affected.

4.2.3 Deployment scenarios

This section describes sample scenarios for administrators planning an installation of SAP Data Services. The administrator should plan the installation and landscape using as input the sample scenarios below and performance and security requirements to optimize machine usage. It is important to note that the optimal configuration for your deployment will depend on many factors: hardware configuration, database software, reporting requirements, operating system, clock speed, hyperthreading, disk speed, application server configuration, load frequency, and so on.

The following table shows a summary of the most common deployment scenarios of Data Services (DS) and the prerequisite components of SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS).

**Note**

None of the listed scenarios include a Data Services client (Designer) installation. A client installation should be done on a separate machine.

- Single-machine deployment: The simplest deployment scenario is a full installation on a single machine.
- Multiple-server deployment: For more complex deployments of Data Services, you can distribute the workload across multiple servers.

**Note**

Every organization has unique requirements. These scenarios are provided only as guidelines for planning your own implementation.
### Table 8:

<table>
<thead>
<tr>
<th>Server</th>
<th>Scenario 2: Separate BI/IPS and DS Components</th>
<th>Scenario 3: Standalone DS Components</th>
<th>Scenario 4: Distributed DS (server groups)</th>
<th>Scenario 5: Scaling for web application users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>BI platform/IPS (CMS)</td>
<td>BI platform/IPS (CMS/CMC)</td>
<td>BI platform/IPS (CMS/CMC)</td>
<td>BI platform/IPS (CMS)</td>
</tr>
<tr>
<td></td>
<td>• BI platform/IPS (CMS/CMC)</td>
<td>• DS EIM APS services</td>
<td>• DS EIM APS services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• BI platform/IPS (CMS/CMC)</td>
<td>• DS Management Console</td>
<td>• DS Management Console</td>
<td></td>
</tr>
<tr>
<td>Server 2</td>
<td>BI platform/IPS (local SIA/CMC using remote CMS)</td>
<td>Job Server</td>
<td>Job Server (server group)</td>
<td>BI platform/IPS (local SIA/CMC using remote CMS)</td>
</tr>
<tr>
<td></td>
<td>• BI platform/IPS (local SIA/CMC using remote CMS)</td>
<td>• Access Server</td>
<td>• Access Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Job Server</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Access Server</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• DS EIM APS services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• DS Management Console</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Server 3</td>
<td>Job Server (server group)</td>
<td>Job Server (server group)</td>
<td>BI platform/IPS (CMS/CMC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Access Server</td>
<td>• Access Server</td>
<td>• DS EIM APS services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• DS Management Console</td>
<td></td>
<td>• DS Management Console</td>
<td></td>
</tr>
<tr>
<td>Server 4...Server n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Job Server (server group)</td>
<td>• Access Server</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.2.3.1 Scenario 2: Separate Data Services and BI platform installations

This scenario installs all Data Services related components on a different machine. It can be used for those who want to separate all EIM servers from their core BI servers. Some EIM components, however, need to be part of the BI cluster; therefore, this scenario will require you to install some BI components on the Data Services server (server 2) to add this server to the BI cluster.
### 4.2.3.2 Scenario 3: Standalone Data Services components

This scenario is for those who want to have Data Services servers on a separate machine than the BI platform.

<table>
<thead>
<tr>
<th>Order</th>
<th>Software product</th>
<th>Computer</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1     | BI platform      | Server 1 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the *Custom/Expand* installation type.  
   Ensure that, at a minimum, the following components are selected:  
   ○ *Central Management Server*  
   ○ *File Repository Server*  
3. Enter administrator-level connection information for the CMS server that you created in the previous step. |
| 2     | BI platform      | Server 2 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the *Custom/Expand* installation type.  
3. Select the *Web Tier* category of components. |
| 3     | Data Services    | Server 2 | 1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.  
2. Ensure that, at a minimum, the following components are selected:  
   ○ *Job Server* under Data Services Server  
   ○ *Access Server* under Data Services Server  
   ○ *Data Services APS Services*  
   ○ *Data Services Management Console*  
   The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |
Table 10: Installation order and steps

<table>
<thead>
<tr>
<th>Order</th>
<th>Software product</th>
<th>Computer</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1     | BI platform      | Server 1 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the Custom/Expand installation type. Ensure that, at a minimum, the following components are selected:  
   ○ Central Management Server  
   ○ File Repository Server  
   ○ Platform Processing Services  
3. Enter administrator-level connection information for the CMS server that you created in the previous step. |
| 2     | Data Services    | Server 1 | 1. Follow the procedure “To run an interactive installation” in the SAP Data Services Installation Guide.  
2. Select the following components:  
   ○ Data Services APS Services  
   ○ Data Services Management Console  
3. After Data Services installation completes, you must restart the computer. |
| 3     | Data Services    | Server 2 | 1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.  
2. Ensure that the following components are selected:  
   ○ Job Server under Data Services Server  
   ○ Access Server under Data Services Server  
   The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |

### 4.2.3.3 Scenario 4: Distributed Data Services (Server groups)

This scenario is an expanded version of scenario 3, and provides you with a way to set up multiple Data Services servers and server groups to further increase performance.
### Table 11: Installation order and steps

<table>
<thead>
<tr>
<th>Order</th>
<th>Software product</th>
<th>Computer</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1     | BI platform                 | Server 1          | 1. Follow the procedure in the *SAP BusinessObjects Information platform services Installation Guide* to start the installation.  
2. Select the Full installation type. If you know which components you want to install, you can select the Custom installation type.  
If you choose to do a custom installation, you must have, at a minimum, the following components checked:  
  ○ Central Management Server  
  ○ File Repository Server  
  ○ Web Tier category of components  
3. Enter administrator-level connection information for the CMS server that you created in the previous step. |
| 2     | SAP Data Services           | Server 1          | 1. Follow the procedure in “To run an interactive installation” in the *SAP Data Services Installation Guide*.  
2. Ensure that the following components are selected:  
  ○ Data Services APS Services  
  ○ Data Services Management Console  
  The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |
| 3     | SAP Data Services           | Server 2, Server 3...Server n | Ensure that the additional computers (in this example, Server 2 to Server n) have the same hardware and software so that the Data Services Job Servers are running on identical systems.  
1. Follow the procedure in “To run an interactive installation” in the *SAP Data Services Installation Guide*.  
2. Ensure that the following components are selected:  
  ○ Job Server under Data Services Server  
  ○ Access Server under Data Services Server  
  The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |

### 4.2.3.4 Scenario 5: Scaling servers for web application users

This scenario expands the number of computers to handle a large number of web application users. Use this scenario to help provide high availability and load balancing for web applications.
<table>
<thead>
<tr>
<th>Order</th>
<th>Software product</th>
<th>Computer</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1     | BI platform      | Server 1 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the Custom/Expand installation type.  
   Ensure that, at a minimum, the following components are selected:  
   - Central Management Server  
   - File Repository Server |
| 2     | BI platform      | Server 2 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the Custom/Expand installation type.  
4. On the Configure Server Intelligence Agent (SIA) screen, enter the node name for this computer.  
5. On the Existing CMS Deployment Information screen, enter the connection information for the CMS that you created on Server 1. |
| 3     | Data Services    | Server 2 | 1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.  
2. Ensure that the following components are selected:  
   - Job Server under Data Services Server  
   - Access Server under Data Services Server  
   - Data Services APS services  
   The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |
| 4     | BI platform      | Server 3 | 1. To start the installation, follow the procedure in the SAP BusinessObjects Information platform services Installation Guide.  
2. Select the Custom/Expand installation type.  
3. Select the Web Tier category of components. |
| 5     | Data Services    | Server 3 | 1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.  
2. Select the Data Services Management Console component. The other Data Services components are optional.  
3. After Data Services installation completes, you must restart the computer. |

### 4.3 Information Steward Deployment

SAP BusinessObjects Information Steward inherits the scalable architecture provided by the SAP BusinessObjects Business Intelligence platform and SAP Data Services. This architecture allows deployment of different server components of Business Intelligence platform, Data Services, and Information Steward on different machines for flexibility, reliability, scalability, and better performance. You can also run duplicate instances of a server process across several networked machines for high availability.
The services with a red star in the following diagram can be process intensive, and might require more computing resources and times. The remainder of this section describes guidelines and deployment scenarios to deploy these services on different machines in a distributed environment to improve performance.

Related Information

Planning your Information Steward deployment [page 33]
Information Steward deployment guidelines [page 33]
4.3.1 Planning your Information Steward deployment

The section includes examples and suggestions for distributed deployment, but it is important to note that each deployment is unique. The flexibility of the Business Intelligence platform service-based architecture allows you to tailor the deployment to serve your organization’s requirements as precisely as possible.

Planning your deployment involves the following steps:

1. Decide which components of Information Steward you want to install and determine the basic software and hardware requirements for them. For more information, see the related topics and the Product Availability Matrix at [http://service.sap.com/PAM](http://service.sap.com/PAM).

2. Review the key concepts you need to consider for your deployment, including operating system, database, and application server considerations, in addition to security, performance and scalability, and high availability. See “Assessing your organization’s environment” in the SAP BusinessObjects Business Intelligence Platform Planning Guide.

3. Choose an initial deployment architecture that will serve your needs within the limits of your resources. For suggestions and common configurations, see Information Steward distributed deployment scenarios [page 36].

Related Information

- Information Steward components [page 14]
- Component installation prerequisites [page 16]
- Component run-time dependencies [page 19]

4.3.2 Information Steward deployment guidelines

This section provides guidelines for assessing your organization’s needs and suggestions for distributed deployment scenarios. By evaluating your needs before you deploy your SAP Information Steward system, you can keep troubleshooting to a minimum.

4.3.2.1 Information Steward general deployment guidelines

Ideally, you should deploy SAP Information Steward components across multiple computers based on the expected amount of processing and expected time of day when the processing will occur. The following are some general deployment guidelines.

1. When using a distributed environment, enable and run only the servers that are necessary. For more information, see the Business Intelligence Platform Administrator Guide.
2. Use dedicated servers for resource intensive servers like the Data Services Job Server, metadata integrators, and the Cleansing Package Builder Auto-Analysis Service.

3. Consider these best practices guidelines when deploying the Application Service:
   ○ The Application Service can be combined on the same computer with the Search Service, Data Review Service, and Administrative Task Service.
   ○ The Application Service should be on a separate computer than the web application server to obtain higher throughput.
   ○ The Application Service can be on its own computer, or it can be combined with any Metadata Integrator. The rationale for this combination is that Metadata Integrators usually run at night or other non-business hours, and the Application Service runs during normal business hours when users are performing tasks on the Information Steward web application (such as viewing impact and lineage relationships, adding tables to profile, or creating Metapedia terms).

4. Install the Information Steward Web Application on a separate server. The Business Intelligence platform Web Tier must be installed on the same computer as the Information Steward Web Application. If you do not have Tomcat, you need to manually deploy the Information Steward Web Application.

5. If you have many concurrent users, you can use multiple Information Steward web applications with a load balancer. For more information, see the “Failover and load balancing” topic in the SAP BusinessObjects Business Intelligence platform Web Application Deployment Guide.

6. The Information Steward repository should be on a separate computer but in the same sub-network as the Information Steward Web application, Enterprise Information Management Adaptive Processing Server, Information Steward Job Server, and Cleansing Package Builder to obtain a higher throughput.

7. Make sure that the database server for the Information Steward repository is tuned and has enough resources.

8. Allocate enough memory and hard disk space to individual servers as needed.

9. Follow good scheduling practices to make sure that resource intensive tasks do not overlap each other. Schedule them to run during non-business hours so that on-demand request performance is not affected.

For more information, see “Performance and Scaling Considerations, General best practices” in the Administrator Guide and the following topics in the Installation Guide:

- “Cleansing Package Builder deployment guidelines”
- “Metadata Management deployment guidelines”
- “Data Insight deployment guidelines for profile and rule task”
- “Deploying web applications with WDeploy”

### 4.3.2.2 Data Insight deployment guidelines for profile and rule tasks

Guidelines to deploy the Data Insight module of Information Steward components include the following:

1. If you expect your Data Insight profiling and rule tasks to consume a large amount of processing, deploy the Data Services Job Server on a separate computer.
2. To improve the execution of Data Insight profiling tasks, the Data Services Job Server can be on multiple computers that are separate from the web application server to take advantage of Data Services job server groups and parallel execution. You must access the Data Services Server Manager on each computer to do the following tasks:
○ Add a Data Services Job Server and associate it to the Information Steward repository. For more information, see “Adding Data Services Job Servers for Data Insight” in the Information Steward Administrator Guide.
○ Specify the path of the pageable cache that will be shared by all job servers in the Pageable cache directory option.

3. For a predictable distribution of tasks when using multiple Data Services Job Servers, try to ensure that the hardware and software configurations are homogeneous. This means that they should all have similar CPU and RAM capacity.

4. Irrespective of using Degree of Parallelism (DOP) or multiple Data Services Job Servers, set the pageable cache directory on high speed and high capacity disk. For more information, see “Specifying a pageable cache directory” in the Data Services Performance Optimization Guide.

5. If you are processing flat files, store them on a high speed disk so that read performance is good.

6. For high availability on a cluster, duplicate SAP BusinessObjects Business Intelligence platform CMS server, Business Intelligence platform Web Tier, Information Steward web application, Data Services Job Server and Information Steward Task Server. For more information, see Scenario 6: High availability [page 44] and “Clustering Central Management Servers” in the SAP BusinessObjects Business Intelligence Platform Administrator Guide.

See also the SAP Information Steward Administrator Guide: Performance and Scaling Considerations, Data Insight best practices.

4.3.2.3 Metadata Management deployment guidelines

Guidelines to deploy the Metadata Management module of Information Steward components include the following:

1. Metadata integrators for BusinessObjects Enterprise, Data Services, and SAP Business Warehouse should be installed on their own dedicated servers if they require large processing time or they run in overlapping time periods with other metadata integrators or Data Insight tasks.

2. Any Metadata Integrator can be combined with the Application Service. The rationale for this combination is that Metadata Integrators usually run at night or other non-business hours, and the Application Service runs during normal business hours when users are performing tasks on the Information Steward web application (such as viewing impact and lineagerelationships, adding tables to profile, or creating Metapedia terms).

3. Additional guidelines to consider for Metadata Search Service include:
   ○ Can be combined with any Metadata Integrators, or it can be on its own computer. The rationale for this combination is that Metadata Integrators usually run at night or other non-business hours, and the Search Server runs during normal business hours when users are searching on the Metadata Management tab of Information Steward.

4. The File Repository Servers should be installed on a server with a high speed and high capacity disk.

5. For high availability on a cluster, duplicate the SAP BusinessObjects Business Intelligence platform CMS server, Business Intelligence platform Web Tier and Information Steward web application, and Metadata Integrators. For more details, see Scenario 6: High availability [page 44] and “Clustering Central Management Servers” in the SAP BusinessObjects Business Intelligence Platform Administrator Guide.

See also the SAP Information Steward Administrator Guide: Performance and Scaling Considerations, Metadata Management best practices.
### 4.3.2.4 Cleansing Package Builder deployment guidelines

Guidelines to deploy the Cleansing Package Builder module of Information Steward components include the following:

1. The Cleansing Package Builder Auto-analysis service should be on a dedicated server to obtain higher throughput.
2. For high availability on a cluster, duplicate SAP BusinessObjects Business Intelligence platform, Business Intelligence platform Web Tier and Cleansing Package Builder Service.

See also the *SAP Information Steward Administrator Guide: Performance and Scaling Considerations, Cleansing Package Builder best practices.*

### 4.3.3 Information Steward distributed deployment scenarios

This section describes sample scenarios for administrators planning a distributed installation of SAP Information Steward to scale to specific workloads. The administrator should plan the installation and landscape using as input the sample scenarios below and performance and security requirements, trying to optimize the machine usage. It is important to note that the optimal configuration for your deployment will depend on many factors: hardware configuration, database software, reporting requirements, operating system, clock speed, hyperthreading, disk speed, application server configuration, load frequency, and so on.

The following table shows a summary of the most common deployment scenarios of Information Steward (IS) and the prerequisite components of SAP BusinessObjects Business Intelligence platform (BI platform) and SAP Data Services (DS).

<table>
<thead>
<tr>
<th>Scenario Description</th>
<th>SAP BI Platform</th>
<th>SAP Data Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

**Tip**

For guidelines about deploying Information Steward and Data Services on the same instance or a separate instance of SAP Business Intelligence platform, see [http://wiki.sdn.sap.com/wiki/x/0YiLEg](http://wiki.sdn.sap.com/wiki/x/0YiLEg).

**Note**

Every deployment is unique, and these examples are provided only as guidelines.
Table 13:

<table>
<thead>
<tr>
<th>Server</th>
<th>Scenario 1: All on one machine</th>
<th>Scenario 2: Scaling for Data Insight</th>
<th>Scenario 3: Scaling for Metadata Management</th>
<th>Scenario 4: Scaling for Cleansing Package Builder</th>
<th>Scenario 5: Scaling for web application users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>BI platform</td>
<td>BI platform</td>
<td>BI platform</td>
<td>BI platform</td>
<td>BI platform</td>
</tr>
<tr>
<td></td>
<td>DS Job Server</td>
<td>DS Job Server</td>
<td>DS Job Server</td>
<td>DS Job Server</td>
<td>DS Job Server</td>
</tr>
<tr>
<td></td>
<td>DS EIM APS</td>
<td>DS EIM APS</td>
<td>DS EIM APS</td>
<td>DS EIM APS</td>
<td>DS EIM APS</td>
</tr>
<tr>
<td></td>
<td>IS web application</td>
<td>IS web application</td>
<td>IS web application</td>
<td>IS web application</td>
<td>IS web application</td>
</tr>
<tr>
<td></td>
<td>IS Task Server</td>
<td>IS Task Server</td>
<td>IS Task Server</td>
<td>IS Task Server</td>
<td>IS Task Server</td>
</tr>
<tr>
<td></td>
<td>Application Service Search Integrators CPB Services Data Review Services</td>
<td>Application Service Search Integrators CPB Services Data Review Services</td>
<td>Application Service Search Integrators CPB Services Data Review Services</td>
<td>Application Service Search Integrators CPB Services Data Review Services</td>
<td>Application Service Search Integrators CPB Services Data Review Services</td>
</tr>
<tr>
<td>Server 2</td>
<td>BI platform</td>
<td>Integrator Search</td>
<td>BI platform</td>
<td>BI platform</td>
<td>BI platform</td>
</tr>
<tr>
<td></td>
<td>DS Job Server</td>
<td>Search BI platform Processing Server BI platform Scheduling Server</td>
<td>Auto-analysis Service</td>
<td>Auto-analysis Service</td>
<td>Auto-analysis Service</td>
</tr>
<tr>
<td>Server 3</td>
<td>BI platform</td>
<td>CPB Core Service CPB Publishing Service</td>
<td>CPB Core Service CPB Publishing Service</td>
<td>CPB Core Service CPB Publishing Service</td>
<td>CPB Core Service CPB Publishing Service</td>
</tr>
</tbody>
</table>

The following topics provide the steps to deploy each of the scaling scenarios above, plus the following additional scenarios:

- High availability
- Mixed operating systems

**Note**

The steps to deploy scenario 1 are in Scenario 1: Deploying all on one machine [page 23].

**Related Information**

Scenario 2: Scaling Data Insight servers [page 38]
Scenario 3: Scaling for Metadata Management [page 39]
4.3.3.1 Scenario 2: Scaling Data Insight servers

This scenario expands the number of computers to run profile and rule tasks. To enable grid computing for profile tasks, see the “Performance and Sizing Considerations” section in the SAP Information Steward Administrator Guide.

Use this scenario to provide load balancing and parallel execution for Data Insight profile and rule tasks.

The following diagram shows the components to install on each computer and the table lists the recommended order of installing prerequisite software, installing Information Steward, and post-installation steps required for this scenario.

Table 14: Installation order and steps for large amount of profile or rule task processing

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS)</td>
<td>Follow the same steps as in Scenario 1: Single machine deployment.</td>
</tr>
<tr>
<td></td>
<td>SAP Data Services</td>
<td>i Note It is recommended that you install IPS to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.</td>
</tr>
</tbody>
</table>
4.3.3.2 Scenario 3: Scaling for Metadata Management

This scenario expands the number of computers to handle Metadata Management integrator sources.

Use this scenario to provide high availability when running integrator sources that consume a lot of resources and might take hours to collect metadata for the Metadata Management module of Information Steward.

The following diagram shows the components to install on each computer and the table lists the recommended order to install prerequisite software and which components to select for each product.

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 2, Server 3, ..., Server n</td>
<td>SAP Data Services</td>
<td></td>
</tr>
</tbody>
</table>

**Note**

Ensure that the additional computers (in this example, Server 2 to Server n) have the same hardware and software so that the Data Services Job Servers are running on identical systems.

1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide. Ensure that the following component is selected:
   - Data Service Job Server
2. After installation completes, invoke the Data Services Server Manager on this computer to create a Data Services Job Server and associate it with the Information Steward repository. For details, see “Configuring a Data Services Job Server for Data Insight” in the SAP Information Steward Installation Guide.
### Table 15: Installation order and steps for a large amount of integrator source processing

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS)</td>
<td>Follow the same steps as in Scenario 1: Single machine deployment.</td>
</tr>
<tr>
<td></td>
<td>SAP Data Services</td>
<td><strong>Note</strong> It is recommended that you install IPS to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.</td>
</tr>
<tr>
<td></td>
<td>SAP Information Steward</td>
<td></td>
</tr>
</tbody>
</table>
| Server 2, Server 3, ... Server n | SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS) | **Note** Ensure that the additional computers to run the integrator sources have the Windows operating system. Ideally, the integrator source system should exist on this computer. To start the installation, follow the procedure in the SAP BusinessObjects Business Intelligence Platform Installation Guide for Windows, and specify the following options for this deployment:  
  - For install type, select **Custom/Expand**.  
  - On the Select Features screen, clear the check marks for **Web Tier** and **Servers**, and select the following components under **Servers Platform Services**:  
    - Platform Processing Services  
    - Platform Scheduling Services  
  - On the Configure Server Intelligence Agent (SIA) screen, enter the node name for this computer.  
  - On the Existing CMS Deployment Information screen, enter the connection information for the CMS that you created on Server 1. |
| SAP Information Steward |                                                                                 | **Note** The Information Steward installation requires that you stop and start the Server Intelligence Agent (SIA). Users cannot access the Central Management System (CMS) while the SIA is stopped. Therefore, it is recommended that you perform this installation during scheduled down time to limit the effect on your users. |
|              |                                                                                 | 1. Follow the Standard installation procedure in the Installation Guide.  
  2. For install type, select **Expanded Install**.  
  3. Enter administrator-level connection information for the CMS that you created on Server 1.  
  4. Skip the repository creation.  
  5. Select the Metadata Integrator component that you want to install. |

See also the SAP Information Steward Installation Guide: Standard installation.
4.3.3.3 Scenario 4: Scaling for Cleansing Package Builder

This scenario expands the number of computers to handle a large amount of Cleansing Package Builder processing. The Cleansing Package Builder Auto-analysis Service is the most resource-intensive service of the Cleansing Package Builder module of Information Steward.

Use this scenario to separate the most resource-intensive service of the Cleansing Package Builder onto its own computer.

The following diagram shows the components to install on each computer and the table lists the recommended order to install prerequisite software and which components to select for each product.

![Diagram showing components to install on each computer]

Table 16: Installation order and steps for a large amount of Cleansing Package Builder processing

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS)</td>
<td>Follow the same steps as in Scenario 1: Single machine deployment.</td>
</tr>
<tr>
<td>Server 2</td>
<td>1. BI platform components: Web Tier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Central Management Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Platform Processing Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Platform Scheduling Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>File Repository Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. DS components: Job Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td>APS Services</td>
<td></td>
</tr>
<tr>
<td>Server 3</td>
<td>1. BI platform components: Adaptive Processing Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. IS components: CPB Auto-analysis Service</td>
<td></td>
</tr>
</tbody>
</table>

Note: It is recommended that you install IPS to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.
<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Server 2   | SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS) | To start the installation, follow the procedure in the *SAP BusinessObjects Business Intelligence Platform Installation Guide for Windows*, and specify the following options for this deployment:  
  ● For install type, select *Custom/Expand*.  
  ● On the *Select Features* screen, clear the check marks for *Web Tier* and *Servers*, and select the following components under [Servers ➔ Platform Services ➔]:  
    ○ Platform Processing Services  
    ○ Platform Scheduling Services  
  ● On the *Configure Server Intelligence Agent (SIA)* screen, enter the node name for this computer.  
  ● On the *Existing CMS Deployment Information* screen, enter the connection information for the CMS that you created on Server 1. |
  1.  
     - Note  
     The Information Steward installation requires that you stop and start the Server Intelligence Agent (SIA). Users cannot access the Central Management System (CMS) while the SIA is stopped. Therefore, it is recommended that you perform this installation during scheduled down time to limit the effect on your users.  
     ○ For install type, select *Expanded Install*.  
     ○ Enter administrator-level connection information for the CMS that you created on Server 1.  
     ○ For the Information Steward repository, enter the same connection information as on Server 1 and skip the repository creation.  
     ○ Select the Cleansing Package Builder component.  
     2. After Information Steward installation completes, enable only the Cleansing Package Builder Auto-analysis Service on this computer.  
        ○ From the CMC Home page, go to the *Servers* management area.  
        ○ Expand the *Service Categories* node and select *Enterprise Information Management Services*.  
        ○ Right-click *EIMAdaptiveProcessingServer* and click *Stop Server*.  
        ○ Right-click *EIMAdaptiveProcessingServer* and click *Select Services*.  
        ○ From the list on the right, select Cleansing Package Builder Core service and Cleansing Package Builder Publishing service, click < to remove them, and then click *OK*.  
        ○ Right-click *EIMAdaptiveProcessingServer* and click *Start Server*. |
| Server 3   | SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS) | Follow the same steps as in Server 2. |
SAP Information Steward

1. Step 1 is the same as in Server 2 for SAP Information Steward.

2. Enable only the Cleansing Package Builder Core Service and Cleansing Package Builder Publishing Service on this computer:
   - From the CMC Home page, go to the Servers management area.
   - Expand the Service Categories node and select Enterprise Information Management Services.
   - Right-click EIMAdaptiveProcessingServer and click Stop Server.
   - Right-click EIMAdaptiveProcessingServer and click Select Services.
   - From the list on the right, select Cleansing Package Builder Auto-analysis service, click < to remove it, and click OK.
   - Right-click EIMAdaptiveProcessingServer and click Start Server.

See also the SAP Information Steward Installation Guide: Standard installation.

4.3.3.4 Scenario 5: Scaling servers for web application users

This scenario expands the number of computers to handle a large number of web application users.

Use this scenario to provide high availability and load balancing for web applications.

Note

If you distribute the Information Steward Web Application on multiple computers, you will need to install a load balancer (software or hardware) to distribute the users among the web servers.

The following diagram shows the components to install on each computer and the table lists the recommended order to install prerequisite software and which components to select for each product.

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
</table>
|          | SAP Information Steward | 1. Step 1 is the same as in Server 2 for SAP Information Steward.  
|          |                  | 2. Enable only the Cleansing Package Builder Core Service and Cleansing Package Builder Publishing Service on this computer:  
|          |                  |   - From the CMC Home page, go to the Servers management area.  
|          |                  |   - Expand the Service Categories node and select Enterprise Information Management Services.  
|          |                  |   - Right-click EIMAdaptiveProcessingServer and click Stop Server.  
|          |                  |   - Right-click EIMAdaptiveProcessingServer and click Select Services.  
|          |                  |   - From the list on the right, select Cleansing Package Builder Auto-analysis service, click < to remove it, and click OK.  
|          |                  |   - Right-click EIMAdaptiveProcessingServer and click Start Server. |

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
</table>
|          |                  | 3. IS-components:  
|          |                  |   - IS Task Server  
|          |                  |   - Application Service  
|          |                  |   - Metadata Search Service  
|          |                  |   - Metadata Integrators  
|          |                  |   - Cleansing Package Builder Services  
|          |                  |   - Data Review Services |

Server 1

1. BI-Plattform-components:  
   - Central Management Server  
   - Platform Processing Services  
   - Platform Scheduling Services  
   - File Repository Server

2. DS-components:  
   - Job Server  
   - APS Services

3. IS-components:  
   - IS Task Server  
   - Application Service  
   - Metadata Search Service  
   - Metadata Integrators  
   - Cleansing Package Builder Services  
   - Data Review Services

Server 2

1. Web application server or Web server  
   - BI Platform and IS Web Application
Table 17: Installation order and steps for a large number of web application users

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Server 1 | BI platform      | 1. Follow the same steps as in Scenario 1: Single machine deployment.  
|          | Data Services    | 2. After installation, generate a deployment file using WDeploy for manual deployment. For more information, see “Deploying web applications with WDeploy” in the SAP Information Steward Installation Guide. |
|          | Information Steward |             |
| Server 2 | Web Application Server or Web Server | 1. Install the WDeploy file generated on Server 1 onto this Web Application Server or Web Server. For more information, see “To deploy or undeploy components” in the SAP Information Steward Installation Guide. |

4.3.3.5 Scenario 6: High availability

This scenario expands the single machine scenario to deploy more than one complete Information Steward installation on different machines forming a cluster environment.

Use this scenario to provide high availability and load balancing of the Information Steward components.

**Note**
This load balancing scenario requires a hardware or software load balancer to cluster the Web Application Servers for Information Steward.

**Restriction**
You cannot use this load balancing scenario for Data Services.

The following diagram shows the components to install on each computer and the table lists the recommended order to install prerequisite software and which components to select for each product.
### Table 18: Installation order and steps for high availability

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS)</td>
<td>Follow the steps as in Scenario 1: Deploying all on one machine [page 23]. Note: It is recommended that you install IPS to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.</td>
</tr>
</tbody>
</table>
| Server 2   | SAP BusinessObjects Business Intelligence platform (BI platform) or SAP BusinessObjects Information platform services (IPS) | To set up a cluster of Central Management Servers (CMSs), follow the procedure in “Adding a CMS to a cluster” in the SAP BusinessObjects Information Platform Services Administrator Guide, and specify the following options for this deployment:  
  - For install type, select Expanded.  
  - On the Select Features screen, under Servers ➤ Platform Services ➤, clear the check marks for Central Management Server and File Repository Services (FRS).  
  - On the Configure Server Intelligence Agent (SIA) screen, enter the node name for this computer.  
  - On the Existing CMS Deployment Information screen, enter the connection information for the CMS that you created on Server 1.  
  - After BI platform installation completes, follow the procedure in Configuring the File Repository Server (FRS) in a cluster environment [page 46] so that Server 1 and Server 2 will use a common FRS. |
| SAP Data Services | SAP Data Services  | For load balancing the Data insight and Data Review modules of Information Steward, set up another Data Services Job Server.  
  1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.  
  2. Ensure that the following components are selected:  
     - Job Server under Data Services Server  
     - Data Services APS Services which contain the Metadata Browsing Service and Data Services View Data Service.  
     The other Data Services components are optional. |
### Configuring the File Repository Server (FRS) in a cluster environment

In a BI platform cluster environment, you can use a Network File System (also called Network Attached Storage (NAS)) to share one File Repository Server (FRS) across multiple server computers.

#### Note

The BI platform 4.1 Server Intelligence Agent (SIA) ID(account)/Password and NAS ID/Password must be the same. For example:
- **BI platform 4.1 SIA ID**: boadmin  
  **password**: 12345  
- **NAS ID**: boadmin  
  **password**: 12345  

To configure the FRS to point to the NAS:

1. Create the New ID(account) at BI platform Server and NAS Server.
   a. Click **Start** > **Control Panel** > **Administrative Tools** > **Computer Management**.
   b. Expand **Local Users and Groups**.
   c. Right-click **Users** > **New User...** from shortcut menu.
   d. Create the new user and add the user to Administrators group.
2. Create the FileStore\Input and FileStore\Output folders on the NAS Server.
3. Register the NAS Server host name and IP address in C:\WINDOWS\system32\drivers\etc\hosts on the BI platform Server.
4. Change the SIA ID account.
   a. Click **Start** ➔ **Run** and type `Services.msc` to open the Services page.
   b. Stop the SIA Service.
   c. Open its **Properties** window, click the **Log On** tab, and select **This account**.
   d. Enter the user account name and password created in step 1 and click **Apply**.
   e. Start the SIA service.

5. Change the directories for Input/Output File Repository Server.
   a. Log on to Central Management Console (CMC).
   b. Click **Servers** ➔ **Servers List**.
   c. From the list in the right pane, double click **Input/Output File Repository Server** and change the **Temporary Directory** and **File Store Directory** to the folder on the NAS Server. Use the UNC path. For example, `\boedb\FRS\Output\temp`.
   d. Click **Save & Close**.
   e. Right-click **Input/Output File Repository Server** and click **Restart**.

### 4.3.3.6 Scenario 7: Mixed operating systems

This scenario illustrates a situation in which you want to add SAP Information Steward in a mixed operating system environment. For example, suppose you have the following environment:

- Linux on two 64-bit computers clustered with SAP BusinessObjects Enterprise 4.1
- Linux for Web Logic on a third computer for the web applications
- Windows with SAP BusinessObjects Enterprise 4.1 on a fourth computer

The following diagram shows this environment after you install the prerequisite components of SAP BusinessObjects Business Intelligence platform and SAP Data Services, and then Information Steward. The table after the diagram lists the recommended order that the software components should be installed to ensure that the prerequisite software is installed before you start installing Information Steward.
Table 19:

<table>
<thead>
<tr>
<th>Order</th>
<th>Task</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 1. (a) | Install SAP BusinessObjects Business Intelligence platform (BI platform) on Server 1 of the clustered Linux 64-bit computers. | 1. Follow the procedure in the SAP BusinessObjects Business Intelligence Platform Installation Guide for UNIX to start the installation.  
2. Select the Custom installation type.  
3. On the Select Features window, unselect the Web Tier component.  
4. After installation, generate a deployment file using WDeploy for manual deployment. For more information, see “Deploying web applications with WDeploy” in the Information Steward Installation Guide.  
5. After the installation completes, verify that communication is working for the BI platform components:  
   1. Go to the Servers management area of the CMC to ensure that the following servers are enabled in the Servers List:  
      ○ `<computername>AdaptiveProcessingServer`  
      ○ `<computername>AdaptiveJobServer`  
      ○ `<computername>CentralManagementServer`  
      ○ `<computername>InputFileRepository`  
      ○ `<computername>OutputFileRepository`  
   2. Invoke the Central Configuration Manager to ensure that the services associated with the above servers are enabled. |
<table>
<thead>
<tr>
<th>Order</th>
<th>Task</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 1. (b) | Install BI platform on Server 2 of the clustered Linux 64-bit computers. | To set up a cluster of Central Management Servers (CMSs), follow the procedure in “Adding a CMS to a cluster” in the SAP BusinessObjects Information platform services Administrator Guide or SAP BusinessObjects Business Intelligence Platform Administrator Guide, and specify the following options for this deployment:  
  • For install type, select Custom/Expand.  
  • On the Select Features screen, under [Servers – Platform Services], clear the check marks for Central Management Server and File Repository Services (FRS).  
  • On the Configure Server Intelligence Agent (SIA) screen, enter the node name for this computer.  
  • On the Existing CMS Deployment Information screen, enter the connection information for the CMS that you created on Server 1.  
  • After BI platform installation completes, follow the procedure in Configuring the File Repository Server (FRS) in a cluster environment [page 46] so that Server 1 and Server 2 will use a common FRS. |
| 2. (a) | Install SAP BusinessObjects Business Intelligence platform and the SAP BusinessObjects Enterprise Client Tools on the Windows computer. | You must install SAP BusinessObjects Business Intelligence platform on the Windows computer before you install SAP Information Steward.  
  1. Backup the CMS database and SAP BusinessObjects Business Intelligence platform (BI platform) filestore that currently exists on Linux.  
  2. To start the installation, follow the procedure in the SAP BusinessObjects Business Intelligence Platform Installation Guide for Windows, and specify the following options for this deployment:  
    ○ For install type, select Custom/Expand.  
    ○ On the Select Features window, clear the check marks for Web Tier and Servers, and select the following components under [Servers – Platform Services]:  
      ○ Platform Processing Services  
      ○ Platform Scheduling Services  
    ○ On the Configure Server Intelligence Agent (SIA) screen, enter the node name for this computer.  
    ○ On the Existing CMS Deployment Information screen, enter the connection information for the CMS that you created on Server 1.  
  3. To verify that communication is working for the BI platform components:  
    1. Go to the Servers management area of the CMC to ensure that the following servers are enabled in the Servers List:  
      ○ <computername>AdaptiveProcessingServer  
      ○ <computername>AdaptiveJobServer  
      ○ <computername>CentralManagementServer  
    2. Invoke the Central Configuration Manager to ensure that the services associated with the above servers are enabled.  
  4. To start the installation of BI platform client components (such as SAP Crystal Reports), follow the procedure “To run an interactive installation of Client Tools” in the SAP BusinessObjects Business Intelligence platform Installation Guide for Windows. |
<table>
<thead>
<tr>
<th>Order</th>
<th>Task</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 2. (b) | Install SAP Data Services on Server 2 of the Linux cluster. | You must install SAP Data Services on the computer before you perform the first installation of SAP Information Steward.  
1. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide for UNIX.  
2. You must enter the Administrator connection information for the CMS that you created when you installed your BI platform (do not choose the Skip option).  
3. Ensure that the following components are selected:  
   - Job Server under Data Services Server  
   - Data Services Metadata Browsing Service  
   - Data Services View Data Service  
   The other components are optional.  
4. After Data Services installation completes, you must restart the computer. |
| 2. (c) | Install SAP Information Steward on Server 2 of the Linux cluster. | Note: This installation requires that you stop and start the Server Intelligence Agent (SIA). Users cannot access the Central Management System (CMS) while the SIA is stopped. Therefore, it is recommended that you perform this installation during scheduled down time to limit the effect on your users.  
1. Follow the procedure in “Standard installation” in the SAP Information Steward Installation Guide for UNIX.  
2. For install type, select Primary.  
3. For the CMS, you must enter the same administrator-level connection information for the CMS that you created when you installed your BI platform.  
4. If you want to deploy the following components on a separate machine than the Metadata Integrators, select them:  
   - Application Service  
   - Metadata Search Service  
5. If you will use the Data Insight module, select the following component:  
   - Information Steward Task Server  
6. If you will use the Cleansing Package Builder module, select the following component:  
   - Cleansing Package Builder Service  
7. To verify that the servers and services are running after installation completes, see “Verifying Information Steward servers are running” and “Verifying Information Steward services” in the SAP Information Steward Installation Guide. |
### Task 3

**Order:** 3.

**Task:** Install SAP Information Steward on the Windows computer.

**Notes:**

2. For install type, select **Expanded Install**.
3. For the CMS, you must enter the same administrator-level connection information for the CMS that you created when you installed your BI platform.
4. Select the following components for the Metadata Management module:
   - Metadata Integrator for each source system that you want to collect metadata from to obtain impact and lineage relationships
5. To verify that the servers and services are running after installation completes, see “Verifying Information Steward servers are running” and “Verifying Information Steward services” in the SAP Information Steward Installation Guide.

### Task 4. (a)

**Order:** 4.

**Task:** Install the Web Application component of SAP BusinessObjects Business Intelligence platform on the Linux computer.

**Notes:**

1. Follow the procedure in the SAP BusinessObjects Business Intelligence Platform Installation Guide for UNIX to start the installation.
2. Select the **Custom** installation type.
3. On the **Select Features** window, select the Web Tier component.
4. Follow the procedure in the SAP BusinessObjects Business Intelligence Platform Web Application Deployment Guide for UNIX to deploy the web application with the WDeploy tool.

### Task 4. (b)

**Order:** 4.

**Task:** Install the Information Steward Web Application on the Linux computer.

**Notes:**

1. Follow the procedure in “Deploying web applications with WDeploy” in the SAP Information Steward Installation Guide for UNIX to deploy the Information Steward web applications to the computer where Web Logic is installed.
2. Use the `wdeploy` tool to prepare the web application server components (WAR files) on the Linux computer.
3. Copy the WAR files to the Linux computer.

### 4.4 Deployment checklist

This table provides a checklist for the steps you need to perform when planning your SAP Data Services and SAP Information Steward deployment.

<table>
<thead>
<tr>
<th>Checklist Item</th>
<th>Reference</th>
<th>Complete? (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the Data Services and Information Steward components and how they interact with the BI platform.</td>
<td></td>
<td>Y__/N__</td>
</tr>
<tr>
<td>Understand the workflows (how information travels through the architecture).</td>
<td>“Information workflows” in the SAP Information Steward Administrator Guide</td>
<td>Y__/N__</td>
</tr>
<tr>
<td>Checklist Item</td>
<td>Reference</td>
<td>Complete? (Y/N)</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Identify the operating system and product dependencies to which you are</td>
<td>Product Availability Matrix available at <a href="http://service.sap.com/PAM">http://service.sap.com/PAM</a></td>
<td>Y/N</td>
</tr>
<tr>
<td>deploying each component.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Choose the database servers you will be accessing.                           | "Repository database requirements and preparation" in the SAP Information Steward Installation Guide  
|                                                                               | "Preparing the repository database" in the SAP Data Services Installation Guide                                                                                                                         | Y/N            |
| Choose a web application server.                                             | “Web Application Server” in the SAP BusinessObjects Information Steward Administrator Guide                                                                                                             | Y/N            |
| Identify and plan your security requirements (authentication, SSL, firewalls, | “Securing SAP Information Steward” in the Administrator Guide  
| reverse proxy).                                                               | "Security” in the SAP Data Services Administrator Guide                                                                                                                                                | Y/N            |
| Identify performance requirements.                                           | ● Data Services Performance and Optimization Guide  
|                                                                               | ● "Performance and Sizing Considerations” in the Information Steward Administrator Guide                                                                                                                  | Y/N            |
| Choose whether or not to design for high availability support.               | [Scenario 6: High availability](#) [page 44]                                                                                                                                                                | Y/N            |
| If you are using System Landscape Directory (SLD), identify your SLD server. | “Support for SAP System Landscape Directory (SLD)” in the Information Steward Installation Guide                                                                                                          | Y/N            |
| Plan your system landscape to meet your chosen deployment scenario.          | Planning your Information Steward deployment [page 33]                                                                                                                                                     | Y/N            |
| Identify firewall ports that need to be opened between the application server,| “Port assignments” in the Data Services Installation Guide                                                                                                                                                | Y/N            |
| clients, databases, and so forth.                                            |                                                                                                                                                                                                           |                |

**Related Information**

Repository database [page 9]
5 Upgrading the landscape

5.1 Planning information

Use the information in this Master Guide to plan and implement your upgrade or migration. This section provides a list of the key resources mentioned in this guide.

Table 20:

<table>
<thead>
<tr>
<th>Information</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Services: <a href="http://help.sap.com/bods/">http://help.sap.com/bods/</a></td>
<td></td>
</tr>
<tr>
<td>Supported Platforms (Product Availability Matrix) <a href="https://service.sap.com/PAM">https://service.sap.com/PAM</a></td>
<td>Information about supported platforms for SAP Data Services and SAP Information Steward with a search function to quickly find information related to your platform.</td>
</tr>
</tbody>
</table>

Related Information

Data Services architecture overview [page 6]
Information Steward architecture overview [page 7]

5.2 Overall upgrade sequence

To upgrade SAP Data Services and SAP Information Steward, you need to perform the following tasks.

Note

When migrating to a new machine, follow the instructions in Migrating to a new machine [page 57]

1. Installing

   ○ Install the most current version of SAP BusinessObjects Intelligence platform or SAP BusinessObjects Information platform services that is compatible with this version of Data Services and Information Steward. See the Product Availability Matrix located at http://service.sap.com/PAM and SAP BusinessObjects Intelligence Platform Upgrade Guide or SAP BusinessObjects Intelligence Platform Installation Guide.

   ○ Install the most current version of Data Services. See the SAP Data Services Upgrade Guide or SAP Data Services Installation Guide.
○ Install the most current version of SAP Information Steward. See the SAP Information Steward Upgrade Guide or SAP Information Steward Installation Guide.

2. Upgrading content
○ After installing the latest version of Data Services and Information Steward, import the Data Services and Information Steward repository content and configuration information from the previous installation. See the SAP Data Services Upgrade Guide and the Upgrading Information Steward section of the SAP Information Steward Upgrade Guide.
○ Update the Data Services-supplied SAP transport files and SAP authorizations on the SAP server. For more information, see the SAP Data Services Supplement for SAP

3. Configuring
○ Web application deployment. See the SAP Data Services Installation Guide and the SAP Information Steward Installation Guide.
○ Security configuration. See the SAP Data Services Administrator Guide and the SAP Information Steward Administrator Guide.
○ Authentication. See the SAP Data Services Administrator Guide and the SAP Information Steward Administrator Guide.
○ Tuning and performance. See the SAP Data Services Performance Optimization Guide and the SAP Information Steward Administrator Guide.

Related Information

Prerequisites [page 54]
Business scenarios for upgrading [page 55]

5.3 Prerequisites

Before upgrading to the most current version of the software, complete the following tasks.

Data Services

1. Back up configuration files and repositories.
2. Ensure that SAP BusinessObjects Business Intelligence platform or SAP BusinessObjects Information platform services have been upgraded.
3. Depending on the version you are upgrading from, you may need to uninstall Data Services before you install the latest version.
   If you are upgrading from:
### Data Services version

<table>
<thead>
<tr>
<th>Data Services version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Services 4.1</td>
<td>Install 4.2 on top</td>
</tr>
<tr>
<td>Data Services 4.0</td>
<td>Install 4.2 on top</td>
</tr>
<tr>
<td>Data Services 3.2 or prior, or Data Integrator 11.7</td>
<td>Uninstall before installing 4.2</td>
</tr>
</tbody>
</table>

For more information, see the *Data Services Upgrade Guide* and *Data Services Release Notes*.

### Information Steward

1. Back up the repository.
2. Ensure that Business Intelligence platform or Information platform services and Data Services have been upgraded.

For more information, see the *Information Steward Release Notes* and *Information Steward Upgrade Guide*.

### Related Information

- Overall upgrade sequence [page 53]
- Business scenarios for upgrading [page 55]

### 5.4 Business scenarios for upgrading

There are many reasons for upgrading to the most current versions of SAP Data Services and SAP Information Steward. Two of the most common scenarios are for upgrading from a previous version and for migrating to a new machine.

**Note**

When migrating to a new machine, it is recommended that you install SAP Business Intelligence Information platform services (IPS) system to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.

These scenarios are provided as a guideline for planning your own upgrade or migration. For details about other upgrade scenarios, see the *Data Services Upgrade Guide* and the *Information Steward Upgrade Guide*.

### Related Information

- Overall upgrade sequence [page 53]
5.4.1 Upgrading from previous releases

After completing the prerequisite work, you are ready to get started on the upgrade process.

Upgrading Data Services

Upgrading from Data Services 4.x consists of the following:

- Installing the current version of Data Services
- Upgrading the repository
- Migrating objects (only for versions prior to Data Services 4.0)
- Update the Data Services-supplied transport files and update the SAP authorizations to the current version. For details, see the Supplement for SAP.
- (Optional) Install any additional objects such as the SAP-supplied cleansing package for Data Cleanse.

Upgrading from Data Quality: use the Data Quality Migration Utility.

For more information see the Data Services Installation Guide and the Data Services Upgrade Guide.

Upgrading Information Steward

The upgrade process consists of the following:

- Installing the current version of Information Steward

  **Note**

  The Application Service is new in version 4.2 and is required by the Information Steward web application to access the Information Steward Repository and by the Metadata Management module to perform impact and lineage analysis. The Metadata Relationship Service no longer exists but its functionality is now in the Application Service.

- (Optional) Install any additional objects such as SAP-supplied cleansing packages for Cleansing Package Builder. If you have existing public and private cleansing packages, open them to update the schemas.
- (Optional) Install any additional new features such as the Data Review Server and the Data Review Service for Match Review or SAP HANA Metadata Integrator. In a distributed environment, ensure that you modify each server that hosts the additional components.
- (Optional) If you want to be able to use Information Steward’s new Data Cleansing Advisor feature, enable the Data Cleansing Advisor service as follows: In the Central Management Console, choose Servers ➤ Service Categories ➤ Core Services ➤ EIMAdaptiveProcessingServer, and stop the EIMAdaptiveProcessingServer. Right-click EIMAdaptiveProcessingServer and choose Select Services. Move Data Cleansing Advisor Service from the list of available services to the list of services for EIMAdaptiveProcessingServer.
For more information see the *Information Steward Installation Guide* and the *Information Steward Upgrade Guide*.

**Related Information**

Prerequisites [page 54]

### 5.4.2 Migrating to a new machine

At times your hardware may need to be upgraded or expanded. You can install and migrate SAP Data Services and SAP Information Steward objects on the new system. Begin with following the prerequisites, install SAP BusinessObjects Business Intelligence platform (or IPS) and Data Services landscape on the new machine, and then follow these guidelines.

**Migrating Data Services**

Follow these guidelines to migrate your objects to the new machine.

- Restore the backup of your Data Services repository database.
- If you are migrating from Data Services 3.x or Data Integrator 11.7, use the Upgrade Manager to migrate user and repository configuration information. Upgrade Manager can migrate all objects at once, or one object at a time.

  **i Note**

  When upgrading from Data Services 4.x, you do not need to use the Upgrade Manager to migrate user and repository configuration information.

- Re-configure access server instances using Server Manager.
- Migrate real-time configurations.

For more specific information about upgrading from 4.x to a higher version on a different machine, see the *Data Services Upgrade Guide*.

**Migrating Information Steward**

Follow these guidelines to migrate your objects to the new machine.

- Restore the backup of your Information Steward repository database.
- Install Information Steward.
- Use the Promotion Management tool to move all Information Steward objects to the new landscape. You can also use this tool to move existing users and groups.

For more information, see the *Information Steward Installation Guide* and *Information Steward Upgrade Guide*.
5.4.3 Separate Information platform services and BI platform

In this scenario, you migrate Data Services, and Information Steward to a separate Information platform services, and enable BI launch pad users on a different computer to access Information Steward.

Use this scenario to install the Information platform services, Data Services, and Information Steward on a second computer to provide flexibility to upgrade Data Services and Information Steward independently from BI platform. To enable BI launchpad users on an existing first computer to access lineage diagrams and Metapedia terms and definitions on Information Steward, you must configure the BI launch pad from the Information Steward application in the CMC.

The following diagram shows an existing computer with SAP BusinessObjects Business Intelligence platform and BI launch pad already installed, and the components to install on a second computer. The table lists the recommended order to install prerequisite software and which components to select for each product.

Table 21: Installation order and steps for separate Information platform services

<table>
<thead>
<tr>
<th>Computer</th>
<th>Software product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server 1</td>
<td>SAP BusinessObjects Business Intelligence platform (BI platform)</td>
<td>Existing BI platform 4.0 SPx system with BI launch pad installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Upgrade BI platform to 4.1 SP3 or SP4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Upgrade Data Services. Follow the instructions in the SAP Data Services Upgrade Guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Upgrade Information Steward. Follow the instructions in the SAP Information Steward Upgrade Guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Back up the Information Steward repository</td>
</tr>
<tr>
<td>Computer</td>
<td>Software product</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Server 2</td>
<td>SAP BusinessObjects Information platform services (IPS)</td>
<td>Install IPS (IPS 4.1 SP3 or SP4 or its higher compatible patches) which creates a new CMS that will be used during Data Services and Information Steward installations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Follow the procedure in the SAP BusinessObjects Information platform services Installation Guide to start the installation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Select the Full installation type. If you know which components you want to install, you can select the Custom installation type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you choose to do a custom installation, you must have, at a minimum, the following components checked:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Central Management Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ File Repository Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Web Tier category of components</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Platform Processing Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Platform Scheduling Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Enter administrator-level connection information for the CMS that you created in the previous step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keep this connection information. You will need it for the Data Services installation and the Information Steward installation.</td>
</tr>
</tbody>
</table>

| SAP Data Services |                                                                 | For detailed information on the following procedure, see the topic “Migrating Data Services to a new environment” in the Data Services Upgrade Guide.                                                                 |
|                   |                                                                 | 1. Back up your existing configurations on Server 1.                                                                                                                                                           |
|                   |                                                                 | 2. Copy the DSConfig.txt and DSConfig.key files from Server 1 to Server 2.                                                                                                                                    |
|                   |                                                                 | 3. Follow the procedure in “To run an interactive installation” in the SAP Data Services Installation Guide.                                                                                                 |
|                   |                                                                 | Ensure that, at a minimum, the following components are selected:                                                                                                                                            |
|                   |                                                                 |   ○ Job Server under Data Services Server                                                                                                                                                                     |
|                   |                                                                 |   ○ Access Server under Data Services APS Services which contain the Metadata Browsing Service and Data Services View Data Service.                                                                         |
|                   |                                                                 |   ○ Data Services Management Console                                                                                                                                                                           |
|                   |                                                                 | The other Data Services components are optional.                                                                                                                                                               |
|                   |                                                                 | 5. Migrate your Data Services repositories.                                                                                                                                                                   |
|                   |                                                                 | 6. Migrate you Data Services configurations.                                                                                                                                                                  |
|                   |                                                                 | 7. Verify the upgrade process.                                                                                                                                                                                |
|                   |                                                                 | The other Data Services components are optional.                                                                                                                                                    |


Note

The Information Steward installation requires that you stop and start the Server Intelligence Agent (SIA). Therefore, it is recommended that you perform this installation during scheduled down time to limit the effect on your users.

2. For install type, select Primary.
3. Enter administrator-level connection information for the CMS that you created on Server 2.
4. For the Information Steward repository, enter the same connection information as on Server 1. This repository will be upgraded as part of the installation.
5. Select Upgrade repository.
6. Use the Promotion Management tool to move all Information Steward objects and dependent objects from your existing IS 4.x landscape on Server 1 to your new IS 4.2 landscape on Server 2. For details, see "Migrating CMS content using Promotion Management" in the Information Steward Upgrade Guide.
7. If you run Data Insight profile and rule tasks, configure the Data Services Job Server for Information Steward. For more information, see "Configuring a Data Services Job Server for Data Insight" in the Information Steward Installation Guide.
8. If you have rules tasks that save failed data, in each task edit the connection information to the repository where the failed data is stored.
9. If users of BI launch pad on Server 1 want to access Information Steward features (view the lineage of a document (Crystal Report or Web Intelligence document) or view the Metapedia definition), configure the BI launch pad from the Information Steward application in the CMC. For more information, see "Configuring BI Launch Pad for Information Steward" in the Information Steward Administrator Guide.
6  SAP information resources

A global network of SAP technology experts provides customer support, education, and consulting to ensure maximum information management benefit to your business.

Useful addresses at a glance:

Table 22:

<table>
<thead>
<tr>
<th>Address</th>
<th>Content</th>
</tr>
</thead>
</table>
| Customer Support, Consulting, and Education services  
http://service.sap.com/ | Information about SAP Business User Support programs, as well as links to technical articles, downloads, and online discussions. |
| Product documentation  
| Supported platforms (Product Availability Matrix)  
https://service.sap.com/PAM | Information about supported platforms for SAP Information Steward with a search function to quickly find information related to your platform. |
| Product tutorials  
http://scn.sap.com/docs/DOC-8751 | Tutorials that have been developed to help you find answers to the most common questions about using SAP Information Steward. |
| Forums on SCN (SAP Community Network)  
https://go.sap.com/community/topic/information-steward.html | Discussions that include information and comments from other SAP users and the means to share your knowledge with the community. |
| EIM Wiki page on SCN  
https://wiki.scn.sap.com/wiki/display/EIM/Enterprise+Information+Management+%3+EIM | The means with which to contribute content, post comments, and organize information in a hierarchical manner so that information is easy to find. |
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