
HP Service Quality Management Solution V3.2



Service Management Foundation Release Notes

Edition: 1.0

for Windows 64bit & Linux 64bit Operating Systems

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Preface

This document consists of the release notes for the HP SQM Solution V3.2 Service Management Foundation Manufacture Release software kit.

The software kit name is **SMF V320 RevA**. The following installation kits are available for the current version:

- **SQMSolSMFV320RevA.exe** – *required when installing SMF for the first time on Windows platform.*
- **SQMSolSMFV320RevA.bin** – *required when installing SMF for the first time on Linux platform.*

The installation kit includes all the Service Management Foundation (SMF) components:

- Telco Universe
- SQM Generic Repository
- SQM TeMIP Repository
- SQM DigitalTV Repository
- SQM RANCell OMi Example Repository
- Generic Discovery & Dataload Package
- TeMIP Discovery & Dataload Package

It is recommended to read this document before installing SMF.

Intended Audience

This document is intended for Solution Architects, SQM Solution deployment teams and SQM Solution administrators.

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:

Software	Version
HP SQM Service Management Foundation	V3.2RevA

Software	Version
HP Business Service Management	9.23
HP Data Flow Probe (Windows)	9.05 and upper
HP Business Service Management Connector	9.23
Windows	<p>Windows Server 2008 Enterprise Edition SP2 or later (64 bit)</p> <p>Windows Server 2008 Standard Edition SP2 or later (64 bit)</p> <p>Windows Server 2008 R2 Enterprise Edition SP1 or later (64 bit)</p> <p>Windows Server 2008 R2 Standard Edition SP1 or later (64 bit)</p> <p>Windows Server 2008 R2 Datacenter Edition SP1 or later (64 bit)</p>
Linux	<p>RedHat Enterprise Linux 5.3 (Intel x64 64 bit)</p> <p>RedHat Enterprise Linux 5.4 (Intel x64 64 bit)</p> <p>RedHat Enterprise Linux 5.5 (Intel x64 64 bit)</p>

Typographical Conventions

Courier font is used for:

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

Italic text is used for:

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

Bold text is used for:

- New terms
- Fields names
- Menus
- Buttons
- Important information and concepts.

Terms and Acronyms

Term	Description
BR	Business Rule
BSM	Business Service Management
BSMC	Business Service Management Connector
CIT	Configuration Item Type
CI	Configuration Item
CMDB	Configuration Management Data Base
CR	Change Request
DDM	Discovery and Dependency Mapping
DDP	Discovery & Dataload Pack
HI	Health Indicator
KPI	Key Performance Indicator

MA	Monitoring Adapter
RTSM	Real-time Service Model
SMF	Service Management Foundation
SQM	Service Quality Management solution
UAC	User Account Control

Support

You can visit the HP Software support web site at:

<http://support.openview.hp.com/support.jsp>

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.

Introduction

1.1 Product Goals

HP SQM SMF provides the additional components to a BSM platform to support common OSS use cases.

1.2 Product Content

1.2.1 Telco Universe

It provides predefined service quality models provided as CMDDB package, contains the definition of CIT, Relationship, Triplet, Query and View for OSS domain.

It includes 8 packages:

- BSMUpdate (*SQM_BSM_Update.zip*)
- Shared Information Model (*SQM_SMF_SID.zip*)
- Service Quality Management (*SQM_SMF_SQM.zip*)
- TeMIP (*SQM_SMF_TeMIP.zip*)
- Digital TV (*SQM_SMF_DigitalTV.zip*)
- FixedMobileConvergence (*SQM_SMF_FixedMobileConvergence.zip*)
- MobileNetwork (*SQM_SMF_MobileNetwork.zip*)
- MobileServiceElements (*SQM_SMF_MobileServiceElements.zip*)

Note:

Modification to the content of **Telco Universe**, including CIT, Relationship, is usually done when a project is deployed. While such modifications are not supported from a product standpoint, such modifications are supported on a project basis.

1.2.2 Discovery & Dataload Package

The discovery functionality is used by SQM to instantiate the service models and to create the corresponding CIs in the RTSM.

The kit includes 2 DDP parts: **Generic DDP** and **TeMIP DDP**.

1.2.2.1 Generic DDP

Generic DDP is used to

- Discover CIs and relationships based on information retrieved from the following sources:
 - External 3PP database, including Oracle, MySQL
 - XML files
- Create the discovered objects and save to the RTSM.

It provides the discovery scripts for HP DFP.

Generic DDP provides pre-defined discovery module and discovery pattern, user can customize them with the actual environment.

1.2.2.2 TeMIP DDP

TeMIP DDP is used to discover TeMIP relative CIs and relationships based on information retrieved from the XML file.

1.2.3 Repository

SMF contains pre-defined BSM Repositories, including BR, HI, HI Assignment, KPI, KPI Assignment and Context Menu.



For detailed KPI and BR list, refer to the [Chapter Repository List](#).

1.2.3.1 Generic Repository

It provides SQM generic KPI definitions, Business Rule definitions for Service Health and SLM in BSM.

It includes:

- 37 Business Rule definitions;
- 22 KPI definitions.

1.2.3.2 Common Repository

It provides SQM specific KPI definitions of common usage for Service Health in BSM.

It includes:

- 25 KPI definitions.

1.2.3.3 TeMIP Repository

It provides repository definitions of TeMIP specific HI, KPI, HI assignment, KPI assignment and Business Rules for Service Health and SLM in BSM.

TeMIP specific pre-defined context menu is provided for Service Health.

It includes:

- 6 Business Rule definitions
- 6 HI definitions;
- 11 KPI definitions;
- 5 HI Assignment definitions;
- 5 KPI Assignment definitions;
- 1 Context Menu definition.

1.2.3.4 DigitalTV Repository

It provides repository definitions of HI, KPI, HI assignment, KPI assignment for SQM DigitalTV Solution.

It includes:

- 67 HI definitions;
- 4 KPI definitions;
- 2 HI Assignment definition;
- 2 KPI Assignment definitions.

1.2.3.5 RANCell OMi Example Repository

It provides repository definitions of HI, KPI Assignment, Filter for Mapping Rules and Mapping Rule for SQM OMi event example of CIT RAN Cell. The CIT path is ConfigurationItem→Resource→Logical Resource→RAN Cell.

It includes:

- 5 HI definitions;
- 5 Filter for Mapping Rules definitions;
- 5 Mapping Rule definitions;
- 1 KPI Assignment definition.

1.3 Product Compatibility

Below SQM Solution modules are compatible with current SMF version

Product	Version	Note
TeMIP Service Adapter	V3.2RevA	
TeMIP Service Console	V6.4RevA	

Chapter 2

Installation Prerequisites

2.1 Software Prerequisites

Product	Version	Note
Windows Server	2008 x64	BSM supported Windows Operating Systems
Linux Server	RedHat Enterprise Linux Server release 5.3/5.4/5.5 X64	BSM supported Linux Operating Systems
HP Business Service Management	9.23	
Business Service Management Connector	9.23	



For more information about Software Prerequisites, refer to the *HP Business Service Management Release Notes*, the *HP Business Service Management Deployment Guide* and the *HP SQM Solution V3.2 Service Management Foundation Installation and Configuration Guide*.

Installation

3.1 Kit

The installation kit bundled with the of HP SQM Solution V3.2 SMF software are:

Setup File Name	Usage
SQMSoISMV320RevA.exe	Use this setup to install SMF for the first time. This will install SMF V3.2 RevA on Windows
SQMSoISMV320RevA.bin	Use this setup to install SMF for the first time. This will install SMF V3.2 RevA on Linux

3.2 New Installation

3.2.1 Pre-installation Actions

3.2.1.1 Preparing Information Required for Installation

Have the following information ready before installation:

- **Target Directory Name.** The BSM installation directory.
- **Gateway Server Fully Qualified Domain Name.** User need to collect **full domain name** of the BSM gateway server or BSM typical server.
- **BSM Gateway JMX port.** User need to collect JMX-Console port of the BSM gateway server or BSM typical server. It is the HTTP channel for same machine components. The default value is 8080.
- **BSM Login Info.**

3.2.1.2 Disable UAC on Windows 2008 x64 Server

Due to BSM limitation, on Windows Server 2008 R2 or Windows Server 2008 SP2 servers, User Account Control (UAC) must be disabled before starting SMF installation.

3.2.1.3 Apply “CI Resolver Settings” default settings

If BSM default value of “CI Resolver Settings” changed, user need to record its customized value.

1. On BSM GUI, browse to **Admin > Platform > Setup and Maintenance > Infrastructure Settings**;
2. In **End User/System Availability Management - SiteScope CI Resolver Settings**, check if value of “TQL Queries” equals with default value “CIs Monitored by SiteScope”.
 - a. If default value not changed, no action needed.
 - b. If value customized, user needs to
 - i. Record that **CustomizedValue**.
 - ii. After SMF installation completed, user needs to set the value as
“`CustomizedValue$;SQM_CIR;SQM_CIR_LOCATION;S
QM_CIR_PARTY`”

3.2.2 Kit installation

The kit **SQMSolSMFV320RevA.exe** should be used to install SMF V3.2 RevA on Windows.

The kit **SQMSolSMFV320RevA.bin** should be used to install SMF V3.2 RevA on Linux.

Please run the installer and follow the tip step by step to complete the installation procedures.



For SMF installation on **BSM Typical deployment**, since **the standalone server** act as both Gateway server and DPS server, user should enter the **Full Domain Name** and **JMX Port of the server itself**.

Important:

On Windows 2008 server, SMF installation will fail if user use default value “**localhost**” instead of actual full domain name for **Gateway Server Fully Qualified Domain Name** filed.



For more information about Installation Steps and Configuration Settings, refer to the *HP SQM Solution Service Management Foundation Installation and Configuration Guide*.

Chapter 4

Fixes and Enhancements

4.1 CRs Fix

CR 2404: The BR SQMMinValueRule and SQMMaxValueRule, if not input the rule parameter ChildKPIId, it will throw NullPointerException

CR 2406: SQM/BSM icons used for telco model are not displayed

CR 2410: class com.hp.sqm.installer.action.ImportContentPackFileAction options are not recognized by application: -force-overwrite

CR 2418: [SMF Installer] BSM version check needs update

CR 2420: TeMIP Drill down does not support for Double quote (“) and slash (/) in MO

CR 2437: Telecom Universe Model need to be updated according to GP's model

CR 2461: Some BRs ClassCastException to get tootip information

4.2 Enhancements

1. [Support BSM Connector 9.2x](#)

- Integrate Legacy Events, Metrics, OMi Events and topology data in BSM

2. [Support OMi Event work flow](#)

- OMi Event from BSM Connector is displayed in the Event Browser in Operations Management.
- OMi Event to CI mapping
- OMi Event to HI mapping

- HI to KPI via KPI Assignment

3. [Service Model enhancement](#)

- Add new attributes in existing CIT
- Normalization and flexible implementation of the geographical breakdown (Nation, Zone, State, Region)
- Normalization of the 'interconnection' link between networks with Mobile Network Link, Point Of Interconnect within SID Pipe
- Add Change Management Normalization modeling
- Modeling inheritance fixes

4. [Business Rule enhancement](#)

- Independent log configuration for all SQM Business Rules
- 16 Business Rules added and implemented in Java
 - SQM Sibling Matching Category Max Value
 - SQM Set KPI value from HI value
 - SQM Assign KPI value from HI Status
 - SQM Assign KPI value from HI reverse value
 - SQM Compute Rate Category A vs Category A+B
 - SQM Compute Rate Category A vs Category B
 - SQM Compute Rate Category A vs Constant
 - SQM Match Cat. Computed Rate From Threshold
 - SQM Matching Category Average Value
 - SQM Matching Category Best Status
 - SQM Matching Category Difference A-B
 - SQM Matching Category Max Value
 - SQM Matching Category Min Value
 - SQM Matching Category Rate With Utilization
 - SQM Matching Category Sum Value
 - SQM Matching Category Worst Status
- Unified tooltip parameters
- Provide Business Rule Reference Guide

Chapter 5

Upgrade

5.1 Upgrade SMF 3.1 to 3.2



For Upgrade Steps and Configuration Settings, please refer to the *HP SQM Solution Service Management Foundation Installation and Configuration Guide*.

Chapter 6

Known Problems and Limitations

6.1 Limitations

#	Description
CR#2383	The BR WorstSiblingRule should disable the select of rule calculation based on. <u>Workaround</u> : No workaround required, select HIs in KPI configuration will not impact KPI calculation.

Chapter 7

Repository List

7.1 KPI List

7.1.1 Service Health KPI

KPI Name	Category
availability	Generic
accessibility speed	
accessibility accuracy	
retainability speed	
retainability accuracy	
support	
security	
accessibility	
data accuracy	
integrity	
retainability	
MOS	Common
Mean Delay	
Call Set-up Mean Time	

Set-up Mean Time	
Packet Error Ratio	
Session Set-up Time	
Failure Ratio	
Average Bandwidth	
Bandwidth	
Second Attempt Success Ratio	
Transfer Delay	
Packet Loss Ratio	
Set-up Time	
Average Throughput	
First Attempt Success Ratio	
Mean Time	
Round Trip Time	
Trustability	
Call Set-up Time	
Session Set-up Mean Time	
Round Trip Mean Time	
Attempts	
Jitter	
Success Ratio	
Utilization	
Communication Status	
Environmental Status	

Equipment Status	
Processing Error Status	
Quality Of Service Status	
Fault Status	
Jitter Discards	Digital TV
Out Of Sequence	
Program Rate	
Video Quality	

7.1.2 Service Level Management KPI

KPI Name	Category
availability	Generic
accessibility speed	
accessibility accuracy	
retainability speed	
retainability accuracy	
support	
security	
accessibility	
data accuracy	
integrity	
retainability	
Communication Status	TeMIP
Environmental Status	
Equipment Status	

Processing Error Status	
Quality Of Service Status	
Fault Status	

7.2 Business Rule List

7.2.1 Service Health BR

Business Rule Name	Category
SQM % of Degraded Subordinates	Generic
SQM % of Normal Subordinates	
SQM % of Violated Subordinates	
SQM Generic Event Sample Rule	
SQM Generic Formula Rule	
SQM Generic Sample Rule	
SQM Assign HI value from Sample value	
SQM Assign KPI value from HI value	
SQM Average of Values	
SQM Average of Efficiency %	
SQM Worst of Siblings	
SQM Sibling Matching Category Max Value	
SQM Number of Degraded Subordinates	
SQM Set KPI from One Child KPI	
SQM Set KPI value from HI value	
SQM Assign KPI value from HI Status	
SQM Assign KPI value from HI reverse value	

SQM Compute Rate Category A vs Category A+B	
SQM Compute Rate Category A vs Category B	
SQM Compute Rate Category A vs Constant	
SQM Compute MAX(HI, HI2)	
SQM Compute MIN(HI, HI2)	
SQM Compute RATE(HI, HI2)	
SQM Compute SUM(HI, HI2)	
SQM Match Cat. Computed Rate From Threshold	
SQM Matching Category Average Value	
SQM Matching Category Best Status	
SQM Matching Category Difference A-B	
SQM Matching Category Max Value	
SQM Matching Category Min Value	
SQM Matching Category Rate With Utilization	
SQM Matching Category Sum Value	
SQM Matching Category Worst Status	
SQM Max Value	
SQM Min Value	
SQM Ratio Above Average	
SQM Ratio Below Average	
TeMIP Event Sample Rule	TeMIP
TeMIP Worst Child Rule	
TeMIP number of alarms	

7.2.2 Service Level Management BR

Business Rule Name	Category
TeMIP cumulated outage duration	TeMIP
TeMIP HI availability	
TeMIP number of alarms	

Chapter 8

Documents

8.1 Associated Documents

The following documents contain useful reference information:

- HP SQM Solution V3.2 Service Management Foundation Installation and Configuration Guide
- HP SQM Solution V3.2 Service Management Foundation Business Rule Reference Guide
- HP Business Service Management Release Notes
- HP Business Service Management Deployment Guide

The HP Business Service Management documents are available at:

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