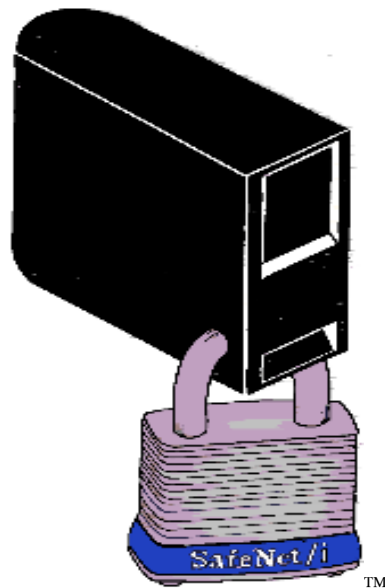


**SafeNet/i**

**FOR IBM i**

**INSTALLATION AND UPGRADE  
GUIDE**

**Version 11**



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SafeNet/i Support Website: <https://www.kisco.com/safenet/support/index.html>

Kisco Website: <https://www.kisco.com/>

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# SafeNet/i Installation and Upgrade Guide

## Chapter 1 - INSTALLING SAFENET/i – NEW INSTALLATION ONLY

### *What SafeNet/i will change on your system*

The following will occur automatically during the **SafeNet/i** installation process when using the LODRUN command. No verification or pre-processing screens are displayed during the installation.

1. Library PCSECLIB, which contains the **SafeNet/i** licensed programs, and library PCSECDTA, which contains data, are created.
2. The network attribute DDMACC is changed from \*OBJAUT to SAFENET/PCSECLIB. This controls the *DDM Server* function exit point.
3. The network attribute PCSACC is changed from \*OBJAUT to \*REGFAC. This controls the *Original PC Support* client transfer requests.
4. Exit point program SAFENETxx in PCSECLIB is registered to all supported i OS servers. Use the IBM i WRKREGINF command if you require further information.
5. Two user profiles are assigned super-administrator rights to **SafeNet/i** by default: profiles SAFENET and QSECOFR.

You may choose to remove SAFENET as a Super Admin, but you cannot remove QSECOFR as a Super Admin.

See ‘SafeNet Administrator’ in Chapter 3 of the [SafeNet/i Implementation Guide](#) for more information.

## ***Help***

All screens, menus and commands within **SafeNet/i** provide extensive **HELP** panels. This **HELP** is available by using the **F1** key or **HELP** key, whichever is applicable to your keyboard.

## ***SafeNet/i Commands***

To use **SafeNet/i** commands instead of the menu structure, make sure you add PCSECLIB to your library list. Use the command:

**ADDLIBLE PCSECLIB**

You will find a complete list of all the **SafeNet/i** commands in Chapter 9, 'Special SafeNet/i Considerations' in the SafeNet/i Reference Guide.

## First Time Installation

Follow these steps to install **SafeNet/i** on your system for the very **FIRST TIME**.

**Important:** If you are upgrading to Version 11 from a previous version of SafeNet/i, see the Version 11 Upgrade Process in Chapter 2 of this guide.

## SafeNet/i Installation – first time install

### READ THIS BEFORE YOU PERFORM ANY INSTALLATION STEPS

If the length of time since you did an IPL on your IBM i is over 30 days, we strongly recommend you schedule an IPL **BEFORE** you begin the SafeNet/i installation.

This will ensure that your IPL procedure is current and all system processes restart correctly after the IPL.

### SafeNet install and initial setup

1. Download the software and follow the ‘Instructions for a New Installation where SafeNet/i has never been installed’:

<https://www.kisco.com/safenet/sndload11.html>

When the installation is complete, the main SafeNet/i menu will be displayed

```
SN1                               SafeNet/i Version 11                               4/29/24
MPADEV                            Main Menu                               15:11:19
                                   Network Resource Security

Select one of the following:
1. Server Security Settings          Level Required All          Fast Path WRKSRV
2. Special SafeNet Settings
3. Alert Notification Settings
4. Additional FTP Settings
5. Work With Server IP Controls      Level Required 3 or 4          Fast Path WRKSRVIP
6. Telnet IP Controls and Auto Signon Level Required 3 or 4          Fast Path WRKTCIPA

22. Special Jobs Menu (SN2)          Level Required
23. Setup Reports Menu (SN3)
24. Analysis Reporting Menu (SN4)
25. Two-Factor Authentication Menu (SN2FA)
26. Journaling Menu (SN6)
27. User Settings Menu (SN7)
28. Alt User Settings Menu (SN8)
70. Expert User Menu (SNX)
80. Install Menu 90. Signoff

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===> _
```

2. Make sure you modify your system startup program

Modify your system startup program to add STRTRP at the beginning of the program before other subsystems are started.

Add these commands to your system startup program:

**PCSECLIB/STRTRP  
MONMSG CPF000**

3. Register SafeNet/i Administrators

Before you IPL your system, you should register your SafeNet/i Administrators in the software.

Use command **PCSECLIB/WRKSNADM**

Or use the SafeNet/i menus

Navigate to the SafeNet/i Main Menu by typing on the command line:

**GO PCSECLIB/SN1**

Select **Option 27 – User Settings Menu**

Select **Option 9 – SafeNet/i Administrators**

SN7		SafeNet/i Version 11	4/17/24
MPADEV		User Settings Menu	14:27:36
Select one of the following:			
		Level Required	Fast Path
1.	Work with User to Server Security	3 or 4	WRKUSRSRV
2.	Work with User to Object Level Security	4	WRKUSROBJ
3.	Work with User to SQL Statement Security	4	WRKUSRSQL
4.	Work with User to FTP Statement Security	4	WRKUSRFTP
5.	Work with User to CL Command Security	4	WRKUSRCMD
6.	Work with User to Long Path Names	4	WRKUSRPTH
7.	Work with User to IP Addresses		WRKUSRIP
8.	Work with Swap Profiles		WRKSWPPR
9.	SafeNet Administrators		WRKSNADM, WRKSNSUSR
10.	SafeNet Super-Users		WRKSNADM, WRKSNSUSR
11.	Copy A User Setup		CPYSNUSR, RMVSNUSR
12.	Remove a User Setup		CPYSNUSR, RMVSNUSR
13.	Remove Unknown Users from SafeNet		RMVSNUSR1

Add any new Administrators as needed

4. Perform an IPL

## Post-IPL

- To confirm that your system startup program has been modified properly, check to ensure that the *SAFELOGING* subsystem and *SAFELOGING* job are running after the IPL.

Use command **WRKACTJOB SBS(SAFELOGING)** to verify

```
Type options, press Enter.
  2=Change  3=Hold  4=End  5=Work with  6=Release  7=Display message
  8=Work with spooled files  13=Disconnect ...

Current
Opt  Subsystem/Job  User      Type  CPU %  Function      Status
---  ---            ---      ---   ---    ---           ---
   1  SAFEL0GING    QSYS     SBS   .0     DEQW          DEQW
   2  SAFEL0GING    SAFENET  BCH   .0     PGM-WRITETCL DEQW
```

- Verify all the SafeNet/i server functions are set to Logging Level = None

Sign on as SAFENET or QSECOFR, or another SafeNet/i Super Admin profile

Navigate to the SafeNet/i Main Menu (GO PCSECLIB/SN1)

```
SN1                      SafeNet/i Version 11                      4/17/24
MPADEV                    Main Menu                          13:11:38
                          Network Resource Security

Select one of the following:
1. Server Security Settings           Level Required  Fast Path
2. Special SafeNet Settings           All            WRKSRV
3. Alert Notification Settings        CHGSPCSET
4. Additional FTP Settings            CHGNOTIFY
5. Work With Server IP Controls       3 or 4        WRKSRVIP
6. Telnet IP Controls and Auto Signon 3 or 4        WRKTCPIPA

22. Special Jobs Menu (SN2)           26. Journaling Menu (SN6)
23. Setup Reports Menu (SN3)          27. User Settings Menu (SN7)
24. Analysis Reporting Menu (SN4)     28. Alt User Settings Menu (SN8)
25. Two-Factor Authentication Menu (SN2FA) 70. Expert User Menu (SNX)
                                          80. Install Menu  90. Signoff

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```

Select **Option 1 - Server Security Settings** to view the servers

Or use command **PCSECLIB/WRKSRV**



Make sure the *Log* column for all the server functions is set to N

```

WRKRE22R                               SafeNet/i   v12                               4/17/24
MPADEV                               Maintain Server Security                       13:15:46

  Security Levels:
1=Unlimited Access  2=No Access  3=Limited by User  4=Limited by User & Object

  Logging Levels:
A=All  N=None  R=Rejects Only

  TOD=Time of Day Controls
  IPA=IP Address Controls
  Y=Yes  N=No

|----Current---| Future  Max
Sec. Log TOD IPA  Lvl  Lvl  Server
Description
1  N  N  N  4  4  Distributed Data Management      *DDM
1  N  N  N  3  4  DRDA DB2 Database Access Rqst    *DRDA
1  N  N  N  4  4  Original Data Queue Server      *DQSRV
1  N  N  N  1  3  Original License Mgmt Server    *LMSRV
1  N  N  N  1  3  Original Message Server         *MSGFCL
1  N  N  N  3  3  Network Print Server - entry    QNPSERVER
1  N  N  N  1  4  Network Print Server - spool file QNPSERVER
1  N  N  N  3  4  File Server                     *FILESRV
1  N  N  N  1  4  Original Remote SQL Server      *RQSRV
1  N  N  N  3  4  Exit point for APIs that accept socket c*TCPACCEPT
More...

```

Page down to inspect all the servers.

Congratulations! You are now ready to activate transaction logging in SafeNet/i.

Follow the instructions in the next section to activate transaction logging.

## When you are ready to begin logging transactions

### 1. Change the *SafeNet Master Logging Level Switch*

Use **Option 2 - Special SafeNet Settings** from the SafeNet Main Menu

Change the first parameter *Record All Transactions* to *\*FILE*

Or

Use command **PCSECLIB/CHGSPCSET LOGALL(\*FILE)**

```
Change SafeNet Special Setting (CHGSPCSET)

Type choices, press Enter.

Record All Transactions to . . . *FILE          *FILE, *JOURNAL, *BOTH, *NONE
Journal SafeNet Sec Changes? . *YES          *YES, *NO
Reg-Admin changes Q Profiles? . *YES          *NO, *YES
Restrict Reg-Admin WRKUSRxxx? . *YES          *YES, *NO
Swap User Profiles . . . . . *OPT          *NO, *OPT, *RQD
Use TCP/IP Address Controls? . . *NO          *NO, *YES
Log Super User Transactions? . . *YES          *NO, *YES
Retrieve SuperUser Every Time? . *YES          *DO NOT CHANGE*
Allow Incoming DDM Commands? . . *YES          *YES, *NO
Ctl DDM access by System Name? . *NO          *NO, *YES
Perform Generic Object Search? . *YES          *YES, *NO
Object Search Sequence . . . . . *STD          *STD, *ALT1, *ALT2, *ALT3
Object Search Stop Point. . . . . *ONMATCH      *ONMATCH, *ONACCEPT...
Specific USRLIBL Entry Needed? . *NO          *NO, *YES
Allow READ of IBM Folders? . . . *YES          *YES, *NO
Allow UPDATE of IBM Folders? . . *NO          *YES, *NO

More...
```

### 2. Enable the logging level at each server in SafeNet/i

We recommend that you activate logging on each server individually to see what impact logging for each specific point might have on your system.

From the SafeNet Main Menu use **Option 1 - Server Security Settings** to work with the servers

Or use command **PCSECLIB/WRKSRV**

Activate logging for each individual server

Change the **N** under the "Log" column to **A**

Logging will be activated immediately for the server function selected

```

WRKRE22R                               SafeNet/i   v12                               4/17/24
MPADEV                               Maintain Server Security           13:34:50
Security Levels:
1=Unlimited Access  2=No Access  3=Limited by User  4=Limited by User & Object

Logging Levels:
A=All  N=None  R=Rejects Only
TOD=Time of Day Controls
IPA=IP Address Controls
Y=Yes  N=No

|----Current---| Future  Max
Sec. Log TOD IPA Lvl  Lvl  Description
1  A  N  N  4  4  Distributed Data Management *DDM
3  A  N  N  3  4  DRDA DB2 Database Access Rqst *DRDA
1  A  N  N  4  4  Original Data Queue Server *DQSRV
1  A  N  N  1  3  Original License Mgmt Server *LMSRV
1  A  N  N  1  3  Original Message Server *MSGFCL
1  A  N  N  3  3  Network Print Server - entry QNPSERVR
1  A  N  N  1  4  Network Print Server - spool file QNPSERVR
1  A  N  N  3  4  File Server *FILESRV
1  A  N  N  1  4  Original Remote SQL Server *RQSRV
1  A  N  N  3  4  Exit point for APIs that accept socket c*TCPACCEPT
More...

```

Continue setting the logging to 'A' (ALL) one server function at a time.

As you do each server, you can check the record count and data in file TRAPOD.

You can also watch the performance of the SAFELOGING job if needed.

Once you set each server to logging, you can filter transaction logging as needed to reduce or omit certain transactions from the log file

See detailed instructions on configuring SafeNet/i for your environment in the [SafeNet/i Implementation Guide](#) and [SafeNet/i Reference Guide](#).

### ***Reducing IPLs needed at install time***

The **SafeNet/i** user guide recommends an IPL prior to activating the product. There is also an IPL that will be required when PTFs are applied from IBM. Since some installations run on a 24-hour basis, adding two IPLs can be a problem. To help, you can use the following procedure to combine these two IPLs into a single IPL.

- Load **SafeNet/i**, but do not change any initial settings.
- Load your IBM PTFs if necessary
- Do the single IPL

## Chapter 2 - UPGRADING TO A NEW RELEASE OF SAFENET/i

**Important:** If you are planning to upgrade to **SafeNet/i** Version 11, and you currently have Version 8 or below installed – **STOP HERE**. Please contact Kisco Information Systems at [Support@Kisco.com](mailto:Support@Kisco.com) for specific instructions and assistance.

There are two methods available to upgrade **SafeNet/i**:

Method A – Traditional Direct Installation

Method B – Automatic Unattended Upgrade Installation

Either method will result in a successful upgrade installation.

**Method A** is used for those situations where you can easily schedule some downtime for your system and you prefer to do a direct installation with operator supervision during the entire process.

**Method B** can be used as an alternate when scheduling downtime is a problem. Method B is a two-step process where the actual installation is done during an IPL of your system.

**Important Note:** You cannot use *Method B* when upgrading more than one release level.

**Please follow this link to obtain current upgrade instructions:**

<http://www.kisco.com/safenet/sndloadv11u.htm>

## Chapter 3 - INSTALLING PTFs

### *Remote PTF Update Service*

**SafeNet/i** supports distribution of program updates remotely via the Internet. When programs in **SafeNet/i** are updated or program fixes are required, Kisco Information Systems can send the updates directly to you via the Internet or as an e-mail with an attached file. This file, when loaded into a folder on your system, can be used to post program updates and changes to your copy of **SafeNet/i**.

Some PTFs come with additional instructions included in the email. Special instructions might include things like timing for the PTF installation, shutting down specific servers while the PTF install is running, along with other items to be aware of during the PTF process. Please make sure you review these additional instructions before you begin.

When you receive a PTF package from Kisco, you will be given an eight character PTF package name. To load and apply the PTF to your system, follow these steps:

1. Create a folder on your system named KISCO. You can do this with the following command:

**CRTFLR FLR(KISCO)**

*Note:* If you have received other PTFs from Kisco in the past, this folder may already exist on your system. There is no need to re-create it again at this point.

2. From a PC that is attached to your IBM i, move the PTF package file that you received from Kisco into this folder.

#### From a Windows client

You can simply use a copy function to accomplish this. A command similar to the following would work:

**copy c:\{PTF name} i:\qdl\kisco**

where {PTF name} is the PTF package name assigned to the file.

To use System i Navigator:

- Double click 'File Systems'
- Double click on 'File Shares'
- Double click on the 'QDLS' folder
- Double click to open the 'KISCO' folder
- Click on the PTF and drag it to the Kisco folder

After the PTF file has been copied to the KISCO folder:

1. Sign on to any terminal or terminal session as QSECOFR.
2. Type the following command:

**GO PCSECLIB/INSTALL**

3. When the menu is displayed, **select Option 6 – Process Kisco PTF Package**. This will prompt the KISPTF command on your terminal session.

When prompted by the command, enter the *eight character name* of the PTF package file.

Press **ENTER**. The PTFs will be loaded and applied to your copy of **SafeNet/i**.

During the PTF installation process, a printout of the PTF cover letter documentation will be created.

There may also be an additional printout containing documentation updates for **SafeNet/i** changes. Kisco recommends that you read these documents before starting to use **SafeNet/i** again.

All Kisco PTFs are loaded so that the prior version of any program object is saved. This will allow for the effects of a PTF to be reversed at a later time should a defect be identified in the PTF. This can only be done via direct instruction from a Kisco support representative.

***Please follow this link to obtain current PTF installation instructions:***

<http://www.kisco.com/safenet/support/snptfpst.htm>