

*InCharge*TM

InCharge Installation Guide

Version 5.0.1



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Preface

This document provides instructions for installing the InCharge suite of products on Solaris, HP-UX, AIX, and Windows operating systems.

Intended Audience

This guide is intended for administrators and/or integrators who are responsible for installing InCharge Service Assurance Manager (including any of its modules) and/or InCharge Application Services Manager. The Service Assurance Manager modules include: Business Impact Manager, InCharge Report Manager, and the InCharge Web Portal.

Prerequisites

You must have root or administrative privileges on the local host to perform the installation.

Document Organization

This guide consists of the following sections:

1. OVERVIEW	Describes the contents of the InCharge CD-ROM, describes supported platforms, and provides an installation and migration checklist.
2. PRE-INSTALLATION REQUIREMENTS	Summarizes hardware, software, patch, and third-party product requirements.
3. UPGRADING INCHARGE PRODUCTS	Explains how to upgrade from Service Assurance 4.6 and InCharge 5.0.
4. INSTALLING INCHARGE PRODUCTS	Explains how to install InCharge products.
5. POST-INSTALLATION STEPS	Explains post-installation tasks such as licensing, starting InCharge components, and setting up the ODBC driver.
6. RUNNING THE CONSOLE AS A JAVA APPLET	Describes how to launch a Java applet and attach to a Global Manager.
7. UNINSTALLING INCHARGE PRODUCTS	Describes how to remove InCharge products from your system.

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
keyword	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
yourDomain	Indicates a user-specific or user-supplied value in bold, italics
<i>File > 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

In this document, the term **BASEDIR** represents the location where InCharge software is installed. The term **BASEDIR** represents the */opt/InCharge<n>* directory for UNIX, the *C:\InCharge<n>* directory for Windows (where <n> represents the InCharge software version number), or your specified path. The InCharge software resides in the **BASEDIR**/*smarts* subdirectory.

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.

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 Installation Guide*
- *InCharge System Administration Guide*
- *InCharge Notification Adapters User's Guide*

InCharge Service Assurance Manager Documentation

The following SMARTS documents are relevant to users of InCharge Service Assurance Manager:

- *An Introduction to InCharge Service Assurance Manager*
- *InCharge Service Assurance Manager Operator's Guide*
- *InCharge Service Assurance Manager Configuration Guide*
- *InCharge Service Assurance Manager Open Integration Configuration Guide*
- *InCharge Service Assurance Manager Failover System User's 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 Web Portal Operator's Guide*
- *InCharge Service Assurance Manager Web Portal Configuration Guide*

InCharge Application Services Manager Documentation

The following SMARTS documents are relevant to users of InCharge Application Services Manager:

- *InCharge Application Services Manager Deployment Guide*
- *InCharge Application Services Manager User's Guide*
- *InCharge Application Services Manager SMART Adapters User's Guide*

Common Abbreviations and Acronyms

The following lists common abbreviations and acronyms that are used in the InCharge guides.

ASL	Adapter Scripting Language
CDP	Cisco Discovery Protocol
ICIM	InCharge Information Model
ICMP	Internet Control Message Protocol
IDS	Incremental Device Support
IP	Internet Protocol
MIB	Management Information Base
MODEL	Managed Object Definition Language
SNMP	Simple Network Management Protocol
TCP	Transmission Control Protocol
VLAN	Virtual Local Area Network

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44 South Broadway
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Overview

This chapter describes:

- The contents of the InCharge 5.0.1 CD-ROM
- Supported operating system platforms
- A checklist to facilitate the installation process

CD-ROM Contents

Each InCharge product is installed separately. The following products are included on the CD-ROM.

Service Assurance Products

- *Service Assurance Manager*: The Service Assurance Manager product includes the Global Manager, InCharge Broker and additional features that require licensing (for example, Business Impact Manager or the Remedy Adapter).
- *InCharge Console*: The Console product is the graphical interface for all InCharge products. It combines the functionality of the Global Console and the Administration Console.

- *Basic SMART Adapters:* The Basic SMART Adapters product provides functionality to import and normalize topology and events from outside the InCharge domain (such as SNMP traps and system log files). This includes the InCharge SNMP Trap Adapter, the InCharge Syslog Adapter, the `sm_ems` command line utility, and the Open Integration server functionality.
- *Report Manager for Service Assurance Manager:* The Report Manager is a utility for creating reports of network events. It can be purchased with or without Crystal Enterprise Reports software and a series of pre-defined Crystal Enterprise reports.
- *Web Portal for Service Assurance Manager:* The Web Portal module allows remote web-based browsing of InCharge notifications. The Apache Tomcat Servlet Engine is installed as part of this product.

Application Services Products

- *Application Services Manager:* The Application Services Manager product diagnoses service delivery problems in application services. The product also includes the ability for cross-correlation with InCharge IP Availability Manager and the Applications map support.
- *InCharge Adapter for BMC Patrol:* A SMART Adapter that processes events from BMC PEM agents.
- *InCharge Adapter for Concord SystemEDGE:* A SMART Adapter that processes traps from Concord SystemEDGE agents.
- *InCharge Application Connection Monitor:* A SMART Adapter that uses TCP/IP to discover TCP-based applications on hosts and periodically poll them (using TCP) in order to detect their responsiveness.

Supported Platforms for InCharge Products

Table 3 identifies the supported UNIX and Windows platforms for each product.

INCHARGE PRODUCT	PLATFORM			
	SOLARIS	HP-UX	AIX	WINDOWS
InCharge Console	2.6 (5.6), 7 (5.7), and 8 (5.8)	11.00	AIX 4.3.3	Windows NT WorkStation. Windows 2000 Professional, Advanced Server. Windows XP.
All other InCharge Products	2.6 (5.6), 7 (5.7), and 8 (5.8)	11.00	AIX 4.3.3	Windows 2000 Server, Advanced Server

Table 3: Supported Platforms for InCharge Products

Installation Checklist

The successful deployment of InCharge products requires knowledge of your operations 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.

Note: Service Assurance works in conjunction with InCharge applications version 4.0.1 and later and Cisco's DFM version 1.1 and later. It is highly recommended that you upgrade to the latest version of InCharge. For Broker security, you should be running InCharge 4.1 and later. Verify that your InCharge applications are supported. See the *InCharge Service Assurance Manager Configuration Guide* for additional deployment information.

The following checklist steps depend on your system, the InCharge product(s) you intend to install and your configurations.

Note: If you are also installing another InCharge application on the same host (for example, InCharge IP Availability Manager or InCharge Performance Manager), SMARTS requires that you install the InCharge 5.0.1 products after installing the InCharge IP applications.

- Determine whether your system meets the hardware and software requirements for the InCharge product(s) you are installing. See [Pre-Installation Requirements](#) on page 7 for more information. These requirements are operating system-specific. If necessary, upgrade your system.
- Determine what vendor patches are required for your system. Patches are operating system-specific. If necessary, obtain the required patches and apply them to your system. Refer to the [Pre-Installation Requirements](#) on page 7 for details.
 - If you are installing a product on Windows NT, determine that your system has Service Pack 6 or higher applied. If necessary, upgrade your system.
 - If you are installing a product on Windows 2000, determine that your system has Service Pack 3 (recommended) or Service Pack 2 with Hotfix Q305227 (required). If necessary, upgrade your system.
- If you intend to run the InCharge Console as a Java applet, determine whether your client machine's browser meets the browser requirements. Then obtain, install, and configure the Java Plug-in appropriate for your operating system. Refer to [Java Applet Requirements](#) on page 23.
- If you are integrating InCharge products with a third-party application, you may need to install and configure the Basic SMART Adapters. See the *InCharge Service Assurance Open Integration Configuration Guide* for additional information.
- If you are installing InCharge products on a host that is also running Cisco's Device Fault Manager (DFM), contact SMARTS Technical Support.
- If you are installing the Report Manager, you need to have previously installed an SQL database. Report Manager comes with UNIX versions of DataDirect ODBC drivers and, optionally, Crystal Enterprise Reports software. For a list of the supported versions of ODBC drivers, databases and Crystal Enterprise Reports, refer to your operating system-specific [Pre-Installation Requirements](#) on page 7. See the *InCharge Service Assurance Manager Report Manager User's Guide* for additional information.
- If you are installing anything other than the Global Console, review the *InCharge Service Assurance Manager Configuration Guide* for more detailed deployment information.

- Install the InCharge product(s) you purchased. Refer to [Installing InCharge Products](#) on page 39 for installation procedures.
- Obtain and install an InCharge license before using the software.
 - If you are evaluating the InCharge software, send an e-mail message requesting an evaluation license to licensing@smarts.com.
 - If you purchased the InCharge software, refer to the *InCharge System Administration Guide* for information about obtaining and installing a permanent license.
 - If you are upgrading from Service Assurance 4.6 or InCharge 5.0, your existing permanent license is still valid for InCharge 5.0.1. However, if you have purchased additional products for InCharge 5.0.1, you need to request a new permanent license.

5.0 to 5.0.1 Migration Checklist

SMARTS recommends the following guidelines when upgrading your system from InCharge 5.0 to InCharge 5.0.1. For more migration information, refer to [Upgrading From InCharge 5.0 to 5.0.1](#) on page 26.

- Back up your current installation using the **smgetinfo** command.
- Stop the InCharge Services.
- Run the installation program.
- Resolve conflicts with duplicated files.

4.6 to 5.0.1 Migration Checklist

SMARTS recommends the following guidelines when upgrading your system from Service Assurance 4.6 to InCharge 5.0.1. For more migration information, refer to [Upgrading From Service Assurance 4.6 to 5.0.1](#) on page 30.

- Install the new InCharge products in a separate directory from your current Service Assurance installation.
- Install the new InCharge products before uninstalling the current installation.
- Configure all InCharge applications to point to the new InCharge 5.0.1 Broker.
- Perform migration tasks and merge custom modifications.

2

Pre-Installation Requirements

This chapter includes:

- Privileges Requirement
- Hardware Requirements (by platform)
- Java Requirements (by platform)
- Operating System Patch Requirements (by platform)
- Third-party Product Requirements (by platform)
- Additional InCharge Product Requirements

For a summary of supported platforms and InCharge products, refer to [Supported Platforms for InCharge Products](#) on page 3.

Privileges Requirement

All UNIX Platforms

In order to perform this installation process, you must be a superuser (User ID 0).

Windows Platforms

In order to perform this installation process, you must have Administrative privileges.

Solaris Requirements

Hardware, software and patch requirements summarized here represent the minimum levels. If you are installing more than one InCharge product, then your system must meet the products' total memory and disk space requirements.

Solaris Hardware Requirements

Table 4 summarizes memory, disk space and processor requirements for each InCharge product on Solaris 2.6 (5.6), 7 (5.7), and 8 (5.8).

InCharge Product	Hardware			
	CPUs	Memory (RAM)	Disk Space	Processor
Service Assurance Manager	2	512 MB	200 MB	Sun Fire 280
Console	1	256 MB	100 MB	Sun Blade 100
Basic SMART Adapters (Open Integration)	1	512 MB	200 MB	Enterprise 250
Report Manager	1	256 MB	100 MB	Enterprise 250
Web Portal	2	512 MB	500 MB	Sun Fire 280
Application Services Manager	2	512 MB	200 MB	Sun Fire 280
InCharge Adapter for BMC Patrol	1	256 MB	100 MB	Enterprise 250
InCharge Adapter for Concord SystemEDGE	1	256 MB	100 MB	Enterprise 250

Table 4: Solaris Memory, Disk Space, and Processor Requirements

JRE Requirement for Solaris

All supported Solaris platforms are required to have the Java Runtime Environment (JRE) version 1.3.1_3 installed. This is installed automatically during the InCharge product installation.

Required Patches for Solaris

Table 5 lists the minimum patch requirements for Solaris 2.6, and 7. The succeeding table lists those for Solaris 2.8. The two-digit number following the dash in each patch ID is the revision of that patch. Some of these patches are required for the Java Runtime Environment (JRE 1.3.1), which is included with your InCharge distribution and is automatically installed when you install the Global Console.

SOLARIS VERSION	PATCH ID	DESCRIPTION
2.6 (5.6)	105181-26	Kernel Update (socket close/hang)
2.6 (5.6)	105591-09	LibC Patch for C++
2.6 (5.6)	105210-38	Libc Patch
2.6 (5.6)	105284-41	Motif 1.2.7 Runtime Library Patch
2.6 (5.6)	105568-23	Libthread Patch
2.6 (5.6)	105669-10	CDE 1.2: libDTSvc Patch (dtmail)
2.6 (5.6)	106040-16	X Input & Output Method Patch
2.6 (5.6)	107733-09	Dynamic Linker Patch
2.6 (5.6)	108091-03	SunOS 5.6:ssJDK1.2.1_03 fails with fatal error in ISO8859-01 locales
2.6 (5.6)	105633-56	Xserver bug fixes
2.6 (5.6)	106842-09	Euro support
2.6 (5.6)	106841-01	Euro support
2.6 (5.6)	106125-11	Patch for patchadd and patchrm
2.6 (5.6)	106429.02	Prerequisite for patch 105568
7 (5.7)	106980-16	Libthread Patch
7 (5.7)	107636-07	X Input & Output Method Patch
7 (5.7)	107081-33	Motif 1.2.7 and 2.1.1:runtime patch for Solaris
7 (5.7)	107226-17	For CDE Window Manager
7 (5.7)	106541-16	Libthreads Patch
7 (5.7)	108374-05	CDE 1.3: libDtWidget Patch
7 (5.7)	107544-03	SunOS 2.7 Kernel update
7 (5.7)	108376-24	OpenWindows 3.6.1 Xsun Patch

SOLARIS VERSION	PATCH ID	DESCRIPTION
7 (5.7)	106950-13	Linker Patch
7 (5.7)	106300-09	Shared library patch for C++
7 (5.7)	106327-08	Shared library patch for C++
7 (5.7)	107656-07	Open Windows 3.6.1 libXt patch
7 (5.7)	107702-07	CDE 1.3: dtsession patch

Table 5: Solaris 2.6 and 7 Patches for InCharge Products

SOLARIS VERSION	PATCH ID	DESCRIPTION
8 (5.8)	108652-33	Various X server patches
8 (5.8)	108940-24	Motif 2.1 Patch
8 (5.8)	108921-12	For CDE Window Manager

Table 6: Solaris 2.8 Patches for InCharge Products

The Solaris patches required for the console can be downloaded from <http://sunsolve.com> or obtained from your service provider.

In addition to the patches listed, you may also want to install the latest patch cluster for your version of Solaris, which includes both recommended and security patches. Solaris patch clusters are available for download on the Web; follow the appropriate links starting at <http://sunsolve.sun.com>.

Patches for Asian Locales

The patches listed in Table 7 are additional Solaris patches required for Asian locales.

SOLARIS VERSION	PATCH ID	DESCRIPTION
2.6 (5.6)	106409-01	Traditional Chinese TrueType font fix
7 (5.7)	107153-01	Replaces bad font in zh.GBK locale

Table 7: Asian Locale Solaris Patches for the Global Console

WARNING: If these required patches are not at the correct level, there is a chance of a system failure. Discontinue this installation procedure until the operating system is patched.

Product-Specific Requirements for Solaris

There are additional hardware and software requirements for specific InCharge products. The following is a list of these products and their requirements.

SMART Adapter Requirements

The InCharge SMART Adapters for BMC Patrol and Concord SystemEDGE are installed and licensed individually. Other adapters for integrating with third-party applications are installed as part of the Basic SMART Adapter and Service Assurance Manager installations. Table 8 identifies the versions of the third-party applications supported by the SMART Adapters.

ADAPTER	INCHARGE ADAPTER FOR REMEDY	INCHARGE ADAPTER FOR TIBCO RENDEZVOUS	INCHARGE ADAPTER FOR BMC PATROL	INCHARGE ADAPTER FOR CONCORD SYSTEMEDGE
PLATFORM	REMEDY AR	TIBCO	BMC PATROL	CONCORD SYSTEMEDGE
Solaris 2.6 (5.6) Solaris 7 (5.7) Solaris 8 (5.8)	3.2, 4.0, 4.5	6.x	3.4	4.1

Table 8: Third-Party Product Requirements for InCharge Adapters on Solaris

Report Manager Requirements

The Report Manager for Service Assurance Manager requires third-party applications to produce reports. Table 9 identifies the versions of the ODBC drivers (these are included with Report Manager software) and databases supported by the Report Manager. If you will be using any variants, you should call SMARTS Technical Support.

OPERATING SYSTEM	DATABASE	ODBC DRIVER	CRYSTAL
Solaris 2.6 (5.6) Solaris 7 (5.7) Solaris 8 (5.8)	Oracle 8i	DataDirect ODBC Driver 4.0	N/A for Solaris

Table 9: Report Manager Database and ODBC Requirements for Solaris

Obtaining Report Manager Products

Use the following URL to purchase or obtain the third-party products not provided by SMARTS that are also required to run the Report Manager.

- Oracle Database:
<http://www.oracle.com/ip/dep/otn/database/8i/>

HP-UX Requirements

Hardware, software and patch requirements summarized here represent the minimum levels. If you are installing more than one InCharge product, then your system must meet the products' total memory and disk space requirements.

HP-UX Hardware Requirements

Table 10 summarizes memory, disk space and processor requirements for each InCharge product on HP-UX 11.00.

InCharge Product	Hardware			
	CPUs	Memory (RAM)	Disk Space	Processor
Service Assurance Manager	2	512 MB	200 MB	L2000/rp5400
Console	1	256 MB	100 MB	b2600
Basic SMART Adapters (Open Integration)	1	512 MB	200 MB	L1000/rp2400
Report Manager	1	256 MB	100 MB	L1000/rp2400
Web Portal	2	512 MB	500 MB	L2000/rp5400
Application Services Manager	2	512 MB	200 MB	L2000/rp5400
InCharge Adapter for Concord SystemEDGE	1	256 MB	100 MB	L1000/rp2400
InCharge Adapter for Concord SystemEDGE	1	256 MB	100 MB	L1000/rp2400

Table 10: HP-UX Memory, Disk Space, and Processor Requirements

JRE Requirement for HP-UX

The HP-UX 11.00 platform is required to have the Java Runtime Environment (JRE) version 1.3.1_5 installed. This is installed automatically during the InCharge product installation.

Required Patches for HP-UX

The required patches are listed in Table 11 and are current as of May 22, 2002.

PATCH ID	DESCRIPTION
PHCO_26000	Fix libpthreads cumulative patch.
PHCO_25707	Fix libc cumulative patch.
PHKL_26059	Fix pthread error return, nfs/tcp panic.
PHKL_24021	Fix for Kthread b-sema wait queue corruption.
PHKL_20915	Fix for trap-related panics/hangs.

PATCH ID	DESCRIPTION
PHKL_26800	Fix for VM, async, hyperfabric, ttrace.
PHKL_18543	See the HP description for this patch as there are several patch dependencies.
PHSS_26262	HP 11.x ld cumulative patch.
PHSS_24627	HP aC++ runtime library components.
PHSS_25718	Fix libcl Patch.
PHNE_25626	s700_800 11.00 onc/nfs general release/performance patch
PHNE_21731	s700_800 11.00 r-commands cumulative mega-patch
PHNE_26771	s700_800 11.00 cumulative arpa transport patch
PHNE_23003	s700_800 11.00 r-commands cumulative patch

Table 11: Patch Requirements for HP-UX 11.00

WARNING: If these required patches are not at the correct level, there is a chance of a system failure. Discontinue this installation procedure until the operating system is patched.

HP frequently releases updated patches, so SMARTS cannot provide you with a definitive list. See the HP Web site at <http://www.hp.com/esy/lang/cpp/rels.html>. If any patches have been superseded, the HP Web site will direct you to the superseding patches which you should install instead.

Additional HP-UX Requirements

This section lists additional requirements for HP-UX 11.00.

Use the HP-UX SAM administration tool to verify that the following parameters are set accordingly. Use "Choose Kernel Configuration," "Choose Configurable Parameters" 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 extra help. Table 12 summarizes HP-UX parameter requirements and their values.

PLATFORM	PARAMETER	VALUE
HP-UX 11.00	maxdsiz	at least 256 MB (268435456 bytes)
HP-UX 11.00	max_thread_proc	at least 100
HP-UX 11.00	ncallout	$nproc + 10 * nSMARTS$
HP-UX 11.00	nkthread	$2 * nproc + max_thread_proc * nSMARTS$

Table 12: HP-UX Parameters and Values

Formulas are provided as follows.

- The process data size limit kernel parameter (maxdsiz) must be set to at least 256 MB (268435456 bytes).

The value of this parameter is in decimal bytes. If it is below 256 MB (268435456 bytes), increase it, rebuild the kernel, and restart the system.

- The max_thread_proc parameter must be set to at least 100, and the ncallout and nkthread parameters are calculated as follows.

In the formulas, “nSMARTS” is the total number of Global Managers and consoles running simultaneously on the machine and “nproc” is a varying system parameter displayed by HP-UX SAM. It represents the maximum number of processes on the machine.

- The ncallout value must be equal to at least the calculated result, although the SAM default is almost always sufficient.

$$ncallout = nproc + 10 * nSMARTS$$

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

$$nkthread = 2 * nproc + max_thread_proc * nSMARTS$$

(The max_thread_proc parameter must be at least 100.)

Product-Specific Requirements for HP-UX

There are additional hardware and software requirements for specific InCharge products. The following is a list of these products and their requirements.

SMART Adapter Requirements

The SMART Adapters for BMC Patrol and Concord SystemEDGE are installed and licensed individually. Other adapters for integrating with third-party applications are installed as part of the Basic SMART Adapter and Service Assurance Manager installations. Table 13 identifies the versions of the third-party applications supported by the SMART Adapters.

ADAPTER	INCHARGE ADAPTER FOR REMEDY	INCHARGE ADAPTER FOR TIBCO RENDEZVOUS	INCHARGE ADAPTER FOR BMC PATROL	INCHARGE ADAPTER FOR CONCORD SYSTEMEDGE
PLATFORM	REMEDY AR	TIBCO	BMC PATROL	CONCORD SYSTEMEDGE
HP-UX 11.00	3.2, 4.0, 4.5	6.x	3.4	4.1

Table 13: Third-Party Product Requirements for InCharge Adapters on HP-UX

Report Manager Requirements

The Report Manager for Service Assurance Manager requires third-party applications to produce reports. Table 14 identifies the versions of the ODBC drivers (these are included with Report Manager software) and databases supported by the Report Manager. If you will be using any variants, you should call SMARTS Technical Support.

OPERATING SYSTEM	DATABASE	ODBC DRIVER	CRYSTAL
HP-UX 11.00	Oracle 8i	DataDirect ODBC Driver 4.0	N/A for HP-UX

Table 14: Report Manager Database and ODBC Requirements for HP-UX

Obtaining Report Manager Products

Use the following URL to purchase or obtain the third-party products not provided by SMARTS that are also required to run the Report Manager.

- Oracle Database:
<http://www.oracle.com/ip/deploy/database/8i/>

AIX Requirements

Hardware, software and patch requirements summarized here represent the minimum levels. If you are installing more than one InCharge product, then your system must meet the products' total memory and disk space requirements.

AIX Hardware Requirements

Table 15 summarizes memory, disk space and processor requirements for each InCharge product on AIX 4.3.3.

InCharge Product	Hardware			
	CPUs	Memory (RAM)	Disk Space	Processor
Service Assurance Manager	2	512 MB	200 MB	p640 Model B80
Console	1	256 MB	100 MB	F-Class
Basic SMART Adapters (Open Integration)	1	512 MB	200 MB	pSeries 610 RS/6000 44P
Report Manager	1	256 MB	200 MB	p610 Model 6C1
Web Portal	2	512 MB	500 MB	p640 Model B80
Application Services Manager	2	512 MB	200 MB	p640 Model B80
InCharge Adapter for BMC Patrol	1	256 MB	100 MB	p610 Model 6C1
InCharge Adapter for Concord SystemEDGE	1	256 MB	100 MB	p610 Model 6C1

Table 15: AIX Memory, Disk Space, and Processor Requirements

JRE Requirement for AIX

The AIX 4.3.3 platform is required to have the Java Runtime Environment (JRE) version 1.3.1 installed. This is installed automatically during the InCharge product installation.

Required Patches for AIX

This section describes patch requirements for AIX 4.3.3.

The method IBM recommends for updating AIX systems uses the `/bin/fixdist` program. You may obtain it from the IBM Web site at <http://www.ibm.com>.

The filesets in Table 16 are required. Your system *must be* at or above the specified level for each fileset.

PATCH ID	DESCRIPTION
bos.rte.libc 4.3.3.18	C library update
bos.rte.libpthread 4.3.3.12	Thread library
xlC.rte 5.0.0.0	C++ library
xlC.aix43.rte 5.0.0.4	C++ library for AIX 4.3
bos.iocp.rte 4.3.3.0	I/O Completion Ports API Base Operating System
bos.mp 4.3.3.79	Multiprocessor Runtime
bos.net.tcp.client 4.3.3.78	TCP/IP Client Support

Table 16: Patch Requirements for AIX

WARNING: If these required patches are not at the correct level, there is a chance of a system failure. Discontinue this installation procedure until the operating system is patched.

Product-Specific Requirements for AIX

There are additional hardware and software requirements for specific InCharge products. The following is a list of these products and their requirements.

SMART Adapter Requirements

The SMART Adapters for BMC Patrol and Concord SystemEDGE are installed and licensed individually. Other adapters for integrating with third-party applications are installed as part of the Basic SMART Adapter and Service Assurance Manager installations. Table 17 identifies the versions of the third-party applications supported by the SMART Adapters.

ADAPTER	INCHARGE ADAPTER FOR REMEDY	INCHARGE ADAPTER FOR TIBCO RENDEZVOUS	INCHARGE ADAPTER FOR BMC PATROL	INCHARGE ADAPTER FOR CONCORD SYSTEMEDGE
PLATFORM	REMEDY AR	TIBCO	BMC PATROL	CONCORD SYSTEMEDGE
AIX 4.3.3	3.2, 4.0, 4.5	6.x	3.4	4.1

Table 17: Third-Party Product Requirements for InCharge Adapters on AIX

Report Manager Requirements

The Report Manager for Service Assurance Manager requires third-party applications to produce reports. Table 18 identifies the versions of the ODBC drivers (these are included with Report Manager software) and databases supported by the Report Manager. If you will be using any variants, you should call SMARTS Technical Support.

OPERATING SYSTEM	DATABASE	ODBC DRIVER	CRYSTAL
AIX 4.3.3	Oracle 8i	DataDirect ODBC Driver 4.0	N/A for AIX

Table 18: Report Manager Database and ODBC Requirements for AIX

Obtaining Report Manager Products

Use the following URL to purchase or obtain the third-party products not provided by SMARTS that are also required to run the Report Manager.

- Oracle Database:
<http://www.oracle.com/ip/deploy/database/8i/>

Windows Requirements

Hardware, software and patch requirements summarized here represent the minimum levels. If you are installing more than one InCharge product, then your system must meet the products' total memory and disk space requirements.

Windows Hardware Requirements

Table 19 summarizes memory, disk space and processor requirements for each InCharge product Windows 2000 (Professional, Server and Advanced Server).

Note: Only the InCharge Console is supported on Windows NT and Windows XP. The only Windows platform on which all InCharge products are supported is Windows 2000.

InCharge Product	Hardware			
	CPUs	Memory (RAM)	Disk Space	Processor
Service Assurance Manager	2	512 MB	250 MB	Pentium III, 1 GHz
Console	1	256 MB	100 MB	Pentium III, 700 MHz
Basic SMART Adapters (Open Integration)	1	512 MB	150 MB	Pentium III, 700 MHz
Report Manager	1	256 MB	150 MB	Pentium III, 700 MHz
Web Portal	2	512 MB	250 MB	Pentium III, 1 GHz
Application Services Manager	2	512 MB	250 MB	Pentium III, 1 GHz
InCharge Adapter for BMC Patrol	1	256 MB	150 MB	Pentium III, 700 MHz
InCharge Adapter for Concord SystemEDGE	1	256 MB	150 MB	Pentium III, 700 MHz

Table 19: Windows Memory, Disk Space, and Processor Requirements

JRE Requirement for Windows

The Windows platforms are required to have the Java Runtime Environment (JRE) version 1.3.1_3 installed. This is installed automatically during the InCharge product installation.

Required Patches for Windows

The required patches are listed in Table 20 and are current as of May 22, 2002.

PLATFORM	PATCHES	
Windows NT v4 SP6	Service Pack 6	
Windows XP	None	
Windows 2000 (Professional, Server and Advanced Server)	Service Pack 2 Hotfix Q305227 (Required)	Service Pack 3 (Recommended)

Table 20: Patch Requirements for Windows

WARNING: If these required patches are not at the correct level, there is a chance of a system failure. Discontinue this installation procedure until the operating system is patched.

Obtaining the Required Patches for Windows

InCharge software requires that your Windows NT system have Service Pack 6 installed. Windows 2000 systems must have at least Service Pack 2 and Hotfix Q305227 (contact Microsoft to obtain this hotfix using SMARTS' Case ID # SRX020122604526). If the hotfix is not available then you must upgrade your system to Service Pack 3. For more information on how to obtain these items, please access the Microsoft Technical Support Web site at <http://www.microsoft.com>.

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

Product-Specific Requirements for Windows

There are additional hardware and software requirements for specific InCharge products. The following is a list of these products and their requirements.

SMART Adapter Requirements

The SMART Adapters for BMC Patrol and Concord SystemEDGE are installed and licensed individually. Other adapters for integrating with third-party applications are installed as part of the Basic SMART Adapter and Service Assurance Manager installations. Table 21 identifies the versions of the third-party applications supported by the SMART Adapters.

ADAPTER	INCHARGE ADAPTER FOR REMEDY	INCHARGE ADAPTER FOR TIBCO RENDEZVOUS	INCHARGE ADAPTER FOR BMC PATROL	INCHARGE ADAPTER FOR CONCORD SYSTEMEDGE
PLATFORM	REMEDY AR	TIBCO	BMC PATROL	CONCORD SYSTEMEDGE
Windows 2000 (Professional, Server and Advanced Server) SP2 with Hotfix Q305227 (Required) SP 3 (Recommended)	4.5	6.x	3.4	4.1
Note: The Remedy runtime library files (or a copy of those files), installed with the Remedy AR Server must reside on the host running the Global Manager.				

Table 21: Third-Party Product Requirements for InCharge Adapters on Windows

Report Manager Requirements

The Report Manager for Service Assurance Manager requires third-party applications to produce reports. Table 22 identifies the versions of the third-party applications supported by the Report Manager. If you will be using any variants, you should call SMARTS Technical Support. Note that the Report Manager application must be installed on a Windows platform. The database used by Report Manager may reside on any platform provided that the DataDirect ODBC driver can connect to it.

OPERATING SYSTEM	DATABASE	ODBC DRIVER	CRYSTAL
Windows 2000	<ul style="list-style-type: none"> • Oracle 8i • Microsoft SQL Server 2000 	<ul style="list-style-type: none"> • Microsoft Oracle Driver 2.x • Microsoft MS-SQL Driver 3.7 	<ul style="list-style-type: none"> Crystal Enterprise 8.5 Crystal Reports 8.5

Table 22: Report Manager Database and ODBC Requirements for Windows

Obtaining Report Manager Products

Use the following URLs to purchase or obtain the third-party products not provided by SMARTS that are also required to run the Report Manager.

- Oracle Database:
<http://www.oracle.com/ip/dep/otn/database/8i/>
- Microsoft SQL Server 2000:
<http://www.microsoft.com/catalog/display.asp?subid=22&site=10145>

Note: Crystal Enterprise Reports is not required. You may use another reporting application if desired.

Additional InCharge Product Requirements

There are additional hardware and software requirements for specific InCharge products. The following is a list of these products and their requirements.

Java Applet Requirements

The InCharge Console can also run on a client workstation as a Java applet. When the console is run as an applet, a client can attach to the host where the Global Manager is running.

To run the console as an applet, the following is required:

- Netscape 4.77 or 4.79 or Internet Explorer 5.5 must be installed on the client machine. SMARTS does not recommend using Internet Explorer 6.0 to run the consoles because it does not support plug-ins.
- The Java plug-in (JPI) must be installed and properly configured on the client machine. If you installed the JRE for Solaris 1.3.1_3 on the client machine, that installation included the Java plug-in for the browser.

The Java plug-ins can be downloaded from the following locations:

For the Solaris plug-in, download from:

http://java.sun.com/j2se/1.3/jre/download_solaris.html

For the HP-UX plug-in, download from:

<http://www.hp.com/products1/unix/java/index.html>

For the AIX plug-in, download from:
<http://www.ibm.com/support/us/>

Follow the vendor instructions for installing and configuring the plug-in.

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

Web Portal Requirements

The InCharge Web Portal consolidates event information and enables you to summarize and share administrative data with users or customers through a web browser. The following items should be considered when installing the InCharge Web Portal. Read the hardware requirements for your operating system to make sure that your system meets the recommendations.

- The Web Portal must be installed on a separate host.
- SMARTS recommends the following browsers for accessing the Web Portal:
 - Netscape 4.79 (Strongly Recommended) or Netscape 4.7x
 - Internet Explorer 5.5

Upgrading InCharge Products

This chapter describes the upgrade steps for all InCharge products. The basic steps for upgrading InCharge products are the same for all supported UNIX and Windows platforms. You must be a UNIX superuser or Windows Administrator to install the InCharge products.

Your license determines which products and product features are available for you to upgrade. If you are upgrading and have also purchased additional InCharge products, you must acquire a license for the additional products. For more information about licensing and how to acquire a permanent license, see the *InCharge System Administration Guide*.

Note: When installing InCharge on a Windows host running a virus protection program, the installation tends to run slower and the program may erroneously detect a virus on certain files (such as *install.tar.gz*). The alert can be disregarded. To avoid this alert, turn off the virus protection program before installing InCharge 5.0.1. Be sure to turn on the virus-protection software when the installation is complete.

Upgrading From InCharge 5.0 to 5.0.1

The upgrade program is very similar to the installation program described in [Installing InCharge Products](#) on page 39. It uses the same menu-driven, command-line procedures.

If you are upgrading from InCharge 5.0, your existing permanent license is still valid for InCharge 5.0.1. However, if you have purchased additional products for InCharge 5.0.1, you need to request a new permanent license.

Note: You should install InCharge 5.0.1 products to the same directory as your previous InCharge 5.0 directory. You can install to a different directory, but this might result in erroneous behavior.

The following list identifies the main steps to upgrade InCharge products other than the Global Console:

- 1** Back up your current installation using the **smgetinfo** command. Refer to [Backing Up Your Current Installation](#) on page 28 for detailed information.
- 2** Stop the InCharge Services. Refer to the *InCharge System Administration Guide* for instructions on stopping the InCharge Services on your operating system.
- 3** Run the installation program. (Mount the CD-ROM, type `ι`, press **Enter** and follow the instructions in [Installation Steps](#) on page 41.)
- 4** Resolve conflicts with duplicated files. Refer to [Resolving File Conflicts](#) on page 28 for more information.

Upgrade Program Differences

The upgrade procedure is very similar to the installation procedure as described in the [Installation Steps](#) on page 41. The main differences between the installation and upgrade are on the Product Selection Menu.

- When working on the Product Selection Menu, all of the products you have previously installed in InCharge 5.0 display **Yes** in the **Installed** column. For example:

```

SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Product Selection Menu
-----
What product(s) would you like to install?

                Installed      Action
-----
[1] Service Assurance Manager (SAM) .....      Yes      Upgrade
[2] Basic SMART Adapters for SAM .....      Yes      Upgrade
[3] Report Manager for SAM .....              No
[4] Web Portal for SAM .....                  No
[5] Application Services Manager .....      Yes      Upgrade
[6] SMART Adapter for BMC Agents .....      Yes      Upgrade
[7] SMART Adapter for Concord SystemEdge Agents ..      Yes      Upgrade
[8] Application Conn. Monitor (Early Access).....      Yes      Upgrade
[9] Global Console .....                      Yes      Upgrade

Disk space free [D:/InCharge5/smarts] : 3486 MB
Required program file size: 56 MB
Required data size: 160 MB
Required disk space for installation: 216 MB

Select one of [1-9] | [S]elect All | [D]eselect All
[B]ack | [N]ext | [Q]uit
Choose (default is Next): _
    
```

- The Action column automatically displays Upgrade for any products that were previously installed.
- You can simultaneously install any products you did not previously install by choosing those products at the time of the upgrade. For example:

```

SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Product Selection Menu
-----
What product(s) would you like to install?

                Installed      Action
-----
[1] Service Assurance Manager (SAM) .....      Yes      Upgrade
[2] Basic SMART Adapters for SAM .....      Yes      Upgrade
[3] Report Manager for SAM .....              No      Install
[4] Web Portal for SAM .....                  No      Install
[5] Application Services Manager .....      Yes      Upgrade
[6] SMART Adapter for BMC Agents .....      Yes      Upgrade
[7] SMART Adapter for Concord SystemEdge Agents ..      Yes      Upgrade
[8] Application Conn. Monitor (Early Access).....      Yes      Upgrade
[9] Global Console .....                      Yes      Upgrade

Disk space free [D:/InCharge5/smarts] : 3486 MB
Required program file size: 162 MB
Required data size: 218 MB
Required disk space for installation: 380 MB

Select one of [1-9] | [S]elect All | [D]eselect All
[B]ack | [N]ext | [Q]uit
Choose (default is Next): N_
    
```

Backing Up Your Current Installation

In order to maintain a backup copy of all the essential files and customizations from your InCharge 5.0 installation, you need to run the `smgetinfo` utility, located in **BASEDIR**/*smarts/bin*. The following InCharge directories are added to a `.tar` file on UNIX or a `.zip` file on Windows:

- */rules*
- */conf*
- */local*

To run the `smgetinfo` utility, use the following command:

On UNIX:

```
% BASEDIR/smarts/bin>./smgetinfo
```

On Windows:

```
C:\BASEDIR\smarts\bin>smgetinfo.cmd
```

The utility responds with the location of the `.tar` or `.zip` file. For example:

```
All custom configuration info has been saved in  
C:\TEMP\smgetinfo.zip.
```

Resolving File Conflicts

This information only applies when you are upgrading from InCharge 5.0 to InCharge 5.0.1.

Beginning with InCharge 5.0, modified files are saved in the **BASEDIR**/*smarts/local* directory and are referred to as "local." Nonlocal files (files located in directories other than the */local* directory) are referred to as "fixed."

In order to protect the customizations made to your InCharge products, the installation program checks for files that were modified in your InCharge 5.0 installation. Copies of each modified file are placed in a subdirectory located in **BASEDIR**/*smarts/conflict*.

- Nonlocal modified files are copied to **BASEDIR**/*smarts/conflict/fixed*. Examples of nonlocal modified files are: files modified with a text editor other than `sm_edit`, files modified but not copied to the appropriate */local* subdirectory, or files modified by patches supplied by SMARTS.
- Local modified files are copied to **BASEDIR**/*smarts/conflict/local*.

The installation program does not overwrite the files in **BASEDIR**/*smarts/conflict/local*.

Identifying File Conflicts

Two summary files are created in **BASEDIR**/*smarts/conflict* to identify the files that are in conflict with the new InCharge 5.0.1 installation.

SUMMARY FILE	DESCRIPTION
<i>conflict_fixed_area</i>	Lists the files that were copied to the BASEDIR / <i>smarts/conflict/fixed</i> directory.
<i>conflict_local_area</i>	Lists the files that were copied to the BASEDIR / <i>smarts/conflict/local</i> directory.

Table 23: Summary Files That List Conflicting Files

You must open and review the files in the conflict directories to understand the modifications that were made and decide if those modifications must be migrated to your InCharge 5.0.1 installation.

Merging Customizations

After determining which files in the */conflict* directories need to be migrated to your InCharge 5.0.1 installation, you need to manually perform the migration. In order to eliminate file conflicts between your InCharge 5.0 and InCharge 5.0.1 installations, you must perform the following procedure. For example, if you were migrating the contents of the *ics.conf* file from InCharge 5.0 to InCharge 5.0.1:

- 1 Delete the *ics.conf* file located in **BASEDIR**/*smarts/local/conf/ics*. This file is no longer needed because a copy remains in **BASEDIR**/*smarts/conflict/local*.
- 2 Using the *sm_edit* utility, open the *ics.conf* file from **BASEDIR**/*smarts/conf/ics*:


```
% BASEDIR/smarts/bin>sm_edit conf/ics/ics.conf
```

For information about the *sm_edit* utility, refer to the *InCharge System Administration Guide*.
- 3 Open the version of *ics.conf* that the installation program detected and copied to the */conflict* directory. This will be in **BASEDIR**/*smarts/conflict/local* if you used *sm_edit* to modify the file or **BASEDIR**/*smarts/conflict/fixed* if you did not.
- 4 Copy the InCharge 5.0 customizations to the InCharge 5.0.1 version you opened in Step 2 using *sm_edit*.

- 5 Save the files. The `sm_edit` utility will save the local files to the appropriate InCharge subdirectories under the **BASEDIR**/`smarts/local` directory.
- 6 After you have merged all of the customizations, create a `.zip` file of the files in **BASEDIR**/`smarts/conflict`, save the `.zip` file to a different directory, and delete the `/conflict` directory.

Upgrading From Service Assurance 4.6 to 5.0.1

The following checklists should be followed when upgrading from Service Assurance 4.6 to InCharge 5.0.1.

If you are upgrading from Service Assurance 4.6, your existing permanent license is still valid for InCharge 5.0.1. However, if you have purchased additional products for InCharge 5.0.1, you need to request a new permanent license.

SMARTS recommends the following guidelines when upgrading your system from Service Assurance 4.6 to InCharge 5.0.1.

- 1 Install the new InCharge products in a separate directory from your current Service Assurance installation.
- 2 Uninstall the pre-5.0.1 installation.

Refer to the installation guide that came with your pre-5.0.1 product for uninstallation procedures.
- 3 Configure pre-5.0 InCharge applications to use the new InCharge 5.0.1 Broker (not required if you are performing an upgrade from InCharge 5.0). Refer to [Configuring InCharge Software to Use the New InCharge Broker](#) on page 31.
- 4 Perform migration tasks and merge custom modifications. Refer to [Migration Post-Installation Checklist](#) on page 36.

Configuring InCharge Software to Use the New InCharge Broker

These steps describe how to configure pre-5.0 versions of InCharge software to work with the new InCharge 5.0.1 Broker.

If you have any pre-5.0 InCharge applications currently installed (such as InCharge IP Availability Manager version 4.1, for example), you need to replace the existing broker with the broker provided with InCharge 5.0.1. Beginning with InCharge 5.0, the broker has an enhanced security mechanism and is backward compatible with the following products:

- InCharge 4.1 and 4.1.1
- Cisco's Device Fault Manager (DFM) 1.1 and 1.2

For InCharge applications, the broker may be installed with both InCharge applications and adapters. In addition, the `SM_BROKER_DEFAULT` environment variable, which is used by InCharge clients to find the broker, is set at installation.

To convert InCharge applications to use the InCharge 5.0.1 Broker, you must complete the following steps.

- 1** Stop the pre-5.0 Broker installed by the InCharge application and disable it so that it will not restart when the host is rebooted.
- 2** Edit the `SM_BROKER_DEFAULT` variable on each host where pre-5.0 InCharge software is installed so that it points to the InCharge 5.0.1 Broker.
 - On UNIX, edit the `SM_BROKER_DEFAULT` variable in `runcmd_env.sh`.
 - On Windows, edit the `SM_BROKER_DEFAULT` variable through the System Control Panel.
- 3** Start and verify that the new 5.0.1 Broker is running.
- 4** Copy the broker repository file from the pre-5.0 InCharge application installation to the InCharge 5.0.1 installation.

The following sections describe these procedures for all supported platforms.

Stopping the Pre-5.0 InCharge Broker

This section describes how to stop the pre-5.0 InCharge Broker on UNIX and Windows platforms.

Solaris

To stop the InCharge Broker, use the following command:

```
# /etc/init.d/ic-broker stop
```

If the InCharge 5.0.1 Broker you intend to use is on a separate host from the pre-5.0 InCharge applications broker, you have to prevent the new InCharge Broker (which was installed automatically) from restarting when the system is rebooted. To do this, delete the symbolic link for the broker in the system startup directory.

- */etc/rc3.d/S90ic-broker*
- */etc/rc[0156].d/K98ic-broker*

If the InCharge 5.0.1 Broker is on the same host as the pre-5.0 InCharge applications broker:

- Replace */etc/init.d/ic-broker* with **BASEDIR**/*smarts/local/script/ic-broker* from the InCharge 5.0.1 installation.
- Verify that the SMHOME variable in the script points to the new InCharge Broker.

HP-UX

To stop the InCharge Broker, use the following command:

```
# /sbin/init.d/ic-broker stop
```

If the InCharge 5.0.1 Broker you intend to use is on a separate host from the pre-5.0 InCharge applications broker, you have to prevent the new InCharge Broker (which was installed automatically) from restarting when the system is rebooted. To do this, delete the symbolic link for the broker in the system startup directory.

- */sbin/rc3.d/S400ic-broker*
- */sbin/rc2.d/K410ic-broker*

If the InCharge 5.0.1 Broker is on the same host as the pre-5.0 InCharge applications broker:

- Replace `/sbin/init.d/ic-broker` with **BASEDIR**/`smarts/script/ic-broker` from the InCharge 5.0.1 installation.
- Verify that the `SMHOME` variable in the script points to the new InCharge Broker.

AIX

To stop the InCharge Broker, use the following command:

```
# /etc/smarts.d/S90ic-broker stop
```

If the InCharge 5.0.1 Broker you intend to use is on a separate host from the pre-5.0 InCharge applications broker, you have to prevent the InCharge Broker from restarting when the system is rebooted. To do this, delete the `ic-broker` script from the `/etc/smarts/S90ic-broker` directory.

If the InCharge 5.0.1 Broker is on the same host as the pre-5.0 InCharge applications broker:

- Replace `/etc/smarts.d/S90ic-broker` with **BASEDIR**/`smarts/script/ic-broker` from the InCharge 5.0.1 installation.
- Verify that the `SMHOME` variable in the script points to the new InCharge Broker.

Windows

If you installed the Broker as a Service, you can disable it through the Services Control Panel. First, stop the InCharge Broker service and change its Startup Type to *Disabled*.

Editing the Broker Environment Variable in Pre-5.0 Installations

The broker environment variable must be updated on all hosts running any pre-5.0 InCharge programs. The **<host>** parameter should be changed to the name of the host where the InCharge Broker is installed. The **<value>** parameter represents the TCP port on which the broker listens for incoming connections. You should not need to change this value. The default values for these two parameters are *localhost:426*.

UNIX

The broker environment variable (SM_BROKER_DEFAULT) is set in the *runcmd_env.sh* file. This file is located in the **BASEDIR**/*smarts/local/conf* directory. Open this file in a text editor and search for the following line:

```
SM_BROKER_DEFAULT=<host>:<value>
```

Edit SM_BROKER_DEFAULT to point to the 5.0.1 Broker location. This variable becomes the default broker setting for all SMARTS applications running from **BASEDIR**.

Windows

The broker environment variable (SM_BROKER) in pre-5.0 InCharge installations is set through the Environment tab of the System Control Panel. Select the SM_BROKER variable and edit its value to the appropriate Host:Port.

Windows With Both Pre-5.0 and 5.0.1 Installations

When old and new installations reside on the same Windows host, you must override the older broker setting. This ensures that all applications point to the new 5.0.1 Broker on that host. To override the old broker, perform these steps:

- 1 Set the pre-5.0 broker variable to the new 5.0.1 Broker location:
From the Environment tab of the System Control Panel, select the SM_BROKER variable and edit its value to the appropriate 5.0.1 broker location *<Host:Port>*.

2 Add a global broker setting to the *runcmd_env.sh* file:

Open the *runcmd_env.sh* file located **BASEDIR**/*smarts/local/conf* and add the following line below `SM_BROKER_DEFAULT=<Host:Port>`:

```
SM_BROKER=%SM_BROKER_DEFAULT%
```

Starting and Verifying the Broker State

Start the new 5.0.1 Broker. For instructions on starting the broker, refer to [Starting InCharge Services](#) on page 56.

You can verify the current state of the InCharge Broker using the **brcontrol** command. From **BASEDIR**/*smarts/bin*, execute the **./brcontrol** command. This displays a list of Service Assurance Global Managers and InCharge Domain Managers registered with the Broker, the state of each manager (RUNNING, DEAD, UNKNOWN), the manager's process ID, port number, and the last time the manager's state changed.

For more information about the Broker, see the *InCharge System Administration Guide*.

Copying the Broker Repository File

The broker repository file (*broker.rps*) from previous installations of InCharge stores your InCharge applications information and should be copied to your new InCharge installation. This prevents you from having to restart the application.

Locate the old broker repository file in **BASEDIR**/*smarts/conf*. Copy this file to the InCharge 5.0.1 directory of **BASEDIR**/*smarts/local/repos/broker*.

Note: When the InCharge applications are shut down for the first time, the unregistration from the broker will be unsuccessful. Restarting those InCharge applications will fix the state of the broker.

Migration Post-Installation Checklist

Use this procedure if you are upgrading from a pre-5.0 version of InCharge. After starting the 5.0.1 Broker, Global Manager and underlying domains, use the following checklist to verify that previous configurations and customizations are working properly in the new environment.

Migration Verifications

- Verify that all of the underlying domains are running and registered with the new broker.
- Verify that topology and events have been imported and that any customized tags are still in place.
- Verify that your custom hook scripts are running properly.
- Verify that you can see containment views for devices from each underlying domain.

Migration Tests

- Test your custom adapters.
- Test all of your client and server tools.
- Test that you can access each underlying domain from the InCharge Administration Console. From Service Assurance Manager, open the Global Console and click *Configure > IC Domains Admin Console*. Log in to the underlying domains to test your access.
- Test the saved consoles for a sampling of users. To verify this with various user IDs, perform these steps:
 - 1 Use *sm_edit* to open the *serverConnect.conf* file from **BASEDIR**\smarts\conf.
Change *<SYS>* to an asterisk (*) and save the file. *Sm_edit* saves the file to **BASEDIR**\smarts\local\conf.
For information about the *sm_edit* utility, refer to the *InCharge System Administration Guide*.
 - 2 Login using various user IDs and load saved consoles.
 - 3 From *serverConnect.conf*, now located in **BASEDIR**\smarts\local\conf, change the asterisk (*) back to *<SYS>* and save the file to enable security again.

Migration Configurations

- Configure all underlying domains to point to the InCharge 5.0.1 Broker and to automatically register with it at startup. Restart the servers to apply the changes.
- From the Service Assurance 4.6 location, copy the following types of customized 4.6 files to the appropriate */local* directory in the InCharge 5.0.1 installation location. The files that should be copied include, but are not limited to:

FILE TO BE COPIED	CURRENT LOCATION UNDER BASEDIR/SMARTS FOR 4.6	NEW LOCATION UNDER BASEDIR/SMARTS FOR 5.0.1
Hook scripts Test any customized ASL scripts after copying.	<i>/rules/...</i>	<i>/local/rules/...</i>
Import files (groups and services) such as: <i>service.data.template</i> <i>topology-group.data.template</i>	<i>/conf/ics</i>	<i>/local/conf/ics</i>
Custom client/server tools Tools scripts Tool configuration files	<i>/conf/sdi</i> <i>/conf/remedy</i> <i>/conf/trapd</i> <i>/conf/...(your custom files)</i>	<i>/local/conf/sdi</i> <i>/local/conf/remedy</i> <i>/local/conf/trapd</i> <i>/local/conf/...</i>
Consoles	<i>/consoles/</i>	<i>/local/consoles</i>
Permanent license SMARTS.licserv	<i>/conf</i>	<i>/local/conf</i>

Table 24: Custom Files to be Copied During Migration

For customized scripts, after you have copied them, use `sm_edit` to change the `SMHOME` variable to the new location for your 5.0.1 installation. For example, change the variable from `/opt/InCharge-SA` to `/opt/InCharge5`. Also, if the script contains the **sm_server** command, the `-confdir` option for 4.6 is no longer supported; use the `-config` option, instead.

- In the InCharge 5.0.1 environment, manually update the contents of the following 5.0.1 files (Table 25) with the modifications of the Service Assurance 4.6 customizations. Do not just replace the files.

The files can be found in the same directory as the Service Assurance 4.6 location but should be edited using the `sm_edit` utility to ensure they are moved to the appropriate */local* directory with the correct permissions.

FILE TO BE MERGED	LOCATION UNDER BASEDIR/SMARTS FOR 4.6	LOCATION UNDER BASEDIR/SMARTS FOR 5.0.1
Customized conf files, including: <i>clientconnect.conf</i> <i>serverconnect.conf</i>	<i>/conf/...</i>	<i>/local/conf/...</i>
Service map configuration files: <i>service-map.conf</i>	<i>/conf/ics</i>	<i>/local/conf/ics</i>
<i>weights.conf</i>	<i>/conf/ics</i>	<i>/local/conf/ics</i>
<i>ics.conf</i>	<i>/conf/ics</i>	<i>/local/conf/ics</i>
Custom adapters	<i>/conf/notifier</i> <i>/conf/icoi</i> <i>/conf/<adapter></i>	<i>/local/conf/notifier</i> <i>/local/conf/icoi</i> <i>/local/conf/<adapter></i>
Consoles	<i>/consoles/</i>	<i>/local/consoles</i>
Start-up scripts	<i>/script</i>	<i>/local/script</i>

Table 25: Customized Files to be Merged During Migration

Note: Restart the InCharge products to apply the changes and ensure that the services start up and connect automatically.

4

Installing InCharge Products

This chapter describes the installation steps for all InCharge products. The basic steps for installing InCharge products are the same for all supported UNIX and Windows platforms. You must be a UNIX superuser or Windows Administrator to install the InCharge products.

Your license determines which products and product features are available for you to use. For more information about licensing and how to acquire a permanent license, see the *InCharge System Administration Guide*.

InCharge, Service Assurance Manager and Application Services Manager documentation (user's guides in Acrobat PDF format and HTML pages for SMARTS commands) is automatically installed with all products.

Note: When installing InCharge on a Windows host running a virus protection program, the installation tends to run slower and the program may erroneously detect a virus on certain files (such as *install.tar.gz*). The alert can be disregarded. To avoid this alert, turn off the virus protection program before installing InCharge 5.0.1. Be sure to turn on the virus-protection software when the installation is complete.

Installation Overview

Installing InCharge products is a menu-driven, command-line procedure. All of the products are installed to the local host. Optionally, you can install only the Global Console on the local host. For more information on this, refer to [Installing the Global Console Only](#) on page 52. The following list identifies the main steps to install any InCharge products other than the Global Console:

- 1** Mount the CD-ROM and execute the setup program.
- 2** Choose the installation type. (Install)
- 3** Accept the SMARTS copyright.
- 4** Choose the target installation directory.
- 5** Confirm the installation directory.
- 6** Choose products to be installed.
Confirm the list of products to be installed.
- 7** Install the products.
- 8** Accept third-party license agreements
(for JRE, JDK, and Tomcat, if applicable).
- 9** Answer the post-installation questions
(for broker location and service installations).
- 10** Exit the installation and unmount the CD-ROM.

About the Installation Menus

Installing InCharge products is a menu-driven procedure. Across all of the installation menu screens, there are some common elements:

SCREEN ELEMENT	DESCRIPTION
Title Bar	The title bar indicates the purpose of the current menu in the installation (for example, Choose Installation Type or Copyright Agreement)
MAIN MENU COMMANDS	
[B]ack	Returns you to the previous menu screen.
[N]ext	Advances you to the next step of the installation process.
[Q]uit	Exits the installation program.

Table 26: Common Screen Elements and Menu Options

Installation Steps

This section describes how to install the InCharge products.

Note: If you have autorun enabled on Windows, then by default, a console-only installation will be started when the InCharge Installation CD-ROM is loaded. For more information on installing only the Global Console, refer to [Installing the Global Console Only](#) on page 52.

Executing the Installation Setup

- 1 Insert the CD-ROM into the CD-ROM drive.
- 2 For the UNIX operating systems, mount the CD-ROM. Follow the mounting instructions for your operating system:

Solaris:

If the Volume Manager is running, it automatically mounts the InCharge CD-ROM to `/cdrom/incharge`.

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
```

For device information, ask your System Administrator.

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
```

For device information, ask your System Administrator.

AIX:

Use the **smit** interactive utility, specify the mount point (for example, `/mnt`) and exit the utility:

```
# smit mountfs
```

- 3 For the UNIX operating systems, change directory to the mounted CD-ROM

Solaris:

```
# cd /cdrom/incharge/solaris2
```

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

```
# cd /mnt/solaris2
```

HP-UX:

```
# cd /mnt/cdrom/hpux11
```

AIX:

```
# cd /mnt/aix
```

- 4 Execute the Setup command:

UNIX:

```
# ./setup
```

Windows:

To install products other than the Global Console, access the CD-ROM drive from Windows Explorer and double-click the *setup.cmd* file from the CD-ROM directory.

Note:

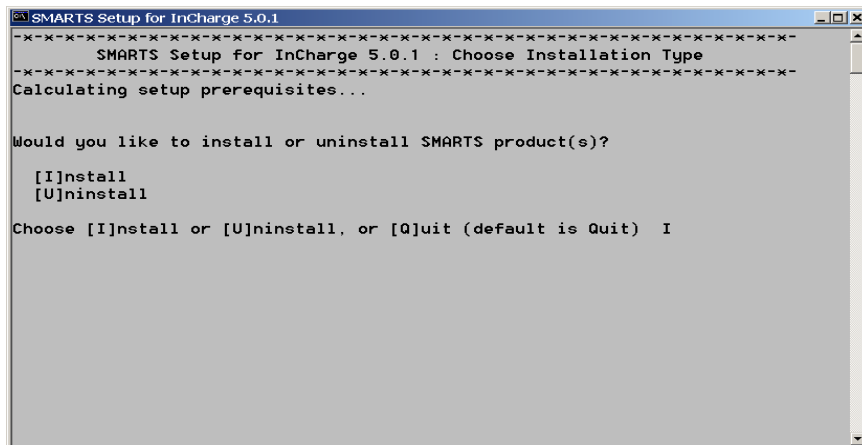
If autorun is enabled on the Windows platform, the default installation is for the console only. You must close out of the autorun installation program and double-click the *setup.cmd* file from the CD-ROM directory.

The SMARTS Installation Utility displays.

Running the Installation Setup

The installation setup prompts you to respond to a series of questions. Type the desired option and press **Enter** to accept.

- 1 Type **I** and press **Enter** to begin the installation.



```

SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Choose Installation Type
-----
Calculating setup prerequisites...

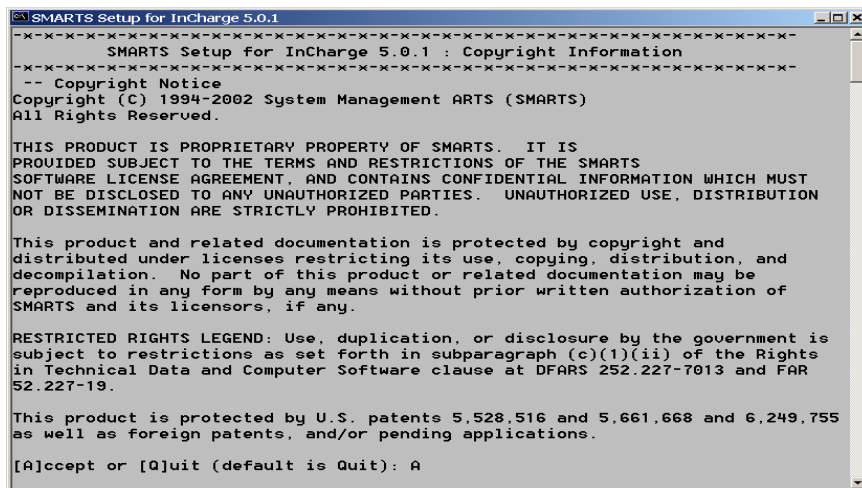
Would you like to install or uninstall SMARTS product(s)?

  [I]ninstall
  [U]ninstall

Choose [I]ninstall or [U]ninstall, or [Q]uit (default is Quit)  I
  
```

The Copyright Information screen displays.

- 2 Type **A** and press **Enter** to accept the Copyright Information.



```

SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Copyright Information
-----
-- Copyright Notice
Copyright (C) 1994-2002 System Management ARTS (SMARTS)
All Rights Reserved.

THIS PRODUCT IS PROPRIETARY PROPERTY OF SMARTS. IT IS
PROVIDED SUBJECT TO THE TERMS AND RESTRICTIONS OF THE SMARTS
SOFTWARE LICENSE AGREEMENT, AND CONTAINS CONFIDENTIAL INFORMATION WHICH MUST
NOT BE DISCLOSED TO ANY UNAUTHORIZED PARTIES. UNAUTHORIZED USE, DISTRIBUTION
OR DISSEMINATION ARE STRICTLY PROHIBITED.

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RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is
subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights
in Technical Data and Computer Software clause at DFARS 252.227-7013 and FAR
52.227-19.

This product is protected by U.S. patents 5,528,516 and 5,661,668 and 6,249,755
as well as foreign patents, and/or pending applications.

[A]ccept or [Q]uit (default is Quit): A
  
```

The Target Directory screen displays.

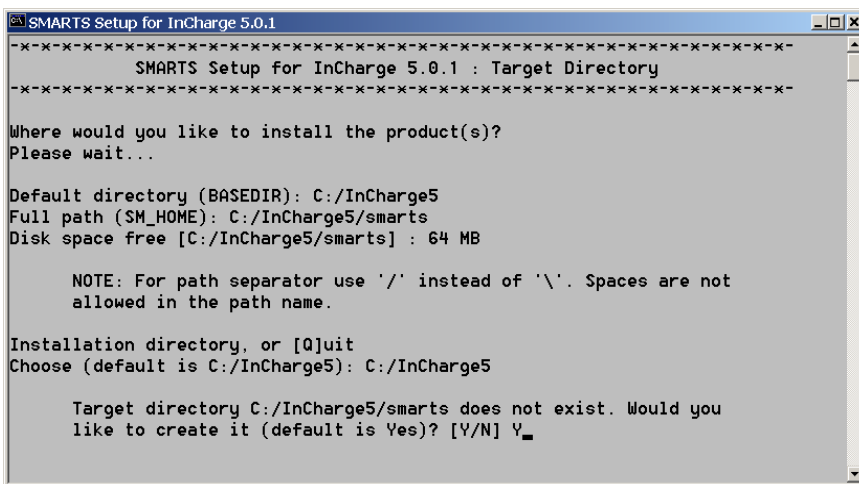
- 3 Press **Enter** to accept the default installation directory or type your preferred directory and press **Enter**.

Be sure to use forward slashes ("/") for both UNIX and Windows directories. Directory names cannot contain spaces.

The default directories for each platform are:

UNIX: /opt/InCharge5/

Windows: C:/InCharge5/



```
SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Target Directory
-----
Where would you like to install the product(s)?
Please wait...

Default directory (BASEDIR): C:/InCharge5
Full path (SM_HOME): C:/InCharge5/smarts
Disk space free [C:/InCharge5/smarts] : 64 MB

NOTE: For path separator use '/' instead of '\'. Spaces are not
allowed in the path name.

Installation directory, or [Q]uit
Choose (default is C:/InCharge5): C:/InCharge5

Target directory C:/InCharge5/smarts does not exist. Would you
like to create it (default is Yes)? [Y/N] Y_
```

If the directory you chose does not yet exist, you are prompted to have it created. Type **y** and press **Enter**.

This screen also allows you to see the free disk space available on the local host so that you can verify that it is adequate for the products you intend to install. For more information on disk space requirements, refer to [Pre-Installation Requirements](#) on page 7.

After defining the target installation directory, the Product Menu screen displays.

When working in the Product Selection Menu, you have the following menu options available to navigate the process:

PRODUCT SELECTION MENU COMMANDS	
Select one of [1-N]	The number corresponding to the InCharge product available for installation. Choosing the product allows you to view its details and add it to your selection list.
[S]elect All	Chooses all of the available products to be installed.
[D]eselect All	Removes all of the products you added to the selection list.
PRODUCT -SPECIFIC COMMANDS	
[A]pprove	Places the product on the selection list. You can confirm that it has been selected when the Action column states Install beside the selected product.
[D]ecline	Returns you to the product selection menu without adding the product to the selection list.
[I]nfo	Provides a description of the product.
[Q]uit	Exits the installation program.

Table 27: Product Selection Menu Options

4 Type the corresponding number of the product you want to install and press **Enter**. You must select one product at a time.

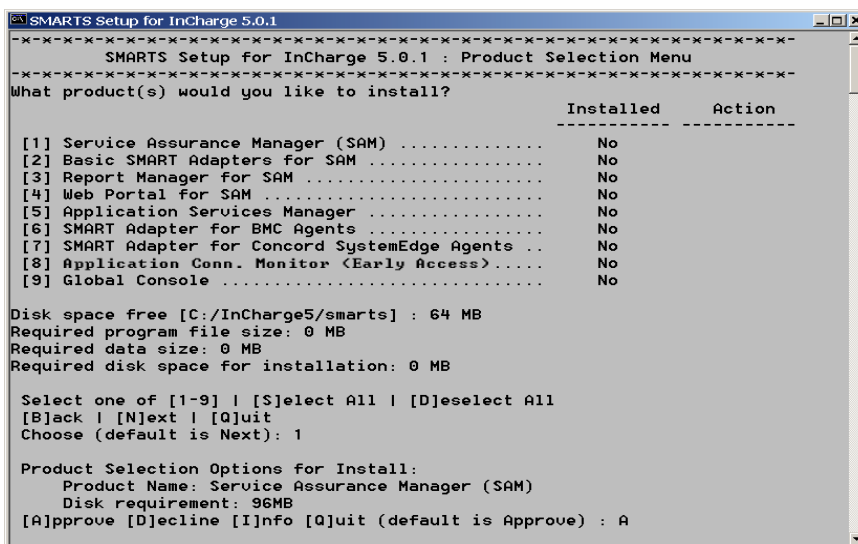


Table 28 describes the purpose of the columns and informational lines found on the Product Selection Menu.

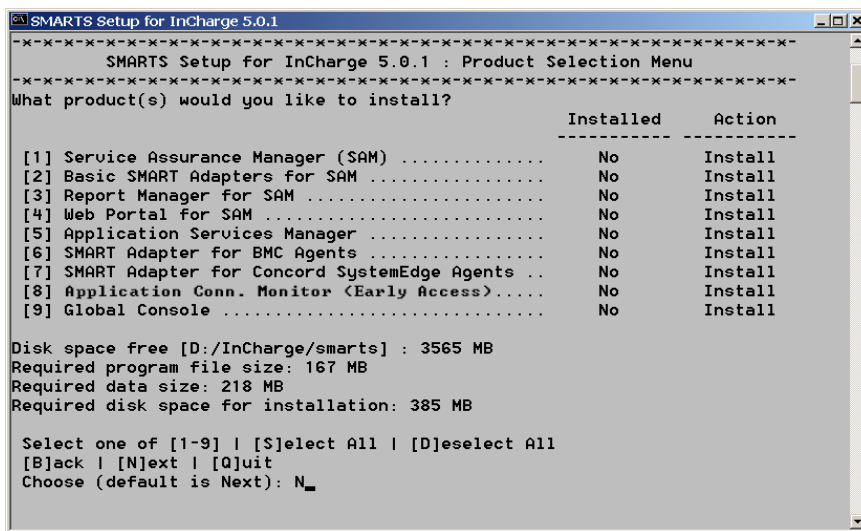
SCREEN ELEMENT	DESCRIPTION
Installed	This column indicates whether a previously-installed version of the product was detected on the local host. No indicates that this is a new installation of the product. Yes indicates that the product has been detected on the local host.
Action	This column indicates whether the product has been chosen for installation. Install indicates that the product is going to be installed. Uninstall indicates that the product is going to be uninstalled. Upgrade indicates previously-installed products.
Disk Space Free	Indicates the amount of free disk space available in the installation directory.
Required program file size	Indicates the disk space required to install the InCharge product files and their third-party product dependencies (such as the JRE, JDK, and Tomcat, etc.).
Required data size	Indicates the disk space required for the files that are dynamically created during the product use in addition to the writable files (logs, repositories, etc.).
Required disk space for installation	Indicates the total disk space required for all of the InCharge products you have chosen. This is the sum of the required program files and data files.

Table 28: Product Selection Menu Screen Element Descriptions

Selecting a product returns the following options:

- Type **A** and press **Enter** to approve the selected product for installation. This displays the word **Install** in the Action column.
- Type **D** and press **Enter** to decline the selected product for installation and return to the Product Menu. There is no change in the Action column.
- Type **I** and press **Enter** to read a description of the product.

- Type **A** and press **Enter**. The screen refreshes and the product you chose now says **Install** in the **Action** column. This indicates you have successfully selected the product for installation.

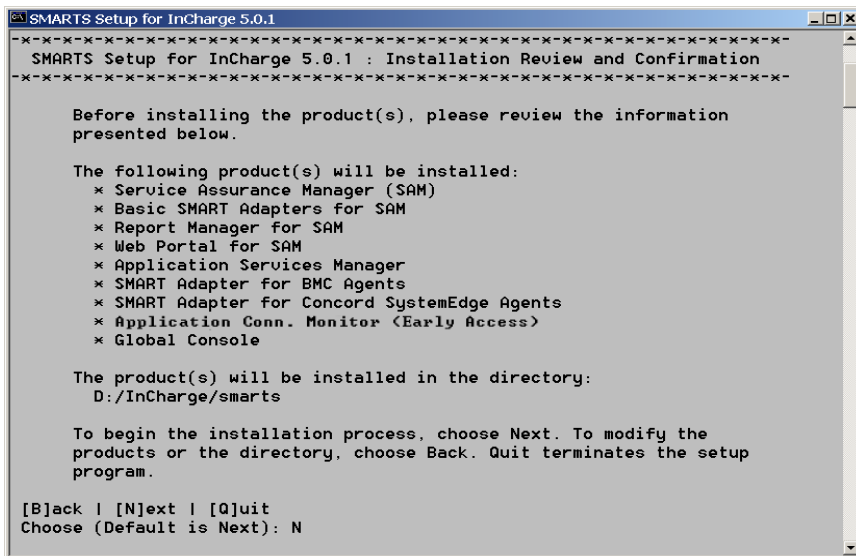


Repeat Step 4 and Step 5 for each product you wish to install.

Note: If you want to de-select a particular product, you must use the `[D]eselect All` command and then re-select the products you want to install.

- Type **N** to proceed.
The Review Next Steps screen displays.

- 7 Review the list of products selected for installation. Type **N** to proceed and install the products. If you want to change your selection list, type **B** and press **Enter** to return to the Product Selection Menu.



```
SMARTS Setup for InCharge 5.0.1
-----
SMARTS Setup for InCharge 5.0.1 : Installation Review and Confirmation
-----

Before installing the product(s), please review the information
presented below.

The following product(s) will be installed:
  * Service Assurance Manager (SAM)
  * Basic SMART Adapters for SAM
  * Report Manager for SAM
  * Web Portal for SAM
  * Application Services Manager
  * SMART Adapter for BMC Agents
  * SMART Adapter for Concord SystemEdge Agents
  * Application Conn. Monitor (Early Access)
  * Global Console

The product(s) will be installed in the directory:
  D:/InCharge/smarts

To begin the installation process, choose Next. To modify the
products or the directory, choose Back. Quit terminates the setup
program.

[B]ack | [N]ext | [Q]uit
Choose (Default is Next): N
```

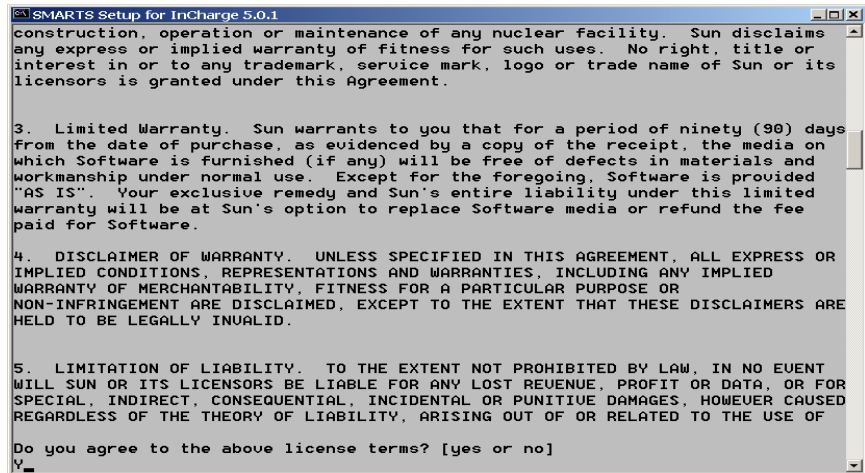
The program now checks for the appropriate memory and patch requirements for each product you chose.

Note:

If your system does not meet the memory requirement for a particular product, the installation program informs you that you have failed a system check. You are prompted to continue with the installation of that product. If you install a product with less than the minimum memory requirement on the host, the program will perform slowly.

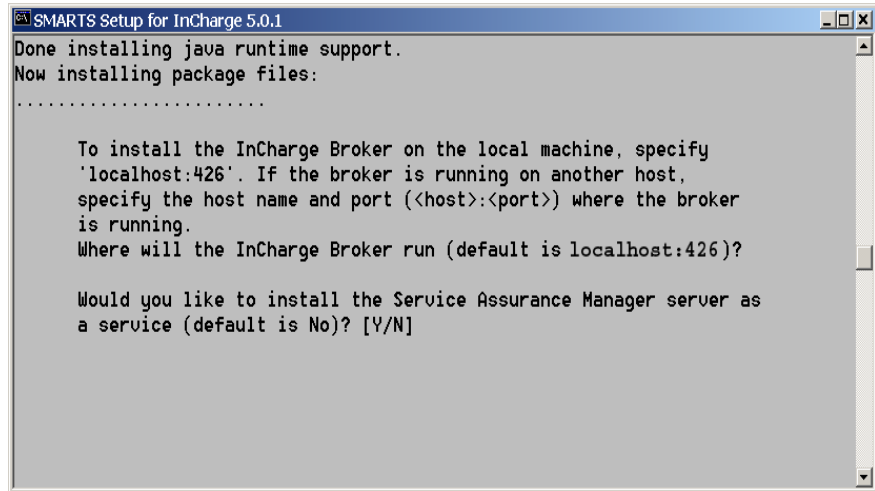
If you are installing products that require Java support (such as the InCharge Console or the InCharge Web Portal), then you are prompted to accept the license agreements for the Java Runtime Environment (JRE) and/or the Java Development Kit (JDK).

- 8 Read and accept the Sun Microsystems license agreements:
 - Press the **Spacebar** to scroll through the license agreement for the Java Runtime support. Type **q** to proceed. Type **y** to agree to the license terms. The JRE is unpacked and extracted.
 - Press the **Spacebar** to scroll through the license agreement for the Java Development Kit. Type **q** to proceed. Type **y** to agree to the license terms. The JDK is unpacked and extracted.



At this point, the JRE and/or the JDK are installed. The InCharge products are installed.

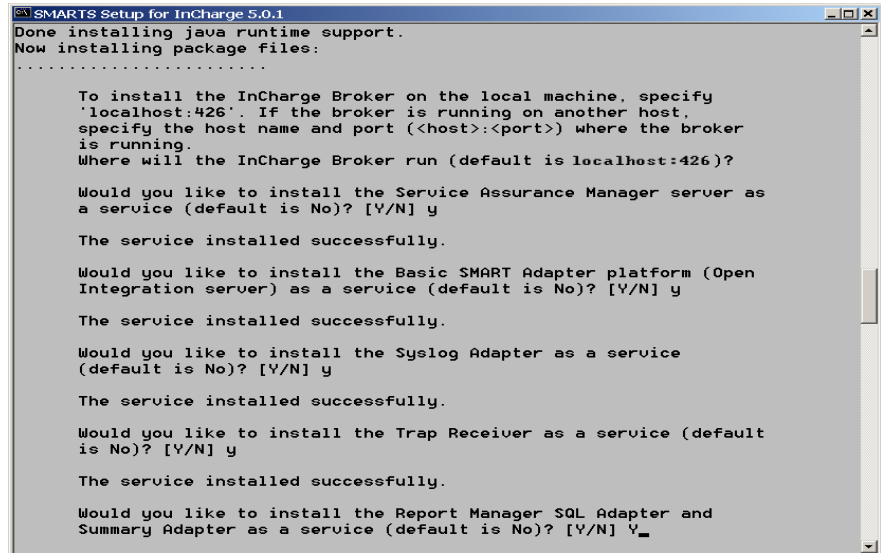
- At the prompt, type the host name and port number (<host>:<port>) where the InCharge Broker will run. The default value is localhost:426. Press **Enter**. Use the default if you intend to run the broker on the local machine. Typing anything other than localhost will configure InCharge to run using a broker installed on a host of that name.



Note:

If you have a previously-installed version of the broker running, the installation program will detect it and will not override the pre-5.0.1 Broker with the 5.0.1 Broker. The message informs you of the location of the old broker so you can stop and/or remove it. For information on how to configure previously-installed InCharge products to use the new broker, refer to [Configuring InCharge Software to Use the New InCharge Broker](#) on page 31.

10 Answer the post-installation questions.



```
SMARTS Setup for InCharge 5.0.1
Done installing java runtime support.
Now installing package files:
.....
To install the InCharge Broker on the local machine, specify
'localhost:426'. If the broker is running on another host,
specify the host name and port (<host>:<port>) where the broker
is running.
Where will the InCharge Broker run (default is localhost:426)?

Would you like to install the Service Assurance Manager server as
a service (default is No)? [Y/N] y

The service installed successfully.

Would you like to install the Basic SMART Adapter platform (Open
Integration server) as a service (default is No)? [Y/N] y

The service installed successfully.

Would you like to install the Syslog Adapter as a service
(default is No)? [Y/N] y

The service installed successfully.

Would you like to install the Trap Receiver as a service (default
is No)? [Y/N] y

The service installed successfully.

Would you like to install the Report Manager SQL Adapter and
Summary Adapter as a service (default is No)? [Y/N] Y_
```

Choosing the following products prompts you to install them as Services:

- InCharge Broker
- Service Assurance Manager
- Report Manager SQL Adapter and Summary Adapter (Installed as two separate services)
- Basic SMART Adapters (Separate services for SNMP Trap Adapter, Syslog Adapter and Open Integration)
- Web Portal
- Application Services Manager
- SMART Adapter for BMC Agents

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

- 11** Upon answering the post-installation questions, you should receive the confirmation "The InCharge products installed successfully." Press **Enter** to exit the installation. It is not necessary to re-boot the system after installation.
- 12** You should unmount the CD-ROM after completing the installation. For more information, refer to [Unmounting the CD-ROM](#) on page 53.

Installing the Global Console Only

You have the option of installing only the console to a local host. If autorun is enabled on Windows platforms, then by default, this installation option is automatically invoked when the CD-ROM is loaded. Before installing, determine the location (<host:port>) where your InCharge 5.0.1 Broker is running.

- 1 Mount the CD-ROM and change directory to the CD-ROM directory. For mounting instructions for your platform, see [Executing the Installation Setup](#) on page 41.
- 2 Start the console-only installation by executing the following command from the CD-ROM directory:

UNIX: # ./setup --console

Windows: setup.cmd --console

(Optionally, from Windows Explorer, right-click the *setup.cmd* file and choose Autoplay.)

- 3 Type **a** to accept the Copyright Agreement.
- 4 Type the directory name where you want the Global Console to be installed and press **Enter**. If the directory does not yet exist, you are prompted to have it created.

The Sun Microsystems license agreement for the Java Runtime Environment (JRE) displays.

- 5 Press the **Spacebar** to scroll through the license agreement for the Java Runtime support. Type **q** to proceed. Type **y** to agree to the license terms.

The JRE is installed and the Global Console installation begins.

- 6 Type the host name and port number (<host>:<port>) where the InCharge 5.0.1 Broker will run. Press **Enter**.
- 7 Type **y** and press **Enter** to have the InCharge Broker installed as a service. A confirmation of successful installation displays.
- 8 Press **Enter** to exit the installation.
- 9 Unmount the CD-ROM.

Unmounting the CD-ROM

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

UNIX

Use the following procedure to unmount the CD-ROM directory.

- 1** From the command line, change directory from the mounted CD-ROM directory.

```
# cd /
```

- 2** Unmount the InCharge CD-ROM.

```
# umount /mnt
```

- 3** Eject the CD-ROM from the machine.

Windows

Eject the CD-ROM from the machine.

5

Post-Installation Steps

This chapter explains how to perform maintenance tasks that might be required after installing the InCharge products. It explains the procedures for the following tasks:

- Licensing InCharge software.
- Starting the InCharge Broker, Global Manager and Global Console.
- Setting up the ODBC driver for the InCharge Report Manager.

Licensing InCharge Software

Evaluation License

If you are evaluating the InCharge software, you need to obtain and install an evaluation license before you can use the software. (If you do not have an evaluation license, the installation process will run but you will not be able to use the software.) To obtain an evaluation license, send an e-mail message requesting an evaluation license to licensing@smarts.com.

After receiving your request, SMARTS will send you an e-mail message with an attached evaluation license.

After you install the InCharge software, you should install the license file, *trial.dat*, to the **BASEDIR**/*smarts/local/conf* directory. Once the license is installed, you can begin using the InCharge software.

Note: A file named *trial.dat* is installed to the **BASEDIR**/*smarts/local/conf* directory. However, this file is empty and should be replaced by a valid evaluation license. For more information about licenses, refer to the *InCharge System Administration Guide*.

Permanent License

If you purchased the InCharge software, refer to the *InCharge System Administration Guide* for information about obtaining and installing a permanent license.

If you are upgrading from Service Assurance Manager 4.6 or InCharge 5.0, your existing permanent license is still valid for InCharge 5.0.1. However, if you have purchased additional products for InCharge 5.0.1, you need to request a new permanent license.

Starting InCharge Services

The following steps describe how to start the InCharge Broker, Service Assurance Manager, and the Global Console. For information on starting and stopping other products, refer to the *InCharge System Administration Guide*. If you are migrating from a previous version of InCharge Service Assurance Manager, read [Configuring InCharge Software to Use the New InCharge Broker](#) on page 31 before starting any InCharge products.

Starting the InCharge Broker

If you installed the InCharge Broker as a service, to start it for the first time:

Solaris:

```
# /etc/init.d/ic-broker start
```

HP-UX:

```
# /sbin/init.d/ic-broker start
```

AIX:

```
# /etc/smarts.d/ic-broker start
```

Windows:

Click *Start > Settings > Control Panel > Administrative Tools > Services*. Select InCharge Broker and click Start Service.

Starting Service Assurance Manager

If you installed Service Assurance Manager as a service, use the following commands to start the Global Manager for the first time:

Solaris:

```
# /etc/init.d/ic-sam-server start
```

HP-UX:

```
# /sbin/init.d/ic-sam-server start
```

AIX:

```
# /etc/smarts.d/ic-sam-server start
```

Windows:

Click *Start > Settings > Control Panel > Administrative Tools > Services*. Select InCharge Service Assurance Manager and click Start Service.

Starting the Global Console

To start the Global Console, use the following procedure:

Solaris:

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

HP-UX:

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

AIX:

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

Windows:

Click *Start > Programs > InCharge 5.0.1 > Global Console*.

Setting up the ODBC Driver for Report Manager

This section describes the procedure for setting up the DataDirect ODBC driver. You need to edit the *odbc.ini* file. This procedure is only required if you are running the InCharge Report Manager.

For more information on setting up and running the InCharge Report Manager, refer to the *InCharge Service Assurance Manager User's Guide for Report Manager*.

Edit the *odbc.ini* File

The ODBC receives its configuration parameters from an initialization file called *odbc.ini*. Table 29 identifies the installation information for InCharge, Oracle, and the ODBC Driver needed to configure these parameters.

PARAMETER NAME	DESCRIPTION	DEFAULT VALUE
DSName	InCharge Reporting data source; must be the same as the ServerName in <i>sdi_odbc.conf</i> .	Reporting Data Source
Driver	Location of the ODBC driver.	For Solaris and AIX /xxx/myodbc/lib/S6or817.so For HP-UX /xxx/myodbc/lib/S6or817.sl
ServerName	Oracle Server Name configured for Net 8	OracleServiceName
LogonID	Oracle logon ID name	oracleid
Password	Oracle logon password	oraclepassword
TraceDll	Location where the DataDirect ODBC trace file is installed.	/xxx/myodbc.lib/odbctrac.so
InstallDir	Location where the DataDirect ODBC files are installed.	/xxx/myodbc
ConversionTable Location	Location of the tables used internally by the ODBC driver.	/xxx/myodbc/tables

Table 29: Configuration Parameters in the ODBC Initialization File

- 1 Open the *odbc.ini* file from the **BASEDIR**/*smarts/datadirect-odbc/odbc* directory.

2 Modify the parameter values listed in bold:

[Data Sources]

SAM_DSN=Data Source Name

[SAM_DSN]

Driver=SAM_ODBC_INSTALL/lib/S6or817.so

DescribeAtPrepare=1

EnableDescribeParam=1

Description=Oracle

ServerName=SAM_ORACLE_SID

LogonID=SAM_ORACLE_ID

Password=SAM_ORACLE_PASSWORD

DriverExpirationBehavior=1

[ODBC]

Trace=0

TraceFile=odbctrace.out

TraceDll=SAM_ODBC_INSTALL/lib/odbctrac.so

InstallDir=SAM_ODBC_INSTALL

ConversionTableLocation=SAM_ODBC_INSTALL/tables

UseCursorLib=0

6

Running the Console as a Java Applet

This chapter provides instructions on how to run the InCharge Console on a client workstation as a Java applet. When the console is run as an applet, a client can attach to the host where the Service Assurance Global Manager is running.

Requirements for this type of configuration are described in [Java Applet Requirements](#) on page 23. If the requirements are satisfied, the process involves launching the applet and attaching to your Service Assurance Global Manager.

There are some limitations to running the console as an applet. In all cases, the applet is *not* able to perform certain operations that the stand-alone application can, namely:

- Using the Map Console
- Loading a local console
- Saving a console locally

Launching the Applet

To launch the applet, perform these steps:

- 1 After configuring the plug-in, exit all of your browser windows including mail windows.
- 2 Restart your browser.
- 3 Point your browser at the URL. This depends on the location of the Global Manager and the Broker.

- If the Global Manager and Broker run on the same host, use:

```
http://Host:Port/applet/globalConsole.html
```

where **Host** refers to the name of the machine on which the Broker for the Global Manager is running and **Port** refers to the Broker's port number.

- If the Global Manager is not running on the same host as the Broker, start your browser, point it at the URL below, and then attach to the Global Manager.

```
http://Host:Port/applet/globalConsole.html
```

where **Host** refers to the name of the machine on which the Global Manager is running and **Port** refers to the Global Manager's port number.

Attaching to a Service Assurance Global Manager

Attaching to the Service Assurance Global Manager is performed in the same way you would from the stand-alone Global Console. However, due to Java security restrictions, you might only be able to connect to Service Assurance Global Managers running on the same host as specified in the URL used to launch the applet.

If the InCharge Broker is on a separate host from the Global manager, you must attach to the Global Manager. From the Global Manager field of the Attach dialog box, specify **Host:Port/global_manager_name** instead of selecting it from the drop-down menu. This bypasses the broker and avoids applet security restrictions.

7

Uninstalling InCharge Products

The uninstall process removes selected InCharge products utilizing the same menu-driven, command line program as the install procedure. This allows you to choose which programs you want to uninstall. After uninstalling, your customized files remain saved in **BASEDIR/smarts/local**.

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

Stopping InCharge Services

SMARTS recommends that you stop all of the InCharge services that you have running (including the FLEXlm license server). For more information on stopping InCharge services, refer to the *InCharge System Administration Guide*.

Uninstalling InCharge Products

There are three ways to uninstall InCharge products:

- From the InCharge Installation CD
- From the **BASEDIR**/*smarts/bin* directory
- From the Control Panel > Add/Remove Programs (Windows only)

Uninstalling From the Installation CD

- 1 Mount the InCharge Installation CD-ROM.

For mounting instructions for your operating system, refer to [Executing the Installation Setup](#) on page 41.

- 2 If autorun is not enabled, access the CD-ROM directory.
- 3 Execute the setup command:

```
./setup
```

Uninstalling From the Bin Directory

- 1 Change to the directory as follows:

```
# cd BASEDIR/smarts/bin
```

- 2 Execute the **setup** command.

```
# ./setup
```

Uninstalling From the Control Panel (Windows Only)

- 1 Click *Start > Settings > Control Panel*
- 2 Double-click **Add/Remove Programs**
- 3 From the Add/Remove Programs window (on the Install/Uninstall tab on Windows NT), select SMARTS InCharge 5.0.1.
- 4 Click **Change/Remove** on Windows 2000
Click **Add/Remove** on Windows NT.

Running the Uninstallation Program

The uninstall begins with the Choose Installation Type screen.

- 1 At the command line, type `␣` and press **Enter** to start the uninstallation process (when starting from the CD-ROM or **BASEDIR**/*smarts/bin*).
- 2 Choose the target directory for uninstallation (this is only necessary if you are running the uninstallation program from the InCharge CD). Press **Enter** to accept the default or type the directory path of your InCharge installation.

Be sure to use forward slashes ("/") for both UNIX and Windows directory names. Directory names cannot contain any spaces.

The default directories for each platform are:

UNIX: `/opt/InCharge5/`

Windows: `C:/InCharge5/`

- 3 Type the corresponding number of the product you want to uninstall and press **Enter**. Repeat for each product you want to uninstall or type `s` and press **Enter** to select all of the products.

When working in the Product Selection Menu, you have the following menu options available to navigate the process:

PRODUCT SELECTION MENU COMMANDS	
Select one of [1-N]	The number corresponding to the InCharge product available for installation. Choosing the product allows you to view its details and add it to your selection list.
[S]elect All	Chooses all of the available products to be installed.
[D]eselect All	Removes all of the products you added to the selection list.
PRODUCT -SPECIFIC COMMANDS	
[A]pprove	Places the product on the selection list. You can confirm that it has been selected when the Action column states Install beside the selected product.
[D]ecline	Returns you to the product selection menu without adding the product to the selection list.
[I]nfo	Provides a description of the product.
[Q]uit	Exits the installation program.

Table 30: Product Selection Menu Options

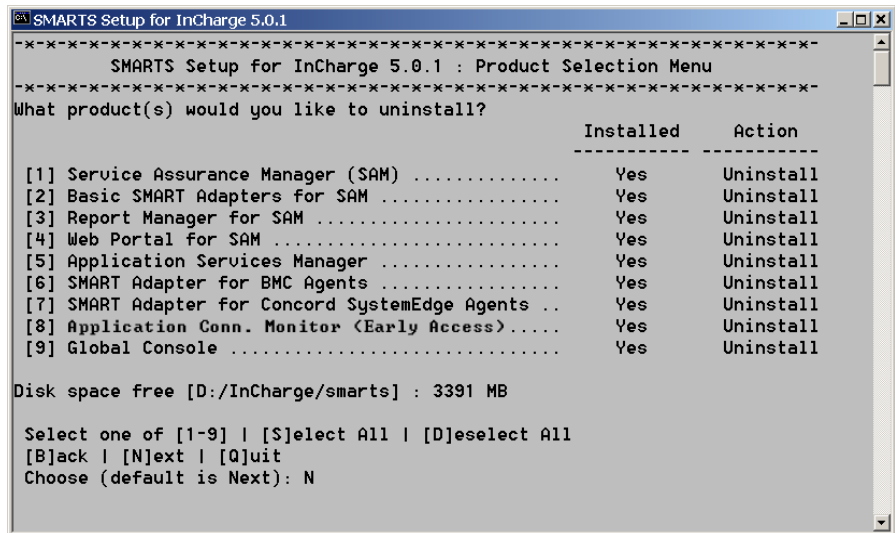
Each product you choose to uninstall displays **Uninstall** in the Action column. Repeat for each product you want to uninstall.

Table 31 describes the purpose of the columns and informational lines found on the Product Selection Menu.

SCREEN ELEMENT	DESCRIPTION
Installed	This column indicates whether a previously-installed version of the product was detected on the local host. No indicates that this is a new installation of the product. Yes indicates that the product has been detected on the local host.
Action	This column indicates whether the product has been chosen for installation. Install indicates that the product is going to be installed. Uninstall indicates that the product is going to be uninstalled.
Disk Space Free	Indicates the amount of free disk space available in the installation directory.

Table 31: Product Selection Menu Screen Element Descriptions

- Verify that all of the products you want to uninstall display **Uninstall** in the Action column. Press **Enter** to continue with the uninstallation.



Note: If you want to de-select a particular product, you must use the [D]eselect A11 command and then re-select the products you want to uninstall.

