
HP Service Quality Management solution



HP SQM Solution Service Management Foundation V3.0 Installation and Configuration Guide

Edition: 2.0

for Microsoft Windows 64bit Operating System

Nov 2011

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Preface

This guide describes how to install and configure the HP Service Management Foundation on Windows operating system.

Intended Audience

This guide is intended for personnel who are responsible for installing and configuring the Service Management Foundation on Windows operating systems.

It is assumed that the reader has an understanding of the HP Business Service Management.

Software Versions

The term Windows is used as a generic reference to the operating system, unless otherwise specified.

The software versions referred to in this document are as follows:

HP Business Service Management	Windows
9.10 and above	2003 & 2008

Typographical Conventions

Courier Font:

- Source code and examples of file contents.
- Commands that you enter on the screen.
- Pathnames
- Keyboard key names

Italic Text:

- Filenames, programs and parameters.
- The names of other documents referenced in this manual.

Bold Text:

- To introduce new terms and to emphasize important words.

Convention	Meaning
------------	---------

Convention	Meaning
<Ctrl><Key>	Hold down the Ctrl key and press the other key
<Return>	Press the Return key.

Acronyms

Acronyms	Meaning
SQM	Service Quality Management
BSM	Business Service Management
SLM	Service Level Management
SLA	Service Level Agreement
KPI	Key Performance Indicator
CI	Configuration Item

Associated Documents

The following documents contain useful reference information:

- *HP Business Service Management Deployment Guide*
- *HP Service Management Foundation Release Notes*
- *sqm_generic_discovery_dataload_pack_integration_guide*

The HP Business *Service Management* documents are available at:

<http://support.openview.hp.com/selfsolve/manuals>

Additional SQM Solution materials (like the SQM Solution product briefs) and information about SQM Solution updates are available at:

<http://www.hp.com/cms>

- Section "Next Generation Operations Support System Solutions"
- Section "Assurance"
- Section "HP Service Quality Management Solution"
- Section "Learn More"

Support

You can get support from SQM support mail address:
sqm_support@hp.com

You can also visit the HP Software support web site at:
<http://support.openview.hp.com/support.jsp>

This Web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solving capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit enhancement requests online
- Download software patches
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

Chapter 1

Introduction

1.1 Service Management Foundation Introduction

The Service Management Foundation is the core component of the HP SQM Solution. It provides a comprehensive service quality management solution that allows easily managing services from end-to-end services and monitoring real-time associated service levels.

It including the components and extended features:

Telco Universe

Providing the definition of CIT, Relationships for OSS domain, including packages:

- SQM_SMF_SID
- SQM_SMF_SQM
- SQM_SMF_TeMIP
- SQM_SMF_DigitalTV
- SQM_SMF_FixedMobileConvergence
- SQM_SMF_MobileNetwork
- SQM_SMF_MobileServiceElements

Generic Discovery & Dataload Package (DDP)

Providing the functionality to discover CIs and relationships based on information retrieved from the following sources:

- External function which return the data source(provided by user)
- External 3PP database, including Oracle, MySQL
- XML files
- External function which return the data source(provided by TeMIP)

SQM Generic Repository

Providing repository definitions of Business Rules and generic KPI in BSM

SQM TeMIP Repository

Providing repository definitions of HI, KPI, HI assignment, KPI assignment for SQM TeMIP Solution

SQM DigitalTV Repository

Providing repository definitions of HI, KPI, HI assignment, KPI assignment for SQM DigitalTV Solution

1.2 Code Signing

Below mentioned procedure* allows you to assess the integrity of the delivered Product before installing it, by verifying the signature of the software packages.

Pick the signature (.sig) file shipped along with the product and use following GPG command

```
gpg --verify <product.sig> <product>
```

```
Example: gpg --verify VPNSVP-X51-3A.zip.sig VPNSVP-X51-3A.zip
```

**## Note: Look for the comments shown below in the command output
Good signature from "Hewlett-Packard Company (HP Code signing Service)"**

Note: If you are not familiar with signature verification using GPG and intended to verify HP Product signature, follow the steps given below.

1. Check whether gnupg gpg is installed on the system. If no, install gnupg gpg
2. Configure GPG for accepting HP signature. The steps are the following:
 - a. Log as root on your system
 - b. Get the hpPublicKey from following location:
<https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning> and save it as hpPublicKey.pub
 - c. Follow the instruction found at above URL in the "Verification using GPG" section.

**HP strongly recommends using signature verification on its products, but there is no obligation. Customers will have the choice of running this verification or not as per their IT Policies.*

Chapter 2

Preparation to install Service Management Foundation

This chapter describes the prerequisites for installing the Service Management Foundation.

2.1 Pre-requisites

2.1.1 Hardware Requirements

You can install the Service Management Foundation on any PC hardware or workstation against the HP BSM minimum hardware specification on Windows Platform.

Refer to *HP Business Service Management Deployment Guide* in Associated Documents.

2.1.2 Software Requirements

To install the Service Management Foundation, you require the following software:

HP Business *Service Management* 9.1.x should also be installed and running on Windows Platform.

Note: The character set for BSM Oracle Database should be 'AL32UTF8' and **only** this character set is supported.

2.1.3 Disk Space Requirements

The Service Management Foundation installer shows the amount of disk in Table 2-1. The value shown is approximate and may vary from kit to kit. This value represents the disk space required if you copy the installer file to a directory on your disk before installing it.

Table 2-2: Disk Space Requirements

Software Subset	Disk Space (in MB)
SQMSolSMFV300RevC.exe	48.9

Error! Reference source not found shows the disk space requirements to install the Service Management Foundation in directory `<HP_BSM_DIR>/SQM/Platform`. This value represents the disk space required for direct installation.

Note: The kit provided with JVM embedded. So you don't have to install JRE environment when performing the installation.

Table 2-3: Disk Space Requirements (Installation Directories)

Software Subset	BSM Server Type	<code>#{HP_BSM_DIR}/SQM/Platform</code>
Service Management Foundation	Standalone or Data Processing Server	15.8M
	Gateway Server	216K

The installation procedure creates the following directories (if they do not already exist):
`<HP_BSM_DIR>/SQM/Platform`

Note: `<HP_BSM_DIR>` is the directory where your HP BSM is installed. The default BSM installed folder is `C:\HPBSM`

Chapter 3

Service Management Foundation Installation

This chapter explains how to install the Service Management Foundation on your local system. If you want to install Service Management Foundation on a two-box BSM server, the installation need to be done on DPS sides.

3.1 Installation

3.1.1 Installing the Service Management Foundation

- **Verification required before the installation**
 - i. If you are running Windows Server 2003 SP2, IE should be higher version, at least IE 7.
 - ii. If you are running Windows Server 2008 SP2 or Win2k, User Access Control (UAC) must be disabled.
 - iii. Check HP Business Service Management 9.1.x is in running status.

You can check to ensure that all processes started properly in the nanny

Manager by doing the following:

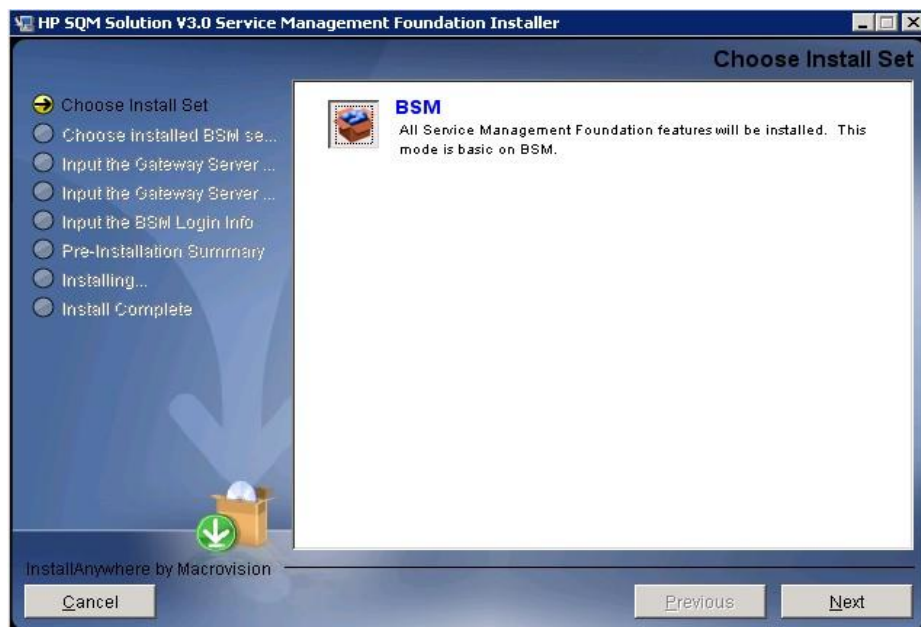
Click:

Start > Programs > HP Business Service Management > Administration > HP Business Service Management Status.

- **Starting the installation procedure**

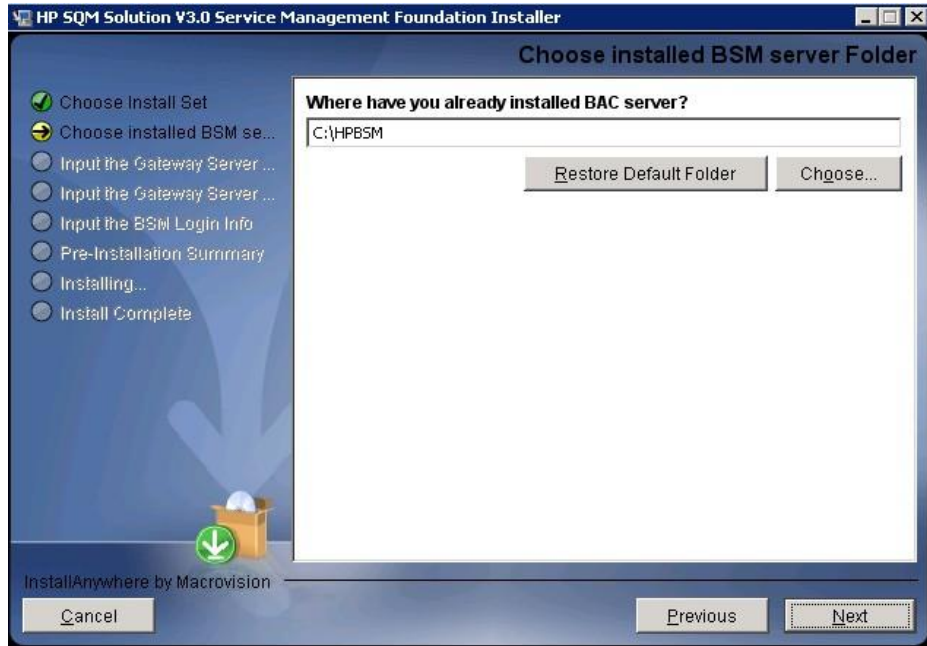
After verification done, you can start to install the Service Management Foundation, copy the kit SQMSolSMFV300RevC.exe to one folder of your installation machine. And double click it to start installation.

1. Choose the correct BSM Install Set, click **Next** button to continue.



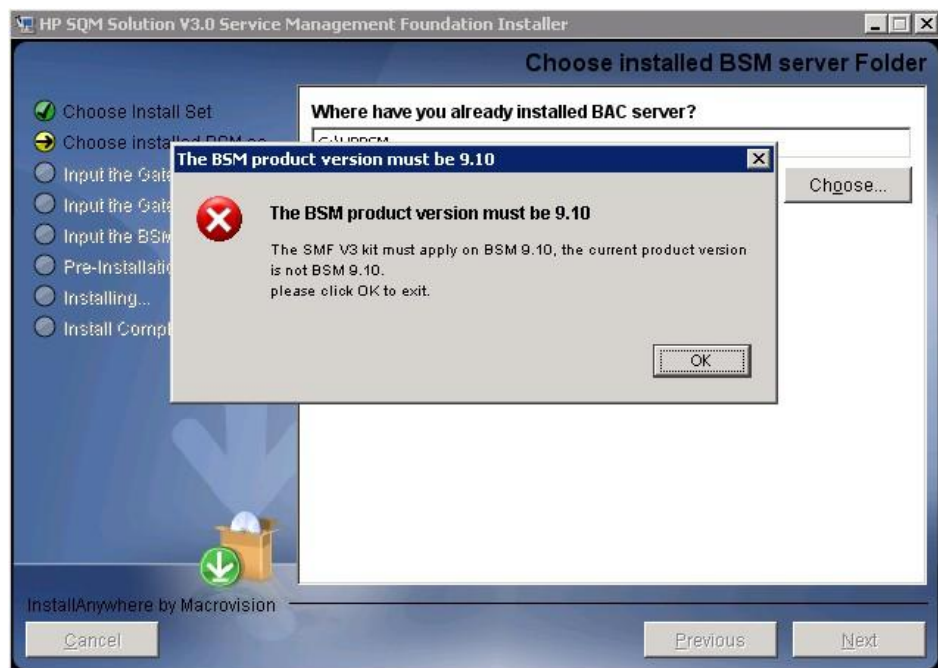
2. Choose the correct BSM Installed Folder, click **Next** button to continue.

The default BSM installed folder is: **C:\HPBSM**



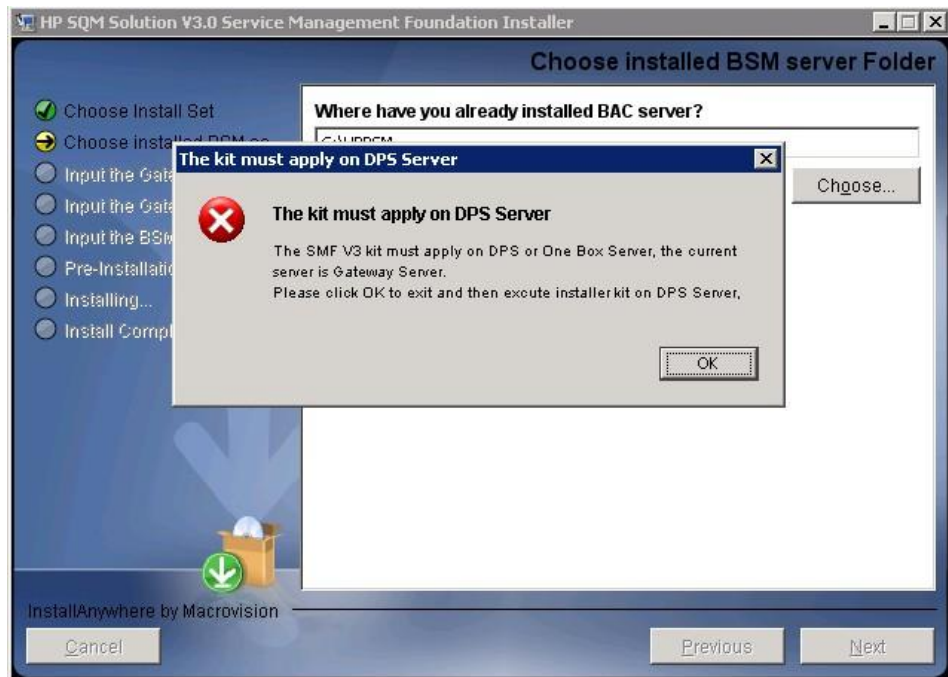
3. The BSM product version must be 9.10 or above, otherwise the following error dialog box will appear, click ok to exit install application.

If the BSM product version is 9.10 or above, please ignore 3 step and excute next 4 step.



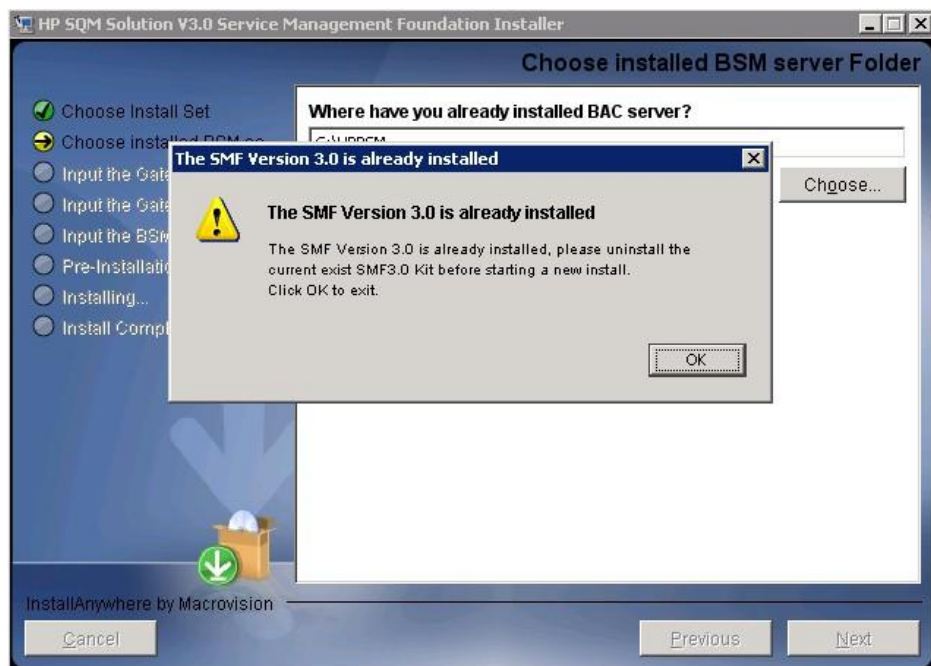
4. The SMF3.0 Kit must apply on DPS or One Box Server, if not the following error dialog box will appear, click ok to exit install application.

If the BSM is DPS or One Box Server, please ignore 4 step and excute next 5 step.

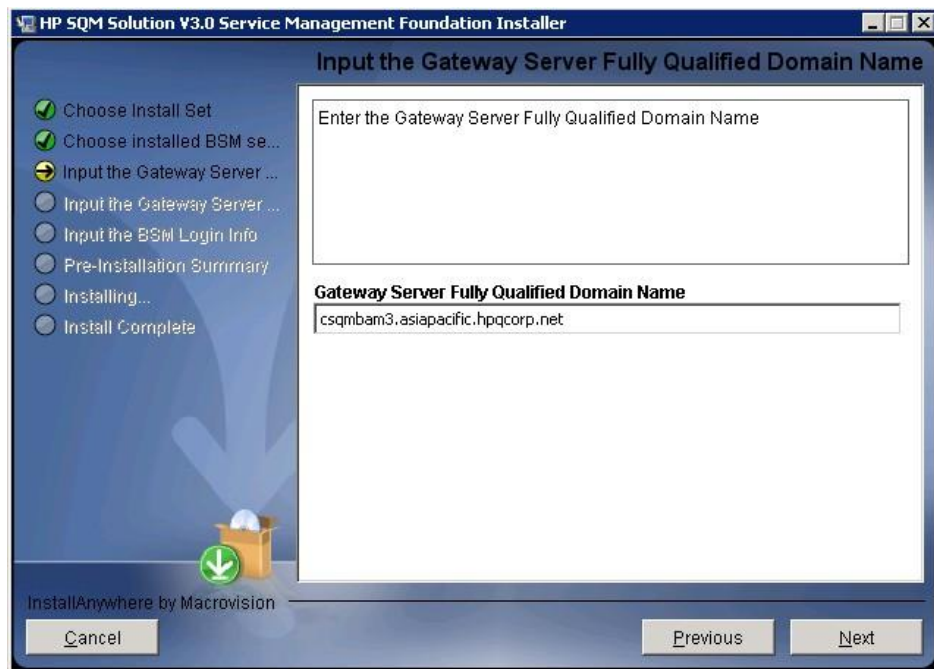


5. If the SMF version 3.0 is already installed, the following dialog box will appear, click ok to exit install application, and then uninstall the current exist SMF3.0 Kit before strating a new install.

If the SMF version 3.0 is not installed, please ignore 5 step and excute next 6 step.



6. Input the correct Gateway Server Fully Qualified Domain Name, click **Next** button to continue.

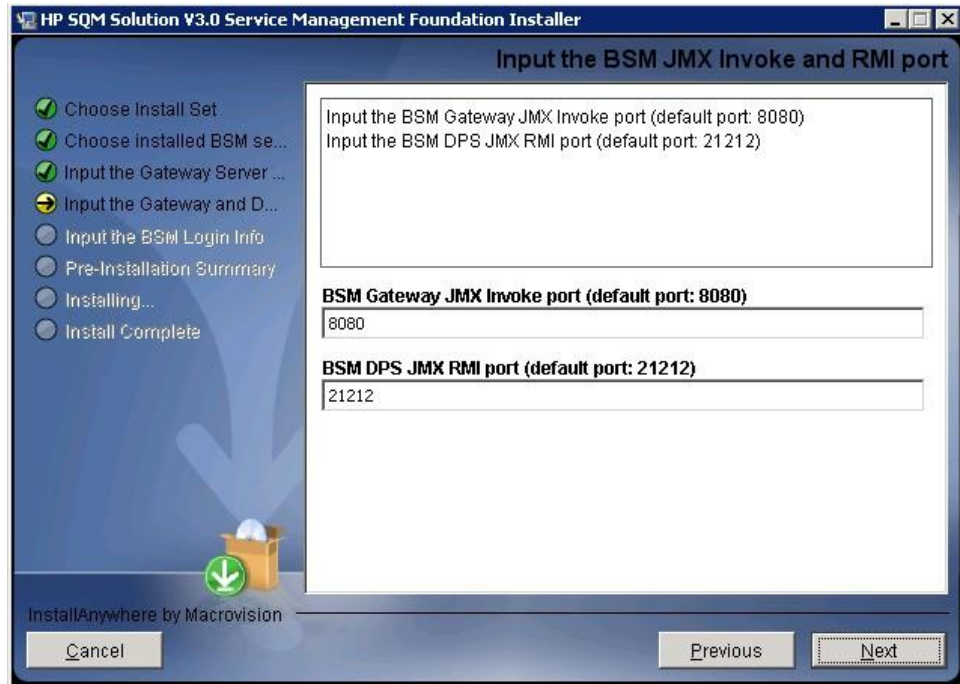


7. Input the correct JMX information, click **Next** button to continue.

The default BSM JMX information is:

BSM Gateway JMX invoke port: **8080**

BSM DPS JMX RMI port: **21212**

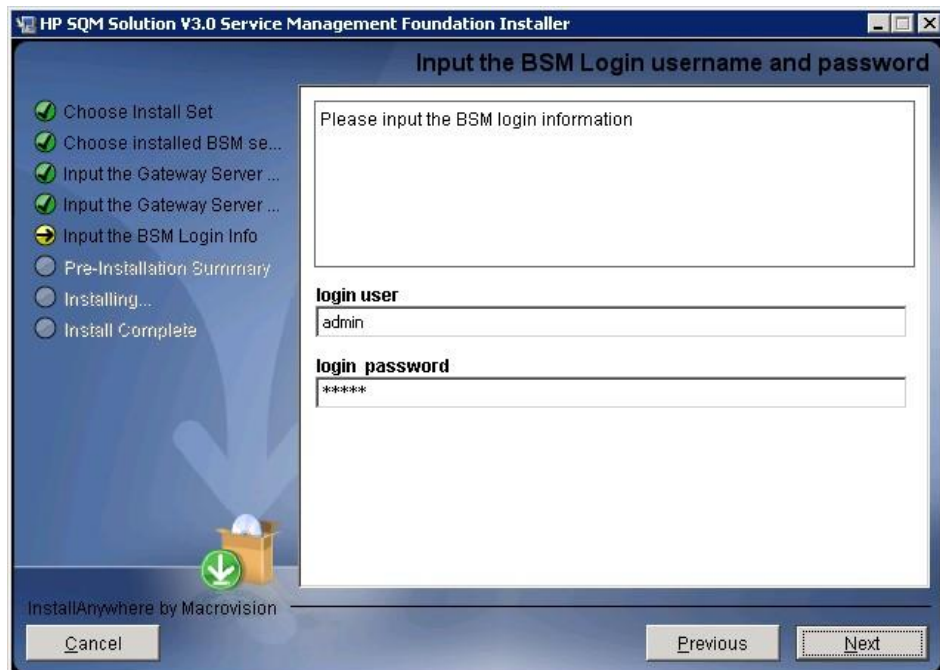


8. Input the correct JMX information, click **Next** button to continue, then it will show you a pre-installation panel.

The default BSM Login information is:

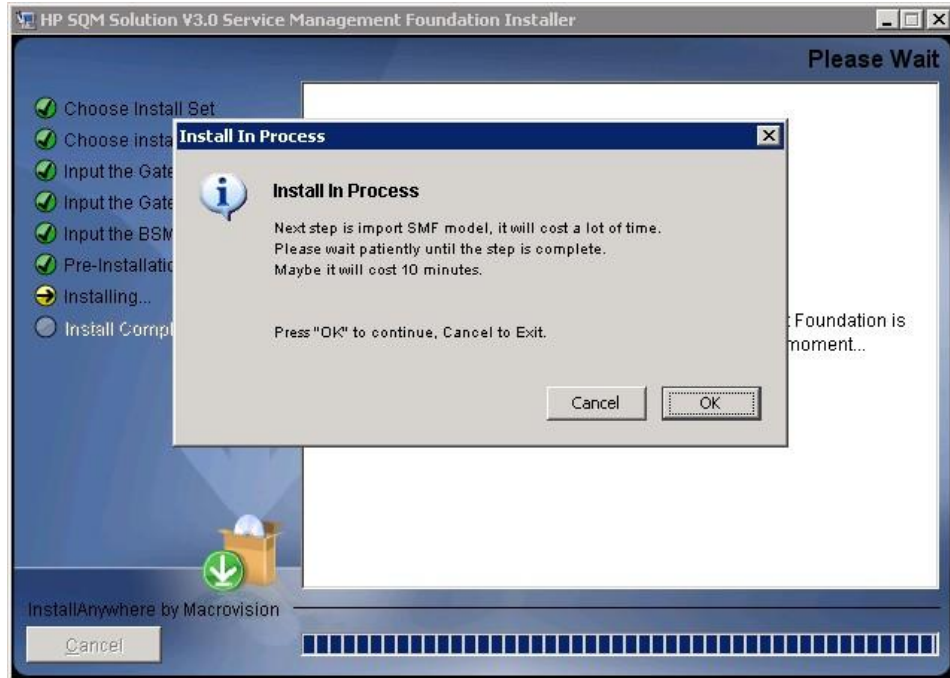
User: **admin**

Password: **admin**

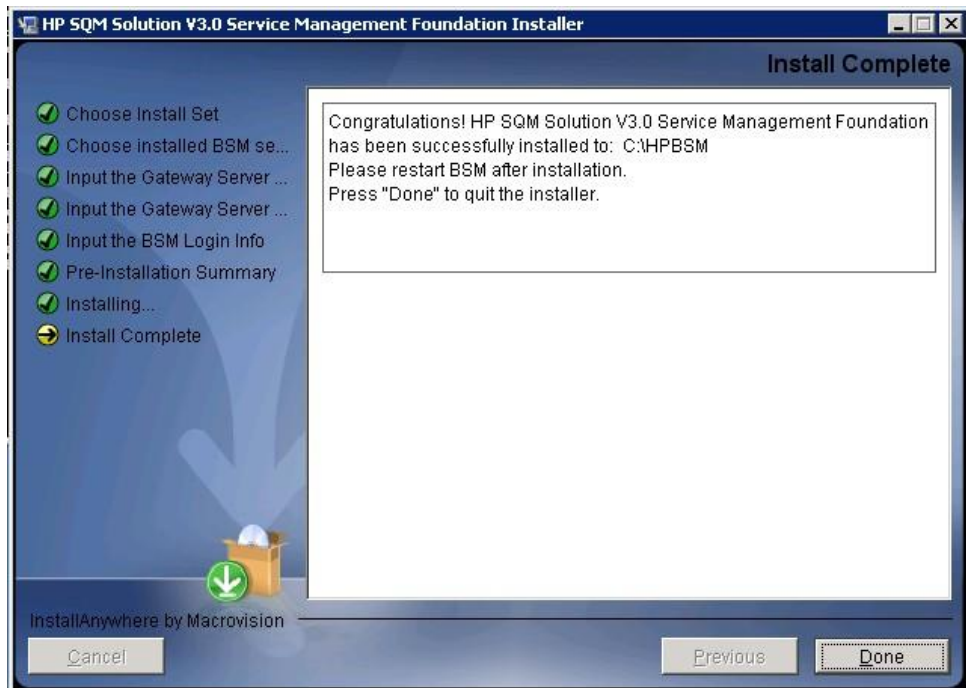


9. Click **Install**, installation begins.

10. After wait a bit time, a **Install In Process** dialog box will display to you with message ‘it will cost a lot of time. Please wait patiently until the step is complete’. Click **OK** to continue.



11. After 10-15 minutes, a **Install Complete** panel will display to you with congratulations message.



Note: If you are installing on a two-box server, please just do the installation on Data processing server.

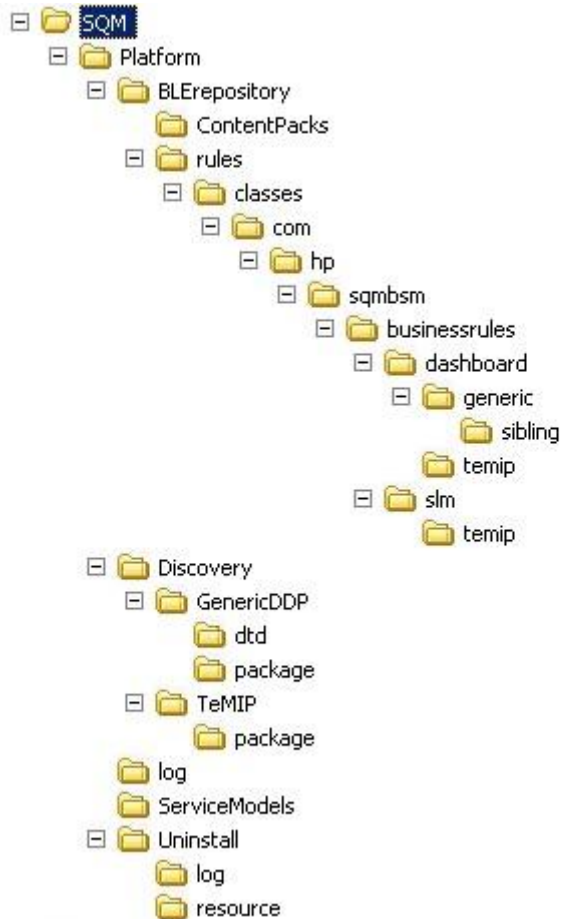
Please restart BSM Service after installation.

3.2 Post-Installation

3.2.1 Checking Components

After installation, you can check which Service Management Foundation components are installed on a HP Business Service Management server by doing the following:

1. Open the <HP_BSM_DIR>\SQM\Platform folder.
2. Check that all the components that do exist under this directory.



3.2.2 Checking Installation Status and Log Files

The file named *InstallationStatus* is located in the directory <HP_BSM_DIR>\SQM\Platform\.

If the installation is successful, the content of the file should be 'SUCCESS'.

Two installation log files are located in
<HP_BSM_DIR>\SQM\Platform\log

install_anywhere.log

platform_install.log

3.3 Uninstalling the Service Management Foundation

The Uninstall of Service Management Foundation will undeploy all the files and packages that we deployed to BSM.

Note: If there are CIs exist in package, it will not undeploy package zip file automatically, you need to manually delete CIs for CIT first and then undeploy the zip package from Package Manager.

Before starting un-installation, below manual steps have to be executed:

1. SQM CI instances deletion.

Go to Admin → RTSM Administration → CI Type Manager

Filter as 'CI Types'

Select which you want to delete of CIT

Right click button and select Show CIT Instances

Select all of them and click button "Delete from CMDB"

2. Delete Customized CITs which Derived-From SQM Predefined CIT.

Go to Admin → RTSM Administration → CI Type Manager

Filter as 'CI Types'

Select which you want to delete of CIT

Click button "Delete Selected Item(s) Ctrl+Del"

After un-installation, below manual steps should be executed via BSM UI:

1. SQM Common KPI deletion

Go to Admin → Service Health → Repositories → KPIs

Filter KPIs use Type "Custom" and Domain "Telecom"

Select all of them and click button "Delete KPI"

Name	Domain	Type	Default Group Rule
Delete KPI	Telecom	Custom	
Attempts	Telecom	Custom	Sum of Values Rule
Average Bandwidth	Telecom	Custom	SGM Average of Values
Average Throughput	Telecom	Custom	SGM Average of Values
Bandwidth	Telecom	Custom	SGM Min Value
Call Set-up Mean Time	Telecom	Custom	SGM Average of Values
Call Set-up Time	Telecom	Custom	SGM Max Value
Communication Status	Telecom	Custom	TeMIP Worst Child Rule
Environmental Status	Telecom	Custom	TeMIP Worst Child Rule
Equipment Status	Telecom	Custom	TeMIP Worst Child Rule
Failure Ratio	Telecom	Custom	SGM Max Value
Fault Status	Telecom	Custom	TeMIP Worst Child Rule
First Attempt Success Ratio	Telecom	Custom	SGM Min Value
Jitter	Telecom	Custom	SGM Max Value
MOS	Telecom	Custom	SGM Min Value
Mean Delay	Telecom	Custom	SGM Average of Values
Mean Time	Telecom	Custom	SGM Average of Values
Packet Error Ratio	Telecom	Custom	SGM Max Value
Packet Loss Ratio	Telecom	Custom	SGM Max Value
ProcessingError Status	Telecom	Custom	TeMIP Worst Child Rule
QualityOfService Status	Telecom	Custom	TeMIP Worst Child Rule
Round Trip Mean Time	Telecom	Custom	SGM Average of Values
Round Trip Time	Telecom	Custom	SGM Max Value
Second Attempt Success Ratio	Telecom	Custom	SGM Min Value

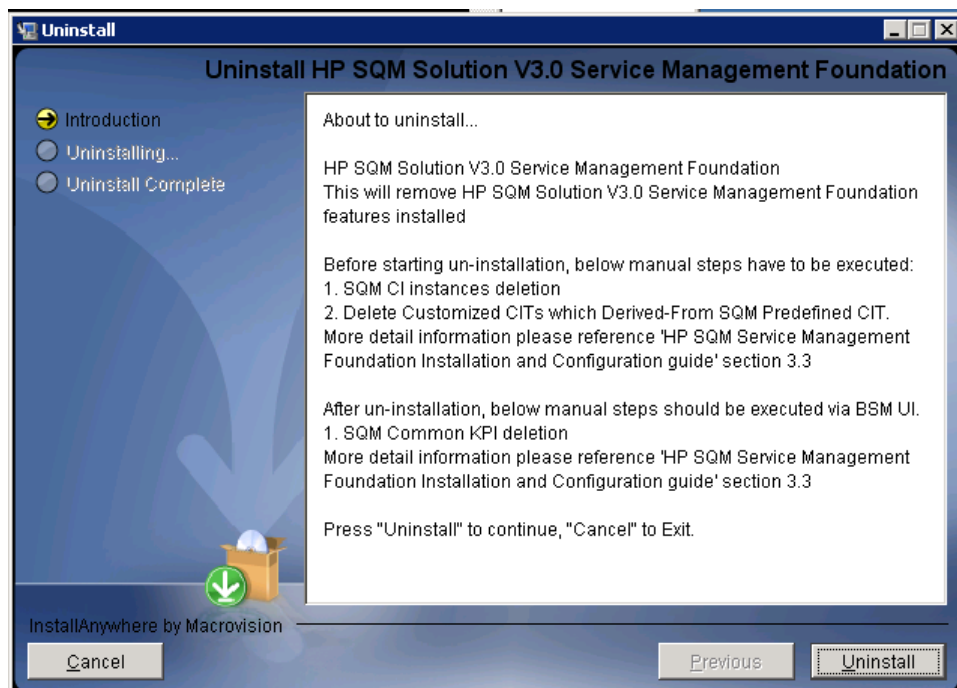
More detail information please reference 'HP SGM Solution service management foundation installation and configuration guide'

- **Starting the Uninstallation procedure**

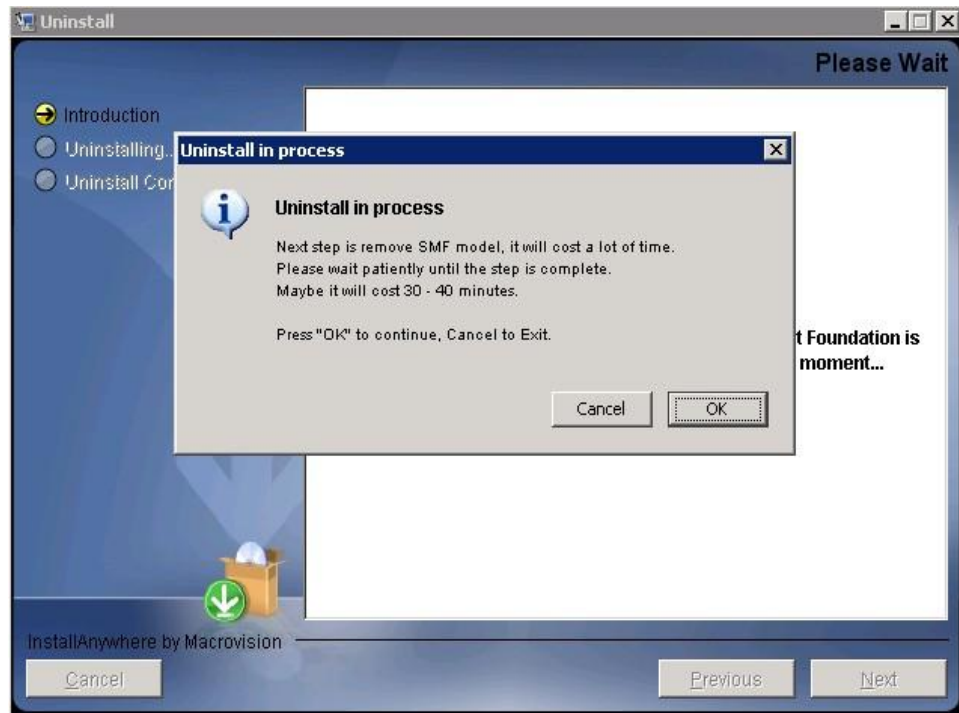
After Service Management Foundation installation done. You can see the uninstall.exe file under directory <HP_BSM_DIR>\SQM\Platform\Uninstall

And double click it to start Uninstallation.

1. Click the **Uninstall** Button.

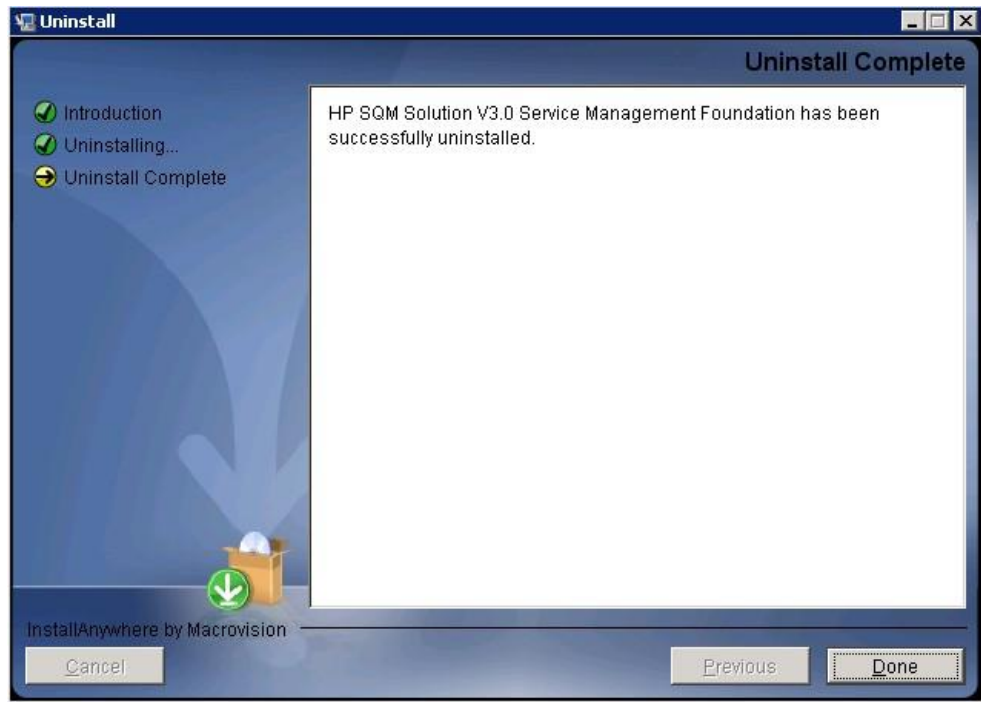


2. The dialog box will show and the Uninstallation action will cost 30-40 minutes. Click OK to next step.



Note: If the customer does not accept long time, click Cancel to exit uninstall action.

3. After wait 30-40 minutes, a **UnInstall Complete** panel will display to you with congratulations message, press Done to finish uninstallation.



Chapter 4

Service Management Foundation Configuration

This chapter provides the description of the steps which need to be manually performed to finalize the configuration on the BSM Server:

- SLM Configuration
- Generic Discovery & Dataload Pack Configuration

4.1 SLM Configuration

After successfully complete automatic set up of Service Management Foundation, it remains some configurations that must be completed manually.

The SLM creation part, Service Offering is not provided with our model, so that they should be added manually.

This must be done via the Admin platform UI. Go to the Admin -> Service Level Management -> Repositories -> Service and CI Offerings

Refer below graph.

1. Create Service Offerings

The screenshot shows two tables from the Admin platform UI. The first table is titled 'Service Offerings' and has a toolbar with icons for add, edit, delete, and refresh. The table has three columns: Name, Type, and Description. The second table is titled 'CI Offerings' and has a toolbar with icons for add, edit, delete, and refresh. The table has three columns: Name, Type, and Description.

Name	Type	Description
Default	Predefined	Applied by default to any service that does not have an alternative service offering selected in the Agreement wizard.
Gold	Predefined	Designed for business-critical applications.
Platinum	Predefined	Designed for mission-critical applications and systems that can never go down.
Silver	Predefined	Designed to meet the needs for infrastructure with less demanding availability requirements, such as test and development.
TeMIP Service Offerings	Custom	Applied by default to any service that does not have an alternative service offering selected in the Agreement wizard.

Name	Type	Description
Default CI Offering	Predefined	Applied by default to any non - service CIs that does not have an alternative CI offering selected in the Agreement wizard.
TeMIP CI Offerings	Custom	Applied by default to any non - service CIs that does not have an alternative CI offering selected in the Agreement wizard.

Service Offering Definition

* Name: TeMIP Service Offerings

Description: Applied by default to any service that does not have an alternative service offering selected in the Agreement wizard.
Note: The Default Service Offering cannot be deleted from the Service Offerings

Objectives Definition

Calendars and Tracking Periods

Name	Hour	Day	Week	Month	Quarter	Year	SLA Period
Business Hours	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24x7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Objectives Definition For: Business Hours Hour; Business Hours Day; Business Hours Week; Business Hours Month; Business Hours Quarter; ...

Name	Units	Operator	Exceeded	Met	Minor Br...	Breached	Failed
Communication Status		>=	90.0	80.0	70.0	60.0	Otherwise
Environmental Status		>=	90.0	80.0	70.0	60.0	Otherwise
Equipment Status		>=	90.0	80.0	70.0	60.0	Otherwise
ProcessingError Status		>=	90.0	80.0	70.0	60.0	Otherwise
QualityOfService Status		>=	90.0	80.0	70.0	60.0	Otherwise

Save Cancel Help

2. Create CI Offerings

Service Offerings

Name	Type	Description
Default	Predefined	Applied by default to any service that does not have an alternative service offering selected in the Agreement wizard
Gold	Predefined	Designed for business-critical applications.
Platinum	Predefined	Designed for mission-critical applications and systems that can never go down.
Silver	Predefined	Designed to meet the needs for infrastructure with less demanding availability requirements, such as test and development.
TeMIP Service Offerings	Custom	Applied by default to any service that does not have an alternative service offering selected in the Agreement wizard

CI Offerings

Name	Type	Description
Default CI Offering	Predefined	Applied by default to any non - service CIs that does not have an alternative CI offering selected in the Agreement wizard
TeMIP CI Offerings	Custom	Applied by default to any non - service CIs that does not have an alternative CI offering selected in the Agreement wizard

CI Offering Definition

* Name: TeMIP CI Offerings

Description: Applied by default to any non - service CIs that does not have an alternative CI offering selected in the Agreement wizard.
Note: The Default CI Offering cannot be deleted from the CI Offerings list.

Objectives Definition

Calendars and Tracking Periods

Name	Hour	Day	Week	Month	Quarter	Year	SLA Period
Business Hours	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24x7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Objectives Definition For: Business Hours Hour, Business Hours Day, Business Hours Week, Business Hours Month, Business Hours Quarter, ...

Name	Units	Operator	Exceeded	Met	Minor B...	Breached	Failed
Communication Status		>=	90.0	80.0	70.0	60.0	Otherwise
Environmental Status		>=	90.0	80.0	60.0	50.0	Otherwise
Equipment Status		>=	90.0	80.0	70.0	60.0	Otherwise
ProcessingError Status		>=	90.0	80.0	70.0	60.0	Otherwise
QualityOfService Status		>=	90.0	80.0	70.0	60.0	Otherwise

Save Cancel Help

4.2 Generic Discovery & Dataload Pack Configuration

After Installation, Please refer to the associated document HP SQM Solution Generic DDP Integration guide, this document describes how to perform the additional settings of Generic Discovery & Dataload Pack component on the platform.