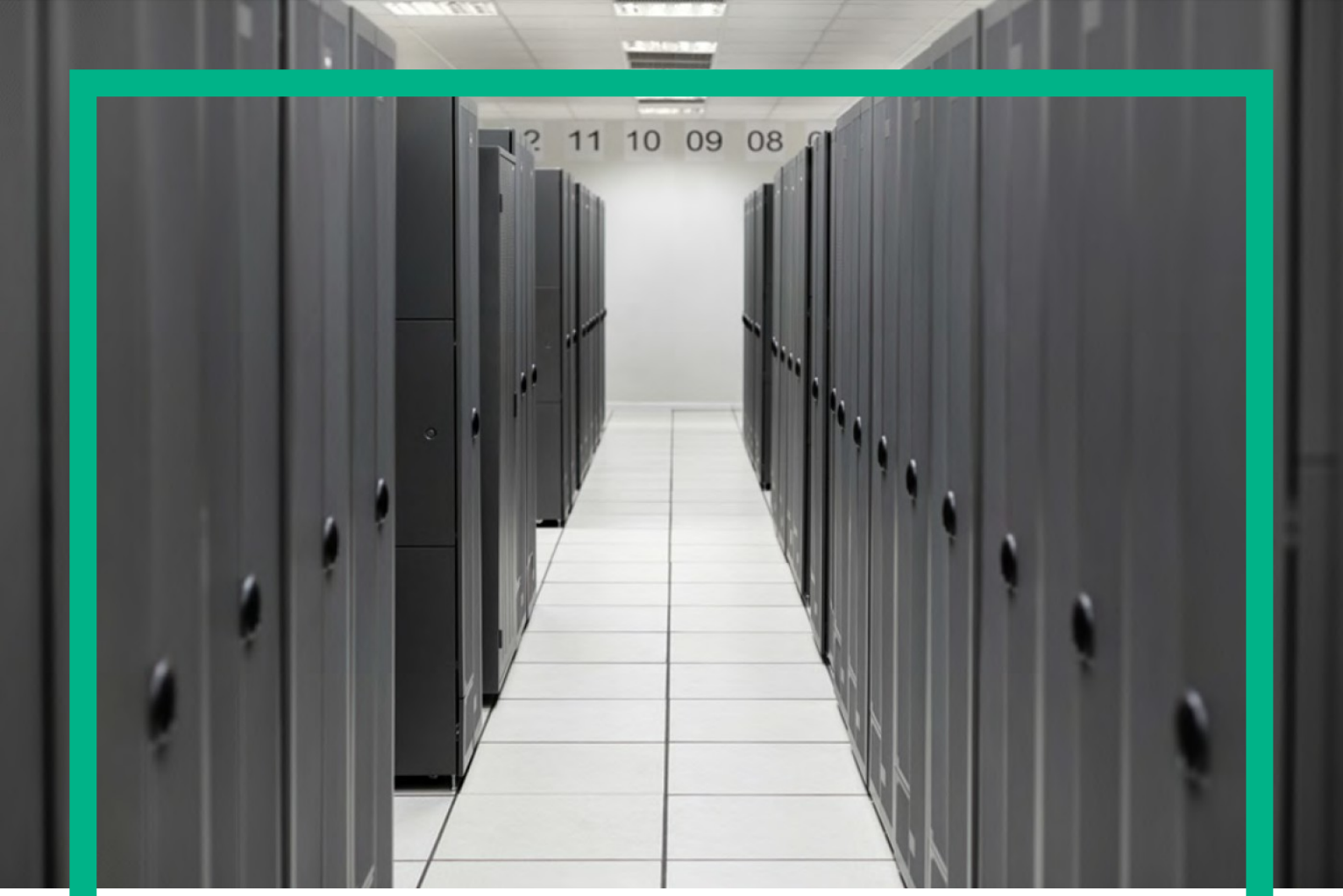

HPE Service Activator

Release Notes

for Microsoft Windows Server 2012 R2® and Red Hat Enterprise Linux 6.7 operating systems

Release: 8.0

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Hewlett Packard Enterprise

Notices

Legal notice

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Contents

Chapter 1
Introduction

This document provides late-breaking information about the HPE Service Activator 8.0 product. It specifies the system requirements as well as known issues and workarounds.

Note that you must read the HPE Service Activator Installation Guide prior to installing the Service Activator product. This guide can be found on the distribution DVD in the `/Documentation` directory.

1.1 Installation DVD

The HPE Service Activator DVD is organized as follows:

- `/Binaries/Unix`
  - Contains the Linux install files for HPE Service Activator
- `/Binaries/Windows`
  - Contains the Windows install file for HPE Service Activator
- `/Documentation`
  - Contains all product documentation,
- `/ReadMe`
  - Location of the end user license agreement
- `/OpenSource`
  - Contains terms and conditions for Open Source software used in HPE Service Activator, including source code for all Open Source components

1.2 Required Hardware and Software

This section describes the system requirements that must be considered prior to installing and running HPE Service Activator. Below are the minimum requirements for HPE Service Activator. The disk space requirements for the database software (Oracle or Postgres Plus Advanced Server), the Java Development Kit, Cygwin, and Secure Shell can be found in the product literature for those applications.

1.2.1 Activation Server, Database Server and Web Browser Client Systems

1.2.1.1 Hardware Requirements, Linux

The HPE Service Activator server system must meet the following minimum requirements:

- x86-64-bit system
- 2 GB of memory
- Available disk space as follows:
  - 1 GB under /opt
  - 1 GB under /etc
  - 1 GB under /var
- The database requirements are described in the Database Requirements section below

1.2.1.2 Hardware Requirements, Windows

The HPE Service Activator server system must meet the following minimum requirements:

- x86-64-bit system
- 1 GB of memory
- 1 GB on the drive where HPE Service Activator is installed
- The database requirements are described in the Database Requirements section below

1.2.1.3 Database Requirements

Service Activator requires the availability of a database before installing HPE Service Activator. The supported databases are:

- Oracle 12c and Oracle 12c RAC
- Postgres Plus Advanced Server 9.4

The database may be installed on the same server as Service Activator or may be accessed remotely (but it must be located in the same subnetwork). You may also use an existing database that is already used by another application. In that case, you need to create a new database user (if Oracle is used) or a new database instance (if Postgres Plus Advanced Server is used) for exclusive use by HPE Service Activator.

1.2.1.4 Software Requirements

The HPE Service Activator server must have the following software installed and configured. For additional installation and configuration information please refer to the HPE Service Activator Installation Guide.

- Red Hat Enterprise Linux 6.7 (64-bit), or Microsoft Windows Server 2012 R2. Windows 7 and Windows 8 are supported for development purposes, only. In all cases, all the latest OS patches should be installed.
- Microsoft Internet Explorer 11.0, Firefox 35, or Chrome 48 web browser to access the web based user interface of HPE Service Activator. If using Internet Explorer, compatibility view must be *disabled*.
- Java™ SE Development Kit (JDK) 8 update 71 (64-bit) or later for Windows or Linux. It must be a Java 8 version. See the HPE Service Activator Installation Guide for the exact Java versions required based on your activation server platform.
- Oracle 12c, Oracle 12c RAC, or Postgres Plus Advanced Server database 9.4 software. The database server does not need to be installed on the Service Activator server; it can be installed on any server that is accessible to the Service Activator server. Please also refer to the section Database Requirements above.

NOTE The HPE Service Activator installation kit includes the WildFly application server which is needed by Service Activator. The version of WildFly that is needed by Service Activator is included on your installation DVD and will be installed automatically in the appropriate location when Service Activator is installed. You do not need to install WildFly. The use of any other version of WildFly is not supported.

1.3 Target System

See the HPE Service Activator Installation Guide for information on the various target system requirements.

Chapter 2
Changes and Defect Fixes

This section provides a list of changes to the product since Service Activator 7.0 (V70-1A) that are visible to end users and/or system integrators. Defect fixes are also listed..

2.1 Changes

The following list highlights the new and noteworthy features in HP Service Activator 8.0

Id	Description
WFM#1638	A new Workflow Manager RMI method to retrieve running jobs based on a filter is now supported. See the Javadocs for more details.
WFM#1640	Added new method getSendCasePacketUserName() on the WFContext class that can be used to get information about which user is interacting. See the Javadocs for more details.
WFM#1643	Square bracket operator ([]) and hash operator (#) now also support Lists and simple arrays.
WFM#1646	Added support for new optional parameter class_name for the Audit workflow node.
WFM#1735	The dot operator (`.`) can now be used on maps to access values.
PLGI#1458	GenericCLI produces a better error message when an error pattern is matched. The description of the action is returned as well as the message of the error pattern.
WFM#1697	Added a new RMI method to the Workflow Manager to make it possible to retrieve all usernames.
WFM#1729	Added new log handlers (LogHandler) to make it possible to log a message from end and error handlers.
WFM#1688	A new Service Order Registry to store incoming service requests has been added.
WFM#1759	A Queue Notification Module (QNM) has been added. The QNM can be used to notify one or more external systems from Service Activator.
	New HTTPSenderModule. Old HTTPSenderModule has been renamed to HTTPRequestModule
WFM#1699	The CRModel has been updated to better support virtual equipment. A new inventory bean Zystem has been added and the network element bean now inherient from this. Apart from this then locations can now be used as root element in an hierarchy. Please see section 8 in the System Integrator's Overview for full information about the model
IB#1690	New features have been added to the Inventory Builder; for instance, new utility methods have been added to the generated inventory beans
DM#1772	The Deployment Manager now set the exit code to a value different from zero if a command-line operations fails
WFM#1750	WriteFile workflow node and MethodHandler have been added
WFM#1804	ConflictModule now uses master/slave concept

2.2 Defect Fixes

The following list highlights the defects that have been fixed since HPE Service Activator 8.0 (V80-1A):.

Id	Description
WFM#1596	Fixed an issue in the MapData workflow node that caused it to fail if setting the throw_exception parameter to "true".
WFM#1637	Fixed an issue in the distribution module CasePacketDistModule that lead to exceptions if trying to start jobs while a cluster node was shutting down.

Id	Description
WFM#1650	Fixed an issue in the DBTransactionModule that could lead to ORA 22275 errors if case-packet variables of type "String" were slightly shorter than 4000 characters. The issue only occurred when using Oracle 12c as database.
WFM#1652	Fixed an issue that caused system case-packet variables (marked as non-persistent) to become null if an AskFor workflow node was used (with swap set to "true") in a workflow executed using the ExecuteMacro workflow node.
UI#1589	Fixed several issues in the Service Order View that caused it to be very difficult to use.
UI#1648	Fixed an issue in the Inventory UI that could result in wrong tab labels when opening multiple trees in the default view. Also, the wrong tab could be selected by default in some cases.
PLGI#1119	Fixed an issue that caused the GenericCLI plugin to produce a wrong undo action if a JavaAction had no corresponding undo JavaAction.
PLGI#1119	Fixed an issue that caused the GenericCLI plugin to produce a wrong undo action if a JavaAction had no corresponding undo JavaAction.
PLGI#1656	Fixed an issue that could lead to clear text password being written in log files even if they were encrypted.
VIP#1641	Fixed an issue that caused cluster nodes to take over virtual IP addresses from cluster nodes belonging to a different site. The issue only affected configurations using primary and standby sites.
IB#1664	Fixed an issue in Inventory Builder related to date conversion (Timestamp to Date). The issue was caused by a problems in the Oracle 12g JDBC driver.
UI#1671	Fixed a bug in the User Management Module UI that prevented the assignment of roles to tree, operations, branches or diagrams if DB authentication module was not configured.
UI#1684	Fixed an issue in the Messages UI that caused localization to fail for certain characters (for instance, Japanese characters).
RM#1687	Added a missing log_max_files element to the Resource Manager's resmgr.dtd file. The missing element in the DTD lead to an exception if the element was used in the resmgr.xml configuration file.
WFM#1691	Fixed an issue in the Authentication Module that led to an error message (in the logs) if using the LDAP module and when a new user logged into HPE Service Activator.
UI#1694	Adjusted the colors used in the Inventory UI to make branch labels easier to read.
UI#1695	Fixed an issue in the User Management Module UI which, in some cases, could prevent assignment of roles to users and teams, because the picklist displaying the available roles was not properly updated.
UI#1698	Fixed an issue with using filters in the Inventory UI; the filters were erroneously applied in the wrong place.
UI#1703	Fixed an issue in the Inventory UI that caused refresh of partial trees (result of advanced search) to malfunction.
RM#1704	The PARClassLoader now implements the findResources() method which is needed in rare cases. The issue could cause plug-in code to malfunction.
UI#1705	Fixed a bug in the web UI that caused export of Audit Messages to malfunction.
UI#1708	Added proper escaping to URL parameters used in the web UI's left navigation menu to be able to cope with reserved characters.
WFM#1710	Fixed an issue in the getRunningJobsFiltered() RMI method that could cause the wrong case-packet to be used. The problem occurred if the RMI method was called while the workflow was executing a macro workflow (using the ExecuteMacro workflow node).
ITD-#1711	Fixed an issue in the Inventory Tree Designer that resulted in an exception if a field referred to a parent branch.
UI#1720	Fixed a bug in the Messages UI that occurred when switching to another tab after sorting messages by column.
UI#1721	Fixed an issue in the User Management Module UI that could lead to inconsistent behavior if the configured authentication module was different from DatabaseAdvancedAuthModule.
UI#1722	Fixed a bug in the Inventory UI that could lead to error message not being displayed.

Id	Description
UI#1723	Improved the resizing of text areas in the Inventory UI.
RM#1730	Removed an annoying print statement in the PARConnection class. In case of exceptions a message is still created, but it is written to the Resource Manager's log file.
WFM#1751	Fixed an issue in the DatabaseAdvancedAuthModule that caused new passwords to be added twice in database when a user updated the password.
WFM#1752	Fixed an issued with the UMMData which caused the tool to not export roles and, as a consequence, it was not exporting associations with inventory views, branches and operations.
UI#1765	If Service Activator is restarted while a user is working on the UI then the user will be redirected to the login page as soon as a new request is made to the server after it has been restarted.
PLGI#1767	Fixed an issue that caused the GenericCLI plug-in to produce at the end a wrong response to the resmgr even if it had detected an ERROR.
WFM#1813	Fixed an issue that cause the workflow manager to not delete Information about a unique workflow not using persistence after a cluster node has crashed or is stopped

Chapter 3
Code Signing

This Software Product from Hewlett Packard Enterprise is digitally signed and accompanied by Gnu Privacy Guard (GnuPG) signatures. Hewlett Packard Enterprise 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.

3.1 Installing and Configuring Gnu Privacy Guard (GnuGP)

If you do not already have GnuGP installed, you will first need to download and install it. For information about obtaining and installing GnuGP, see http://www.gnupg.org.

Before verifying the signatures delivered on the HPE Service Activator DVD, you need to configure GnuGP for accepting signatures from Hewlett Packard Enterprise. To do this, follow these steps:

1. Log on your system
2. Get the all public keys from following location: https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning
3. Save the keys as `HP-RPM-GPG-1024-KEY.pub`, `HP-RPM-GPG-2048-KEY.pub`, `HP-RPM-GPG-2048-KEY-1.pub`, `HP-RPM-GPG-2048-KEY-2.pub`, `HP-RPM-GPG-2048-KEY-3.pub`, `HP-RPM-GPG-2048-KEY-4.pub`, and `HP-RPM-GPG-2048-KEY-5.pub`, respectively.
4. Import the key into GnuPG by running these commands:

```
gpg --import HP-RPM-GPG-1024-KEY.pub
gpg --import HP-RPM-GPG-2048-KEY.pub
gpg --import HP-RPM-GPG-2048-KEY-1.pub
gpg --import HP-RPM-GPG-2048-KEY-2.pub
gpg --import HP-RPM-GPG-2048-KEY-3.pub
gpg --import HP-RPM-GPG-2048-KEY-4.pub
gpg --import HP-RPM-GPG-2048-KEY-5.pub
```

3.2 Verifying the Authenticity and Integrity of the Software

The procedures listed below allow you to assess the integrity of the software before installing it, by verifying the signatures of the software packages.

3.2.1 Red Hat Enterprise Linux 6.7

From a command prompt, go to the `/Binaries/Unix` directory on the DVD and run the following command:

```
gpg --verify HPSA-V80-1A.x86_64.rpm.sig HPSA-V80-1A.x86_64.rpm
```

Look for the following output from the `gpg` command:

```
gpg: Good signature from "Hewlett-Packard Company RSA (HP Codesigning
Service) - 2"
```

3.2.2 Microsoft Windows Server 2012 R2

From a command prompt, go to the `/Binaries/Windows` directory on the DVD and run the following command:

```
gpg --verify ServiceActivator.exe.sig ServiceActivator.exe
```

Look for the following output from the `gpg` command:

```
gpg: Good signature from "Hewlett-Packard Company RSA (HP Codesigning
Service) - 2"
```

Chapter 4
Known Issues

This section presents issues you may encounter when using the HPE Service Activator product.

4.1 General

Running Service Activator under a non-English locale

- On Windows Server 2012 R2 Multi-Language Version, Service Activator always starts in an English locale after reboot, even when English is not the system default locale. Service Activator must be restarted after boot-up in order to have it running under a non-English locale. This issue can manifest itself in a variety of ways. The Operator UI might incorrectly display non-ASCII characters or an atomic task may fail to interpret non-ASCII data correctly.

The License handling tool AutoPass only accepts 7-bit ASCII characters.

HP Network Automation (NA) integration

- The HP NA integration comes with a set of workflow nodes. A known issue exists in the workflow node NAAddConfigurationPolicy which makes it not possible to use.

Log Search UI

- The log search functionality that was added in HPE Service Activator 6.1 is based on software from the Apache Lucene project. Log messages are passed through the Lucene “standard analyzer” which, in turn, implements Unicode text segmentation. Unicode text segmentation works well for many languages, but for languages such as Chinese, Japanese, and Thai the segmentation works less reliable. (Reliable detection of word boundaries will require dictionary lookup which will not be feasible due to performance reasons.)

  As a consequence, searching for Chinese, Japanese, or Thai words using the Log Search UI may result in false negatives.

  For more information, please read http://unicode.org/reports/tr29/

Cross-Launch to Log UI

- There is currently an issue that causes cross-launch from the “Results” tab in the “Log Search UI” to the “Log UI” to malfunction.

4.2 Workflow Manager and Workflows

Workflow Debugger

- If you use the Workflow Debugger, you should set the value of the parameter <Max Nodes Per Thread> to 1. Otherwise you will not be able to set breakpoints in all workflow nodes.

Workflow Manager Node QueryInventory

- The documentation of the timeout parameter for the QueryInventory node that is displayed in the Workflow Designer is wrong. The documentation states that the value timeout = 0 means “no expiry”. However, the behavior if the timeout parameter is 0 is that the information is not cached. As a work-around, set timeout to a very high value.

NullPointerException in a Workflow

- Some workflow nodes do not properly handle a condition in which a case packet variable exists but does not have a value. This will show up as a NullPointerException during workflow execution. The workaround is to give the problematic variable an initial case packet value.

Unable to stop or modify scheduled job

- You should not create a scheduled job with a reoccurrence interval less than 10 seconds unless you are very sure that you do not need to stop this job again. It can be very difficult to stop a reoccurring scheduled job with a very short reoccurrence interval because the job id for the scheduled job changes.

Timeouts for Sleep, AskFor, and GenericUIDialog nodes

- Timeout periods are reset if a cluster node crashes and a workflow job is taken over by another node in the cluster.

InvokeInventoryMethod node

- The documentation describing the InvokeInventoryMethod workflow node is incomplete and misleading. For a more precise description of the node and its parameters, please see the file “InvokeInventoryMethod.xml” located in the $ACTIVATOR_ETC/designer/nodes/builtin directory.

Resource Manager

- According to the description in the file $ACTIVATOR_ETC/config/resmgr.xml the parameters RedirectionRetrySleep, DefaultSubPoolInitTimeout, DefaultSubPoolCreationTimeout, DefaultSubPoolVerificationTimeout, DefaultSubPoolCleanDestructionTimeout, DefaultSubPoolForcedDestructionTimeout, and DefaultSubPoolCleanupDelay need to be specified in milliseconds. This is not correct; they must be specified in seconds.

Inventory Subsystem

- The element <Field>/<Name> in the resource definition files of inventory beans may neither have the values target nor action. Using these values may lead to issues with the Inventory UI.

  In rare situations, modifications of a copied branch may mistakenly be applied to the original branch and not to the copied branch. HPE Service Activator V70-1A has significantly reduced the likelihood of encountering this issue.

User Interface

Node Information View displays wrong status if the database runs full

- When using Postgres Plus Advanced Server as HPE Service Activator’s system database, the Node Information view displays a wrong status if the database has run full. However, the system status icon (in the lower-left corner of the web UI) displays the correct status; hence, the operator will receive a notification that something is wrong.

NOTE: This issue may also exist when using Oracle 12c as the system database.

Issue with AskFor JSP

- If a workflow requests for user interaction (using the AskFor node) and the name of the case-packet variable is id, then the value cannot be set using HPE Service Activator's AskFor JSP. The problem is that the use of the case-packet variable name id leads to conflicts with another use of id in the DOM (Document Object Model).

4.3 Plug-Ins

GenericCLI (Windows)

- When running with the GenericCLI on windows you must be sure to that you have a Disconnect section in your XML description. The disconnect section must as the last action perform the call “exit”. This is because of the way the Cygwin Bash shell is working; it is not closing correctly upon an EOF. If the “exit” is not inserted, the GenericCLI will block until the Bash process spawned by the sshd on Windows has stopped, typically after a kill.

GenericCLI (all platforms)

- When running with GenericCLI the use of the connect section cannot be overemphasized. If the Connect section is left out, the performance will be dramatically decreased due to the fact that a delay is automatically inserted. This is needed in order to ensure correct synchronization with the server. When connecting to an unauthenticated server or a SSH based server authenticated using key pairs the connect section can be setup using a do-nothing command. To issue a do-nothing command write <Command send_newline="NO"/> which will do absolutely nothing. Hereafter wait for the prompt to appear. When the prompt has been found the synchronization is OK and the command execution can begin.

Connection Pool

- In the Pool Management UI, if a user disables and then unregisters a dynamically created connection pool, then it cannot be enabled again. This will also cause subsequent activations to fail if they rely on that pool.

  The workaround (if someone has accidentally unregistered a dynamically created connection pool) is to manually delete the row in the POOLSTATE system database table that corresponds to the unregistered pool. HPE Service Activator does not need to be restarted.

Plugin Deployment

- If a plugin is re-deployed where the number of arguments have changed the new plugin is not used. The way to solve this problem is by first un-deploy the plugin and then deploy the plugin again.

4.4 Workflow Designer

Multi-byte Character Issues

- Workflow files that are present in directories with non-ASCII names may not load properly (XML parser may not recognize the non-ASCII characters). By default, all workflows reside in a directory called "workflows" which has no non-ASCII characters. Use that directory to avoid the problem.

  Note that workflows created in Designer with non-ASCII names will be "encoded" into ASCII-only filenames. This encoding will replace non-ASCII characters with "_-_" and the integer code value for the character.

4.5 Deployment Manager

An issue related to scp (secure copy) prevents the Deployment Manager from being able to copy a solution from one server to another. The work-around is to locally import the solution on all servers as required.

4.6 Service Builder

Service Builder Files, Pre-Provisioning, and Scripts Elements

- When selecting elements from Files, Pre-Provisioning or Scripts in a project archive, Service Builder may display an error dialog reporting "Error opening <filename>". This can happen if Service Builder attempts to display a binary file or a file in a non-UTF8 multi-byte encoding such as SJIS or EUC. Note that the file is actually in the project archive; however, the file contents cannot be displayed from within Service Builder.

  If the element file is a non-UTF8 file containing multi byte data, you can use the editor with which you originally created the file to view its contents.

  For example, if you add a SJIS-encoded Scripts element "SJISscript.perl" to a plug-in "PI1" in a project "Proj1", you can view this file on a Japanese Windows system using Notepad or the DOS command more, for example:

  more < /HP/OpenView/ServiceActivator/var/projects/Proj1/PI1/scripts/SJISscript.perl

Project Documentation Containing Multi-Byte Characters

- Project documentation created in Service Builder under one character encoding may not be viewable on a system with a different default encoding. For example, Service Builder project documentation created on a Japanese Windows system and containing Japanese characters will not appear correctly in an HP-UX Service Builder running under the ja_JP.eucJP locale.

Plug-in Java Source Code Containing Multi-Byte Characters

- If you add Java source code created outside of Service Builder to a Service Builder project and that source code contains un-encoded characters outside of the ASCII range \u000 to \u007F, then the source code must be in UTF-8 encoding. For example, if your source code contains an un-encoded character with an umlaut (such as "ä") or an un-encoded Asian character, the source code must be in UTF-8 encoding. This is needed only if these characters are un-encoded. That is, if "ä" is represented in the source code as the string \u00E4 (rather than the character itself) and all other similar characters are encoded in this way, then the source code need not be in UTF-8 encoding.

4.7 VPN Example

The script runDemoRouter

- The script runDemoRouter does not have execution permission when the example is installed. Change the permission by running the command: chmod 755 runDemoRouter