Installing and Licensing Solstice PPP 3.0.1

This booklet contains instructions on how to install and license Solstice PPP 3.0.1. It assumes that you are already familiar with installing software products on machines running a Solaris™ 2.x environment, and that you are installing from a local CD-ROM drive.

The Solstice PPP Client initiates connections across public and private telephone networks, through a single modem link. You are authorized to install and use the Solstice PPP client on an unrestricted number of machines.

The Solstice PPP Server provides all the functionality of a PPP server, including synchronous connectivity, support for up to 512 modems, support for IP routing, and the ability to accept incoming connections. This product incorporates a floating-license system, which restricts the number of Solstice PPP Servers that can run concurrently. To access all the features of the Solstice PPP Server, you must purchase and obtain a license password, as described in “Requesting License Passwords” on page 9.

Getting Help

If you have problems with any part of the product installation process, call your authorized service provider. Have the following information ready:

- The model number of your machine
- The serial number of your machine
- The SunOS operating system release number
- The product release number: 3.0.1
- The product serial number shown on the license label
- The hostid of the license server

Use the `showrev` command to display the SunOS operating system release number and hostid information:

```
prompt% showrev
Hostname: host_a
Hostid: 3489b71a
Release: 5.4
Kernel architecture: sun4d
Application architecture: sparc
Hardware provider: Sun_Microsystems
Domain: XYZ.Div.Company.COM
Kernel version: SunOS 5.4 Generic. July 1994
```

Summary

1. Plan your installation to determine where to install the packages supplied with Solstice PPP and to ensure your machines meet the installation requirements. See “Planning Your Installation” on page 4.

2. Request a License Password from one of the authorized license distribution centers. See “Requesting License Passwords” on page 10. Skip this step if you are upgrading from a previous version of Solstice PPP, or if you are going to use the Solstice PPP Client only.

3. Install Solstice PPP. See “Installing Solstice PPP 3.0.1” on page 10.

4. Install the license password. See “Installing the License Password” on page 15. Skip this step if you are upgrading from a previous version of Solstice PPP, or if you are going to use the Solstice PPP Client only.

5. Configure and start Solstice PPP. See “Getting Started with Solstice PPP” on page 16.

For information on how to configure and use Solstice PPP, refer to either *Configuring and Using Solstice PPP Clients* and *Configuring and Using Solstice PPP Servers and Routers*.

Planning Your Installation

You must decide on which machines you are going to install the Solstice PPP software packages. If you install the Solstice PPP Server you must also decide which license configuration best suits your needs. If you are upgrading from a previous version, these decisions have probably already been made. All you need to do is to check the installation requirements.

Software Packages and Where to Install Them

For information on the files in each package, use the `pkgchk(1M)` command.

Install the following software packages on all machines on which you intend to run either the Solstice PPP Client or the Solstice PPP Server.

Package Name	Package Description
`SUNWpppk` **Solstice PPP Device Drivers**	Contains the PPP kernel modules, drivers, devices, ppp modules.
`SUNWpppr` **Solstice PPP Configuration Files**	Contains the configuration files and startup scripts.
`SUNWpppu` **Solstice PPP Daemon & User Programs**	Contains the link manager and user utilities such as `pppconnect` and `pppdisconnect`.

Install the following software package on all machines on which you intend to run the Solstice PPP server.

Package Name	Package Description
SUNWppps **Solstice PPP Login Service**	Contains the PPP login service, which enables incoming connections.

You can install the following optional software packages on a server to be shared by multiple machines:

Package Name	Package Description
SUNWpppm **Solstice PPP Man Pages**	Contains the man pages for Solstice PPP.
SUNWabppp **Solstice PPP AnswerBook**	Contains the on-line documentation for Solstice PPP.

To access all the features of the Solstice PPP server, you must install the license system software on your license server(s).

Package Name	Package Description
SUNWlicsw **FlexLM License System**	Contains the license daemon which maintains the product license database.
SUNWlit **STE License Installation Tool**	Contains graphical and command-line versions of the license installation tool.

Installation Requirements

Hardware:
Solstice PPP runs on SPARC™ and Solaris x86, platforms with a standard configuration.

Software:

- **Solaris™ 2.3 operating environment or later.**
- **Graphical user interface.** You need access to an X Window System™ window manager to use the graphical user interface for Solstice PPP (`ppptool`) or the license installation tool (`lit`). There are also command-line versions of these utilities.

Disk Space:
Use the following table to work out the minimum disk space (in Mbytes) you require on each of your machines.

Product Package	**/opt**	**/var**	**/etc**	**/usr**
`SUNWlicsw`	2.5	0	0	0
`SUNWlit`	0.5	0	0	0
`SUNWpppk`	0	0	0	0.3
`SUNWpppr`	0	0	0.03	0
`SUNWpppu`	0	0	0	1.0
`SUNWppps`	0	0	0	0.2

License Configuration

The Solstice PPP Server incorporates a floating license system. Each license entitles you to one or more Rights To Use (RTUs), according to the number requested when you ordered the product. This number defines the maximum number of Solstice PPP Servers that can run *concurrently* (you can install the software on a larger number of machines).

You can purchase additional licenses (with one or more RTUs) without purchasing extra copies of the software. These licenses can be added to your existing license configuration.

The machines on which you install the license daemon are called *license servers*. Each license server can handle the licenses for multiple license clients, provided it is accessible across an existing network.

Read the following descriptions to help you determine which of the three possible license server configurations is best suited to your particular environment and needs.

- **Single-independent license server**: This is the simplest and most frequently used license server configuration. The license daemon is installed on a single machine and a single password is required to enable all of the associated RTUs. All clients access the same license server.

- **Multiple-independent license servers**: You can share the total number of RTUs that you purchased between multiple-independent license servers. This configuration allows you to define separate workgroups that access a subset of the total RTUs. You must obtain a unique password for each license server in your configuration.
- **Multiple-redundant license servers**: Three license servers can work together to emulate a single-independent license server. This configuration improves the stability of the license system because licensed products will not shut down as long as the majority of license servers are accessible and able to communicate. A single password enables all of the RTUs.

Requesting License Passwords

If this is the first time you are installing Solstice PPP, you must contact your nearest license distribution center to obtain the passwords that enable the license system. When you contact the License Distribution Center, you need the following information:

- The product serial number, which is printed on the label located on the license certificate supplied with the product.
- A description of your license server configuration.
- The hostname and hostid of each license server.
- The number of SPARC RTUs and x86 RTUs you require.

The following table gives you the information you need to contact your nearest License Distribution Center:

Country	Email Address	Phone Number	Fax Number
Belgium	eu-licensing@UK.Sun.Com	078-11-21 03	+44-1937-541194
Canada	license@Sun.Com	800-722-4786	317-364-7220
Finland	eu-licensing@UK.Sun.Com	9800-14406	+44-1937-541194
France	eu-licensing@UK.Sun.Com	05.90.83.41	+44-1937-541194
Germany	eu-licensing@UK.Sun.Com	0130-81-47-33	+44-1937-541194
Italy	eu-licensing@UK.Sun.Com	1678-77252	+44-1937-541194
Japan	license@rrd.co.jp	03-3263-3821	03-3263-3844
Netherlands	eu-licensing@UK.Sun.Com	06-0224198	+44-1937-541194
Spain	eu-licensing@UK.Sun.Com	900-97-4448	+44-1937-541194
Sweden	eu-licensing@UK.Sun.Com	020-793154	+44-1937-541194
Switzerland	eu-licensing@UK.Sun.Com	155-8096	+44-1937-541194
United Kingdom	eu-licensing@UK.Sun.Com	01937-541511	01937-541194
United States	license@Sun.Com	800-872-4786	317-364-7220
Rest of Europe	eu-licensing@UK.Sun.Com	+44-1937-541511	+44-1937-541194
Other countries	license@Sun.Com	+1-317-364-7216	+1-317-364-7220

Installing Solstice PPP 3.0.1

This section tells you how to install Solstice PPP using `pkgadd`. For detailed instructions on using `pkgadd` and on installing from a remote CD-ROM drive, refer to the *Software and AnswerBook Installation Guide*.

To install the product software:

1. **Log in as** `root` **or become** `superuser`**.**

2. **If you have already installed Solstice PPP, remove the** `SUNWpppk`**,**`SUNWpppr` **and** `SUNWpppu` **packages using** `pkgrm(1M)`**:**

```
prompt# pkgrm SUNWpppk SUNWpppr SUNWpppu
```

3. **Mount the CD-ROM on a local directory.**

- If the Volume Manager (`vold`) is running on your machine (the default), then the CD-ROM is mounted automatically under `/cdrom/ppp_3_0_1` when it is loaded in the drive.

- If the Volume Manager (vold) is not running on your machine, create a directory called /cdrom/ppp_3_0_1 and mount the CD-ROM manually:

```
prompt# mkdir /cdrom/ppp_3_0_1
prompt# mount -rF hsfs /dev/dsk/c0t6d0s0 /cdrom/ppp_3_0_1
```

This command assumes the target setting on your CD-ROM drive is number six (in the string c0t6d0s0).

4. **Start** pkgadd**:**

```
prompt# /usr/sbin/pkgadd -d /cdrom/ppp_3_0_1/cpu
```

where *cpu* is **sparc** or **x86**, depending on your machine.

5. **Type in the numbers corresponding to the packages that you want to install, or press Return to install all of the packages.** Respond to any prompts that appear on the command-line. To install the on-line product documentation, select the 'heavy' AnswerBook installation. Specify a directory name or press Return to install the AnswerBook in the default directory. If you select a 'nil' installation, you will subsequently require access to the CD-ROM to consult the AnswerBook.

6. **Type q to stop** `pkgadd` **when the installation is finished.** Note that the list of available packages is displayed again when the installation is finished.

7. **Eject the CD-ROM from the CD-ROM drive:**

- If Volume Manager (`vold`) is running on your machine, the CD-ROM is unmounted automatically when it is ejected:

```
prompt# eject cdrom
```

- If Volume Manager (`vold`) is not running on your machine, unmount the CD-ROM manually before you eject it:

```
prompt# umount /cdrom/ppp_3_0_1
prompt# eject cdrom
prompt# rmdir /cdrom/ppp_3_0_1
```

8. **Repeat this procedure for each machine on which you want to run Solstice PPP.**

Installing the License Password

You must install a license if you want to access all the features of the Solstice PPP Server. You can omit this step if you want to use the Solstice PPP Client only. The License Installation Tool (`lit`) guides you through the licensing process using a system of windows and menus. You must run the `lit` on every *independent* license server in your license configuration. Treat a set of multiple-redundant license servers as one independent license server.

To install a license password:

1. **Run `xhost` to enable `root` access to your Xserver:**

```
prompt% $OPENWINHOME/bin/xhost + root@<local_host>
```

2. **Login as `root` or become `superuser` and start the `lit` on the license server:**

```
prompt# /etc/opt/licenses/lit &
```

The `lit` displays the hostname and hostid of the machine on which it is running. You cannot use the `lit` to install a license remotely.

3. **Press MENU on the Select Product button to choose a license for Solstice PPP.**
4. **Press MENU on the Server Options button and release it over the item corresponding to the number of license servers you want to use.**
   If you select more than one license server (a multiple redundant server configuration), prompts appear that request information on the other servers. Enter the IP address or hostname, and the hostid of each of the redundant servers in the set.
5. **If you are installing a demonstration version of this product, type the license expiration date in the Expiration Date field.**
   If you do not have a demonstration expiration date, do not enter anything in this field. Entering anything other than the date you were given disables your license.
6. **Type the license password that you received from the license center in the Password field.**
   The checksum field beside the password displays a value associated with the password and the hostid for the license server. Entering an incorrect password disables your license.

7. **Enter the exact number of Rights To Use (RTUs) enabled by this password in the RTU field.**
   This number is also associated with the checksum field. Entering a number that is different from the number of RTUs that you purchased disables your license.

8. **Click SELECT on the Done With License button to add the current license to the list of licenses to be installed.**
   Click SELECT on Continue to dismiss the popup window.

9. **Click SELECT on the Exit—Install Licenses button to install the license that you just added.**
   The `lit` automatically generates and launches the script `/etc/opt/licenses/LIC_CONFIG_SCRIPT` when you install the license. The script takes a few seconds to run. When it is finished, a popup window appears. Any existing license scripts are renamed.

10. **Run the script** `/etc/opt/licenses/LIC_CONFIG_SCRIPT` **on all the machines that get their licenses from the current license server. You must also run this script on every other license server in a set of multiple redundant servers.**

Removing and Reinstalling the License

If you encounter severe problems when installing your license, remove the product's license system and repeat the installation. To remove the short name of product license:

1. **Edit the** `/etc/opt/licenses/licenses_combined` **file.**
   As root, open the file using a text editor and delete all lines that begin:

```
INCREMENT Product designation
```

2. **Delete the files.**
   These files are in the `/opt/SUNWconn/license_dir` directory.

Getting Started with Solstice PPP

Solstice PPP is now ready to configure and use. You configure Solstice PPP for the first time using the initialization script `pppinit`.

Refer to *Configuring and Using Solstice PPP Clients* and *Configuring and Using Solstice PPP Servers and Routers* for detailed information on configuring and using this product.