PROVANCE

Provance IT Asset Management Standard

For Microsoft® System Center

Deployment Guide

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Provance IT Asset Management Standard for Microsoft System Center Service Manager 2012 R2

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1 Preparing for a Deployment

Product overviews

The capabilities of the products provided by Provance are complimentary to one another and to the achievement of IT Asset Management. Briefly discover what each can do for you in the following sections.

Provance IT Asset Management Standard

Provance IT Asset Management Standard is a Process Management Pack that runs within Microsoft® System Center 2012 - Service Manager. It supplements the Incident, Problem and Change Management capabilities of Service Manager with powerful IT Asset Life Cycle Management and Software Asset Management. Supporting ITIL® and the Microsoft Operations Framework, Provance strengthens the IT effectiveness of companies at every level of the Microsoft Core Infrastructure Optimization model. With the Provance IT Asset Management Standard for Microsoft System Center Service Manager, you can drive down IT costs, increase service management efficiency and reduce security and compliance risks.

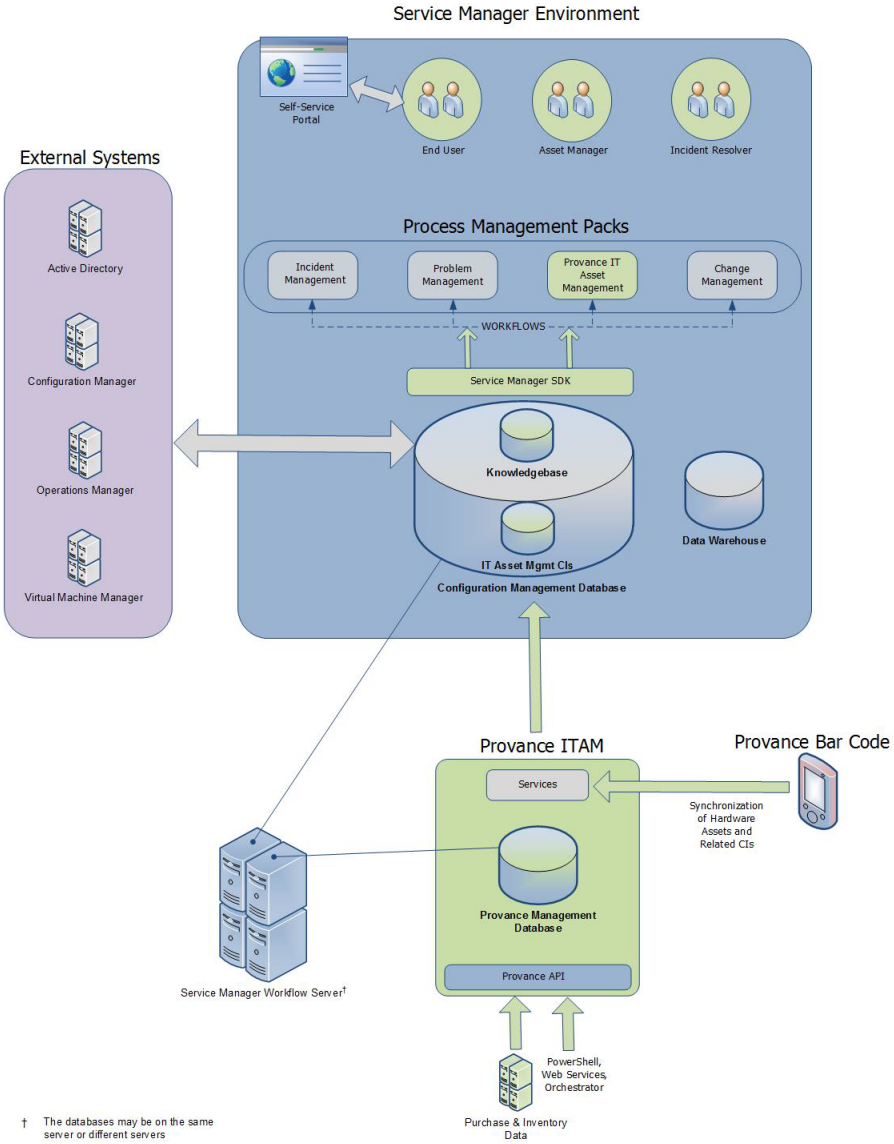

Figure 1 Provance IT Asset Management Standard Integrated into the Service Manager Platform

Platform infrastructure

As a Service Manager Process Management Pack, Provance IT Asset Management Standard leverages the Configuration Management Database (CMDB) by adding Configuration Items (CIs) to store additional asset related organizational, financial and contractual information. The additional CIs provide visibility into IT asset management data, as well as a single pillar of information and shared understanding across the organization.

Knowledge articles can be created to provide additional information on internal processes, notes regarding specific assets and documentation which can be shared across all SCSM components. Knowledge articles are linked to specific CIs and asset items to provide additional context.

The data warehouse is used by Provance IT Asset Management Standard for high performance reporting based on current and historical data. A dashboard and reports are provided out-of-the-box with Provance IT Asset Management Standard. Custom reports can also be created based on IT asset management data in the data warehouse.

External systems

Provance IT Asset Management Standard leverages the out-of-the-box connectors to CSV data, Active Directory, Virtual Machine Manager, and Configuration Manager provided by the Service Manager platform. IT Asset Management software and hardware asset information, contractual and financial data can be imported from an external source via the Service Manager CSV connector or via the Provance Data Management pack 2012. Active Directory provides user and organizational information. Configuration Manager provides software and hardware configuration data that is leveraged by Provance IT Asset Management Standard.

Data Management Pack

Data Management 2012 is a data import management pack that can manipulate data going into the CMDB and the Provance IT Asset Management Standard. Use it to migrate and import data into Service Manager and control how the data gets created. Any data that you export from other systems can be converted and imported into the Configuration Management Database (CMDB) as objects, e.g., configuration items (CIs). Depending on what it dis-

covers during the import, Data Management may either update existing CIs with new data or create new objects. If the source data contains relationships, then they are maintained within the new objects. The related objects can also be created as part of the import. You may also use it to export data from Service Manager and Provance IT Asset Management Standard. Exported data can even be round tripped, meaning exported then re-imported after having been manipulated.

Bar Code

Provance Bar Code is a mobile asset scanning software suite. With a minimum of data entry it gives you the freedom to receive new assets and to perform ad-hoc audits wherever you prefer. Use its simple three-task menu to receive new assets, track the movement of existing assets, and verify asset characteristics.

Provance Bar Code is integrated with Microsoft System Center 2012 - Service Manager and hence the Provance IT Asset Management Pack through a web service and a Service Manager connector, see Figure 2. There are three databases that communicate together and that transfer hardware asset and related configuration item (CI) data:

- a local database on the bar code scanner
- the Provance Management Database
- the Service Manager Configuration Management Database (CMDB)

All three databases are synchronized so that they are kept up to date with new and updated hardware assets. Both the local database on the bar code scanner and the Provance Management Database should be synchronized with the CMDB upon installation. Thereafter, when you perform tasks with the scanner, such as receiving assets or changing assets, a manual synchronization updates the Provance Management Database with new or changed assets. The Provance Management Database updates both the scanner and the CMDB with data. It sends both new assets and changed assets to the CMDB through a connector. If there are any changes to assets in the CMDB, those are also passed to the Provance Management Database and then to the scanner during a manual synchronization. In summary, the receive, change and verify tasks on the scanner will create and update hardware asset configuration items in the CMDB. After a manual synchronization, the hardware assets in Provance IT Asset Management Pack are updated.

Provance Scanner, which is the bar code scanner software, recognizes Windows Operating System-enabled bar code scanners.

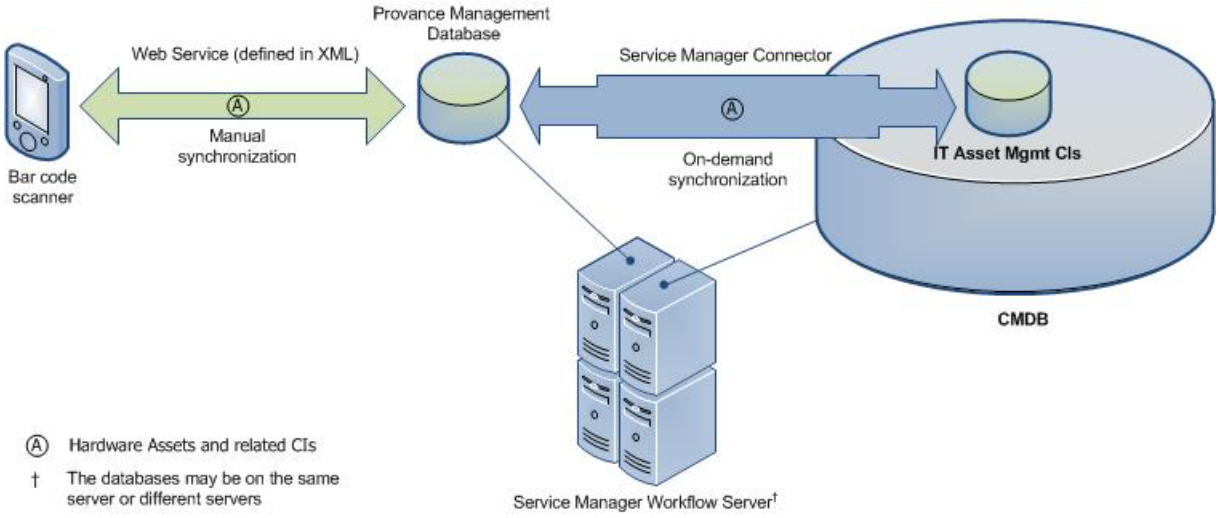

Figure 2 Provance Bar Code System Architecture

System requirements

All Provance products require Microsoft® System Center - Service Manager 2012 R2 or 2012 SP1. Service Manager must be installed, configured and up and running prior to installing a Provance product. For more information on the system requirements for Service Manager, please see the Service Manager documentation.

Provance IT Asset Management Standard

- System Center Service Manager 2012 R2 or 2012 SP1
- SQL Server 2008 R2 or higher
- Internet Information Server 7 or higher
- A license key
- Install the Provance Management Services on a Service Manager Management Server
- Install the Provance Management Database on the same SQL Server as the CMDB

Data Management Pack 2012

System Center Service Manager 2012 R2 or 2012 SP1

Provance Bar Code

Provance Bar Code has the following additional requirements:

- Provance IT Asset Management 2012 or Provance IT Asset Management 1.2 SP2
- Windows 2003 or 2008 Server
- Microsoft SQL Server 2003 or 2008
- Microsoft .NET Framework 3.5 SP1
- Approximately 20 MB of hard disk space

User types and benefits

There are various types of users who can benefit from the features and functionality within Provance IT Asset Management Standard, ranging from reading, editing, importing and managing asset related information, as well as customizing the solution:

- **IT Asset Managers**, or those with asset management responsibility, and users who have access to the Service Manager Console, will be able to leverage the functionality of Provance IT Asset Management Standard for software and hardware life cycle management and agreement management.
- **IT Service Management Users** can access Provance IT Asset Management Standard data to obtain additional information on hardware and software assets to support change requests and incidents.
- **End users** will use forms in Provance IT Asset Management Standard to enter, edit, manage and view data within the Service Manager Console.
- **IT personnel**, or solution providers for the IT Asset Management solution, may use the Service Manager Authoring Console to customize Provance IT Asset Management Standard to suit the needs of their organization.

Pre-installation checklist

The following checklist summarizes the items required prior to installation of all Provance products:

1. Install and configure Microsoft® System Center 2012 - Service Manager.
2. Install and configure a data warehouse and SQL Server Reporting Services, which are required for reporting on IT Asset Management activities. You may optionally install them after the management pack is installed. You must register the data warehouse within Service Manager. In the Administration workspace, click the **Register with Service Manager Data Warehouse** link.
3. Back up the entire Service Manager database.

4. Ensure that the Service Manager Console is closed.
5. Perform the install using a Local Administrators group account with associated administrator privileges on the system that is running the Service Manager workflow server. The account must have read/write permissions to the Registry.

   NOTE: *The Provance installation now provides non-administrative roles, such as Advanced Operator or Author, with permissions to Provance entities.*
6. Ensure that the Workflow Account (a Run As Account) has the same permissions as that of the Administrator. Provance workflows will not run properly unless the Workflow Account has the correct permissions, see "**Run As accounts**" on page 2-6.
7. Install the product on a primary management server. However, if there is a workflow server (main or secondary), install it on the workflow server. Do not install it on a data warehouse server.
8. Ensure both of the following services are running before the installation begins: System Center Data Access Service and SQL Server Service.
9. Ensure that ASP.NET is installed.
10. Ensure that Web Server (IIS 7 or higher) is installed. If it is already installed then the installer will automatically install the following features:
    - ISAPI Extensions
    - ISAPI Filters
    - .Net 3.5
    - .Net 4.5
    - .Net Extensibility 3.5
    - .Net Extensibility 4.5

2 Installing and Upgrading Provance Products

Installing all Provance products

To install all Provance products:

1. Save the Setup folder to a Service Manager management server and run the file **Setup.exe** to begin the installation process. The installation wizard launches and guides you through each step of the installation.

2. The first step in the installation wizard includes the following installation options:

OPTION	DESCRIPTION
Install Provance products for System Center Service Manager	Choose this option to install your choice of Provance product to a management server.
Install Provance Components for the Authoring Tool	Choose this option to install the classes and forms required to extend or modify the management pack with the Authoring Tool.
Install Provance Data Management Pack	Choose this option to install the Provance Data Management Pack.
View Product Documentation	Choose this option to open a pdf portfolio containing all product documentation (Deployment Guide, User Guide and Readme).

NOTES: *After you select an option, the installer checks that a management server is installed on the system, depending on the option chosen. When the installer cannot find a management server, it generates an error message and returns to the opening screen of the wizard.*

The installer also checks to see if an existing Service Manager Console is open. All Service Manager Consoles must be closed before the installation can continue.

If you choose the first option, the Select products and features to install page opens.

3. Select and expand **Provance products for System Center Service Manager**. Ensure that IT Asset Management is also selected.
4. If you wish to build a self-service portal with service request offerings, select **Asset Service Requests**.
5. If this is a new install, enter the **Activation key** provided for the product or select a Bin File. A key is not required during an upgrade.
6. Click **Validate**. A Passed or Failed message is displayed.
7. Click **Next**. The Verifying prerequisites page opens. The installer verifies all the prerequisites and informs you when one has not been met. If applicable, a suggested correction is provided.
8. If there are errors reported during the verification, follow the advice provided, click **Previous**, and then click **Next** to reverify the prerequisites.
9. Click **Next**. The Review and accept end user license agreement page opens.

10. Select your country. Please read the end user license agreement. You may print and review the license agreement prior to accepting it. If you choose not to accept the license agreement, the installation will not continue.
11. To accept the license agreement, click the check box beside **I have read, understood and agree with the terms of the license agreement**.
12. To cancel the installation, click **Cancel**.
13. Click **Next** to continue the installation. The Configure the account for Provance services page opens.
14. Enter the **User name** and **Password** for the Provance Services Account under which the Provance services will run.
15. Click **Test Connection** to ensure that you have entered the information correctly.
16. Click **Next** to continue. The Configure Provance web services page opens.
17. Enter the **port number** to use for the Provance Services web site.
18. Either create a new Provance SQL Server database or use an existing database by entering in the following details:

    Database server: Enter the name of the server that will host the SQL Server instance and the Provance database.

    SQL Server instance: Select a SQL Server instance.

    Create a new database: Select this option if you are creating the Provance database for the first time.

    Use an existing database: Select this option if you already have a Provance database configured.

    Database name: Enter a name for the Provance database.

    Size (MB): The default maximum size of the database.

    Data file folder: The path of the Provance database.The path must exist beforehand.

    Log file folder: The path of the database log file. The path must exist beforehand.
19. Click **Next** to continue. The Configure the Software Usage Connector page opens.
20. Select **Create Software Usage Connector** to create a connector that collects software usage data and imports it into Provance. You must create the connector now if you wish to have software usage data available; it cannot be created within Service Manager.
21. Enter the Configuration Manager **Server**.

22. Enter the **SQL Server Instance** for Configuration Manager.
23. Enter the name of the **Database**.
24. Click **Install**. The Provance products are installing page opens.
    A progress bar shows the status and progress of the installation.

    Note: *At this point the installer changes the Windows firewall setting to add an in-bound rule. The rule allows communication between the remote consoles and Provance services.*
25. Once the products are installed, the **Installation summary** page opens confirming that they have successfully installed, along with links to product documentation, the support community at http://community.provance.com, and to additional product information.
26. To exit the installation, click **Close**.
27. To configure Provance IT Asset Management Standard, refer to the IT Asset Management Standard User Guide.

Where to begin with Provance IT Asset Management Standard

When the installation completes successfully you are now ready to begin using Provance IT Asset Management Standard. Go to the Start menu and launch the Service Manager Console.

The navigation pane on the left hand side of the Service Manager Console contains a series of workspaces representing the various components installed with Service Manager. The IT Asset Management workspace can be identified by the Provance logo and **IT Asset Management**.

Table 2-1 describes the objects that you should import or create within Provance IT Asset Management Standard, in the order given, so that you may begin managing your assets. For a more in-depth explanation of what sys-

tems to use as a source for these objects, refer to the Data Population Primer.

TABLE 2-1. Objects Required for IT Asset Management

Object	Description	Recommended
Locations	Add locations based on your company's physical structure, such as cities, buildings, cubicles and racks.	Yes
Organizations	Add organizations based on your company's internal structure, such as business units, regions and departments.	Yes
Cost Centers	Add cost centers based on your company's financial organization.	Yes
Hardware agreements	Add agreements associated with hardware assets.	Yes
Software agreements	Add agreements associated with software assets.	Yes
Hardware assets	Add hardware assets. These are the items you will manage.	Yes
Software assets	Add software assets to manage versions, software titles and license purchases.	Yes

Uninstalling products

As a product suite, Provance products can be uninstalled by using the Programs, Uninstall a Program feature in Windows 7, 8 and Windows Server 2012.

WARNING: Uninstalling a product also removes all of its data. Do not uninstall Provance IT Asset Management Standard before upgrading it or all of your existing data will be lost.

If you have created any new views or performed modifications, you will be required to remove any dependencies prior to uninstalling the software.

Run As accounts

Provance products make use of several Run As Accounts. The Data Management pack uses the Data Management Administration Account, while Provance IT Asset Management Standard uses the Service Request Default Action Account. Run As Accounts allow non-administrative users to perform Data Management and service request management tasks. For example, a user requires a Service Manager Administrators role in order for the hardware or software Create Request Offering task to complete successfully. If the user does not have the proper role, then the task automatically substitutes a Run As Account. The Run As Account, when given the proper role, can successfully complete the task for the user. However, the Run As Account must be configured with a user who belongs to the Service Manager Administrators role beforehand; it is only preconfigured with the local system account.

To configure a Provance Run As Account with a user:

1. Go to the Administration workspace and select Security>Run As Accounts.
2. Select the Run As Account: Provance Service Account or Data Management Administration Account.
3. In the Tasks pane click **Properties**. The account properties dialog opens.
4. In the Account field, select Windows Account.
5. Enter the Windows Account name, password and domain of a user who belongs to the Service Manager Administrators role. Typically this is the same account as used on the Workflow Run As Account.
6. Click **OK**. The Run As Account is now set up to substitute a user with the Administrators role when needed.

License administration

Provance products can run in two modes: Evaluation and Commercial License. An evaluation license enables you to leverage a fully functioning copy of the software for a period of time. After the evaluation period, you can no longer access its functionality until you purchase a commercial license; however, the data remains in place. For more information on managing Provance IT Asset Management Standard licenses, please see the Licensing section of the Provance IT Asset Management Standard User Guide. For information about purchasing a commercial license, please go to www.provance.com.

3 Importing Data from Third Party Systems

You may have asset data in one or more external systems in your organization and wish to import that data for use with **Provance IT Asset Management Standard**. Information can be easily imported using CSV data files. Service Manager provides the ability to import data into the database through the **Import from CSV** file feature. Provance also provides the ability to import data from a variety of sources, such as csv and a SQL database, using the Data Management Pack 2012. For more information on importing configuration item files using the Service Manager **Import from CSV** utility, refer to the Service Manager documentation.

NOTE: *Large data files may take more time to import.*

Sample data

Provance provides sample data to be used with Provance IT Asset Management Standard. You can use the sample data as is, or leverage the format of the sample files to create your own data.

Sample data can be downloaded from the Resources section of the Provance support community at http://community.provance.com.

4 Troubleshooting Tips

Installation log

If you encounter issues during the installation, view the installation log from the Install wizard or open the log in a text editor. The installation log file, ProvanceSetupXX.log, can be found in the Service Manager\Provance\Installation Logs\<Date>\ directory.

Review the installation log for additional details that may have occurred during the installation process.

Missing data in reports

Some reports may appear to be missing data. This may occur if the Service Manager data warehouse has been synchronized prior to the installation of **Provance IT Asset Management Standard**. As data is updated, it will be updated in the data warehouse and appear in IT Asset Management reports.

Adding custom picklist or drop-down values

Provance IT Asset Management Standard has business and validation rules as well as workflows that depend on out-of-the-box values in drop-down picklists. These rules and workflows do not leverage any additional picklist values that may be added when customizing the solution.