Installation Guide

i-Planet™ 2.0

Sun Microsystems, Inc.
901 San Antonio Road
Palo Alto, CA 94303
U.S.A. 650-960-1300

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Preface

The *i-Planet Installation Guide* provides information about installation and instructions to install the i-Planet™ software and license.

Who Should Use This Book

The *i-Planet Installation Guide* is intended for system administrators installing the i-Planet software. Familiarity with basic UNIX system administration and networking is assumed.

How This Book Is Organized

This book contains the following chapters and appendices:

Chapter 1 provides an overview of installation, describes system requirements, provides an i-Planet diagram, and lists the information needed for installation.

Chapter 2 contains installation procedures and postinstallation information.

Chapter 3 contains information on obtaining and installing your FLEXlm license for i-Planet software.

Chapter 4 contains instructions for removing the software.

Appendix A contains instructions on generating and installing SSL certificates.

Appendix B contains instructions for installing third-party software.

Documentation

i-Planet 2.0 documentation includes:

- *i-Planet Installation Guide* (this book)
- *i-Planet Quick Install* card
- *i-Planet Administration Guide*
- *i-Planet Release Notes*
- Online help

Ordering Sun Documents

The SunDocs[SM] program provides more than 250 manuals from Sun Microsystems, Inc. If you live in the United States, Canada, Europe, or Japan, you can purchase documentation sets or individual manuals using this program.

For a list of documents and how to order them, see the catalog section of the SunStore[SM] Internet site at `http://sunstore.sun.com`.

Accessing Sun Documentation Online

The `docs.sun.com` Web site enables you to access Sun technical documentation online. You can browse the `docs.sun.com` archive or search for a specific book title or subject. The URL is `http://docs.sun.com/`.

What Typographic Changes Mean

The following table describes the typographic changes used in this book.

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% You have mail.`
`AaBbCc123`	What you type, contrasted with on-screen computer output	`machine_name%` **`su`** `Password:`
AaBbCc123	Command-line placeholder: replace with a real name or value	To delete a file, type `rm` *filename*.
AaBbCc123	Book titles, new words or terms, or words to be emphasized	Read Chapter 6 in *User's Guide*. These are called *class* options. You *must* be root to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`
Bourne shell and Korn shell prompt	`$`
Bourne shell and Korn shell superuser prompt	`#`

CHAPTER 1

Preparing for Installation

This chapter contains an overview of the i-Planet installation, information on the i-Planet system requirements, an i-Planet diagram and discussion of components, and information you need for installation, including i-Planet software installation and license installation.

Installation Overview

Installation of the i-Planet product consists of two parts:

1. i-Planet software installation
2. License installation

The i-Planet product includes two CD-ROMs, one containing the i-Planet software itself, and one containing third-party software that can be optionally installed. Software on this CD is described in Appendix B.

System Requirements

This section describes the system requirements for i-Planet software. Refer to the *i-Planet Release Notes* for the most recent information on requirements and patches.

TABLE 1-1 System Requirements

Component	Description
Operating environment	i-Planet 2.0 software runs in the Solaris™ 2.5.1, 2.6, and Solaris 7 operating environments. The basic firewall application provided and SecurID authentication do not run under Solaris 7. Patches required from Sun Microsystems before using the Java™ Development Kit (JDK™) in the Solaris 2.5.1 operating environment include: Patch No. 103566-08 or later (X11/OpenWindows™ patch) and Patch No. 103640-08 or later (kernel patch). Refer to the URL http: //www.javasoft.com/products/jdk/1.2/install-solaris-patches.html or to http://sunsolve.sun.com for patch information.
System	i-Planet 2.0 software ideally uses two machines: one server to function as a gateway between the Internet and your internal network ("the i-Planet gateway") and one server to function as a platform and applications server ("the i-Planet server"). • Machine type: a dual CPU Ultra 60 with 300 MHz is recommended for both the i-Planet gateway and for the i-Planet server. • Memory: the gateway and the i-Planet server should each have a minimum of 128 Mbytes of memory. • Disk space: the i-Planet gateway should have a minimum of 40 Mbytes of free disk space; the i-Planet server should have a minimum of 50 Mbytes of free disk space.
Browser	A browser (Netscape Navigator™ 4.04 or higher, Internet Explorer 4.0 or higher) and an Internet connection are required for a remote client to connect to the i-Planet server, and for the system administrator to use the Administration Console. A patch from Netscape Communications Corporation is required if you are using the Netscape browser versions 4.04 or 4.05: Patch JDK 1.1AWT. This patch can be downloaded from the Netscape website.

Diagram and Components

i-Planet software has three main components:

- Reverse proxy

- Platform
- Applications

For security reasons, the recommended installation is to put the reverse proxy component on a machine separate from the platform and applications; this machine is called the i-Planet *gateway*. The platform and the applications together are called the i-Planet *server*. The i-Planet server can be installed on the i-Planet gateway machine or on a separate machine.

FIGURE 1-1 shows a basic diagram of the i-Planet product, including the default port numbers.

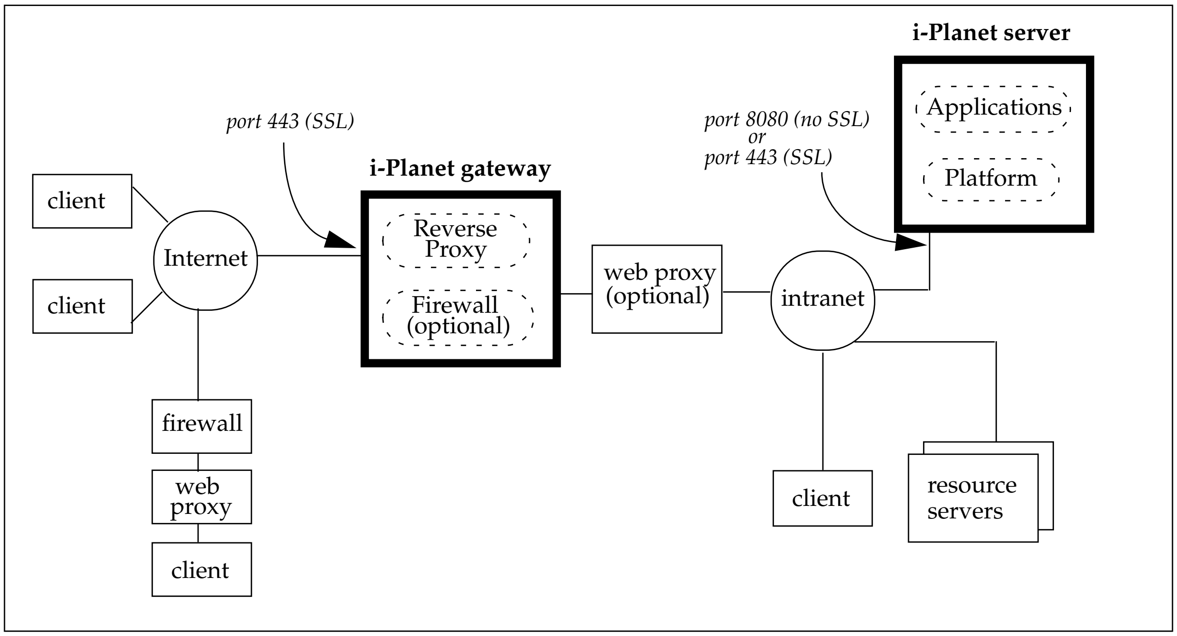

FIGURE 1-1 i-Planet Basic Diagram

The i-Planet Gateway

The i-Planet gateway contains the reverse proxy and the optional firewall application. The gateway is configured to listen for client traffic from the Internet on port 443. The gateway uses the secure socket layer protocol (SSL) to communicate with a browser, and can be configured to use SSL to communicate with the i-Planet server.

The i-Planet Server

The i-Planet server contains the platform and the applications.The platform includes administration services, such as authentication, licensing, and logging. The applications include desktop, mail, calendar, intranet browsing, and file access. The i-Planet server is configured to listen for traffic (non-SSL) from the i-Planet gateway on port 8080 by default; it can be configured to listen for SSL traffic from the i-Planet gateway on port 443 by default.

i-Planet Clients

i-Planet clients can connect to the i-Planet gateway through the Internet or from their internal intranet. An i-Planet remote client can be directly connected to the Internet or it can be connected through a web proxy or a firewall or both to the Internet. All clients use a browser to access i-Planet software.

Information Needed for Installation

This section describes the information you need for i-Planet installation and for license installation.

Information for i-Planet Installation

i-Planet software is installed by running a script. There are two types of installation:

- The default installation

  The default installation provides default answers in brackets to most questions. The minimum information you must provide or verify includes:

  - The fully qualified host name of the i-Planet gateway
  - The fully qualified host name of the i-Planet server
  - Your network domain name
  - Any network subdomain names
  - The name of your web proxy host, if one is being used
  - Organization-specific information for a self-signed SSL certificate on the i-Planet gateway

  The default installation is also documented in the *i-Planet Quick Install* card.

- Your own installation settings (also called a *nondefault*, or a *customized* installation)

  The customized installation allows you to change several parameters, including the i-Planet installation directory, the default port numbers, whether SSL is used between the i-Planet gateway and server, and so on. If you choose a customized installation, you provide the same information as for a default installation, plus you provide additional information.

TABLE 1-2 shows the information needed for installation.

TABLE 1-2 Installation Information

Information	Description
i-Planet gateway name	The fully qualified host name (example: *hostname*.eng.sun.com) of the external interface to the Internet of the machine on which you install the gateway software. The gateway contains the encrypting proxy and the reverse proxy, which together handle all traffic from the Internet to the intranet. The gateway also contains the optional basic firewall application.
i-Planet server name	The fully qualified host name (example: *hostname2*.eng.sun.com) of the machine on which you install the platform and applications software. The platform includes the Java web server and the administration services, such as authentication, licensing, and logging. The applications include the desktop, mail, calendar, intranet browsing, and file access applications.
installation directory	i-Planet software is installed in `/opt` unless you specify a different directory.
basic firewall application	If your organization does not have a firewall that can be used to restrict the external access to the i-Planet gateway machine to traffic on port 443 (or to the port you have configured to carry SSL traffic), you have the option of installing a basic firewall application on the i-Planet gateway. The basic firewall application examines packets coming only from the external gateway interface, and follows these rules: • Allows external access to port 443 (or to the port you specify for the encrypting proxy during installation) of the gateway through the gateway's public, or external, interface • Allows the gateway machine access to anywhere • Allows routing information from the Internet interface on the gateway machine to be updated • Denies everything not expressly allowed in the above rules The basic firewall application does not run under Solaris 7. If you want greater control over the ports and traffic than this basic firewall application provides, consider installing a firewall product such as Sun Microsystems' SunScreen™ EFS software.
network interface type	If you install the basic firewall application, you specify the gateway network interface. The machine on which you install the firewall should have more than one network interface. To list available interfaces, use the command `ifconfig -a`.

TABLE 1-2 Installation Information *(Continued)*

Information	Description
name service	If you install the basic firewall application, you specify your name service: NIS, DNS, NIS and DNS, or none.
network domain name	Your network domain name. The network domain name does not include the host name or subdomain name. An example of a network domain name is sun.com.
network subdomain names	If any URLs within your organization's intranet contain only a host and subdomain, such as host.eng, that subdomain must be entered as a network subdomain name during installation. For example, within the network domain name of sun.com, if host.group appears in a URL, then `group` must be entered as a network subdomain name. As a general rule, if any URL in your organization's domain is not fully qualified, the subdomain must be entered during installation. The subdomain name must not contain dots. Note: if you forget or omit subdomain names during installation, you can add subdomain names by editing a configuration file on the gateway; refer to the *i-Planet Administration Guide* for instructions.
port numbers	Default port numbers are provided for the encrypting proxy (443), the reverse proxy (10443), and the i-Planet server (8080 for non-SSL communication, 443 for SSL communication). If you select a customized installation, you can change these port numbers. You can also specify a port number for a web proxy host, if you use one. The reverse proxy and the encrypting proxy must use different port numbers. The i-Planet gateway must know the i-Planet server port number, whether or not you use SSL communication between the two machines.
web proxy host	A web proxy host potentially handles all HTTP requests between the gateway and the intranet. If you are using a web proxy host, use the web proxy option during installation to specify the fully qualified host name of your web proxy. The gateway will then use that proxy for all HTTP requests. This scenario is desirable if you do not want the gateway to have the routing information it would need to find the intranet machines. If you do not specify a web proxy host, the gateway will make a direct connection to intranet machines when a user tries to access one of those intranet machines. After installation, you can change your web proxy host or add one if you did not specify one during installation by editing a configuration file on the gateway; refer to the *i-Planet Administration Guide* for instructions.

TABLE 1-2 Installation Information *(Continued)*

Information	Description
SSL communication	The secure socket layer (SSL) protocol provides a way to encrypt communication between two machines. i-Planet software uses SSL to encrypt communication between a browser and the i-Planet gateway, and, optionally, between the i-Planet gateway and the i-Planet server if they are installed on separate machines. By default, the gateway communicates with the i-Planet server "in the clear," or with unencrypted communication. During installation, you have the option of specifying that the gateway use SSL to communicate with the i-Planet server. In this case, you must have an SSL certificate installed on each machine. The i-Planet gateway must know the i-Planet server port number, whether or not you use SSL communication between the two machines. After installation, you can change whether or not you use SSL between the gateway and the i-Planet server; refer to the *i-Planet Administration Guide* for instructions.
SSL certificate	To have an encrypted SSL link, you must have an SSL certificate on the machines using SSL. A self-signed SSL certificate on the gateway is created during i-Planet installation on the gateway. To create this certificate, you must enter organization-specific information, such as company name and address, and a passphrase. Do not use the equal sign (=) in the certificate field entries. If you are using SSL between the gateway and the i-Planet server, you must install an SSL certificate from a Certificate Authority vendor on the i-Planet server; refer to Appendix A for instructions on obtaining and installing an SSL certificate from a Certificate Authority vendor. You can create new self-signed SSL certificates, and you can request and install SSL vendor certificates at any time after installation. Refer to Appendix A for information on certificates and instructions on installing them.

Host and Network Domain Name Example

It is very important that the correct, resolvable addresses for host names and network domain names be entered during installation.

An example of a fully qualified host name is "hostname.eng.sun.com." In this example, "hostname" is the machine name, "eng" is the subdomain name, and "sun.com" is the network domain name. This scenario is illustrated in FIGURE 1-2. Domain names can have more than two components, for example, "sun.co.jp" could also be a network domain name.

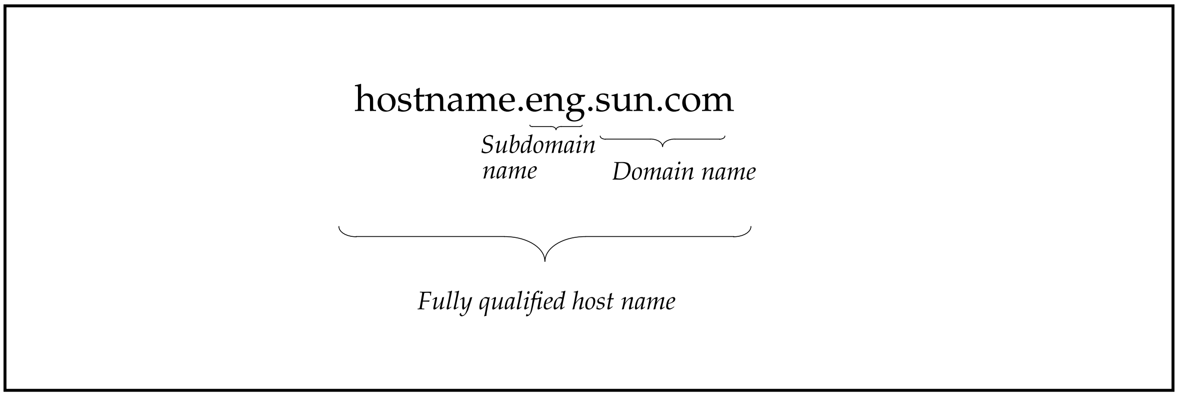

FIGURE 1-2 Host, Domain, and Subdomain Name Example

Information about Licenses

Licensing for the i-Planet product is provided through six initial product licenses and subsequently through FLEXlm license manager software. For information about licensing for third-party software products used with i-Planet software, contact the appropriate third-party vendor.

Initial product licenses

The i-Planet software comes with six (including root) user licenses.

FLEXlm license manager software

Sun Microsystems protects its applications by implementing license agreements that detail manufacturer and user obligations.

A license with right-to-use (RTU) tokens or a license by site (domain) is required to use i-Planet software. i-Planet software can be licensed by one of two versions: full features or mail-only features.

Licensing with RTUs is enabled by installing a *license server*, which is a program that runs on the i-Planet server. The license server has the number of RTUs that you installed. When the i-Planet server starts, it gets the RTUs from the license server. The number of unique, authenticated login names must not exceed the number of RTUs. Licensing by site is enabled by linking the i-Planet product to a network domain.

Information on obtaining and installing your license is included in Chapter 3 of this manual.

The next chapter contains i-Planet installation instructions.

CHAPTER 2

Installing i-Planet Software

The recommended installation scenario calls for the reverse proxy to be installed on the i-Planet gateway, and for the platform and applications to be installed on another machine, the i-Planet server. The other possible installation scenario is to install all three i-Planet components on one machine. The order of installation of i-Planet gateway versus i-Planet server does not matter.

Within each of these scenarios, you choose either a default or a nondefault (customized) installation. Default answers in both types of installation are indicated in square brackets, for example: [y] n.

i-Planet software is installed in `/opt` by default. If you want to install in a different directory, choose the nondefault installation. This manual provides instructions assuming you install in `/opt`; substitute your installation directory name where appropriate.

Installation Procedures

Refer to TABLE 1-2 if you need a description about the information to enter during installation.

A log of the installation is stored in `/var/opt/SUNWstnr/debug/iplanet_install.log.`*processnumber*. The log can be helpful if you are trying to diagnose a problem related to installation.

▼ To install the i-Planet gateway

1. **As root, mount the CD-ROM labeled "i-Planet 2.0" on the machine that will be used as the i-Planet gateway.**

2. **Run the iplanet_install script on the i-Planet gateway.**

```
# cd /cdrom/cdrom0
# ./iplanet_install
```

The i-Planet Installation menu is displayed:

```
Welcome to the i-Planet Installation
...
1) Server
2) Gateway
3) Exit
choice: [3]
```

3. **Enter** `2` **to install the gateway.**

   The installation script asks the question:

```
Do you also want to install the firewall on this system? [y]/n
```

(Under the Solaris 7 operating environment, this question does not appear.)

4. **Press Return (for** `y`**) to install the basic firewall or enter** `n` **if you do not want to install the basic firewall.**

   - If you press Return to install the basic firewall, the installation script asks the question:

```
Do you want the installation script to reboot the system for you?
y/[n]
```

Press Return to answer no, or enter `y` to have the script reboot your system after installation.

- If you do not want to install the basic firewall and enter `n`, the basic firewall will not be installed. In this case, you should close all access to the gateway machine from the Internet except for port 443 (the default encrypting proxy port). Closing the access is dependent on the type of system you are using.

At this point, the installation script checks to make sure the Java Development Kit version 1.1.6 is installed on your machine; if an earlier version is installed, or if no version is installed, the installation script asks whether you want to install JDK 1.1.6. You must have the 1.1.6 version installed to use i-Planet 2.0 software.

The installation script then asks the question:

```
Do you want to use the default settings? [y]/n
```

5. **Press Return (for `y`) to accept the default installation settings or enter `n` to provide your own installation settings.**
   - If you answer `y` to accept the default installation, the installation script asks the question:

```
What is the fully qualified host name of the external interface to
the internet for the machine where the gateway will run? [fully
qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, or other irregularities.

Continue with Step 6.

- If you enter `n` to provide your own installation settings, the installation script asks the question:

```
What directory do you want to use for installation? [/opt]
```

Go to Step 11.

6. **Press Return to accept the default for the fully qualified host name of the external interface to the Internet of the machine on which you are installing the gateway or enter a different fully qualified host name.**

   The installation script asks the question:

```
What is the fully qualified host name of the machine where the
server will run? [fully qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, or other irregularities.

---

7. **Enter the fully qualified host name of the machine on which you are installing the i-Planet server.**

   The installation script asks the question:

```
What is the name of the host that will be used as the web proxy
host? []
```

8. **Press Return if you are not using a web proxy host, or enter the fully qualified host name of your web proxy host.**

   - If you enter a web proxy host name, the installation script asks you to specify its port number:

```
What port does web proxy host run on? []
```

   Enter the port number of the web proxy host.

   The installation script then asks the question:

```
What is the domain name for your network? [domainname]
```

9. **Press Return to accept the default for your network domain name or enter a different network domain name.**

Note – The network domain name does not include the host name or subdomain name. In the example, "hostname.eng.sun.com," the network domain name is sun.com.

The installation script asks the question:

```
What are the subdomains which reside on your private network that
will be served by the gateway? ...
subdomain []
```

10. **Press Return if you are not using subdomains, or enter the subdomains that reside on your private network that will be served by the gateway. Note: in the example "hostname.eng.sun.com," the network subdomain name is eng. Press Return at the prompt when you are finished entering subdomain names.**

    The installation script checks to see if a self-signed certificate for the SSL server exists on the gateway.

    - If an SSL certificate does not exist, the script starts to create one:

    ```
    No certificate was found on this server.
    Creating new self-signed certificate...
    ```

    - If an SSL certificate exists, the script asks the question:

    ```
    A certificate was found on this server, do you want to use this
    certificate? [y]/n
    ```

    Go to Step 21.

11. **Press Return to accept the default for the installation directory (`/opt`), or enter a different directory name.**

    The installation script asks the question:

    ```
    What is the fully qualified host name of the external interface to
    the internet for the machine where the gateway will run? [fully
    qualified host name]
    ```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, or other irregularities.

12. **Press Return to accept the default for the fully qualified host name of the external interface to the Internet of the machine on which you are installing the gateway, or enter another name.**

    The installation script asks the question:

```
What port will the encrypting proxy (eproxy) run on? [443]
```

13. **Press Return to accept the default for the port number of the encrypting proxy (443) on the gateway, or enter a different port number.**

    (If you change this port number, and you have your own firewall installed, make sure that you allow Internet access to this new port number on this machine.)

    The installation script asks the question:

```
What port will the reverse proxy (rproxy) run on? [10443]
```

14. **Press Return to accept the default for the port number of the reverse proxy (10443) on the gateway, or enter a different port number.**

    The reverse proxy port number must be a different port number than the port number for the encrypting proxy.

    The installation script asks the question:

```
What is the fully qualified host name of the machine where the
server will run? [fully qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, or other irregularities.

15. **Enter the fully qualified host name of the machine on which you are installing the i-Planet server.**

    The installation script asks the question:

```
What is the server port? [8080]
```

16. **Press Return to accept the default for the port number of the i-Planet server (8080), or enter a different port number.**

    The installation script asks the question:

```
What is the name of the host that will be used as the web proxy
host? []
```

17. **Press Return if you are not using a web proxy host, or enter the fully qualified host name of your web proxy host.**

    - If you enter a web proxy host name, the installation script asks you to specify its port number:

```
What port does web proxy host run on? []
```

Enter the port number of the web proxy host.

The installation script then asks the question:

```
What is the domain name for your network? [domainname]
```

18. **Press Return to accept the default for your network domain name, or enter a different domain name.**

Note – The network domain name does not include the host name or subdomain name. In the example, "hostname.eng.sun.com," the network domain name is sun.com.

The installation script asks the question:

```
What are the subdomains which reside on your private network that
will be served by the gateway? ...
subdomain []
```

19. **Press Return if you are not using subdomains, or enter the subdomains that reside on your private network that will be served by the reverse proxy. Note: in the example "hostname.eng.sun.com," the network subdomain name is eng. Press Return at the prompt when you are finished entering subdomain names.**

    The installation script asks the question:

    ```
    Do you want to use SSL to communicate with the i-Planet server?
    y/[n]
    ```

20. **Press Return (for `n`) if you do not want to use SSL for communication between the gateway and the i-Planet server or enter `y` if you want to use SSL communication between those machines.**

    - If you enter `y` to use SSL communication between the gateway and the server, the installation script asks the question:

    ```
    What port will be used for the SSL communication? [443]
    ```

      Press Return to accept the default for the i-Planet server port number for SSL (443) or enter a different port number.

    - If you answer `n`, SSL communication will not be used between the gateway and the server.

    The installation script checks to see if a self-signed certificate for the SSL server exists on the gateway.

    - If an SSL certificate does not exist, the script starts to create one:

    ```
    No certificate was found on this server.
    Creating new self-signed certificate...
    ```

    - If an SSL certificate exists, the script asks the question:

    ```
    A certificate was found on this server, do you want to use this
    certificate? [y]/n
    ```

21. **Create a new self-signed certificate for the gateway SSL server or enter `y` to use an existing self-signed certificate.**

- If you create a new self-signed certificate (either because no certificate was found or because you enter n to the previous question), the installation script prompts you to enter various organization-specific information and a passphrase for the self-signed certificate:

```
What is the name of your organization? []
What is the name of your organizational unit? []
What is the name of your City or Locality? []
What is the name of your State or Province? []
What is the two-letter country code for this unit? []
...
Enter passphrase []
```

  Enter the information for your new certificate.
- If you enter y to use an existing certificate, the certificate will be used.

When the gateway SSL certificate is completed, the installation script installs the i-Planet packages and starts the i-Planet gateway. When installation is finished, your prompt returns. (If you installed the basic firewall and elected to have the script reboot your machine after installation, the script reboots your machine at this point.)

22. **Eject the CD-ROM.**

(Any process started when the current working directory is /cdrom/cdrom0 must be stopped before you can eject the CD-ROM.)

```
# cd /
# eject cdrom0
```

23. **If you installed the basic firewall, as root, configure the basic firewall on the gateway:**

a. **Reboot the i-Planet gateway manually if you did not reboot it using the installation script.**

```
# init 6
```

Wait for the machine to reboot (about five minutes) before proceeding.

b. Run the firewall configuration script on the i-Planet gateway.

Note: If you installed the gateway and firewall on a *headless* machine (that is, a machine without a monitor and keyboard), you must connect to the firewall using `rlogin`, `rsh`, or `telnet`.

```
# cd /opt/SUNWsrfw/bin
# ./fw.configure
```

The firewall configuration script asks the question:

```
Enter the gateway interface:
```

c. Enter the gateway network interface that is connected to the Internet.

(Use the command `ifconfig -a` to list available interfaces.)

The firewall configuration script asks the question:

```
Choose one of the following name service options:
1. NIS
2. DNS
3. NIS and DNS
4. None
```

d. Enter the number corresponding to the appropriate name service option.

The firewall configuration script configures the firewall. When configuration is complete, your prompt returns.

e. Reboot the i-Planet gateway.

```
# init 6
```

i-Planet gateway software installation is complete.

▼ To install the i-Planet server

1. As root, mount the CD-ROM labeled "i-Planet 2.0" on the machine that will be used as the i-Planet server.

2. **Run the iplanet_install script on the i-Planet server.**

```
# cd /cdrom/cdrom0
# ./iplanet_install
```

The i-Planet Installation menu is displayed:

```
Welcome to the i-Planet Installation
...
1) Server
2) Gateway
3) Exit
choice: [3]
```

3. **Enter `1` to install the i-Planet server.**

   If you are installing the i-Planet server on the same machine as the gateway, the installation script warns you of this and asks you to continue the installation or abort the installation.

   The installation script asks the question:

```
Do you want to use the default settings? [y]/n
```

4. **Press Return (for `y`) to accept the default installation settings or enter `n` to provide your own installation settings.**

   - If you answer `y` to accept the default installation, the installation script asks the question:

```
What is the fully qualified host name of the machine where the
server will run? [fully qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, or other irregularities.

Continue with Step 5.

- If you enter `n` to provide your own installation settings, the installation script asks the question:

```
What directory do you want to use for installation? [/opt]
```

Go to Step 7.

5. **Press Return to accept the default for the fully qualified host name of the machine on which you are installing the server or enter a different fully qualified host name.**

   The installation script asks the question:

```
What is the fully qualified host name of the external interface to
the internet for the machine where the gateway will run?  [fully
qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, and so forth.

---

6. **Enter the fully qualified host name of the i-Planet gateway.**

   The installation script asks the question:

```
Do you want to start the i-Planet server when installation is
complete? [y]/n
```

Go to Step 13.

7. **Press Return to accept the default for the installation directory (`/opt`), or enter a different directory name.**

   The installation script asks the question:

```
What is the fully qualified host name of the machine where the
server will run? [fully qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, and so forth.

8. **Press Return to accept the default for the fully qualified host name of the machine on which you are installing the server or enter a different fully qualified host name.**

   The installation script asks the question:

```
What is the server port? [8080]
```

9. **Press Return to accept the default for the port number of the i-Planet server (8080), or enter a different port number.**

   The installation script asks the question:

```
What is the fully qualified host name of the external interface to
the internet for the machine where the gateway will run? [fully
qualified host name]
```

Note – The fully qualified host name *must* be a resolvable address. Example: hostname.eng.sun.com. The installation script attempts to verify that the address supplied is resolvable; however, you should make sure that there are no spurious subdomains included in the name, and so forth.

10. **Enter the fully qualified host name of the i-Planet gateway.**

    The installation script asks the question:

```
What is the gateway port? [443]
```

11. **Press Return to accept the default port number for the i-Planet gateway or enter a different port number.**

    The installation script asks the question:

```
Do you want to use SSL to communicate with the Gateway? y/[n]
```

12. **Press Return (for `n`) if you do not want to use SSL for communication between the gateway and the i-Planet server or enter `y` if you want to use SSL communication between those machines.**

    - If you enter `y` to use SSL communication between the gateway and the server, the installation script asks the question:

```
What port will be used for the SSL communication? [443]
```

    Press Return to accept the default for the i-Planet server port number for SSL (443) or enter a different port number. (The i-Planet gateway's configuration for this port number must match, that is, if you change the port number for SSL communication on the server, the gateway must also know what the changed port number is.)

Note – If you are using SSL between the gateway and the i-Planet server, you must install an SSL certificate from a Certificate Authority vendor on the i-Planet server; refer to Appendix A for instructions on obtaining and installing an SSL certificate from a Certificate Authority vendor.

    - If you answer `n`, SSL communication will not be used between the gateway and the server.

    The installation script asks the question:

```
Do you want to start the i-Planet server when installation is
complete? [y]/n
```

13. **Press Return (for `y`) to start the i-Planet server when installation is complete, or enter `n` to start the server later by hand.**

    The installation script installs the i-Planet packages and starts the i-Planet server if you elected to have the script start the server. When installation is complete, your prompt returns.

14. **Eject the CD-ROM.**

    (Any process started when the current working directory is `/cdrom/cdrom0` must be stopped before you can eject the CD-ROM.)

```
# cd /
# eject cdrom0
```

15. **Start the i-Planet server if you did not choose to have the installation script start it.**

```
# /opt/SUNWjeev/bin/iplanet_serv start
```

i-Planet server software installation is complete.

▼ To verify that the i-Planet gateway and server are running

- **Open a browser and go to the URL https://*i-Planet_gateway*.**

  If the Authenticator selection page is displayed, the i-Planet gateway and i-Planet server are running.

Troubleshooting

If the Authenticator selection page does not display or you receive an error message, such as `Connection refused`, try the following steps:

- Stop and restart the i-Planet gateway

```
# /opt/SUNWsnrp/bin/iplanet_gw stop
# /opt/SUNWsnrp/bin/iplanet_gw start
```

- Make sure the firewall is allowing connections through port 443
- Stop and restart the i-Planet server

```
# /opt/SUNWjeev/bin/iplanet_serv stop
# /opt/SUNWjeev/bin/iplanet_serv start
```

Postinstallation Tasks

In most configurations, you do not want the machine that you are using as the i-Planet gateway to function as an Internet router. To prevent this, you should turn off Solaris operating system routing. To do so, create an empty `/etc/notrouter` file if it does not already exist. This file is checked at boot time, and if it exists, the machine does not act as a router.

Add `/opt/SUNWstnr/man` to your MANPATH.

Where To Go Next

To obtain and install your license, proceed to Chapter 3 in this manual.

After you have obtained and installed your license, to set up and manage i-Planet start the Administration Console on the i-Planet server by opening a browser and going to the URL:

- http://*i-Planet_server*:8080/console and log in as root (if you are not using SSL communication between the gateway and server)
- https://*i-Planet_server*/console and log in as root (if you are using SSL communication between the gateway and server)

Refer to the *i-Planet Administration Guide*, located in `/opt/SUNWjeev/public_html/docs/usenglish/manuals/ps/admin.ps` for information on administration; use a PostScript viewer started by imagetool or stdimage, for example, to display the PostScript. If your browser has the capability to display PostScript files, you can use the URL http://*i-Planet_server*:8080/docs/usenglish/manuals/ps/admin.ps, or, if you are using SSL between the gateway and the i-Planet server, https://*i-Planet_server*/docs/usenglish/manuals/ps/admin.ps. (If you changed the default port numbers during installation, substitute the new port numbers in the path.)

CHAPTER 3

Requesting and Installing Your License

This chapter describes how to obtain and install a FLEXlm license for your i-Planet software.

- If you will be using RTU licensing, refer to the instructions in "Right-To-Use Licenses".
- If you will be using site (domain) licensing, refer to the instructions in "Domain-Based Licenses".

Right-To-Use Licenses

This section describes how to request and install your RTU license.

Requesting Your RTU License

Refer to the "Proof of License Certificate" card shipped in your i-Planet 2.0 product package. Follow the instructions on the card for contacting the Sun License Center by email message, fax, or telephone. The most current License Center information is also available on the World Wide Web at this URL: http://www.sun.com/licensing.

Be ready to provide this information when you contact the License Center:

- Your organization-specific information, such as company name and address
- Your i-Planet server hostid (run the command `hostid` to obtain your hostid)
- The number of users (RTUs) desired for the license: 100, 1,000, 5,000, or 25,000
- The serial number on your Proof of License Certificate (this indicates the feature version of i-Planet desired: full features or mail-only features)

The License Request Form, located on the product CD-ROM labeled “i-Planet 2.0“, can also be used to collect this information for the Sun License Center. To use the License Request Form, copy it from the CD-ROM to a directory:

```
% cp /docs/usenglish/misc/LicenseRequestForm.txt filename
```

change the file permissions so you can write to the file, and edit the file in your preferred editor.

After you provide the License Center with the required information, you will receive an email message or a fax with your license information; usually the License Center responds to your license request within one business day after receiving your request.

Installing Your RTU License

If you received an email message from the License Center, you can install your license from the email message or enter the license by hand; installing from the email message is easier. If you received a fax from the License Center, you must enter your license by hand.

Have the license information from the License Center ready when you install your license.

▼ To install a license received in an email message

1. **Save to a file the license information that you received from the License Center.**

   The email message that you received from the License Center has the license information either in an email attachment or embedded in the body of the email message.

   - If you received an email attachment, save only the email attachment to a directory and file name of your choice on your system.
   - If you received an email with the license information embedded in the body of the email message, delete the mail headers and the body of the email message, and save only the license information to a directory and file name of your choice on your system.

2. **As root, run the script** `/opt/SUNWste/bin/lit` **on the i-Planet server.**

   The License Installation Tool is displayed.

3. **In the License Installation Tool, click** `Loaded from an Email Message Saved to a File` **if it is not already marked.**

4. **Enter the complete path to the file you specified in Step 1 in the `File` text field or click the browse button (labeled ".." to the right of the `File` text field) to use a file chooser to find the saved file.**

   The License Installation Tool with this information entered is shown in FIGURE 3-1.

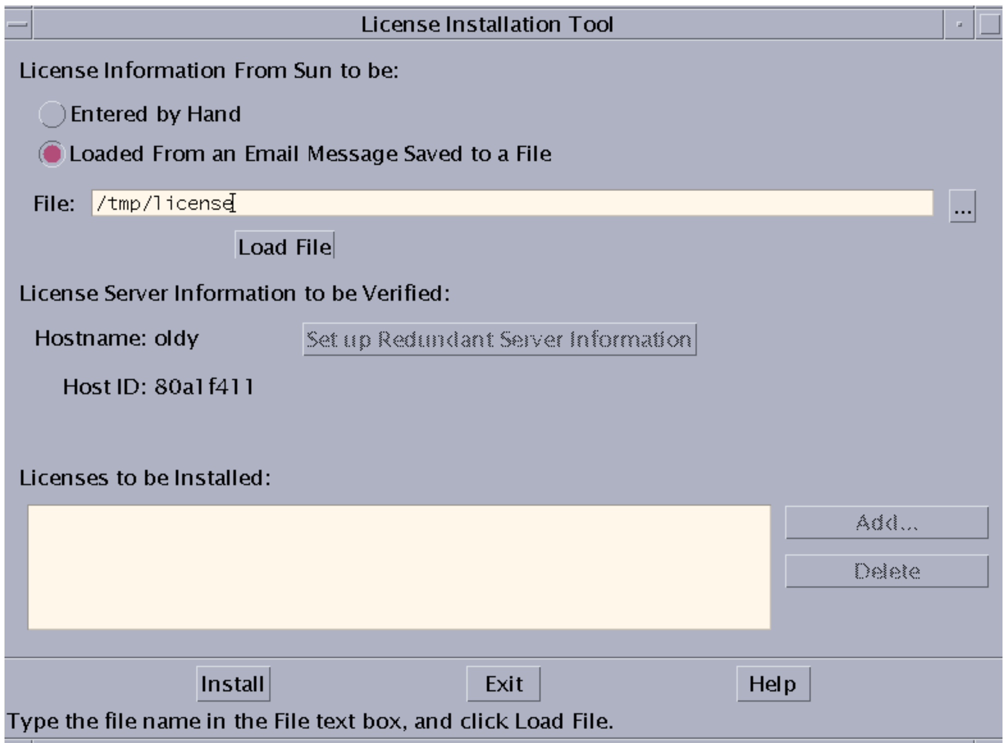

FIGURE 3-1 License Installation Tool (license information received by email)

5. **Click Load File.**

   Your license listed in the email you received from the License Center appears in the Licenses to be Installed pane.

6. **Click Install to install the license.**

7. **When installation is complete, click OK in the pop-up window.**

8. **Click Exit to exit the License Installation Tool.**

   The license server should start.

   If the license server does not start, an error message is displayed. Verify that you installed a valid license by running the script `/opt/SUNWste/license_tools/testlic`. The output of this script tells you whether or not a license is installed and what type it is. If a valid license is installed, run the script `/etc/opt/licenses/lic_srvr_start` to start the license server.

9. **Restart the i-Planet server.**

```
# /opt/SUNWjeev/bin/iplanet_serv stop
# /opt/SUNWjeev/bin/iplanet_serv start
```

▼ To install a license received on a fax machine

1. **As root, run the script** `/opt/SUNWste/bin/lit` **on the i-Planet server.**

   The License Installation Tool is displayed.

2. **In the License Installation Tool, click** `Entered by Hand`**.**

   The License Installation Tool with this information entered is shown in FIGURE 3-2.

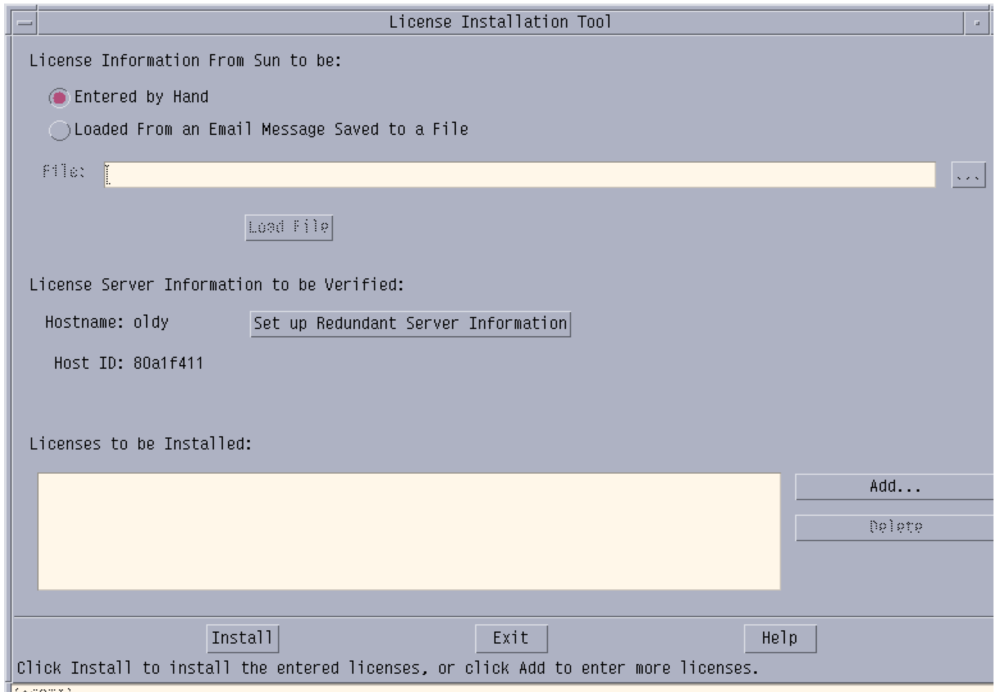

FIGURE 3-2 License Installation Tool (license information received by fax)

The Add License window opens, as shown in FIGURE 3-3. Leave the License Installation Tool up while you enter information in the Add License window.

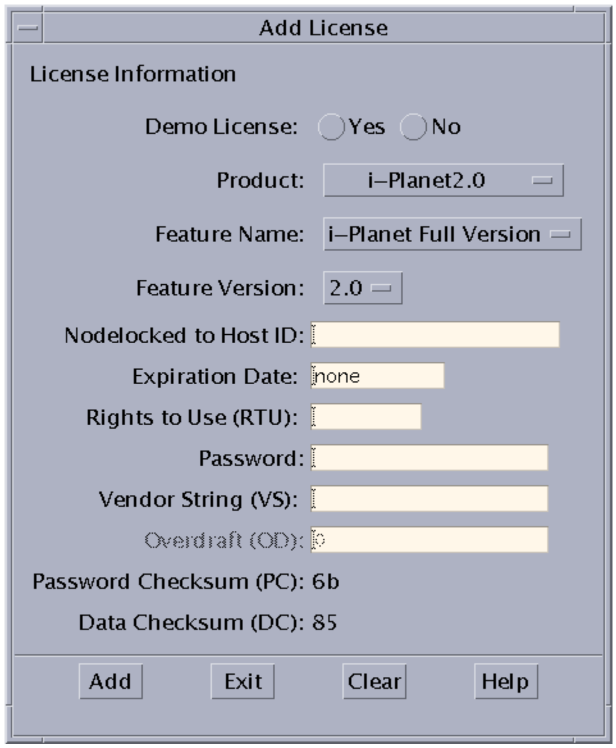

FIGURE 3-3 Add License Window

3. **In the Add License window, enter the following information, referring to your license information:**

   a. **Click Yes or No for Demo License, as appropriate.**

   b. **On the Product pull-down menu, select i-Planet, if it is not already selected.**

   c. **On the Feature Name pull-down menu, select full version or mail only, as appropriate.**

   d. **On the Feature Version pull-down menu, verify that 2.0 is selected.**

   e. **Enter the host ID.**

      The host ID must match the host ID on your license.

   f. **For the license expiration date, leave the field defined as** `none`**; for a demo license, leave the field defined with the expiration date.**

   g. **Enter the Rights to Use (RTU).**

h. **Enter the password provided by the License Center.**

i. **Enter the vendor string (VS).**

j. **Verify that the data displayed in the Password Checksum (PC) and the Data Checksum (DC) fields matches the data in your license information.**

   Make sure that you have typed in all the information correctly. If there is a discrepancy, contact the License Center (see your Proof of License Certificate card for access information).

4. **Click Add.**

   Your license listed in the fax you received from the License Center appears in the Licenses to be Installed pane in the License Installation Tool.

5. **Click Exit in the Add License window.**

6. **Click Install in the License Installation Tool to install the license.**

7. **When installation is complete, click OK in the pop-up window.**

8. **Click Exit to exit the License Installation Tool.**

   The license server should start.

   If the license server does not start, an error message is displayed. Verify that you installed a valid license by running the script `/opt/SUNWste/license_tools/testlic`. The output of this script tells you whether or not a license is installed and what type it is. If a valid license is installed, run the script `/etc/opt/licenses/lic_srvr_start` to start the license server.

9. **Restart the i-Planet server.**

```
# /opt/SUNWjeev/bin/iplanet_serv stop
# /opt/SUNWjeev/bin/iplanet_serv start
```

You can now use your licensed software.

Refer to the section "Where To Go Next"at the end of this chapter.

Domain-Based Licenses

This section describes how to request and install your site, or domain-based, license.

Domain-based licenses tie licensed products to a network domain. Domain-based licenses support products licensed through the GoldPass (commercial) and ScholarPASS (educational) programs and link software to network domains rather than specific license servers. Domain-based licenses function without using a centralized license manager and without enforcing hard limits on the number of users.

The license agreement signed by your organization includes information about the network domains where licensed software is installed and any limitation on the number of users. Licenses are issued only for the domains associated with your site as described in your agreement.

Depending on how your network domains are set up, you can acquire a license for a single product (or product feature) that makes it available on all of the network domains at your site. You can also receive individual licenses for each domain and subdomain. This allows you reasonable control of user access to the software. For example, the license agreement may simply identify `my_org.org` as the domain on which licensed software may operate. However, you can acquire a license for a particular *subdomain* (for example, `eng.my_org.org`) and limit access to that subdomain as well as its subdomains.

Requesting Your Domain-Based License

Domain-based licenses are available one or two weeks after your GoldPass or ScholarPASS license agreement has been approved. Check the date of the agreement before requesting your license.

Follow these steps to request your domain-based licenses:

1. **Collect the following information:**
   - Site number. This number identifies your organization for all ScholarPASS or GoldPass licensed software. Upon approval of your agreement, a site number is assigned to each site in your organization. If you do not have this number, ask for it from the individual in your organization who signed the licensing agreement.
   - Your product name, version number, and serial number. The serial number is printed on the label attached to the Proof of License Certificate, which is part of your ScholarPASS or GoldPass product package.
   - Network domain names. The domain names that you supply are verified against the information that was provided in the license agreement. A license will be issued only if your requested domains are associated with your site number.
2. **Follow the steps in "Requesting Your RTU License" to request and receive your license information from the Sun License Center.**

   If you use the License Request Form, add your site number and network domain name to the form.

Installing Your Domain-Based License

The current implementation of domain-based licenses does not require a separate license server, so it is not necessary to run a license server to use the GoldPass and ScholarPASS configured licenses.

▼ To install your domain-based license

1. **Create a text file containing the license information you received from the Sun License Center.**
   - If you received an email attachment, copy only the email attachment into the text file.
   - If you received an email with the license information embedded in the email message, copy only the license information into the text file (do not include the mail headers and the body of the email message).
   - If you received your license information by fax, input the license information into the text file.
2. **Save the text file in the following location with the following file name:**
   - For GoldPass: `/etc/opt/licenses/i-Planet.lic,gp`
   - For ScholarPASS: `/etc/opt/licenses/i-Planet.lic,sp`

Note – Make sure your file name contains both a period (`.`) and a comma (`,`).

For the `i-Planet.lic` text file you just saved, `root` should be the owner and have read and write permission; all others should have read-only access.

The number of licenses available is zero (unlimited) for a domain-based license.

You can now use your licensed software.

Using Domain-Based Licenses

- If a domain is specified in `/etc/resolv.conf,` it will be used.
- If hostname is set to be a value that contains at least one period (`.`), the value to the right of the first period will be used as the domain value.
- The domain listed in `/etc/resolv.conf` has precedence over the hostname value if both a domain and hostname are available.
- If both NIS and DNS results are non-null, a case-insensitive comparison is performed with the domain listed on the license. If the domain value from the license is a subset of either the NIS or DNS values, the license will be granted.

The licensed software operates as long as the requesting user of the licensed software is on a valid network domain.

Where To Go Next

After you have obtained and installed your license, to set up and manage i-Planet 2.0, start the Administration Console on the i-Planet server by opening a browser and going to the URL:

- http://*i-Planet_server*:8080/console and log in as root (if you are not using SSL communication between the gateway and server)
- https://*i-Planet_server*/console and log in as root (if you are using SSL communication between the gateway and server)

Refer to the *i-Planet Administration Guide*, located in `/opt/SUNWjeev/public_html/docs/usenglish/manuals/ps/admin.ps` for information on administration; use a PostScript viewer started by imagetool or stdimage, for example, to display the PostScript. If your browser has the capability to display PostScript files, you can use the URL http://*i-Planet_server*:8080/docs/usenglish/manuals/ps/admin.ps, or, if you are using SSL between the gateway and the i-Planet server, https://*i-Planet_server*/docs/usenglish/manuals/ps/admin.ps. If you changed the default port numbers during installation, substitute the new port numbers in the path.)

CHAPTER 4

Removing i-Planet Software

You can remove i-Planet software by running the iplanet_remove script, which removes packages added during installation.

The iplanet_remove script does not remove the rp.keystore file, the rp.CAstore file, log files, licensing daemons, or the JDK. The script copies the /opt/SUNWjeev/preferences directory to /opt/SUNWjeev/preferences.save and then removes the /opt/SUNWjeev/preferences directory; it does the same for /opt/SUNWjeev/profiles.

Caution – When you remove the i-Planet software, any S/Key information you generated is removed. Templates in the /etc/opt/SUNWstnr directory that you may have modified to customize the desktop are removed. If you customized any html files shipped on the CD-ROM, you should save the modified files before removing the product or your changes will be lost.

▼ To remove i-Planet software on the i-Planet gateway or on the i-Planet server

1. **As root, mount the CD-ROM labeled "i-Planet 2.0" on the machine from which you want to remove the software.**
2. **Run the iplanet_remove script on the i-Planet gateway or on the i-Planet server.**

```
# cd /cdrom/cdrom0
# ./iplanet_remove
```

The Removing i-Planet Packages menu is displayed.

3. **Enter a number from the menu to remove the software from the i-Planet server, the i-Planet gateway, or all, as appropriate.**

   When the software packages have been removed, your prompt returns.

4. **Eject the CD-ROM.**

   (Any process started when the current working directory is `/cdrom/cdrom0` must be stopped before you can eject the CD-ROM.)

```
# cd /
# eject cdrom0
```

If the i-Planet gateway contained the basic firewall application, you should reboot the gateway after removing the software.

```
# init 6
```

APPENDIX **A**

Generating and Installing SSL Certificates

This appendix provides information on SSL certificates. An SSL certificate provides encryption and decryption capabilities using a public and private key pair.

i-Planet software supports SSL certificates generated by you (self-signed certificates) or purchased from an official certificate authority. Self-signed certificates and web certificates purchased from certificate authority vendors are stored in the `rp.keystore` file; root certificates purchased from certificate authority vendors are stored in the `rp.CAstore` file. You should maintain backup copies of these files.

Self-signed SSL Certificates

During i-Planet software installation, you created and installed a self-signed SSL certificate. At some point after installation, you might want to generate a new self-signed certificate; you might want to change the information for the certificate you entered during the original installation, for example.

▼ To generate a self-signed certificate

1. **As root, run the `certadmin` script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

The Certificate Administration menu is displayed:

```
1) Generate Self-Signed Certificate
2) Generate Certificate Signing Request (CSR)
3) Add Root CA Certificate
4) Install Certificate from Certificate Authority (CA)
5) Quit
choice: [5]
```

2. **Enter `1` on the Certificate Administration menu to generate a self-signed certificate.**

The Certificate Administration script prompts you to enter certain organization-specific information and a passphrase for the self-signed certificate:

```
What is the fully qualified DNS name of this host? [hostname.domainname]
What is the name of your organization? []
What is the name of your organizational unit? []
What is the name of your City or Locality? []
What is the name of your State or Province? []
What is the two-letter country code for this unit? []
...
Enter passphrase []
```

3. **Enter your organization-specific information and a passphrase for the self-signed certificate.**

A self-signed certificate is generated and your prompt returns.

4. **Restart the i-Planet gateway for the certificate to take effect.**

- To restart the i-Planet gateway:

```
# /opt/SUNWsnrp/bin/iplanet_gw stop
# /opt/SUNWsnrp/bin/iplanet_gw start
```

SSL Certificates from Vendors

During i-Planet software installation, you created and installed a self-signed SSL certificate. At any point after installation, you have the option to install SSL certificates signed by vendors who provide official certificate authority (CA) services. A certificate from a CA vendor is necessary for the i-Planet server if you are using SSL between the i-Planet gateway and the i-Planet server.

i-Planet software contains root certificates that can be used with SSL certificates from Verisign, Inc. If you decide to install an SSL certificate from a vendor other than Verisign, you must install a root certificate from that vendor first, and then install the web server certificate.

Certificates are stored in the `rp.keystore` file. Once you generate a certificate signing request (used to request a certificate from a third-party vendor), make sure you keep a backup copy of the `rp.keystore` file. This file contains your private key, which is associated with the certificate that you purchase; if you lose the file, you will not be able to use the certificate that you bought.

▼ To install SSL certificates from Verisign

1. **As root, run the `certadmin` script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

The Certificate Administration menu is displayed:

```
1) Generate Self-Signed Certificate
2) Generate Certificate Signing Request (CSR)
3) Add Root CA Certificate
4) Install Certificate from Certificate Authority (CA)
5) Quit
choice: [5]
```

2. **Enter `2` on the Certificate Administration menu to generate a certificate signing request (CSR).**

- If no self-signed certificate exists on this machine, the Certificate Administration script notifies you that you must create one. Refer to the procedure, “To generate a self-signed certificate” earlier in this chapter.

- If a self-signed certificate exists on this machine, the information from the certificate is displayed. The Certificate Administration script asks the question:.

```
Is this information correct (y/n)? [n]
```

a. Enter `y` **if the information is correct or enter** `n` **if it is not correct.**

- If you enter `n`, you are asked to enter information for a new self-signed certificate. Refer to the procedure, "To generate a self-signed certificate" earlier in this chapter.
- If you enter `y`, the Certificate Administration script asks you to enter various organization-specific information:

```
What is the name of the admin/webmaster for this server? []
What is the email address of the admin/webmaster for this server? []
What is the phone number of the admin/webmaster for this server? []
```

b. Enter your organization-specific information.

The Certificate Administration script displays the values you enter and asks the question:.

```
Are these values correct (y/n)? [n]
```

c. Enter `y` **if the information is correct or enter** `n` **if it is not correct.**

- If you enter `y`, a CSR is generated and stored in the file `/tmp/csr.`*hostname*.
- If you enter `n`, the Certificate Administration script asks you to enter the values again.

3. Go to the Certificate Authority's website and order your web server certificate.

a. Provide information from your CSR, as requested by the CA.

b. Provide other information, as requested by the CA, such as a passphrase.

c. Specify your web server type as: `Java Webserver`**.**

Specifying `Java Webserver` means that you want your certificate in PEM format.

4. After you receive your certificate from the CA, save it in a file.

The certificate begins with a line that reads:

`-----BEGIN CERTIFICATE----`

continues with the certificate itself, and ends with a line that reads:

```
-----END CERTIFICATE-----
```

Make sure you include both of these lines with the certificate in the file.

5. **As root, run the `certadmin` script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

The Certificate Administration menu is displayed:

```
1) Generate Self-Signed Certificate
2) Generate Certificate Signing Request (CSR)
3) Add Root CA Certificate
4) Install Certificate from Certificate Authority (CA)
5) Quit
choice: [5]
```

6. **Enter `4` on the Certificate Administration menu to install your certificate from the CA.**

   The Certificate Administration script asks the question:.

```
What is the name (including path) of the file that contains the
certificate? []
```

7. **Enter the full path to the file containing the certificate.**

   Your certificate is stored in the `rp.keystore` file and your prompt returns.

8. **Restart the i-Planet gateway or server, as appropriate, for the certificate to take effect.**

   - To restart the i-Planet gateway:

```
# /opt/SUNWsnrp/bin/iplanet_gw stop
# /opt/SUNWsnrp/bin/iplanet_gw start
```

   - To restart the i-Planet server:

```
# /opt/SUNWjeev/bin/iplanet_serv stop
# /opt/SUNWjeev/bin/iplanet_serv start
```

9. **Make a backup copy of the `rp.keystore` file.**

▼ To install SSL root certificates and SSL certificates from other vendors

You must have already generated a self-signed certificate to install a root certificate.

1. **Go to the Certificate Authority's website and download its root certificate.**

   The website should contain instructions for downloading the certificate, usually as a file.

2. **As root, run the `certadmin` script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

   The Certificate Administration menu is displayed:

```
1) Generate Self-Signed Certificate
2) Generate Certificate Signing Request (CSR)
3) Add Root CA Certificate
4) Install Certificate from Certificate Authority (CA)
5) Quit
choice: [5]
```

3. **Enter `3` on the Certificate Administration menu to add a root certificate.**

   The Certificate Administration script asks the question:.

```
What is the name (including path) of the file that contains the
root certificate that you would like to add to your database? []
```

   a. **Enter the full path to the file containing the root certificate.**

      The file is displayed and the Certificate Administration script asks the question:.

```
Is this information correct (y/n)? [n]
```

   b. **Enter `y` if the file is correct, or `n` if it is not.**

      - If you enter y, the root certificate is stored in the `rp.CAstore` file and your prompt returns.
      - If you enter `n`, the root certificate is not added and your prompt returns.

4. **As root, run the `certadmin` script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

5. **Enter `2` on the Certificate Administration menu to generate a certificate signing request (CSR).**
   - If no self-signed certificate exists on this machine, the Certificate Administration script notifies you that you must create one. Refer to the procedure, "To generate a self-signed certificate" earlier in this chapter.
   - If a self-signed certificate exists on this machine, the information from the certificate is displayed. The Certificate Administration script asks the question:.

```
Is this information correct (y/n)? [n]
```

   a. **Enter `y` if the information is correct or enter `n` if it is not correct.**
      - If you enter `n`, you are asked to enter information for a new self-signed certificate. Refer to the procedure, "To generate a self-signed certificate" earlier in this chapter.
      - If you enter `y`, the Certificate Administration script asks you to enter various organization-specific information:

```
What is the name of the admin/webmaster for this server? []
What is the email address of the admin/webmaster for this server? []
What is the phone number of the admin/webmaster for this server? []
```

   b. **Enter your organization-specific information.**

      The Certificate Administration script displays the values you enter and asks the question:.

```
Are these values correct (y/n)? [n]
```

   c. **Enter `y` if the information is correct or enter `n` if it is not correct.**
      - If you enter `y`, a CSR is generated and stored in the file `/tmp/csr.`*hostname*.
      - If you enter `n`, the Certificate Administration script asks you to enter the values again.

6. **Return to the Certificate Authority's website and order your web server certificate.**

   a. **Provide information from your CSR, as requested by the CA.**

b. **Provide other information, as requested by the CA, such as a passphrase.**

c. **Specify your web server type as:** `Java Webserver`**.**

Specifying `Java Webserver` means that you want your certificate in PEM format.

7. **After you receive your certificate from the CA, save it in a file.**

The certificate begins with a line that reads:

```
-----BEGIN CERTIFICATE----
```

continues with the certificate itself, and ends with a line that reads:

```
-----END CERTIFICATE-----
```

Make sure you include both of these lines with the certificate in the file.

8. **As root, run the** `certadmin` **script on the i-Planet gateway or server, as appropriate.**

```
# /opt/SUNWsnrp/bin/certadmin
```

The Certificate Administration menu is displayed:

```
1) Generate Self-Signed Certificate
2) Generate Certificate Signing Request (CSR)
3) Add Root CA Certificate
4) Install Certificate from Certificate Authority (CA)
5) Quit
choice: [5]
```

9. **Enter** `4` **on the Certificate Administration menu to install your certificate from the CA.**

The Certificate Administration script asks the question:.

```
What is the name (including path) of the file that contains the
certificate? []
```

10. **Enter the full path to the file containing the certificate.**

Your certificate is stored in the `rp.keystore` file and your prompt returns.

11. **Restart the i-Planet gateway or server, as appropriate, for the certificate to take effect.**

- To restart the i-Planet gateway:

```
# /opt/SUNWsnrp/bin/iplanet_gw stop
# /opt/SUNWsnrp/bin/iplanet_gw start
```

- To restart the i-Planet server:

```
# /opt/SUNWjeev/bin/iplanet_serv stop
# /opt/SUNWjeev/bin/iplanet_serv start
```

12. **Make a backup copy of the** `rp.keystore` **file.**

APPENDIX **B**

Installing Third-Party Software

This appendix provides information on using third-party software with i-Planet software.

Software on the CD-ROM

The i-Planet CD-ROM labeled "Contains 3rd Party Software Packages Only" contains several third-party products.

Samba Server Software

If you want to allow remote users access to Microsoft Windows networks, you must install Samba server software on the i-Planet server.

▼ To install Samba server software

1. **As root, mount the CD labeled "Contains 3rd Party Software Packages Only" on the i-Planet server.**
2. **Run the `install_3ps` script.**

```
# ./install_3ps
```

This adds the package SUNWsrsmb to the i-Planet server.

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

   (Any process started when the current working directory is `/cdrom/cdrom0` must be stopped before you can eject the CD-ROM.)

```
# cd /
# eject cdrom0
```

Other Software on the CD-ROM

Other software contained on the CD labeled "Contains 3rd Party Software Packages Only" includes GO-Joe and pcANYWHERE. These packages and files are installed on machines other than the i-Planet gateway or i-Planet server; refer to the *i-Planet Administration Guide* for installation instructions.

Additional Software

i-Planet, Release 2.0, does not ship with software that will allow remote users to have access to NetWare machines from the NetFile application. If you want your remote users to have access to NetWare machines, you must purchase the NetWare connectivity product called NetCon 7.0 from the NetCon Corporation in Crystal River, Florida. NetCon 7.0 only supports Solaris 2.5.1. and 2.6.

Install NetCon 7.0 on the i-Planet server according to the instructions from the NetCon Corporation. Then, refer to the *i-Planet Administration Guide* for administration instructions.

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