

# *InCharge*<sup>TM</sup>

## Service Assurance Management Suite Installation Guide

Version 6.2



Copyright ©1996-2004 by System Management ARTS Incorporated. All rights reserved.

The Software and all intellectual property rights related thereto constitute trade secrets and proprietary data of SMARTS and any third party from whom SMARTS has received marketing rights, and nothing herein shall be construed to convey any title or ownership rights to you. Your right to copy the software and this documentation is limited by law. Making unauthorized copies, adaptations, or compilation works is prohibited and constitutes a punishable violation of the law. Use of the software is governed by its accompanying license agreement. The documentation is provided "as is" without warranty of any kind. In no event shall System Management ARTS Incorporated ("SMARTS") be liable for any loss of profits, loss of business, loss of use of data, interruption of business, or for indirect, special, incidental, or consequential damages of any kind, arising from any error in this documentation.

The InCharge products mentioned in this document are covered by one or more of the following U.S. patents or pending patent applications: 5,528,516, 5,661,668, 6,249,755, 10,124,881 and 60,284,860.

"InCharge," the InCharge logo, "SMARTS," the SMARTS logo, "Graphical Visualization," "Authentic Problem," "Codebook Correlation Technology," and "Instant Results Technology" are trademarks or registered trademarks of System Management ARTS Incorporated. All other brand or product names are trademarks or registered trademarks of their respective companies or organizations.

Third-Party Software. The Software may include software of third parties from whom SMARTS has received marketing rights and is subject to some or all of the following additional terms and conditions:

#### Bundled Software

Sun Microsystems, Inc., Java(TM) Interface Classes, Java API for XML Parsing, Version 1.1. "Java" and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. SMARTS is independent of Sun Microsystems, Inc.

#### W3C IPR Software

Copyright © 2001-2003 World Wide Web Consortium (<http://www.w3.org>), (Massachusetts Institute of Technology (<http://www.lcs.mit.edu>), Institut National de Recherche en Informatique et en Automatique (<http://www.inria.fr>), Keio University (<http://www.keio.ac.jp>)). All rights reserved (<http://www.w3.org/Consortium/Legal/>). Note: The original version of the W3C Software Copyright Notice and License can be found at <http://www.w3.org/Consortium/Legal/copyright-software-19980720>.

#### The Apache Software License, Version 1.1

Copyright ©1999-2003 The Apache Software Foundation. All rights reserved. Redistribution and use of Apache source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of Apache source code must retain the above copyright notice, this list of conditions and the Apache disclaimer as written below.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the Apache disclaimer as written below in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:  
"This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)."  
Alternately, this acknowledgment must appear in the software itself, if and wherever such third-party acknowledgments normally appear.
4. The names "The Jakarta Project", "Tomcat", "Xalan", "Xerces", and "Apache Software Foundation" must not be used to endorse or promote products derived from Apache software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).
5. Products derived from this Apache software may not be called "Apache," nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

APACHE DISCLAIMER: THIS APACHE SOFTWARE FOUNDATION SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This Apache software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation and was originally based on software copyright © 1999, Lotus Development Corporation., <http://www.lotus.com>. For information on the Apache Software Foundation, please see <http://www.apache.org>.

#### FLEXIm Software

© 1994 - 2003, Macrovision Corporation. All rights reserved. "FLEXIm" is a registered trademark of Macrovision Corporation. For product and legal information, see <http://www.macrovision.com/solutions/esd/flexim/flexim.shtml>.

#### JfreeChart – Java library for GIF generation

The Software is a "work that uses the library" as defined in GNU Lesser General Public License Version 2.1, February 1999 Copyright © 1991, 1999 Free Software Foundation, Inc., and is provided "AS IS" WITHOUT WARRANTY OF ANY KIND EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED IN THE ABOVE-REFERENCED LICENSE BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. JfreeChart library (included herein as .jar files) is provided in accordance with, and its use is covered by the GNU Lesser General Public License Version 2.1, which is set forth at <http://www.object-refinery.com/lgpl.html>.

#### BMC – product library

The Software contains technology (product library or libraries) owned by BMC Software, Inc. ("BMC Technology"). BMC Software, Inc., its affiliates and licensors (including SMARTS) hereby disclaim all representations, warranties and liability for the BMC Technology.

#### Crystal Decisions Products

The Software may contain certain software and related user documentation (e.g., Crystal Enterprise Professional, Crystal Reports Professional and/or Crystal Analysis Professional) that are owned by Crystal Decisions, Inc., 895 Emerson Street, Palo Alto, CA 94301 ("Crystal Decisions"). All such software products are

the technology of Crystal Decisions. The use of all Crystal Decisions software products is subject to a separate license agreement included with the Software electronically, in written materials, or both. YOU MAY NOT USE THE CRYSTAL DECISIONS SOFTWARE UNLESS AND UNTIL YOU READ, ACKNOWLEDGE AND ACCEPT THE TERMS AND CONDITIONS OF THE CRYSTAL DECISIONS' SOFTWARE LICENSE AGREEMENT. IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS OF THE CRYSTAL DECISIONS' SOFTWARE LICENSE, YOU MAY RETURN, WITHIN THIRTY (30) DAYS OF PURCHASE, THE MEDIA PACKAGE AND ALL ACCOMPANYING ITEMS (INCLUDING WRITTEN MATERIALS AND BINDERS OR OTHER CONTAINERS) RELATED TO THE CRYSTAL DECISIONS' TECHNOLOGY, TO SMARTS FOR A FULL REFUND, OR YOU MAY WRITE, CRYSTAL WARRANTIES, P.O. BOX 67427, SCOTTS VALLEY, CA 95067, U.S.A.

GNU eTeks PJA Toolkit

Copyright © 2000-2001 Emmanuel PUYBARET/eTeks info@eteks.com. All Rights Reserved.

The eTeks PJA Toolkit is resident on the CD on which the Software was delivered to you. Additional information is available at eTEks' web site:

<http://www.eteks.com>. The eTeks PJA Toolkit program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License (GPL) as published by the Free Software Foundation; version 2 of the License. The full text of the applicable GNU GPL is available for viewing at <http://www.gnu.org/copyleft/gpl.txt>. You may also request a copy of the GPL from the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA. The eTeks PJA Toolkit program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

For a period of three years from the date of your license for the Software, you are entitled to receive under the terms of Sections 1 and 2 of the GPL, for a charge no more than SMARTS' cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code for the GNU eTeks PJA Toolkit provided to you hereunder by requesting such code from SMARTS in writing: Attn: Customer Support, SMARTS, 44 South Broadway, White Plains, New York 10601.

IBM Runtime for AIX

The Software contains the IBM Runtime Environment for AIX(R), Java™ 2 Technology Edition Runtime Modules © Copyright IBM Corporation 1999, 2000 All Rights Reserved.

HP-UX Runtime Environment for the Java™ 2 Platform

The Software contains the HP-UX Runtime for the Java™ 2 Platform, distributed pursuant to and governed by Hewlett-Packard Co. ("HP") software license terms set forth in detail at: <http://www.hp.com>. Please check the Software to determine the version of Java runtime distributed to you.

DataDirect Technologies

Portions of this software are copyrighted by DataDirect Technologies, 1991-2002.

NetBSD

Copyright © 2001 Christopher G. Demetriou. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

This product includes software developed for the NetBSD Project. See <http://www.netbsd.org/> for information about NetBSD.

4. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. <<Id: LICENSE, v 1.2 2000/06/14 15:57:33 cgd Exp>>

RSA Data Security, Inc.

Copyright © 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved. License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function. License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work. RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind. These notices must be retained in any copies of any part of this documentation and/or software.

AES

Copyright © 2003, Dr Brian Gladman <brg@gladman.me.uk>, Worcester, UK. All rights reserved.

License Terms:

The free distribution and use of this software in both source and binary form is allowed (with or without changes) provided that:

1. distributions of this source code include the above copyright notice, this list of conditions and the following disclaimer;
2. distributions in binary form include the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other associated materials;
3. the copyright holder's name is not used to endorse products built using this software without specific written permission.

ALTERNATIVELY, provided that this notice is retained in full, this product may be distributed under the terms of the GNU General Public License (GPL), in which case the provisions of the GPL apply INSTEAD OF those given above.

Disclaimer: This software is provided 'as is' with no explicit or implied warranties in respect of its properties, including, but not limited to, correctness and/or fitness for purpose. Issue Date: 26/08/2003



# Contents

<b>Preface</b>	<b>ix</b>
Intended Audience	ix
Prerequisites	ix
Document Organization	x
Documentation Conventions	xi
InCharge Installation Directory	xii
Additional Resources	xiii
InCharge Commands	xiii
Documentation	xiii
Technical Support	xv
<b>1 Overview</b>	<b>1</b>
Suite Contents	1
Service Assurance Management Suite	1
InCharge Product and Version Compatibility	3
Installation Tasks	4
New SAM Installation Scenario	6
Existing 6.0 SAM Installation Scenario	7
Existing 5.0 or 5.0.1 SAM Installation Scenario	10
<b>2 Supported Platforms for the SAM Suite</b>	<b>13</b>
<b>3 Patch Requirements</b>	<b>15</b>
Required Patches for Solaris	15
How to Obtain Java Cluster Patches	16
How To Verify Font Patches	16
Required Patches for HP-UX	17
Required Java Patches	18

Required Patches for Linux	18
Required Java Patches	19
How To Verify Linux Patches	19
Required Patches for Windows	20
Required Java Patches	20
<b>4 Requirements for the SAM Suite</b>	<b>21</b>
JRE Requirement for the Installation Program	21
Privileges Requirement	22
Hardware Requirements	22
Additional HP-UX Requirements	25
X Server Settings (UNIX Only)	26
Web Console and Business Dashboard Requirements	27
Java Web Start Requirements for Web Console	27
Adapter Requirements	28
Adapters That Have Third-Party Requirements	28
Report Manager Requirements	30
<b>5 Upgrading an Existing SAM Installation</b>	<b>31</b>
Using the smgetinfo Utility	33
<b>6 Installing the SAM Suite</b>	<b>35</b>
Installation Steps	35
Mounting the CD-ROM and Executing Installation Setup	35
Running the Installation Setup	37
Unmounting the CD-ROM	40
<b>7 Performing Migration Tasks</b>	<b>43</b>
Migrating From SAM Suite 6.0	43
Migration Tasks for 6.0 SAM	44
Reconciling Previously Installed Patches	45
Evaluating Customizations Made in SAM 6.0	45
Migrating From SAM 5.0 or 5.0.1	48

---

Migration Tasks for 5.0 or 5.0.1 SAM	48
Evaluating Customizations Made in SAM 5.0 or 5.0.1	50
<b>8 Performing Post-Installation Tasks</b>	<b>53</b>
Starting InCharge Products	53
Starting Services on UNIX	54
Starting Services on Windows	54
Starting Individual Services	54
Verifying the InCharge Product Status	54
Verifying the InCharge Version Number	55
Starting the Global Console	55
Checking 6.0-to-6.2 Migration	56
Checking 5.0-to-6.2 Migration	57
<b>9 Uninstalling the SAM Suite</b>	<b>59</b>
Uninstallation Steps	60
Stopping InCharge Services	60
Uninstalling From the Control Panel (Windows Only)	61
Running the Uninstallation Program	61
<b>A Installing the SAM Suite Using CLI Mode</b>	<b>63</b>
Running the CLI-Mode Installation	64
Running the CLI-Mode Uninstallation	64
User Selections and Navigation	64
Sample Session: CLI-Mode Installation	65
Sample Session: CLI-Mode Uninstallation	72
<b>B Unattended Installation for the SAM Suite</b>	<b>75</b>
Running the Unattended Installation	76
Running the Unattended Uninstallation	76
About Response Files	77





# Preface

This document provides instructions for installing InCharge Service Assurance Management Suite products on Solaris, HP-UX, Linux, and Windows platforms.

---

**Note:** This document has been updated for InCharge Service Assurance Manager (SAM) release 6.2. Not all documents in the Service Assurance Manager documentation set required updates for this release and, therefore, the version number on the covers of those documents will vary.

---

## Intended Audience

This guide is intended for administrators and integrators who are responsible for installing the InCharge Service Assurance Management Suite.

## Prerequisites

You must have root or administrative privileges on the local host to perform the installation. Also, be sure to read the *InCharge Read Me First* document.

# Document Organization

This guide consists of the following sections:

CHAPTER/APPENDIX	DESCRIPTION
<b>1. OVERVIEW</b>	Describes the contents of the InCharge Service Assurance Management Suite CD-ROM, product compatibility, and installation tasks.
<b>2. SUPPORTED PLATFORMS FOR THE SAM SUITE</b>	Lists the products of the suite by platform.
<b>3. PATCH REQUIREMENTS</b>	Lists patches required by platform, including Java patches.
<b>4. REQUIREMENTS FOR THE SAM SUITE</b>	Summarizes hardware and third-party product requirements for the InCharge Service Assurance Management Suite.
<b>5. UPGRADING AN EXISTING SAM INSTALLATION</b>	Explains how to upgrade an existing SAM installation to SAM version 6.2.
<b>6. INSTALLING THE SAM SUITE</b>	Explains how to install the InCharge Service Assurance Management Suite as well as individual products.
<b>7. PERFORMING MIGRATION TASKS</b>	Describes how to migrate from: <ul style="list-style-type: none"> <li>• Service Assurance applications 6.0</li> <li>• Service Assurance applications 5.0 or 5.0.1</li> </ul>
<b>8. PERFORMING POST-INSTALLATION TASKS</b>	Explains post-installation tasks.
<b>9. UNINSTALLING THE SAM SUITE</b>	Describes how to remove the InCharge Service Assurance Management Suite from your system.
<b>A. INSTALLING THE SAM SUITE USING CLI MODE</b>	Describes how to install the InCharge Service Assurance Management Suite using the Command Line Interface (CLI) mode.
<b>B. UNATTENDED INSTALLATION FOR THE SAM SUITE</b>	Describes how to install the InCharge Service Assurance Management Suite using command line options from a user-modifiable file.

**Table 1: Document Organization**

# Documentation Conventions

Several conventions may be used in this document as shown in Table 2.

CONVENTION	EXPLANATION
sample code	Indicates code fragments and examples in Courier font
<b>keyword</b>	Indicates commands, keywords, literals, and operators in bold
%	Indicates C shell prompt
#	Indicates C shell superuser prompt
<parameter>	Indicates a user-supplied value or a list of non-terminal items in angle brackets
[option]	Indicates optional terms in brackets
<i>/InCharge</i>	Indicates directory path names in italics
<b><i>yourDomain</i></b>	Indicates a user-specific or user-supplied value in bold, italics
<i>File &gt; Open</i>	Indicates a menu path in italics
▼▲	Indicates a command that is formatted so that it wraps over one or more lines. The command must be typed as one line.

**Table 2:** Documentation Conventions

Directory path names are shown with forward slashes (/). Users of the Windows operating systems should substitute back slashes (\) for forward slashes.

Also, if there are figures illustrating consoles in this document, they represent the consoles as they appear in Windows. Under UNIX, the consoles appear with slight differences. For example, in views that display items in a tree hierarchy such as the Topology Browser, a plus sign displays for Windows and an open circle displays for UNIX.

Finally, unless otherwise specified, the term InCharge Manager is used to refer to InCharge programs such as Domain Managers, Global Managers, and adapters.

# InCharge Installation Directory

In this document, the term **BASEDIR** represents the location where InCharge software is installed.

- For UNIX, this location is: `/opt/InCharge<n>/<productsuite>`.
- For Windows, this location is: `C:\InCharge<n>\<productsuite>`.

The `<n>` represents the InCharge software platform version number. The `<productsuite>` represents the InCharge product suite that the product is part of.

Table 3 defines the `<productsuite>` directory for each InCharge product.

PRODUCT SUITE	INCLUDES THESE PRODUCTS	DIRECTORY
InCharge IP Management Suite	<ul style="list-style-type: none"> <li>• IP Availability Manager</li> <li>• IP Performance Manager</li> <li>• IP Discovery Manager</li> <li>• InCharge Adapter for HP OpenView NNM</li> <li>• InCharge Adapter for IBM/Tivoli NetView</li> </ul>	/IP
InCharge Service Assurance Management Suite	<ul style="list-style-type: none"> <li>• Service Assurance Manager</li> <li>• Global Console</li> <li>• Business Dashboard</li> <li>• Business Impact Manager</li> <li>• Report Manager</li> <li>• SAM Failover System</li> <li>• Notification Adapters</li> <li>• Adapter Platform</li> <li>• SQL Data Interface Adapter</li> <li>• SNMP Trap Adapter</li> <li>• Syslog Adapter</li> <li>• XML Adapter</li> <li>• InCharge Adapter for Remedy</li> <li>• InCharge Adapter for TIBCO Rendezvous</li> <li>• InCharge Adapter for Concord eHealth</li> <li>• InCharge Adapter for InfoVista</li> <li>• InCharge Adapter for NetIQ AppManager</li> </ul>	/SAM
InCharge Application Management Suite	<ul style="list-style-type: none"> <li>• Application Services Manager</li> <li>• Beacon for WebSphere</li> <li>• Application Connectivity Monitor</li> </ul>	/APP
InCharge Security Infrastructure Management Suite	<ul style="list-style-type: none"> <li>• Security Infrastructure Manager</li> <li>• Firewall Performance Manager</li> <li>• InCharge Adapter for Check Point/Nokia</li> <li>• InCharge Adapter for Cisco Security</li> </ul>	/SIM

PRODUCT SUITE	INCLUDES THESE PRODUCTS	DIRECTORY
InCharge Software Development Kit	<ul style="list-style-type: none"> <li>• Software Development Kit</li> </ul>	/SDK

**Table 3:** Product Suite Directory for InCharge Products

For example, on UNIX operating systems, InCharge IP Availability Manager is, by default, installed to `/opt/InCharge6/IP/smarts`. This location is referred to as **BASEDIR**/*smarts*.

Optionally, you can specify the root of **BASEDIR** to be something other than `/opt/InCharge6` (on UNIX) or `C:\InCharge6` (on Windows), but you cannot change the `<productsuite>` location under the root directory.

For more information about the directory structure of InCharge software, refer to the *InCharge System Administration Guide*.

## Additional Resources

In addition to this manual, SMARTS provides the following resources.

### InCharge Commands

Descriptions of InCharge commands are available as HTML pages. The *index.html* file, which provides an index to the various commands, is located in the **BASEDIR**/*smarts/doc/html/usage* directory.

### Documentation

Readers of this manual may find other SMARTS documentation (also available in the **BASEDIR**/*smarts/doc/pdf* directory) helpful.

#### **InCharge Documentation**

The following SMARTS documents are product independent and thus relevant to users of all InCharge products:

- *InCharge Release Notes*
- *InCharge Documentation Roadmap*
- *InCharge System Administration Guide*
- *InCharge ICIM Reference*

- *InCharge ASL Reference Guide*
- *InCharge Perl Reference Guide*

### **InCharge Service Assurance Manager Documentation**

The following SMARTS documents are relevant to users of the InCharge Service Assurance Management product suite.

- *InCharge Service Assurance Management Suite Installation Guide*
- *An Introduction to InCharge Service Assurance Manager*
- *InCharge Operator's Guide*
- *InCharge Service Assurance Manager Configuration Guide*
- *InCharge Service Assurance Manager Business Dashboard Configuration Guide*
- *InCharge Service Assurance Manager User's Guide for Business Impact Manager*
- *InCharge Service Assurance Manager User's Guide for Report Manager*
- *InCharge Service Assurance Manager Failover System User's Guide*

The following SMARTS documents are relevant to InCharge Service Assurance Manager adapters.

- *InCharge Service Assurance Manager Notification Adapters User's Guide*
- *InCharge Service Assurance Manager SQL Data Interface Adapter User's Guide*
- *InCharge Service Assurance Manager Adapter Platform User's Guide*
- *InCharge XML Adapter User's Guide*
- *InCharge Service Assurance Manager User's Guide for Remedy Adapter*
- *InCharge Service Assurance Manager User's Guide for Concord eHealth Adapter*
- *InCharge Service Assurance Manager User's Guide for InfoVista Adapter*

# Technical Support

SMARTS provides technical support by e-mail or phone during normal business hours (8:00 A.M.—6:00 P.M. U.S. Eastern and Greenwich Mean Time). In addition, SMARTS offers the InCharge Express self-service web tool. The web tool allows customers to access a personalized web page and view, modify, or create help/trouble/support tickets. To access the self-service web tool, point your browser to:

<https://websupport.smarts.com/SelfService/smarts/en-us>

## U.S.A Technical Support

E-Mail: [support@smarts.com](mailto:support@smarts.com)

Phone: +1.914.798.8600

## EMEA Technical Support

E-Mail: [support-emea@smarts.com](mailto:support-emea@smarts.com)

Phone: +44 (0) 1753.878140

## Asia-Pac Technical Support

E-Mail: [support-asiapac@smarts.com](mailto:support-asiapac@smarts.com)

You may also contact SMARTS at:

	U.S.A WORLD HEADQUARTERS	UNITED KINGDOM
ADDRESS	SMARTS 44 South Broadway White Plains, New York 10601 U.S.A	SMARTS Gainsborough House 17-23 High Street Slough Berkshire SL1 1DY United Kingdom
PHONE	+1.914.948.6200	+44 (0)1753.878110
FAX	+1.914.948.6270	+44 (0)1753.878111

For sales inquiries, contact SMARTS Sales at:  
[sales@smarts.com](mailto:sales@smarts.com)

SMARTS is on the World Wide Web at:  
<http://www.smarts.com>





## Overview

This chapter describes the InCharge Service Assurance Management Suite products, compatibility with other InCharge products, and installation tasks.

The product suite is distributed on a CD-ROM and is installed in the /SAM subdirectory under the InCharge root directory.

## Suite Contents

This section describes the suite contents.

### Service Assurance Management Suite

The suite contains the following:

- *Service Assurance Manager*: The Service Assurance Manager product includes the following components: the Global Manager, InCharge Broker, Business Impact Manager, Failover System, and generic Notification Adapters such as Log File, SNMP Trap, Script, and E-Mail. Some components, such as Business Impact Manager, require licensing.
- *Global Console*: The Global Console product is the graphical interface for all InCharge products.

Global Console functionality can also be deployed as an InCharge Web Console or an InCharge Business Dashboard.

- *Report Manager for Service Assurance Manager*: The Report Manager product subscribes to InCharge notifications, which in turn are stored in a relational database, and creates reports based on the InCharge data. It can be purchased with or without Crystal Enterprise software. Report Manager includes three adapters: SQL Data Interface, Summarization, and Summary Device.
- *SQL Data Interface Adapter*: The SQL Data Interface (SDI) Adapter product exports InCharge notifications to a relational database. The adapter is provided with Report Manager, but it can be used as a stand-alone application.
- *Service Assurance Manager Adapter Platform*: The SAM Adapter Platform product provides functionality to import and normalize topology and events from outside the InCharge domain.
- *Syslog Adapter*: The System Adapter product reads and processes system log (Syslog) messages. It requires the SAM Adapter Platform.
- *SNMP Trap Adapter*: The SNMP Trap Adapter product reads SNMP traps and forwards traps to any InCharge application. It requires the SAM Adapter Platform.
- *InCharge Adapter for TIBCO Rendezvous*: The TIBCO Rendezvous Adapter product forwards InCharge notifications as TIBCO Rendezvous messages.
- *InCharge Adapter for Remedy*: The Remedy Adapter product integrates with Remedy ARS by translating notifications into open, get, or close Remedy ARS tickets. The Remedy runtime library files are provided with the Service Assurance Management Suite. They are installed when the adapter is installed.
- *XML Adapter*: The XML Adapter product imports and exports topology from any InCharge application.
- *InCharge Adapter for Concord eHealth*: The Concord eHealth Adapter product integrates with Concord eHealth and Live Health. The adapter receives Live Health performance traps and displays them as InCharge notifications in the Global Console. The adapter also allows the Global Console user to access Concord eHealth reports.
- *InCharge Adapter for InfoVista*: The InfoVista Adapter product integrates with InfoVista server, Vista Next, and Vista Portal SE. The adapter receives InfoVista performance traps and displays them as InCharge notifications in the Global Console. The adapter also allows the Global Console user to access InfoVista reports.

- *InCharge Adapter for NetIQ AppManager:* The NetIQ AppManager Adapter product imports event data generated by the NetIQ AppManager. Events are retrieved from the AppManager SQL database and processed into InCharge notifications that can be displayed in the Global Console. The adapter can optionally create notifications associated with existing InCharge topological elements for subsequent correlation by ASM and may be extended to create such elements using custom ASL hook scripts.
- *InCharge Perl API:* The Perl APIs provide functionality needed for a Perl client application to communicate with InCharge. The Perl APIs are compatible with Perl version 5.6.1 or 5.8.0.

## InCharge Product and Version Compatibility

The following identifies the compatibility of InCharge 6.2 products with other InCharge products or components.

### **6.2 SAM Global Manager**

Requires Global Console 6.2.

Compatible with InCharge IP Availability Manager 4.1, 4.1.1, or 4.1.2.

Requires Broker 5.0 or later.

Compatible with Application Services Manager 1.0 and Application Connectivity Monitor 1.1.

Compatible with Report Manager 6.2.

### **6.2 SAM Global Console**

Requires SAM Global Manager 6.2.

### **6.2 IP Management Products**

Requires installation of SAM 6.2.

---

**Note:** SMARTS customers who migrate from SAM 6.0 to SAM 6.2 should retain an installation of a 6.0 Global Console in order to continue to administer any remaining (non-migrated) 6.0 Global Managers.

---

## Installation Tasks

The successful deployment of InCharge products requires knowledge of your operational environment and the management tools already in place. You can integrate InCharge with third-party applications and prior installations of InCharge applications without disturbing the existing environment.

The 6.2 installation tasks vary according to one of these scenarios:

- New SAM installation, no pre-existing InCharge installations
- 6.0 SAM installation already exists
- 5.0 or 5.0.1 SAM installation already exists
- 6.2 SAM installation already exists and you wish to add more 6.2 products

To add more 6.2 products to the existing 6.2 directory, perform the tasks that are listed to upgrade an existing 6.0 SAM installation.

Figure 1 illustrates the decision process for these scenarios. Tasks are summarized in the sections identified in the illustration.

Select the scenario that best suits your needs. If you need assistance, contact SMARTS Technical Support.

Note that 6.2 InCharge provides advanced security features. For information about the levels of security and how they might affect your deployment, see the *InCharge System Administration Guide*.

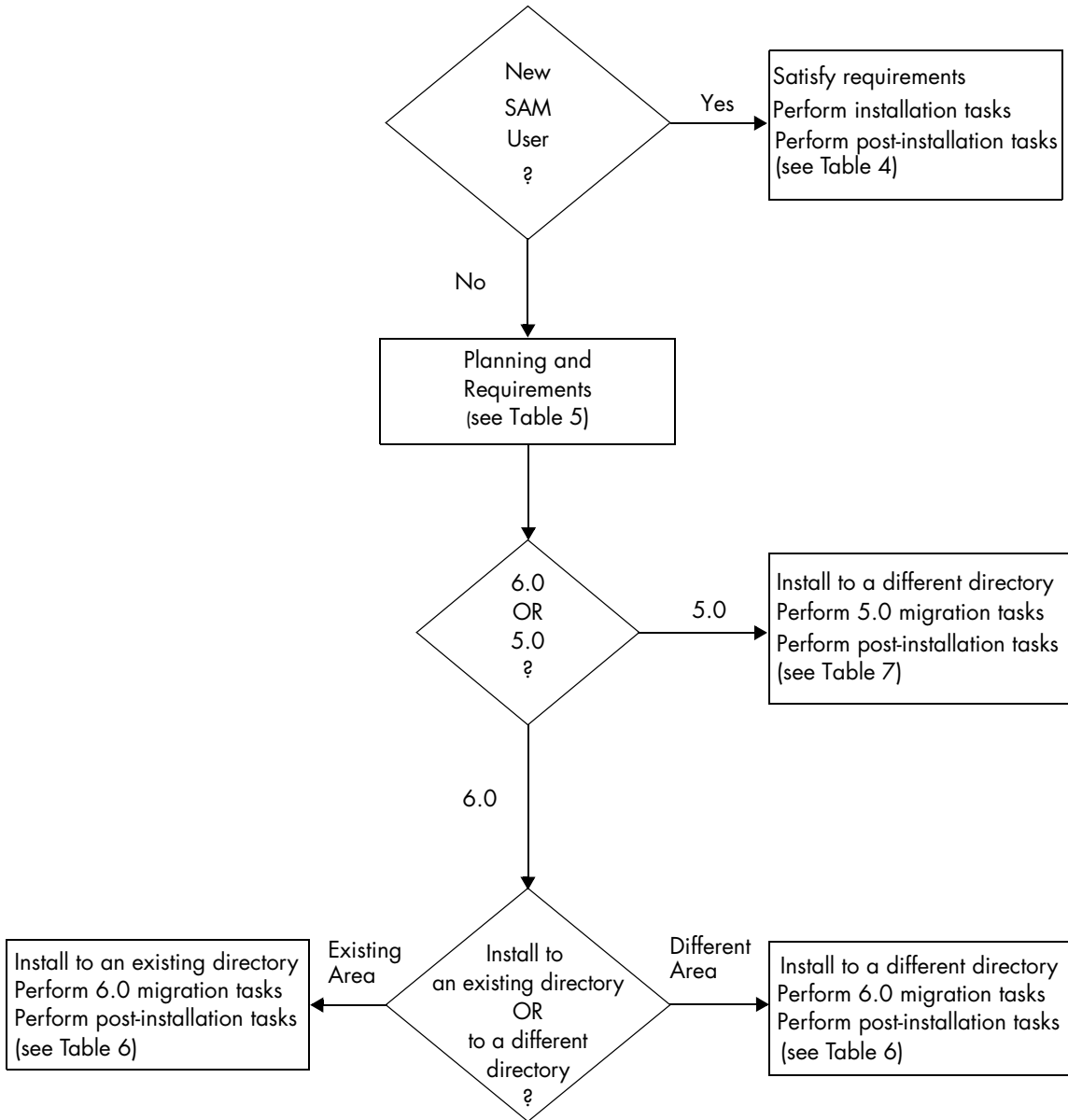


Figure 1: Installation Decision Tree

## New SAM Installation Scenario

If you are installing SAM for the first time and you plan to install the 6.2 SAM Suite on a system where no other InCharge installations exist, you need to satisfy or perform the following tasks.

TASKS	GO TO:
Before You Install:	
Review the important release issues.	<i>InCharge Read Me First</i>
Obtain an evaluation or permanent license.	<i>InCharge System Administration Guide</i> for license information To request a license, send an e-mail message to <a href="mailto:licensing@smarts.com">licensing@smarts.com</a> .
Determine if the products you are installing are supported for your platform.	<a href="#">Supported Platforms for the SAM Suite</a> on page 13
Determine if your system meets the hardware requirements for the products you are installing.	<a href="#">Requirements for the SAM Suite</a> on page 21
Apply operating system-specific patches to your system.	<a href="#">Patch Requirements</a> on page 15
To run the installation program, ensure Java Runtime Environment (JRE) version 1.4 (or later) is installed on your system.	<a href="#">JRE Requirement for the Installation Program</a> on page 21 for information and instructions for a user-defined location.
Check other requirements for administrative privileges, browser requirements and Java plug-ins, and third-party requirements for InCharge adapters and Report Manager.	<ul style="list-style-type: none"> <li>• <a href="#">Privileges Requirement</a> on page 22</li> <li>• <a href="#">Web Console and Business Dashboard Requirements</a> on page 27</li> <li>• <a href="#">Adapter Requirements</a> on page 28</li> <li>• <a href="#">Report Manager Requirements</a> on page 30</li> </ul>
Installation Method:	
Install the SAM Suite.	Choose one of the following installation methods: <ul style="list-style-type: none"> <li>• <a href="#">Installing the SAM Suite</a> on page 35</li> <li>• UNIX only, <a href="#">Installing the SAM Suite Using CLI Mode</a> on page 63</li> <li>• <a href="#">Unattended Installation for the SAM Suite</a> on page 75</li> </ul>

After You Install:	
<p>Save your license in the proper location:</p> <ul style="list-style-type: none"> <li>• Evaluation license—Save <i>trial.dat</i> to the <b>BASEDIR</b>/<i>smarts/local/conf</i> directory. Edit the <code>SM_LICENSE</code> variable in the <i>runcmd_env.sh</i> file so that the variable specifies the full path name to the <i>trial.dat</i> file.</li> <li>• Permanent license—Save <i>smarts.lic</i> to the <b>BASEDIR</b> directory. By default, <b>BASEDIR</b> is <code>/opt/InCharge&lt;n&gt;/SAM</code> for UNIX and <code>C:\InCharge&lt;n&gt;\SAM</code> for Windows.</li> </ul>	<i>InCharge System Administration Guide</i>
<p>Default encryption is enabled during the 6.2 installation process. You can configure InCharge installations with a variety of levels of security. SMARTS highly recommends that you increase your level of security.</p>	<i>InCharge System Administration Guide</i>
<p>If you installed the products as services, you need to start them for the first time.</p>	<a href="#">Starting InCharge Products</a> on page 53
<p>Verify the current state of the products and InCharge Broker</p>	<a href="#">Verifying the InCharge Product Status</a> on page 54
<p>Start the Global Console</p>	<a href="#">Starting the Global Console</a> on page 55

**Table 4:** Tasks for a New SAM Installation

## Existing 6.0 SAM Installation Scenario

If you plan to upgrade an existing 6.0 SAM Suite to 6.2 SAM, you need to satisfy or perform the following tasks.

These tasks also apply if you plan to add more 6.2 products to an existing 6.2 SAM directory.

TASKS	GO TO:
Planning Considerations:	
Review the important release issues.	<i>InCharge Read Me First</i>
The 6.2 SAM Suite can be installed into an existing 6.0 directory or to a different directory. Your choice affects the installation process and which steps you need to perform afterwards.	

<p>Identify the system (host) and the location of the existing InCharge Broker and FLEXlm license server. This determines your installation order:</p> <ul style="list-style-type: none"> <li>• If the FLEXlm license server and the InCharge Broker were installed together for 6.0 SAM, update the 6.0 SAM Suite first.</li> <li>• If the broker was not installed with the license server, update the suite where the license server is running, followed by the suite for the broker and other InCharge Managers for that suite.</li> <li>• Finally, install InCharge Managers and adapters for other suites, including a hierarchical SAM if necessary.</li> </ul> <p>For each installation, you need to perform post-installation tasks.</p>	<ul style="list-style-type: none"> <li>• <i>InCharge Service Assurance Management Suite Installation Guide</i></li> <li>• <i>InCharge IP Management Suite Installation Guide</i></li> </ul>
<p>Before You Install:</p>	
<p>Obtain an evaluation or permanent license. If you have a permanent license for 6.0 SAM, request a new one that supports the FLEXlm license software version 9.2. If you are installing the 6.2 SAM Suite into an existing 6.0 directory, ensure that your license is in the proper location. If you are installing to a different directory, perform this task after installation. The proper location for a license is:</p> <ul style="list-style-type: none"> <li>• Evaluation license—Save <i>trial.dat</i> to the <b>BASEDIR</b>/<i>smarts/local/conf</i> directory. Edit the SM_LICENSE variable in the <i>runcmd_env.sh</i> file so that the variable specifies the full path name to the <i>trial.dat</i> file.</li> <li>• Permanent license—Save <i>smarts.lic</i> to the <b>BASEDIR</b> directory. By default, <b>BASEDIR</b> is <i>/opt/InCharge&lt;n&gt;/SAM</i> for UNIX and <i>C:\InCharge&lt;n&gt;\SAM</i> for Windows. <i>Do not save smarts.lic to the BASEDIR/smarts/local/conf, BASEDIR/smarts/script, or BASEDIR/smarts/conf directory.</i></li> </ul>	<p><i>InCharge System Administration Guide</i> To request a license, send an e-mail message to <a href="mailto:licensing@smarts.com">licensing@smarts.com</a>.</p>
<p>Determine if the products you are installing are supported for your platform.</p>	<p><a href="#">Supported Platforms for the SAM Suite</a> on page 13</p>
<p>Determine if your system meets the hardware requirements for the products you are installing.</p>	<p><a href="#">Requirements for the SAM Suite</a> on page 21</p>
<p>Apply operating system-specific patches to your system.</p>	<p><a href="#">Patch Requirements</a> on page 15</p>
<p>To run the installation program, ensure Java Runtime Environment (JRE) version 1.4 (or later) is installed on your system.</p>	<p><a href="#">JRE Requirement for the Installation Program</a> on page 21 for information and instructions for a user-defined location.</p>
<p>Check other requirements for administrative privileges, browser requirements and Java plug-ins, and third-party requirements for InCharge adapters and Report Manager.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Privileges Requirement</a> on page 22</li> <li>• <a href="#">Web Console and Business Dashboard Requirements</a> on page 27</li> <li>• <a href="#">Adapter Requirements</a> on page 28</li> <li>• <a href="#">Report Manager Requirements</a> on page 30</li> </ul>

**Table 5:** Planning and Requirements If SAM Is Already Installed



After you examine the planning considerations and requirements, you need to install the 6.2 SAM Suite into either the existing 6.0 directory or a different directory (see Table 6).

TASKS	GO TO:
Stop the services for the suite.	<a href="#">Upgrading an Existing SAM Installation</a> on page 31 or the <i>InCharge System Administration Guide</i>
Are you installing into the existing 6.0 directory or to a different directory?	
Install into the existing 6.0 directory.	<a href="#">Upgrading an Existing SAM Installation</a> on page 31
Install into a different directory. Remember to change the root portion of <b>BASEDIR</b> .	Choose one of the following installation methods: <ul style="list-style-type: none"> <li>• <a href="#">Installing the SAM Suite</a> on page 35</li> <li>• UNIX only, <a href="#">Installing the SAM Suite Using CLI Mode</a> on page 63</li> <li>• <a href="#">Unattended Installation for the SAM Suite</a> on page 75</li> </ul>
After You Install:	
If you installed the 6.2 SAM Suite to a different directory, you must ensure that your license is in the proper location. The proper location for a license is: <ul style="list-style-type: none"> <li>• Evaluation license—Save <i>trial.dat</i> to the <b>BASEDIR</b>/<i>smarts/local/conf</i> directory. Edit the <i>SM_LICENSE</i> variable in the <i>runcmd_env.sh</i> file so that the variable specifies the full path name to the <i>trial.dat</i> file.</li> <li>• Permanent license—Save <i>smarts.lic</i> to the <b>BASEDIR</b> directory. By default, <b>BASEDIR</b> is <i>/opt/InCharge&lt;n&gt;/SAM</i> for UNIX and <i>C:\InCharge&lt;n&gt;\SAM</i> for Windows. <i>Do not save <i>smarts.lic</i> to the <b>BASEDIR</b>/<i>smarts/local/conf</i>, <b>BASEDIR</b>/<i>smarts/script</i>, or <b>BASEDIR</b>/<i>smarts/conf</i> directory.</i></li> </ul>	<i>InCharge System Administration Guide</i>
Set up new and old license servers.	<i>InCharge System Administration Guide</i>
Perform migration tasks: <ul style="list-style-type: none"> <li>• Reconcile previously installed 6.0 patches before starting any services.</li> <li>• Examine existing files in the <i>/local</i> directory for customizations you wish to retain.</li> </ul>	<a href="#">Migrating From SAM Suite 6.0</a> on page 43
Set <i>SM_INCOMING_PROTOCOL</i> and <i>SM_OUTGOING_PROTOCOL</i> in the <i>runcmd_env.sh</i> file for encrypted connections.	<i>InCharge System Administration Guide</i>

<p>Encrypt the existing security configuration files to obtain a level of encryption equivalent to the level of default encryption.</p> <p>Use the <code>sm_edit</code> utility to either add the required first line of code for encryption or merge entries from existing security configuration files into the new files located in the <code>/local</code> directory.</p> <p>You can configure InCharge installations with a variety of levels of security. SMARTS highly recommends that you increase your level of security.</p>	<p><i>InCharge System Administration Guide</i></p>
<p>If you installed the products as services, you need to start them for the first time.</p>	<p><a href="#">Starting InCharge Products</a> on page 53</p>
<p>Verify the current state of the products and InCharge Broker</p>	<p><a href="#">Verifying the InCharge Product Status</a> on page 54</p>
<p>Start the Global Console</p>	<p><a href="#">Starting the Global Console</a> on page 55</p>
<p>Perform post-installation tests</p>	<p><a href="#">Checking 6.0-to-6.2 Migration</a> on page 56</p>

**Table 6:** Tasks for an Existing 6.0 SAM Installation

## Existing 5.0 or 5.0.1 SAM Installation Scenario

If you plan to upgrade an existing 5.0 or 5.0.1 SAM installation to 6.2 SAM Suite, see Table 5 for planning considerations and requirements. You also need to perform the following tasks.

---

**Note:** For this scenario, the 6.2 SAM Suite can only be installed into a different directory. The 6.2 SAM Suite should not be installed into an existing directory that has pre-6.0 InCharge software.

---

TASKS	GO TO:
Installation Method:	
<p>Install into a different directory. Remember to change the root portion of <b>BASEDIR</b>.</p>	<p>Choose one of the following installation methods:</p> <ul style="list-style-type: none"> <li>• <a href="#">Installing the SAM Suite</a> on page 35</li> <li>• UNIX only, <a href="#">Installing the SAM Suite Using CLI Mode</a> on page 63</li> <li>• <a href="#">Unattended Installation for the SAM Suite</a> on page 75</li> </ul>
After You Install:	
<p>Ensure that your license is in the proper location. The proper location for a license is:</p> <ul style="list-style-type: none"> <li>• Evaluation license—Save <i>trial.dat</i> to the <b>BASEDIR</b>/<i>smarts/local/conf</i> directory. Edit the SM_LICENSE variable in the <i>runcmd_env.sh</i> file so that the variable specifies the full path name to the <i>trial.dat</i> file.</li> <li>• Permanent license—Save <i>smarts.lic</i> to the <b>BASEDIR</b> directory. By default, <b>BASEDIR</b> is <i>/opt/InCharge&lt;n&gt;/SAM</i> for UNIX and <i>C:\InCharge&lt;n&gt;\SAM</i> for Windows. <i>Do not save smarts.lic to the BASEDIR/smarts/local/conf, BASEDIR/smarts/script, or BASEDIR/smarts/conf directory.</i></li> </ul>	<p><i>InCharge System Administration Guide</i></p>
<p>Set up new and old license servers.</p>	<p><i>InCharge System Administration Guide</i></p>
<p>Perform migration tasks:</p> <ul style="list-style-type: none"> <li>• Reconcile previously installed 5.0 or 5.0.1 patches before starting any services.</li> <li>• Examine existing files in the <i>/local</i> directory for customizations you wish to retain.</li> </ul>	<p><a href="#">Migrating From SAM 5.0 or 5.0.1</a> on page 48</p>
<p>Set SM_INCOMING_PROTOCOL and SM_OUTGOING_PROTOCOL in the <i>runcmd_env.sh</i> file for encrypted connections.</p>	<p><i>InCharge System Administration Guide</i></p>
<p>Encrypt the existing security configuration files to obtain a level of encryption equivalent to the level of default encryption. Use the <i>sm_edit</i> utility to either add the required first line of code for encryption or merge entries from existing security configuration files into the new files located in the <i>/local</i> directory. You can configure InCharge installations with a variety of levels of security. SMARTS highly recommends that you increase your level of security.</p>	<p><i>InCharge System Administration Guide</i></p>

If you installed the products as services, you need to start them for the first time.	<a href="#">Starting InCharge Products</a> on page 53
Verify the current state of the products and InCharge Broker	<a href="#">Verifying the InCharge Product Status</a> on page 54
Start the Global Console	<a href="#">Starting the Global Console</a> on page 55
Perform post-installation tests	<a href="#">Checking 5.0-to-6.2 Migration</a> on page 57

**Table 7:** Tasks for an Existing 5.0 or 5.0.1 SAM Installation

# 2

## Supported Platforms for the SAM Suite

Table 8 summarizes the supported platforms for each product in the Service Assurance Management Suite.

INCHARGE PRODUCT	PLATFORM				
	SOLARIS	HP-UX	AIX	LINUX	WINDOWS
Service Assurance Manager	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.
Global Console, Web Console, Business Dashboard	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003. Windows XP.
Report Manager	8 and 9	11.00 and 11.11	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
SQL Data Interface Adapter	8 and 9	11.00 and 11.11	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
Service Assurance Manager Adapter Platform	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.

INCHARGE PRODUCT	PLATFORM				
	SOLARIS	HP-UX	AIX	LINUX	WINDOWS
Syslog Adapter	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.
SNMP Trap Adapter	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.
InCharge Adapter for TIBCO Rendezvous	8 and 9	11.00 and 11.11	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
InCharge Adapter for Remedy	8 and 9	11.00 and 11.11	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
XML Adapter	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.
InCharge Adapter for Concord eHealth	8 and 9	N/A	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
InCharge Adapter for InfoVista	8 and 9	N/A	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
InCharge Adapter for NetIQ AppManager	N/A	N/A	N/A	N/A	Windows 2000 Server, Advanced Server. Windows 2003.
Perl API	8 and 9	11.00 and 11.11	N/A	Red Hat Linux Advanced Server ES, AS, or WS 2.1.	Windows 2000 Server, Advanced Server. Windows 2003.

**Table 8:** Supported Platforms for Service Assurance Management Suite

# 3

## Patch Requirements

This chapter describes operating system patch requirements for all suites, including:

- General patches for the proper operation of code produced by SMARTS.
- System patches for the InCharge installation program.
- Java patches for the proper operation of InCharge products.

The patches *must be* applied before starting the installation process. If these required patches are not at the correct level, a system failure and installation failure may occur.

During installation, the setup program performs a requirements check for patches. If your system fails the requirements check, the installation process stops and you must apply the necessary patches.

### Required Patches for Solaris

This section lists the minimum patch requirements for all suites running on Solaris.

Table 9 summarizes general patches and Java patches, such as patch cluster and font packages.

SOLARIS VERSION	PATCH
Solaris 8	C++ Runtime 108434-12
	Linker 109147-21
	J2SE Solaris 8 (patch cluster)
	SUNWxwfont (X Window System platform fonts)
	SUNWi1of (ISO-8859-1 (Latin-1) fonts)
Solaris 9	C++ Runtime 111711-05
	Linker 112963-05
	J2SE Solaris 9 (patch cluster)
	SUNWxwfont (X Window System platform fonts)
	SUNWi1of (ISO-8859-1 (Latin-1) fonts)

**Table 9:** Patches Required for Solaris

## How to Obtain Java Cluster Patches

SMARTS installs JRE 1.4.2 for the proper operation of InCharge products and assumes that prerequisite patches are applied to your system.

If the J2SE Solaris 8 patch cluster or J2SE Solaris 9 patch cluster does not exist on your system, you can obtain it from Sun Microsystems. Sun produces a patch cluster that contains the required Java patches.

- 1 Go to the web page, <http://java.sun.com/j2se/1.4.2/download.html>.
- 2 In the Solaris OS Patches section, select **Download** in the Solaris SPARC column to display the J2SE Cluster Patches.
- 3 Download the patch and the Readme file for J2SE Cluster Patches for Solaris 8 or Solaris 9 (do *not* download x86 versions). Follow the instructions in the Readme file.

## How To Verify Font Patches

It may be necessary to install one or more font packages on your system.



To check whether the required font support for the basic locales is present, issue the following command and check the result which should match the following:

```
$ /bin/pkginfo SUNWl1of SUNWxfnt
system SUNWl1of ISO-8859-1 (Latin-1) Optional Fonts
system SUNWxfnt X Window System platform required fonts
```

If you receive a message such as:

```
ERROR: information for "SUNWxfnt" was not found
```

the corresponding package does not exist on your system and must be installed from your Solaris 8 or 9 Software CD-ROM.

If you need any fonts beyond the basic set, information is available from Sun at <http://java.sun.com/j2se/1.4.2/font-requirements.html>.

## Required Patches for HP-UX

This section lists the minimum patch requirements for all suites running on HP-UX.

---

**WARNING:** For HP-UX 11.00 only, patch PHKL\_28060 *must* be installed prior to attempting to read the InCharge CD-ROM. Without this patch, random errors will occur while reading the CD-ROM. According to HP, it is possible for the system to crash.

---

Table 10 summarizes general patches. Java patches are described in the subsequent section.

PLATFORM	PATCH ID	DESCRIPTION
HP-UX 11.00	PHKL_28060	Y2k; Rock Ridge extension for ISO-9660
	PHSS_26945	aCC run-time
	PHSS_28302	libcl patch
	PHSS_28434	dld and cumulative linker tools patch
	PHCO_28425	libc cumulative patch
	PHCO_26960	libpthread

PLATFORM	PATCH ID	DESCRIPTION
HP-UX 11.11	PHSS_26946	aCC run time
	PHCO_28427	libc cumulative patch
	PHSS_28303	libcl patch
	PHSS_30049	dld and cumulative linker tools patch
	PHCO_27632	libpthread

**Table 10:** Patches Required for HP-UX

## Required Java Patches

SMARTS installs JRE 1.4.2 for the proper operation of InCharge products and assumes that prerequisite patches are applied to your system.

For HP-UX, there are many required Java patches. SMARTS recommends you use the HPjconfig tool to analyze your system and to download and apply any required patches. This tool is available from HP at <http://www.hp.com/go/java>. Select the link *HPjconfig configuration tool* which includes instructions.

---

**Note:** The HPjconfig tool also checks kernel parameter values. The kernel parameter values required for SMARTS software usually exceed the minimum values recommended by HPjconfig. You should use the larger of the two values—either the value listed in the requirements chapter for your suite or the value recommended by HPjconfig.

---

## Required Patches for Linux

This section lists the minimum patch requirements for all suites running on Red Hat Linux Advanced Server ES, AS, or WS 2.1.

Table 11 summarizes general patches. Compiler patches are not required for Red Hat Linux.

PLATFORM	PATCH ID	DESCRIPTION
Red Hat Linux Advanced Server ES, AS, or WS 2.1	glibc-2.2.4-32	C library consolidated patches
	glibc-common-2.2.4-32	C library consolidated patches

**Table 11:** Patches Required for Linux

## Required Java Patches

SMARTS installs JRE 1.4.2 for the proper operation of InCharge products and assumes that prerequisite patches are applied to your system.

For Linux, if the prerequisite patches do not exist on your system, you can obtain them from Sun Microsystems. Go to the web page <http://java.sun.com/j2se/1.4.2/system-configurations.html> for information about supported system configurations. For downloads, go to web page <http://java.sun.com/j2se/1.4.2/download.html>.

## How To Verify Linux Patches

To check for required patches, issue the following command and check the result which should match the following:

```
$ rpm -q glibc glibc-common
glibc-2.2.4-32
glibc-common-2.2.4-32
```

The `-32` is the patch release number. The result should indicate `-32` or later.

These patches are available from Red Hat at <http://www.redhat.com/apps/download> and use the general search facility to search for the specific patches. Or, go to <http://rhn.redhat.com/errata/RHSA-2003-089.html>, select the link *Red Hat Linux 7.2*, and select patches in the *i386* section.

To check the version of Linux, perform the following steps

- 1 Issue the `uname` command:

```
$ uname -a
Linux king 2.4.9-e.3smp #1 SMP Fri May 3 16:48:54 EDT 2002
i686 unknown
```

The result should indicate `2.4.9` or later.

### 2 Issue the **cat** command:

```
$ cat /etc/redhat-release  
Red Hat Linux Advanced Server release 2.1AS (Pensacola)
```

The result should read release 2.1 and may be Advanced Server, Enterprise Server, or Workstation Server.

## Required Patches for Windows

The required patches are listed in Table 12.

PLATFORM	PATCHES
Windows XP	N/A
Windows 2000 (Professional, Server and Advanced Server)	Service Pack 4 or later
Windows 2003	N/A

**Table 12:** Patch Requirements for Windows

For more information on how to obtain service packs, please access the Microsoft Technical Support Web site at <http://support.microsoft.com>.

Patch maintenance may or may not be necessary for your system. Subsequent installation steps assume that the proper maintenance has been completed.

## Required Java Patches

SMARTS installs JRE 1.4.2 for the proper operation of InCharge products and assumes that prerequisite patches are applied to your system.

For Windows, if the prerequisite patches do not exist on your system, you can obtain them from Sun Microsystems. Go to the web page <http://java.sun.com/j2se/1.4.2/system-configurations.html> for information about supported system configurations. For downloads, go to web page <http://java.sun.com/j2se/1.4.2/download.html>.

# 4

## Requirements for the SAM Suite

This chapter describes pre-installation requirements for the Service Assurance Management Suite. It includes:

- JRE Requirement for the installation program
- Privileges requirement
- Hardware requirements
- Additional HP-UX Requirements
- X Server Settings (UNIX Only)
- Web Console and Business Dashboard requirements
- Adapter requirements, including supported versions for third-party integration
- Report Manager requirements

### JRE Requirement for the Installation Program

To run the installation program, you must have Java Runtime Environment (JRE) version 1.4 (or later) installed on your system. The installation program attempts to detect that a compatible JRE version has been installed on your system.

To obtain the required JRE version for HP-UX platform, download it from <http://www.hp.com/products1/unix/java/index.html> and, for all other platforms, download it from <http://java.sun.com>. Also, the required JRE version is available from SMARTS Technical Support.

For UNIX only, if a compatible JRE version is installed and the installation program cannot locate it, you must specify the location when you execute the installation program. The syntax is:

```
# ./setup-solaris.bin -is:javahome <local_java_dir>
```

where **<local\_java\_dir>** is the directory path, including the JRE file name. The Setup command is described in *Mounting the CD-ROM and Executing Installation Setup*.

## Privileges Requirement

To install the Global Console, you do not need administrative privileges. To install the Web Console and the InCharge Business Dashboard, you do need administrative privileges.

SMARTS recommends that you check your organization's policies regarding software installation; some organizations do not permit users with non-administrative privileges to install software.

To install all other products, you must either:

- Be superuser (User ID 0) on UNIX platforms.
- Have administrative privileges on Windows platforms.

## Hardware Requirements

Hardware and software requirements summarized here represent the minimum levels. Table 13 lists disk space requirements for installing all products in the Service Assurance Management Suite.

PLATFORM	DISK SPACE
Solaris 8 and 9	300 MB
HP-UX 11.00 and 11.11	550 MB
AIX 5.1	N/A
Red Hat Linux Advanced Server ES, AS, or WS 2.1	200 MB
Windows 2000, 2003, or XP	150 MB

**Table 13:** Required Disk Space for the SAM Suite

Table 14 lists minimum requirements for CPUs, memory, and data disk space used by the software for writeable files such as logs, repository files, and output files.

If you are installing more than one product, then your system must meet the products' total memory and data disk space requirements.

INCHARGE PRODUCT	CPUS	MEMORY (RAM)	DATA DISK SPACE
Service Assurance Manager	2	512 MB	100 MB each
Global Console	1	256 MB	N/A
Global Console, Web Console, and Business Dashboard	1	256 MB	150 MB
Report Manager—SQL Data Interface Adapter	1	512 MB	100 MB
Report Manager—Summarization Adapter	1	256 MB	50 MB each
Report Manager—Summary Device Adapter	1	256 MB	50 MB each
Service Assurance Manager Adapter Platform	1	512 MB	100 MB each
Syslog Adapter	1	256 MB	50 MB each
SNMP Trap Adapter	1	256 MB	50 MB each
InCharge Adapter for TIBCO Rendezvous	1	256 MB	N/A
InCharge Adapter for Remedy	1	256 MB	N/A

INCHARGE PRODUCT	CPUS	MEMORY (RAM)	DATA DISK SPACE
XML Adapter	1	256 MB	See <b>Note</b> below
InCharge Adapter for Concord eHealth	1	256 MB	50 MB each
InCharge Adapter for InfoVista	1	256 MB	50 MB each
InCharge Adapter for NetIQ AppManager	1	256 MB	50 MB each

**Table 14:** CPU, Memory, and Data Disk Space Requirements

**Note:** For the XML Adapter, disk space depends on the size of the output you wish to export. Each output file can range from 0 to 200 MB. If, for example, the XML Adapter communicates with five Service Assurance Global Managers and each output file is 200 MB, then 1 gigabyte (GB) is required.

Table 15 lists minimum hardware requirements.

PLATFORM	PRODUCT	HARDWARE
Solaris 8 and 9	Global Console, Web Console, Business Dashboard, XML Adapter, Report Manager, SQL Data Interface Adapter	Sun Blade 100
	All other products	Sun Fire 280
HP-UX 11.00 and 11.11	Global Console, Web Console, Business Dashboard, XML Adapter, Report Manager, SQL Data Interface Adapter	b2600
	All other products	L2000/rp5400
AIX 5.1	N/A	N/A
Red Hat Linux Advanced Server ES, AS, or WS 2.1	Global Console, Web Console, Business Dashboard, XML Adapter, SQL Data Interface Adapter	Pentium III, 1.6 GHz
	All other products	2xPentium 4, 2 GHz



PLATFORM	PRODUCT	HARDWARE
Windows 2000 and 2003	Global Console, Web Console, Business Dashboard, XML Adapter, Report Manager, SQL Data Interface Adapter	Pentium III, 1.6 GHz
	All other products	2xPentium 4, 2 GHz
Windows XP	Global Console, Web Console, Business Dashboard	Pentium III, 1.6 GHz

**Table 15:** Hardware Requirements for the SAM Suite

## Additional HP-UX Requirements

This section lists additional requirements for HP-UX 11.00 and HP-UX 11.11.

Use the HP-UX system administration manager tool to verify that the following parameters in Table 16 are set accordingly. Use “Choose Kernel Configuration,” “Choose Configurable Parameter” to get to the definition page. The necessary procedures are described in the *HP-UX System Administration Tasks* manual.

If necessary, make changes. Then, rebuild the kernel and reboot the system. You may want to contact your system administrator if you need additional help.

---

**Note:** You can also use the HPjconfig tool that checks kernel parameter values as well as patches. The kernel parameter values required for SMARTS software usually exceed the minimum values recommended by HPjconfig. You should use the larger of the two values—either the value based on the formula below or the value recommended by HPjconfig. See the *Patch Requirements* chapter for information about the HPjconfig tool.

---

Table 16 summarizes HP-UX parameter requirements and their values.

PARAMETER	VALUE
maxdsiz	at least 512 MB (536870912 bytes)
max_thread_proc	at least 256
ncallout	nproc + 10*nSMARTS
nkthread	2*nproc + max_thread_proc*nSMARTS

**Table 16:** HP-UX Parameters and Values

Formulas are provided as follows.

- The process data size limit kernel parameter (maxdsiz) must be set to at least 512 MB (536870912 bytes).

The value of this parameter is in decimal bytes. If it is below 512 MB (536870912 bytes), increase it, rebuild the kernel, and restart the system.

- The max\_thread\_proc parameter must be set to at least 256, and the ncallout and nkthread parameters are calculated as follows.

In the formulas, "nSMARTS" is the total number of InCharge Managers and consoles running simultaneously on the machine and "nproc" is a varying system parameter displayed by HP-UX system administration manager. It represents the maximum number of processes on the machine.

- The ncallout value must be equal to at least the calculated result, although the HP-UX system administration manager default is almost always sufficient.

$$\text{ncallout} = \text{nproc} + 10 * \text{nSMARTS}$$

- The nkthread value must be equal to at least the calculated result:

$$\text{nkthread} = 2 * \text{nproc} + \text{max\_thread\_proc} * \text{nSMARTS}$$

(The max\_thread\_proc parameter must be at least 256.)

## X Server Settings (UNIX Only)

One of the installation methods, the InstallShield Wizard method, uses a graphical wizard. In this case, for UNIX, the installation program is an X11 application. The host on which you install the InCharge software and the host on which you log on must be configured to run X11.

## Web Console and Business Dashboard Requirements

The InCharge Global Console can also be deployed as either:

- The InCharge Web Console
- The InCharge Business Dashboard

---

**Note:** Jakarta Tomcat Servlet Engine version 5.0.16 is installed as part of the Web Console/InCharge Business Dashboard. The Tomcat Servlet Engine serves the files used by the Web applications.

---

To run the Web Console or Business Dashboard, the following is required:

- Netscape 7.0 or Internet Explorer 6.0 SP1 must be installed on the client machine. For Windows, the browser must be JavaScript enabled.

Also, a list of specific versions of browsers that are supported on different platforms can be found at <http://java.sun.com/products/plugin>.

- Java Runtime Environment (JRE) version 1.4.2 which includes the Java plug-in (JPI).

If your client workstation does not have this version of JRE, you must obtain it and install it.

- For the HP-UX platform, download it from the HP-UX web site, <http://www.hp.com/go/java>.
- For all other platforms, download it from the Sun Microsystems web site at <http://java.sun.com/j2se/1.4.2/download.html> or <http://java.sun.com/products/archive/index.html>.

If the JRE is not installed on your client workstation, you will be prompted to install it when you launch the Web Console or InCharge Business Dashboard.

## Java Web Start Requirements for Web Console

Java Web Start is optional and can be invoked when the Web Console is executed.

Java Web Start must be installed and properly configured on the client machine.

- For UNIX, contact your system administrator to install and configure Java Web Start or follow the instructions provided on the Sun Microsystems web page, <http://java.sun.com/products/javawebstart>.
- For Windows, on the client machine, depending upon the type of browser, after you launch the Web Console, you are either prompted to use an automatic installer or directed to follow the instructions provided on the Sun Microsystems web page, <http://java.sun.com/products/javawebstart>.

To launch the Java Web Start version of the Web Console and use the automatic installer, point your browser to the following URL:

```
http://<Tomcat_host>:8080/webconsole/globalConsoleCached.html
```

where **<Tomcat\_host>** refers to the name of the machine where the Jakarta Tomcat Servlet Engine is installed and 8080 refers to the default port for Tomcat.

For information about using the Web Console, see the *InCharge Operator's Guide*.

## Adapter Requirements

This section describes the platforms that are supported for adapters, supported versions of third-party applications, and other requirements depending upon the adapter, such as the location where an adapter must reside.

The following adapters must be used with InCharge 6.0 or later Global Managers: the XML Adapter, InCharge Adapter for Concord eHealth, and InCharge Adapter for InfoVista. They cannot be used with pre-6.0 Global Managers.

The following adapter must be used with InCharge 6.2 or later Global Managers: the InCharge Adapter for NetIQ AppManager.

## Adapters That Have Third-Party Requirements

Table 17 identifies the supported versions of the third-party applications.

PLATFORM	INCHARGE ADAPTER FOR REMEDY	INCHARGE ADAPTER FOR TIBCO RENDEZVOUS	INCHARGE ADAPTER FOR CONCORD EHEALTH	INCHARGE ADAPTER FOR INFOVISTA	INCHARGE ADAPTER FOR NETIQ APPMANAGER
	REMEDY ARS	TIBCO	CONCORD	INFOVISTA	NETIQ APPMANAGER
Solaris 8, Solaris 9	4.5, 5.1	6.8	Concord eHealth 5.0.2, 5.5, 5.6	InfoVista server 2.2 SP4 and 2.3 SP5, Provisioner 1.1 application, Vista Next application 3.1, Vista Portal SE 1.0 and 1.1	N/A
HP-UX 11.00, HP-UX 11.11	4.5, 5.1	6.8	N/A	N/A	N/A
AIX 5.1	N/A	N/A	N/A	N/A	N/A
Red Hat Linux Advanced Server ES, AS, or WS 2.1	N/A	N/A	N/A	N/A	N/A
Windows 2000 SP 4 or later	4.5, 5.1	6.8	Concord eHealth 5.0.2, 5.5, 5.6, 5.6.5	InfoVista server 2.2 SP4 and 2.3 SP5, Provisioner 1.1 application, Vista Next application 3.1, Vista Portal SE 1.0 and 1.1	NetIQ AppManager 5.0.1
Windows 2003	N/A	N/A	Concord eHealth 5.6.5	N/A	NetIQ AppManager 5.0.1

**Table 17:** Third-Party Product Requirements for InCharge Adapters

**InCharge Adapter for Remedy**

For UNIX, the adapter must reside on the host running the Global Manager.

**InCharge Adapter for InfoVista**

InCharge Adapter for InfoVista needs to be installed co-resident with InfoVista Provisioner application.

**InCharge Adapter for NetIQ AppManager**

InCharge Adapter for NetIQ AppManager also needs Microsoft SQL Server 2000, and access to an installed ODBC driver.

## Report Manager Requirements

Report Manager has third-party requirements that are described in detail in the *InCharge Service Assurance Manager User's Guide for Report Manager*. The third-party requirements are briefly summarized below for your convenience.

THIRD-PARTY SOFTWARE	SUPPORTED VERSIONS
Oracle Database or MS SQL Database	9i, 8i or 2002
Data Direct Oracle ODBC Drivers for UNIX or ODBC for Windows (SQL Server or Microsoft ODBC for Oracle)	4.2 - Wire Protocol (Data Direct) or Installed with operating system
Crystal Enterprise	10.0

**Table 18:** Third-Party Product Requirements for Report Manager

THIRD-PARTY SOFTWARE	CPU'S	MEMORY (RAM)	DATA DISK SPACE
Crystal Enterprise	1	1 GIG	2 GIG
Source for values for Crystal Enterprise: <a href="http://www.businessobjects.com/global/pdf/products/reporting/crystal_enterprise/ds_crystal_enterprise.pdf">http://www.businessobjects.com/global/pdf/products/reporting/crystal_enterprise/ds_crystal_enterprise.pdf</a>			

**Table 19:** Third-Party Hardware Requirements

For database sizes, see database vendor documentation and sizing information in the *InCharge Service Assurance Manager User's Guide for Report Manager*.

In addition, you should use the version of Data Direct that is included in the 6.2 Service Assurance Management Suite. Crystal Enterprise is available on a separate CD-ROM when you purchase Report Manager.

# 5

## Upgrading an Existing SAM Installation

This chapter describes the additional screens which display during the InstallShield Wizard installation method if you are:

- Installing the 6.2 SAM Suite into an existing 6.0 SAM directory
- Adding products to an existing 6.2 SAM directory

The InstallShield Wizard installation method is described in [Installing the SAM Suite](#) on page 35. If you are installing the SAM Suite into a different directory, follow those instructions.

The installation process is the same except for these steps:

- 1** Make backup copies of following subdirectories under the *InCharge6/SAM/smarts* directory: */local* and */setup*.

If you previously applied SmartPack 1, you can use the *smgetinfo* utility to back up these directories. The *smgetinfo* utility is briefly described in [Using the smgetinfo Utility](#) on page 33. More complete information is provided in the *InCharge System Administration Guide*.

- 2** During the installation process, the following screens might display:
  - The Installation Type screen. Select Upgrade for the installation type if you already have products from this suite installed and you want to install more products into the same directory.

Select Install, if you wish to retain an existing installation and you wish to install the suite in a different directory on the same host. Later, you will be prompted to specify a different directory.

- If an existing license is detected, the Installed License Manager screen indicates whether the installation program will continue. Click **Next** to continue.

**Next** is disabled if the license, *smarts.lic*, is not located in the directory **BASEDIR** or the license file name is not exact. (By default, **BASEDIR** is */opt/InCharge<n>/<productsuite>* for UNIX and *C:\InCharge<n>\<productsuite>* for Windows.)

- If they exist, previously installed 6.0 patches are displayed in the screen. Make a note of those patches for later evaluation (see [Reconciling Previously Installed Patches](#) on page 45). Also, a list of the installed patches is saved in a file named *SmartsPatchReport.<x.y.z>.SPO.txt* in the **BASEDIR**/*smarts/setup/info* directory. Click **Next** to continue.
- If there is an InCharge service running for the suite, the Services screen appears and **Next** is disabled. Stop the service(s) with the method appropriate for your platform. Then in the Services screen, click **Refresh** and make sure that all InCharge services are stopped. Then click **Next** to continue.

### UNIX:

Stop the *sm\_serviced*, a component of the *sm\_service* utility that manages programs. Stopping the *sm\_serviced* will stop all of the services that were automatically and manually started. The script is stored in a system-specific location: */etc/init.d* on Solaris and Linux; and */sbin/init.d* on HP-UX. Issue the command:

```
# <system-dependent path>/ic-serviced stop
```

### Windows:

To stop all services, use the Control Panel Administrative Tools dialog box to start and stop services. You can also issue the command:

```
BASEDIR\smarts\bin\sm_service stop <service_name> ▼  
▲<service_name> ...]
```

where **<service\_name>** is the name of the service.

- 
- ▼▲ Indicates the command must be typed as one line.
- 

For information about *sm\_serviced* and general information about the *sm\_service* utility, see the *InCharge System Administration Guide*.



---

## Using the smgetinfo Utility

The smgetinfo utility stores subdirectories and collects version information in a .tar file or a .zip file. The saved subdirectories are: */conf*, */local*, */rules*, and */setup*.

For all platforms, to collect information about installed products and components, the Perl interpreter (version 5.0 or later) must be installed.

For Windows, to save information, WinZip is required. WinZip is commonly shipped with Windows systems. If WinZip is not installed in its default directory, set the variable ZIPPER to point to WinZip directory.

To run the smgetinfo utility, change to the **BASEDIR**/*smarts/script* directory and execute the following command.

### **UNIX:**

```
./smgetinfo
```

or

```
sh smgetinfo
```

### **Windows:**

```
smgetinfo.cmd
```



# 6

## Installing the SAM Suite

This chapter describes instructions if you:

- Are installing this product suite or individual products for the first time
- Have an existing 5.0 SAM installation and are installing the 6.2 SAM Suite into a different directory
- Have an existing 6.0 SAM installation and are installing the 6.2 SAM Suite into a different directory

The basic installation steps are the same for all supported UNIX and Windows platforms.

### Installation Steps

This section describes how to install the InCharge products.

---

**Note:** For Windows, if you have autorun enabled, the installation setup program starts automatically. If autorun is disabled, you need to locate the */suite* directory on the CD-ROM and execute the Setup command as described in Step 4.

---

### Mounting the CD-ROM and Executing Installation Setup

- 1 Insert the CD-ROM into the CD-ROM drive.

- For UNIX operating systems, mount the CD-ROM. Follow the mounting instructions for your operating system. For device information, ask your system administrator.

### Solaris:

If the Volume Manager is running, it automatically mounts the CD-ROM to `/cdrom/<incharge>` where `<incharge>` is the format:

```
<suite>_<productversionNumber>_<buildNumber>
```

For example, `<incharge>` can be: `SAM_6_2_0_6219`. The build number might vary.

If the Volume Manager is not running, use the **mount** command:

```
# mount -o ro -F hsfs DEVICE /mnt
```

where **DEVICE** is your CD-ROM. For example,

```
# mount -o ro -F hsfs /dev/dsk/c0t6d0s0 /mnt
```

### HP-UX:

Use the **mount** command:

```
# mount -ocdcase -o ro -F cdfs DEVICE /mnt/cdrom
```

where **DEVICE** is your CD-ROM. For example,

```
# mount -ocdcase -o ro -F cdfs /dev/cdrom /mnt/cdrom
```

### Linux:

If the CD-ROM does not automatically mount, use the **mount** command:

```
# mount DEVICE
```

where **DEVICE** is your CD-ROM. For example,

```
# mount /dev/cdrom
```

- Change directory to the mounted CD-ROM.

### Solaris:

```
# cd /cdrom/<incharge>/suite
```

where `<incharge>` might be: `SAM_6_2_0_6219`.

If the Volume Manager is not running, use this command instead:

```
# cd /mnt/suite
```

**HP-UX:**

```
# cd /mnt/cdrom/suite
```

**Linux:**

```
# cd /cdrom/incharge/suite
```

If the automount utility is not running, use this command instead:

```
# cd /mnt/cdrom/suite
```

**Windows:**

Access the CD-ROM drive from Windows Explorer and locate the */suite* directory.

- Execute the Setup command and then the SMARTS Welcome screen displays:

OPERATING SYSTEM	EXECUTE:
Solaris	# ./setup-solaris.bin
HP-UX	# ./setup-hpux.bin
AIX	N/A
Red Hat Linux	# ./setup-linux.bin
Windows	setup-winnt.exe

**Table 20:** The Setup Commands

## Running the Installation Setup

The installation program presents you with a series of screens. At almost any point in the process, you may return to a previous screen, continue, or cancel the process. All of the products are installed to the local host.

---

**Note:** Depending upon your selections, certain steps might not be necessary and corresponding screens might not display.

---

- On your system, stop all SMARTS services, SMARTS daemon processes, SMARTS cron jobs, and any other process that uses programs or libraries in *any* InCharge installation area. Click **OK** in the Warning dialog box if you have stopped all SMARTS services.

- 2 Click **Next** in the Welcome screen to continue.

If you wish to view the requirements check results, click **Get System Information**. The installation setup program performs a requirements check for patches and operating system requirements, except for memory.

**Next** is disabled if:

- You do not have administrative privileges for the products you are attempting to install. A message also displays.
- Your system failed the requirements check. If this occurs, review the check results by clicking **Get System Information**, cancel the installation setup program, and upgrade your system. See the Requirements chapter.

---

**Note:**

The installation setup program does not check for the memory requirement for a particular product. If you install a product with less the minimum memory requirement on the host, the program will perform slowly.

---

- 3 Accept the SMARTS end user license agreement and click **Next**.
- 4 If the installation program detects an existing installation, the Installation Type screen displays. This screen does not display if you are installing the suite for the first time.
  - Select Install, if you wish to retain an existing installation and you wish to install the suite in a different directory on the same host. Later, you will be prompted to specify a different directory.
  - Select Upgrade for the installation type if you already have products from this suite installed and you want to install more products into the same directory.
- 5 Click **Next** to accept the default installation directory or type your preferred directory and click **Next**.

The default installation directory is `/opt/InCharge6` (on UNIX) or `C:\InCharge6` (on Windows).

If you specify a directory, be sure to use forward slashes ("/") for both UNIX and Windows directories. Directory names cannot contain spaces. If the specified directory does not exist, it will be created. If you do not have write privileges, an error message displays.

- 6 In the Setup screen, if you select:
  - Complete to install the entire suite, go to Step 8.
  - Custom to install specific products, go to Step 7.
  - Global Console (provided in the SAM suite) to install only the console, go to Step 8.
- 7 In the Product Selection screen, click **Next** to install the entire suite of products (by default, all products are selected) or deselect products that you do not wish to install.
- 8 Select the type of Global Console installation. You can select the Global Console or the Global Console, Web Console, and InCharge Business Dashboard.

---

**Note:**

Jakarta Tomcat Servlet Engine is installed as part of the Web Console/InCharge Business Dashboard. The Tomcat Servlet Engine serves the files used by the Web applications.

---

- 9 Select the products that you wish to install as services and click **Next**. If a product is not selectable (displays as gray text), click **Back** to return to the Product Selection screen and select the product.

SMARTS recommends installing products as services. Refer to the *InCharge System Administration Guide* for information on managing products installed as services.

- 10 Choose a location to install an InCharge Broker or specify the location of an existing broker. Click **Next** to continue. The default values are: localhost for the host name and 426 for the port number.

---

**Note:**

If you are installing additional products for the same suite, the Broker Location screen does not display.

---

For a broker being installed as a service (selected in the previous screen), you can specify a different port number if necessary. The host name value is localhost.

For a broker being installed as a manual process (not selected as a service), you can accept the localhost value or specify another host name.

Or, if you wish to use a broker located on a different host, specify that host name and port number. (To determine the host and port currently configured as the broker location in your installation, execute the **brcontrol** command.)

If your system has an existing broker (InCharge 5.0 or later), click **Next** if you wish to use it. The new broker will not supersede it.

If your system has a pre-5.0 version of the broker running, for migration purposes, a new broker with a different port number can be installed on the same system.

- 11** Accept the SMARTS Perl API license agreement and click **Next**.
- 12** Review the list of products that will be installed and the target installation directory. At the bottom, the total amount of disk space required for the selected products is provided so that you can verify that adequate disk space is available. To install the products, click **Next** and the Installation Progress screen displays.
- 13** Upon completion, the Installation Summary displays informational messages such as successful confirmations, error messages, and warnings. Click **Finish** to exit the installation. It is not necessary to reboot the system after installation.

Investigate any errors or warnings. The log file is a text file with the naming convention *Install.<suite>.<productversionNumber>.log*. It is located in the **BASEDIR**/*smarts/setup/logs* directory. If the installation process fails, the log files are located in the */tmp* directory.

- 14** Unmount the CD-ROM after completing the installation. For more information, refer to [Unmounting the CD-ROM](#) on page 40.
- 15** Perform post-installation steps. See the Performing Post-Installation Tasks chapter.

Repeat these steps for all of the hosts in your deployment that require the installation of InCharge products.

## Unmounting the CD-ROM

The CD-ROM should be unmounted before starting the applications. Be sure that no processes are currently accessing the drive.

### UNIX

Type the following commands:

```
# cd /
```



```
# umount /mnt/incharge/suite  
# eject
```

### **Windows**

Eject the CD-ROM from the machine.



# 7

## Performing Migration Tasks

If you have an existing SAM installation, you need to perform migration tasks before performing other post-installation tasks (such as starting products) as described in [Performing Post-Installation Tasks](#) on page 53.

Migration from an existing SAM installation requires that you consider any customizations made in the existing installation. Customizations such as modified configuration files, custom ASL scripts, and custom adapters need to be evaluated in order to complete the migration. This chapter describes steps for migrating from:

- Service Assurance applications 6.0
- Service Assurance applications 5.0 or 5.0.1

### Migrating From SAM Suite 6.0

Migration considerations for SAM 6.0 are:

- Saved maps can be re-used.
- If you have received custom patches for releases earlier than 6.0, contact SMARTS Technical Support for assistance in migrating them.

### Migration Tasks for 6.0 SAM

To migrate from SAM Suite 6.0, you need to perform the following tasks:

- If necessary, evaluate previously installed patches. See [Reconciling Previously Installed Patches](#) on page 45.
- Evaluate customizations, including modified configuration files, custom ASL scripts, and custom adapters, as described in the [Evaluating Customizations Made in SAM 6.0](#) on page 45.
- Examine and copy background images used in maps to a new subdirectory. Any images not in .gif format must be converted to .gif format for use in SAM 6.2.
- Configure or combine existing licenses. See the *InCharge System Administration Guide* for more information.
- Optional, modify the `runcmd_env.sh` file for each suite to set `SM_INCOMING_PROTOCOL` and `SM_OUTGOING_PROTOCOL` for encrypted connections. If you do not modify the variables, the result will be clear text communication. For information, see the *InCharge System Administration Guide*.
- Encrypt existing security configuration files. Use the `sm_edit` utility to either add the required first line of code for encryption or merge entries from existing security configuration files into the new files located in the `/local` directory. Once you have modified the files, the resulting level of encryption is equivalent to the level of default encryption.

You can configure InCharge installations with a variety of levels of security. SMARTS highly recommends that you increase your level of security. For information about the required encryption code line or how to increase your level of security, see the *InCharge System Administration Guide*.

- Perform verification and tests. See [Performing Post-Installation Tasks](#) on page 53.
- Optional, reconfigure user profiles to limit certain console operations. After a 6.2 Global Manager is started, when a repository file from a pre-6.2 Global Manager is loaded into a 6.2 Global Manager, the existing user profiles are updated to allow access to all console operations. You can limit the access to console operations for user profiles, if necessary. For information about configuring user profiles, see the *InCharge Service Assurance Manager Configuration Guide*.

- If applicable, modify existing *.xml* files which include the specification of user profiles. The user profiles must be modified to include console operations. See the *InCharge Service Assurance Manager Configuration Guide* for information about the **sm\_config** command.
- If applicable, reconfigure eHealth tools. The eHealth tool configuration has been improved in the 6.2 release. The eHealth tools should be reconfigured. To do so, import *configureEHealthTools.xml* into the Global Manager using the **sm\_config** command.

## Reconciling Previously Installed Patches

If applicable, evaluate any previously installed 6.0 patches which were identified during the installation process. The *InCharge Release Notes* lists which patches have been incorporated into the 6.2 release. If a given patch has been incorporated into the 6.2 release, this patch can be deleted. If there are patches which are not incorporated into the 6.2 release, contact SMARTS Technical Support. The text file supplied with a given patch also lists the files included in the patch. The text file is located in the **BASEDIR**/*smarts/setup/info* directory.

---

**Note:** The installation process identifies only 6.0 or later patches. If you received custom patches for earlier releases of any InCharge product, please contact SMARTS Technical Support for assistance.

---

## Evaluating Customizations Made in SAM 6.0

Customizations made to the existing 6.0 SAM installation must be evaluated to determine:

- If they can be used “as is” in the 6.2 SAM installation
- Or, if modifications are necessary to allow the customizations to be used in the 6.2 SAM installation

The customized files are located in the **BASEDIR**/*smarts/local* directory and its subdirectories. You need to examine all files in these directories with respect to the 6.2 SAM installation. Typical files included in the */local* directory are: patches (described earlier), configuration files, ASL scripts, and custom adapters.

---

**Note:** Remember that **BASEDIR** includes the path to the product suite directory which, in this case, is */SAM*.

---

The following sections provide information on user-modifiable files which were shipped with the 6.0 SAM Suite. Many of these files do not require changes in order to be used with the 6.2 SAM Suite. If necessary, use the `sm_edit` utility to make changes to the files. For any customized file that is in the `/local` directory but is not listed in the following sections, contact SMARTS Technical Support.

### Files That Do Not Require Modifications

The following types of files can be copied from a 6.0 SAM installation to a 6.2 SAM installation without modifications:

- Saved consoles
- Saved maps
- Custom map background images. Images should be copied from the `/local/consoles/maps/backgrounds` directory to the `/local/images/backgrounds` directory. If you have images that are not in `.gif` format, you must convert them to `.gif` format.
- ASL hook scripts
- ASL filters
- Tools

It is important to verify the functionality of ASL hook scripts, ASL filters, and tools in the post installation process.

The following configuration files can be used in a 6.2 SAM installation without modifications. (Configuration files are located in the **BASEDIR**/`smarts/local/conf` directory.)

- `console/properties.conf`
- `icoi/icoi.conf`
- `icoi/nlconfig-sample.xml`
- `icoi/trap_mgr.conf`
- `icoi/trapd.conf`
- `ics/actionconfig-sample.xml`
- `ics/ics.conf` `ics/nlconfig-sample.xml`
- `ics/policyconfig-sample.xml`
- `ics/service.data.template`
- `ics/topology-group.data.template`

- *ics/weights.conf*
- *ehealth/ehealth.conf*
- *infovista/infovista.conf*
- *notifier/file-notify.conf*
- *notifier/trap-notify.conf*
- *notifier/mail-notify.conf*
- *notifier/script-notify.conf*
- *notifier/tibrv-notify.conf*
- *trapd/trapd.conf*

The following security configuration files can be used, but you might choose to modify them due to the security enhancements introduced for 6.2

InCharge:

- *brokerConnect.conf*
- *clientConnect.conf*
- *serverConnect.conf*

For any configuration file that is in the */local/conf* directory but is not listed above, contact SMARTS Technical Support.

### **Files That Require Modifications**

Files containing custom code must be evaluated to determine if any migration steps are needed.

If the InCharge Adapter for InfoVista is installed, the *trap\_mgr.conf* file will need to be updated with respect to InfoVista traps which are specified within this file. The traps should be updated to match the trap definition specified in the 6.2 file, *trap\_mgr.infovista.conf*.

To use the following customized files in a 6.2 SAM installation, you must modify the files to update the XML to use console operations introduced for 6.2 InCharge. See the *InCharge Service Assurance Manager Configuration Guide* for information about the *sm\_config* utility.

- *ics/ics-default.xml*
- *ics/ics-config-sample.xml*
- *ics/profileconfig-sample.xml*
- *ics/userconfig-sample.xml*

- *icoi/icoi-default.xml*
- *icoi/icoi-config-sample.xml*
- *icoi/profileconfig-sample.xml*
- *icoi/userconfig-sample.xml*

## Migrating From SAM 5.0 or 5.0.1

Migration considerations for SAM 5.0 or 5.0.1 are:

- Saved maps cannot be re-used.
- For Report Manager, you need to execute the appropriate script to instantiate an additional table into the Report Manager database. Use *sdi\_schema\_mssql\_addendum.sql* or *sdi\_schema\_oracle\_addendum.sql* located in the **BASEDIR**/*smarts/conf/sql* directory. For instructions, see the *InCharge Service Assurance Manager User's Guide for Report Manager*.

In addition, you should use the version of Data Direct that is included in the 6.2 Service Assurance Management Suite.

- If you have received custom patches for the 5.0 or 5.0.1 release of any InCharge product, contact SMARTS Technical Support for assistance in migrating them.

## Migration Tasks for 5.0 or 5.0.1 SAM

To migrate from 5.0 or 5.0.1 SAM, you need to perform the following tasks:

- Convert the *ics.conf* and *icoi.conf* configuration files using the **sm\_migrate** command. For information about these commands, see the *InCharge Service Assurance Manager Configuration Guide*.
- Reconfigure client tools. For 5.0 and 5.0.1 InCharge, client tools were specified in the *tools.conf* file. Beginning with 6.0 InCharge, client tools are configured through the Global Console or the **sm\_config** command; the *tools.conf* file is no longer used. Any client tool specified in *tools.conf* must be reconfigured using the Global Console or the **sm\_config** command. See the *InCharge Service Assurance Manager Configuration Guide* for information about configuring client tools.
- If necessary, evaluate custom patches.



- Evaluate customizations, including modified configuration files, custom ASL scripts, and custom adapters, as described in the [Evaluating Customizations Made in SAM 5.0 or 5.0.1](#) on page 50.
- Examine and copy background images used in maps to a new subdirectory. Any images not in .gif format must be converted to .gif format for use in SAM 6.2.
- Configure or combine existing licenses. See the *InCharge System Administration Guide* for more information.
- Optional, modify the `runcmd_env.sh` file for each suite to set `SM_INCOMING_PROTOCOL` and `SM_OUTGOING_PROTOCOL` for encrypted connections. If you do not modify the variables, the result will be clear text communication. For information, see the *InCharge System Administration Guide*.
- Modify existing security configuration files. Use the `sm_edit` utility to either add the required first line of code for encryption or merge entries from existing security configuration files into the new versions of the files located in the `/local` directory. Once you have modified the files, the resulting level of encryption is equivalent to the level of default encryption.

You can configure InCharge installations with a variety of levels of security. SMARTS highly recommends that you increase your level of security. For information about the required encryption code line or how to increase your level of security, see the *InCharge System Administration Guide*.

- Perform verification and tests. See [Performing Post-Installation Tasks](#) on page 53.
- Optional, reconfigure user profiles to limit certain console operations. After a 6.2 Global Manager is started, when a repository file from a pre-6.2 Global Manager is loaded into a 6.2 Global Manager, the existing user profiles are updated to allow access to all console operations. You can limit the access to console operations for user profiles, if necessary. For information about configuring user profiles, see the *InCharge Service Assurance Manager Configuration Guide*.

### Evaluating Customizations Made in SAM 5.0 or 5.0.1

Customizations made to the existing 5.0 or 5.0.1 SAM installation must be evaluated to determine:

- If they can be used “as is” in the 6.2 SAM installation
- Or, if modifications are necessary to allow the customizations to be used in the 6.2 SAM installation

The customized files are located in the **BASEDIR**/*smarts/local* directory and its subdirectories. You need to examine all files in these directories with respect to the 6.2 SAM installation. Typical files included in the */local* directory are: patches (described earlier), configuration files, ASL scripts, and custom adapters.

---

**Note:** Remember that **BASEDIR** includes the product suite directory which, in this case, is */SAM*.

---

The following sections provide information on user-modifiable files which were shipped with the 5.0 SAM. Many of these files do not require changes in order to be used with the 6.2 SAM Suite. If necessary, use the *sm\_edit* utility to make changes to the files. For any customized file that is in the */local* directory but is not listed in the following sections, contact SMARTS Technical Support.

#### Files That Do Not Require Modifications

The following types of files can be copied from a 5.0 or 5.0.1 SAM installation to a 6.2 SAM installation without modifications:

- Saved consoles
- ASL hook scripts
- ASL filters
- Tools

It is important to verify the functionality of ASL hook scripts, ASL filters, and tools in the post installation process.

The following configuration files can be used in a 6.2 SAM installation without modifications. (Configuration files are located in the **BASEDIR**/*smarts/local/conf* directory.)

- *icoi/trap\_mgr.conf*
- *icoi/trapd.conf*

- *ics/service.data.template*
- *ics/topology-group.data.template*
- *ics/weights.conf*
- *trapd/trapd.conf*

The following security configuration files can be used, but you might need to modify them due to the security enhancements introduced for 6.2 InCharge:

- *brokerConnect.conf*
- *clientConnect.conf*
- *serverConnect.conf*

For any configuration file that is in the */local/conf* directory but is not listed above, contact SMARTS Technical Support.

### **Files That Require Modifications**

Files containing custom code must be evaluated to determine if any migration steps are needed.

To use the following customized files in a 6.2 SAM installation, you must modify the following files as described in [Migration Tasks for 5.0 or 5.0.1 SAM](#) on page 48:

- *console/tools.conf*
- *icoi/icoi.conf*
- *ics/ics.conf*

Saved maps cannot be copied. Saved maps must be recreated and saved in the new installation.

Custom map background images should be copied from the */local/consoles/maps/backgrounds* directory to the */local/images/backgrounds* directory. If you have images that are not in .gif format, you must convert them to .gif format.



# Performing Post-Installation Tasks

This chapter explains tasks that you might want to perform after installation. The tasks are intended for all SAM installation scenarios. Some tasks are required while others depend upon your installation. They are:

- Start products or components as services.
- Verify product status
- Start the Global Console
- Verify migration tasks

## Starting InCharge Products

---

**Note:** If you are migrating from a previous version of InCharge, read [Performing Migration Tasks](#) on page 43 before starting any products.

---

If you installed the products (or components) as services, you need to start them for the first time. SMARTS recommends installing products as services.

InCharge programs installed as services start automatically upon system reboot; those not installed as services (manual processes or disabled processes) require that you issue commands to start and stop them as necessary.

Use the method appropriate for your platform.

### Starting Services on UNIX

Start the `sm_serviced` process to restart the services. Issue the command:

```
# <system-dependent path>/ic-serviced start
```

The script is stored in a system-specific location: `/etc/init.d` on Solaris and Linux; and `/sbin/init.d` on HP-UX.

### Starting Services on Windows

To restart all of the services, reboot your system.

### Starting Individual Services

To start or stop a service manually, use the `sm_service` utility. Issue the command:

```
sm_service start <service_name> [<service_name> ...]
```

For example, to start a service for the InCharge Service Assurance Manager product, issue:

```
# BASEDIR/smarts/bin/sm_service start ic-sam-server
```

For products that are not installed as services, you need to install them either as services (`--startmode=runonce`) or manual processes (`--startmode=manual`) with **sm\_service**, and start them as needed with the **sm\_service start** command.

For information about starting services, refer to the *InCharge System Administration Guide*.

## Verifying the InCharge Product Status

You can determine the current state of the InCharge Broker, Global Managers, and Domain Managers by issuing the following command:

```
# BASEDIR/smarts/bin/brcontrol
```

This command displays a list of InCharge Managers registered with the broker, their states (RUNNING, DEAD, UNKNOWN), process IDs, port numbers, and the last time their states changed.

## Verifying the InCharge Version Number

To verify the version number of your InCharge products, issue the following command:

```
# BASEDIR/smarts/bin/sm_server --version
```

The platform version number should say V6.2 (There may be some additional identification numbers included after the version number). For example, the output might look like:

```
sm_server.exe: V6.2(43968), 08-Mar-2004 12:25:47 - Build 6219
Copyright (C) 1995-2004, System Management ARTS Inc.
```

You can also verify that the version number is correct for the product(s) by running the *ic-products.pl* script:

```
# BASEDIR/smarts/script/ic-products.pl
```

For example, this partial script output is for the InCharge Service Assurance Management Suite:

```
Installed in C:/InCharge6/SAM
```

```
PACKAGE                                1.1
C:/InCharge6/SAM                        1=XML_ADAPTER-pkg
-----
Adapter for Tibco Rendezvous           6.2
C:/InCharge6/SAM                        1=ICIP_TIBCO
-----
PACKAGE                                1.1
C:/InCharge6/SAM                        1=INFOVISTA_ADAPTER-pkg
-----
Global Console                          6.2
C:/InCharge6/SAM                        1=CONSOLE
-----
```

## Starting the Global Console

Start the Global Console after you have installed the Service Assurance Management Suite. To start the console, select it from the Start Menu or use the **sm\_gui** command:

```
# BASEDIR/smarts/bin/sm_gui
```

For information about using the Global Console, see the *InCharge Operator's Guide*.

## Checking 6.0-to-6.2 Migration

After starting the services for the InCharge Broker and your products, use the following list as a guideline to verify that previous configurations and customizations are working properly in the new environment.

- Verify basic operation
  - Verify that all underlying Domain Managers are running and registered with the broker
  - Verify that the topology and events in the Global Manager are correct
  - Verify that the Global Console opens and connects to the Global Manager
- Verify saved configurations
  - Verify user profiles, notification lists, and escalations
  - Verify saved consoles and saved maps
  - Weights for business classes
- Verify changes introduced in the 6.2 release
  - Operation access control
  - Background images
  - Map icons
- Verify customized code
  - Hook scripts
  - Custom adapters
  - ASL filters
  - Tools



## Checking 5.0-to-6.2 Migration

After starting the services for the InCharge Broker and your products, use the following list as a guideline to verify that previous configurations and customizations are working properly in the new environment.

- Verify basic operation
  - Verify that all underlying Domain Managers are running and registered with the broker
  - Verify that the topology and events in the Global Manager are correct
  - Verify that the Global Console opens and connects to the Global Manager
- Verify saved configurations
  - Verify user profiles and notification lists
  - Verify saved consoles
  - Weights for business classes
- Verify changes introduced in the 6.0 and 6.2 releases
  - Operation access control
  - Background images
  - Map icons
  - Client and server tools
- Verify customized code
  - Hook scripts
  - Custom adapters
  - ASL filters



# 9

## Uninstalling the SAM Suite

This chapter describes instructions for uninstalling this product suite or individual products. The uninstall process (**uninstaller** command) removes selected products or an entire suite using the same interactive program as the install procedure. After uninstalling, your customized files remain saved in **BASEDIR/smarts/local**. For Windows, you can also use Add/Remove Programs from the Control Panel to uninstall a suite.

---

**WARNING:** Introduced with platform version 6.0, InCharge uses standard install software to install and uninstall product suites. You must use either the **uninstaller** command or, for Windows, Add/Remove Programs to uninstall InCharge software. Failure to use either method will result in an unstable system and/or inconsistent product directories. Do not manually delete the installed product directories.

---

---

**WARNING:** Before you uninstall an InCharge product, you should stop all InCharge processes, consoles, and any adapters that interface with it.

---

---

**WARNING:** For UNIX only, for a complete uninstallation, if you intend to uninstall multiple suites from the same host, the last suite you should uninstall is the suite you installed first. During the installation of the first suite, the InCharge Service Database is also installed and the other suites subsequently access it. Uninstalling the Service Database prior to uninstalling other suites will disable the **sm\_service** command for those products and interrupt products running as services. To identify which suite was installed first, examine the directory path listed in the init.d table. The Service Database resides in the `/var/smarts` directory.

---

## Uninstallation Steps

This section describes how to uninstall a suite or individual products.

### Stopping InCharge Services

SMARTS recommends that you stop the InCharge services that are running (including the FLEXlm License Server) for the suite. For more information on stopping InCharge services, refer to the *InCharge System Administration Guide*.

---

**Note:** For UNIX only, before uninstalling suites or individual products, check that the status of the `sm_serviced` process is running with the **ic\_serviced status** command. The `sm_serviced` process must be running for uninstallation. If the process is not running, use the **ic\_serviced start** command to start it. These commands are described in the *InCharge System Administration Guide*.

---

### Uninstalling the FLEXlm Server

When uninstalling your InCharge products, you must also uninstall the FLEXlm License Server from your system. The FLEXlm License Server runs as a daemon on UNIX and as a service on Windows. These automatically start the license server. If you uninstall InCharge products without uninstalling the FLEXlm License Server, a message displays that the FLEXlm (lmgrd) service is still running. Keep in mind that an InCharge application will not start if it is unable to contact the license server.

To stop and uninstall the FLEXIm License Server, execute the `install_license` script with the **uninstall** command from the **BASEDIR/smarts/script** directory.

### UNIX

```
# BASEDIR/smarts/script/install_license.sh uninstall
```

### Windows

```
BASEDIR\smarts\script\install_license.cmd uninstall
```

## Uninstalling From the Control Panel (Windows Only)

---

**Note:** If you installed the same suite in two or more directories on your system, do not use Add/Remove Programs; use the **uninstaller** command instead. Add/Remove Programs does not support multiple instances of the same suite.

---

To use the Windows Control Panel to uninstall a product suite, perform these steps:

- 1 Click *Start > Settings > Control Panel*
- 2 Double-click **Add/Remove Programs**
- 3 From the Add/Remove Programs window, select the appropriate service for your product suite.
- 4 Click **Change/Remove**.

## Running the Uninstallation Program

You can uninstall a suite or individual products from the local host.

- 1 Execute the **uninstaller.bin** command for UNIX or the **uninstaller.exe** command for Windows. For example:  

```
BASEDIR/_uninst/uninstaller.bin
```
- 2 Click **Next** in the Welcome screen to continue.
- 3 In the Product Selection screen, click **Next** to uninstall the entire suite of products (by default, all products are selected) or deselect products that should remain installed.

- 4 Review the list of products that will be uninstalled and the target installation directory. Once you click **Next**, you cannot cancel the uninstallation process.

If necessary, click **Back** to return to the Product Selection screen to revise your selections.

To uninstall the products, click **Next** and the Uninstallation Progress screen displays.

- 5 Upon completion, the Uninstallation Summary displays informational messages such as successful confirmations, error messages, and warnings. If **Next** displays, your system needs to be rebooted. Click it and then reboot your system. Otherwise, click **Finish** to exit the uninstallation.

The log file is a text file with the naming convention *Uninstall.<suite>.<productversionNumber>.log*. It is located in the **BASEDIR**/*smarts/setup/logs* directory. If the uninstallation process fails, the log files are located in the */tmp* directory.

- 6 Examine any remaining directories if you plan to re-install InCharge and save customized files located in the */local* directory. Depending upon the suite, some or all of the following subdirectories will remain in the **BASEDIR**/*smarts* directory after uninstallation, because they contain user-modified files:

- */classes*
- */local*
- */bin*
- */setup*



# Installing the SAM Suite Using CLI Mode

This appendix briefly describes how to install and uninstall the InCharge Service Assurance Management Suite using the Command Line Interface (CLI) mode. Sample sessions are provided.

SMARTS provides this text-mode alternative to the InstallShield Wizard method for UNIX users.

CLI-mode installation offers the following advantages: X display, fixed ports to permit communication through firewalls, and special access to production systems are not required.

The process flow for CLI-mode is identical to that of the InstallShield Wizard:

- To install, satisfy previously-described requirements, stop the InCharge services for the suite, and, afterwards, perform migration and post-installation tasks, if applicable.

If you wish to install the Global Console without administrative privileges, you will need permission to write to `/var/logs`. For the Web Console and the InCharge Business Dashboard, administrative privileges are required.

- To uninstall, stop InCharge services, including the service for the FLEXIm License Server.

The log files are located in the **BASEDIR**/`smarts/setup/logs` directory. If the installation process fails, the log files are located in the `/tmp` directory.

User selections and the navigation method for CLI-mode are described in a subsequent section.

## Running the CLI-Mode Installation

To start the CLI-Mode installation program, execute the **Setup** command with the `-console` option. The syntax is:

```
<setup-executable> -console
```

where **<setup-executable>** is one of the following:

OPERATING SYSTEM	EXECUTABLE
Solaris	setup-solaris.bin
HP-UX	setup-hpux.bin
AIX	N/A
Red Hat Linux	setup-linux.bin

**Table 21:** The Setup Commands

For example, to start the CLI-Mode installation on Solaris, execute:

```
# ./setup-solaris.bin -console
```

## Running the CLI-Mode Uninstallation

To uninstall a product suite or individual products using CLI-Mode, execute the **uninstaller.bin** command with the `-console` option. The syntax is:

```
BASEDIR/_uninst/uninstaller.bin -console
```

## User Selections and Navigation

During the installation and uninstallation processes, you are prompted with a series of steps and menus. You can either accept the default value or select another choice.

### Default Values

The default values are indicated in brackets or as pre-defined selections (check marks) in menus. To accept the default value, press **Enter**.



### Replying to Prompts

When replying to a prompt, you can either accept the default value or select another choice. To reply “yes,” enter y or Y; to reply “no,” enter n or N. Do not press **Delete**; this causes the process to terminate with an error message.

### Menu Selections

For selections in menus, you can accept default selections or type the number of the item and press **Enter**. A check mark (X) displays next to the item. When you are finished making selections, type zero (0) and press **Enter**.

If you incorrectly type an entry, press **4** to repeat the prompt and select the correct value. Arrow keys and the Backspace key are not supported.

### Navigation Method

To navigate between the steps, use the following keys:

KEY	FUNCTION
<b>1</b>	Next, continue to the next step
<b>2</b>	Previous, go back to the previous step
<b>3</b>	Cancel, terminates the program
<b>4</b>	Redisplay, repeats the step

## Sample Session: CLI-Mode Installation

This sample session illustrates how to install the Service Assurance Management Suite using the Command Line Interface (CLI) mode. Individual products are installed into a user’s */work* directory.

```
Script started on Tue 16 Mar 2004 02:24:36 PM EST
frame:suite[517]$ ./setup-solaris.bin -console -is:javahome /opt/dev/MAIN-
TRUNK/smarts/jre
InstallShield Wizard

Initializing InstallShield Wizard...

Searching for Java(tm) Virtual Machine...
.....
```

Running InstallShield Wizard...

Before upgrade or installation, stop all SMARTS services, daemon processes, cron jobs, or any other process that uses programs or libraries in any InCharge installation area on the local system.

[OK]

-----  
Welcome to the InstallShield Wizard for SMARTS Service Assurance Management Suite

The InstallShield Wizard will install SMARTS Service Assurance Management Suite on your computer.  
To continue, choose Next.

SMARTS Service Assurance Management Suite  
System Management Arts, Inc.  
<http://www.smarts.com>

Would you like to see system information? [Y] n

Press 1 for Next, 3 to Cancel or 4 to Redisplay [1]

-----  
Please read the following license agreement carefully.

IMPORTANT NOTICE!

BY OPENING THE PACKAGE, INSTALLING OR USING THE SOFTWARE, YOU ARE CONSENTING TO BE BOUND BY AND ARE BECOMING A PARTY TO THIS AGREEMENT. IF YOU ARE AGREEING TO THESE TERMS OF USE ON BEHALF OF A COMPANY, YOU REPRESENT THAT YOU ARE AUTHORIZED TO BIND THE COMPANY TO THE TERMS OF USE. IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS LISTED BELOW, RETURN THIS PRODUCT WITHIN 2 DAYS OF RECEIPT TO THE PLACE OF PURCHASE FOR A FULL REFUND.

Questions may be directed to, and Software may be returned to SMARTS as follows:

Attention: Contracts Department, SMARTS, 44 South Broadway Avenue-Suite 700,  
White Plains, New York 10601  
Telephone: (914) 948-6200 extension 8509  
Facsimile: (914) 948-6270  
Email: [contracts@SMARTS.com](mailto:contracts@SMARTS.com)

Press ENTER to read the text [Type q to quit] q

Please choose from the following options:

- [ ] 1 - I accept the terms of the license agreement.
- [ ] 2 - I do not accept the terms of the license agreement.

To select an item enter its number, or 0 when you are finished: [0] 1

- [X] 1 - I accept the terms of the license agreement.
- [ ] 2 - I do not accept the terms of the license agreement.

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
The installation found an existing installation for this suite on the system.  
Choose Upgrade to upgrade or add products, or choose Install to install  
products to a new location.

Choose an installation type:

- [X] 1 - Upgrade currently installed products, or add additional products
- [ ] 2 - Install products to a new directory

To select an item enter its number, or 0 when you are finished: [0] 2

- [ ] 1 - Upgrade currently installed products, or add additional products
- [X] 2 - Install products to a new directory

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Click Next to install "SMARTS Service Assurance Management Suite" to this  
directory, or click Browse to install to a different directory.

Enter a directory: [/opt/InCharge6] /work/<user>/TEST-INSTALL/IC-6.2/

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Choose the setup type that best suits your needs.

- 1 - Complete  
This option installs all available products in the Suite.
- 2 - Custom  
This option allows you to choose which products you would like to install.
- 3 - Global Console  
Java-based console. Can run as a stand-alone Java application, or as a Java applet from within a web browser

To select an item enter its number, or 0 when you are finished: [0] 2

- 1 - Complete  
This option installs all available products in the Suite.
- 2 - Custom  
This option allows you to choose which products you would like to install.
- 3 - Global Console  
Java-based console. Can run as a stand-alone Java application, or as a Java applet from within a web browser

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Select the features for "SMARTS Service Assurance Management Suite" you would like to install:

SMARTS Service Assurance Management Suite

To select/deselect a feature or to view its children, type its number:

- 1.  Service Assurance Manager
- 2.  Report Manager
- 3.  Global Console
- 4.  Perl API
- 5.  InCharge Adapters

Other options:

- 0. Continue installing

Enter command [0] 5

1. Deselect 'InCharge Adapters'
2. View 'InCharge Adapters' subfeatures

Enter command [1] 1

Select the features for "SMARTS Service Assurance Management Suite" you would like to install:

SMARTS Service Assurance Management Suite

To select/deselect a feature or to view its children, type its number:

1.  Service Assurance Manager
2.  Report Manager
3.  Global Console
4.  Perl API
5.  InCharge Adapters

Other options:

0. Continue installing

Enter command [0] 2

Select the features for "SMARTS Service Assurance Management Suite" you would like to install:

SMARTS Service Assurance Management Suite

To select/deselect a feature or to view its children, type its number:

1.  Service Assurance Manager
2.  Report Manager
3.  Global Console
4.  Perl API
5.  InCharge Adapters

Other options:

0. Continue installing

Enter command [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Please choose the type of Global Console installation for this system. You can install the Global Console application or the Global Console, InCharge

Business  
Dashboard, and InCharge Viewlets.

Please choose the type of Global Console installation:

[X] 1 - Global Console, InCharge Business Dashboard, and InCharge Viewlets  
[ ] 2 - Global Console only

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Select the services you wish InCharge to start up automatically at system boot. When selecting a service, the service registers with the Service Control Manager. Services relate to the products chosen in the Product Selection screen. If you see a service you wish to install, but the option is disabled, return to the Product Selection to choose the corresponding product.

Would you like to install services now? [Y] n

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
Enter the hostname of your InCharge broker: [localhost]

Enter the port of your InCharge broker: [426]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
You have selected the PERL API to be installed as a product. You must accept this license in order to continue. If you do not agree with this license, choose Custom from the installation type menu, deselect the PERL API as a product, and you will not be required to accept this license to continue.

IMPORTANT NOTICE!

BY CLICKING THE "I ACCEPT" BUTTON BELOW AND/OR USING SMARTS PERL API SOFTWARE (THE "SOFTWARE"), YOU ARE CONSENTING TO BE BOUND BY AND BECOMING A PARTY TO A LEGALLY BINDING AGREEMENT. IF YOU ARE AGREEING TO THESE TERMS OF USE ON BEHALF OF A COMPANY, YOU REPRESENT THAT YOU ARE AUTHORIZED TO BIND THE COMPANY TO THE TERMS OF USE. IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS LISTED BELOW, CLICK

ON THE "I DO NOT ACCEPT" BUTTON BELOW AND EXIT THIS WEBSITE NOW.

PLEASE READ THE FOLLOWING SOFTWARE LICENSE CAREFULLY BEFORE INSTALLING OR USING THE SOFTWARE. BY INSTALLING OR USING THE SOFTWARE, YOU ARE CONSENTING TO BE BOUND BY THIS LICENSE. IF YOU DO NOT AGREE WITH THESE TERMS, YOU MAY NOT INSTALL OR OTHERWISE USE THE SOFTWARE.

Press ENTER to read the text [Type q to quit] q

Please choose from the following options:

- [ ] 1 - I accept the terms of the license agreement.
- [ ] 2 - I do not accept the terms of the license agreement.

To select an item enter its number, or 0 when you are finished: [0] 1

- [X] 1 - I accept the terms of the license agreement.
- [ ] 2 - I do not accept the terms of the license agreement.

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
SMARTS Service Assurance Management Suite will be installed in the following location:

/work/<user>/TEST-INSTALL/IC-6.2/SAM

with the following features:

Service Assurance Manager  
Global Console  
Perl API

for a total size:

312.4 MB

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

Installing SMARTS Service Assurance Management Suite. Please wait...

```
|-----|-----|-----|-----|
0%       25%      50%      75%      100%
||||||||||||||||||||||||||||||||||||||||
```

Creating uninstaller...

```
-----
The InstallShield Wizard has successfully installed SMARTS Service Assurance
Management Suite. Choose Finish to exit the wizard.
```

```
Press 3 to Finish or 4 to Redisplay [3]
frame:suite[518]$
exit
sh-2.05$ exit
```

script done on Tue 16 Mar 2004 02:30:57 PM EST

## Sample Session: CLI-Mode Uninstallation

This sample session illustrates how to uninstall the Service Assurance Management Suite using the Command Line Interface (CLI) mode. Individual products that were installed in the previous installation session are uninstalled.

```
Script started on Tue 16 Mar 2004 02:31:10 PM EST
frame:_uninst[509]$ ./uninstaller.bin -console -is:javahome /opt/dev/MAIN-
TRUNK/jre
InstallShield Wizard
```

Initializing InstallShield Wizard...

Searching for Java(tm) Virtual Machine...

.....

Running InstallShield Wizard...

```
-----
Welcome to the InstallShield Wizard for SMARTS Service Assurance Management
Suite
```

The InstallShield Wizard will uninstall SMARTS Service Assurance Management



Suite from your computer.  
To continue, choose Next.

SMARTS Service Assurance Management Suite  
System Management Arts, Inc.  
<http://www.smarts.com>

Press 1 for Next, 3 to Cancel or 4 to Redisplay [1]

-----  
Select the features for "SMARTS Service Assurance Management Suite" you would like to uninstall:

SMARTS Service Assurance Management Suite

To select/deselect a feature or to view its children, type its number:

1.  Service Assurance Manager
2.  Global Console
3.  Perl API

Other options:

- 1. Deselect 'SMARTS Service Assurance Management Suite'
0. Continue uninstalling

Enter command [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

-----  
SMARTS Service Assurance Management Suite will be uninstalled from the following location:

`/work/<user>/TEST-INSTALL/IC-6.2/SAM`

with the following features:

Service Assurance Manager  
Global Console  
Perl API

Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay [1]

Uninstalling SMARTS Service Assurance Management Suite...  
-----

The InstallShield Wizard has successfully uninstalled SMARTS Service Assurance Management Suite. Choose Finish to exit the wizard.

Press 3 to Finish or 4 to Redisplay [3]

frame:\_uninst[510]\$

exit

sh-2.05\$ exit

script done on Tue 16 Mar 2004 02:32:46 PM EST

# B

## Unattended Installation for the SAM Suite

This appendix briefly describes how to install and uninstall the InCharge Service Assurance Management Suite using command line options from a user-modifiable file.

Unattended installation, an alternative to the InstallShield Wizard method and the CLI-mode method, is available for all supported platforms.

Unattended installation offers the following advantages: It is useful for performing multiple installations in a large deployment and, for UNIX users, the X protocol is not required. InCharge installations are typically performed using the InstallShield Wizard, but some organizations have security-based policies for UNIX users that prohibit the transmission of the X protocol.

For unattended operation:

- To install, modify a response file as described in [About Response Files](#) on page 77. You also need to satisfy previously-described requirements, stop the InCharge services for the suite, and, afterwards, perform migration and post-installation tasks, if applicable.
- To uninstall, stop InCharge services including the service for the FLEXIm License Server.

The log files are located in the **BASEDIR**/*smarts/setup/logs* directory. If the installation process fails, the log files are located in the */tmp* directory. A non-zero status indicates a failure.

## Running the Unattended Installation

To start an unattended installation, execute the **Setup** command with the `-options` option and a fully-qualified directory path for the response file. The command can only be invoked from the command-line environment. The syntax is:

```
<setup-executable> -options <path>/<suite-response.txt>
```

where **<setup-executable>** is one of the following:

OPERATING SYSTEM	EXECUTABLE:
Solaris	setup-solaris.bin
HP-UX	setup-hpux.bin
AIX	N/A
Red Hat Linux	setup-linux.bin
Windows	setup-winnt.exe

**Table 22:** The Setup Commands

For example, to start the unattended installation on Solaris for the SAM Suite, execute:

```
# ./setup-solaris.bin -options /home/SAM_SUITE-response.txt
```

## Running the Unattended Uninstallation

To uninstall all of the products for a suite using the unattended uninstallation, execute the **uninstaller.bin** command with the `-silent` option. The syntax is:

```
BASEDIR/_uninst/uninstaller.bin -silent ▼  
▲-G replaceNewerResponse="Yes to All"
```

---

▼▲ Indicates the command must be typed as one line.

---

## About Response Files

Each suite has a response file located on the CD-ROM in the */utils* directory. Its naming convention is *<suite>-response.txt*.

The response file provides instructions and examples of command line options that are passed to the unattended installation program. The command line options are organized by process flow. The process flow is almost identical to that of the InstallShield Wizard.

Before you execute the unattended installation program, you need to:

- 1** Copy the response file to the */tmp* directory on your system.
- 2** Modify the values for the command line options to select the products and services you wish to install and to ensure that the values reflect your environment. Command line options must contain acceptable values and fully-qualified directory paths.

