Sun N1 Service Provisioning System 6.0 Release Notes



Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

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Preface

The Sun N1™ Service Provisioning System 5.2.1 Release Notes contain installation problem details and other information that was not available until immediately before the release of the Sun N1 Service Provisioning System 6.0.

Who Should Use This Book

These notes are for users and system administrators who install and use the Sun N1 Service Provisioning System 6.0.

Related Information

You might need to refer to the following manuals when you install and use the Sun N1 Service Provisioning System 6.0:

- *Sun N1 Service Provisioning System 6.0 Installation Guide*
- *Sun N1 Service Provisioning System 5.2 System Administration Guide*
- *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide*
- *Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide*
- *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide*
- *Sun N1 Service Provisioning System 5.2 Command-Line Interface Reference Manual*

For more information about the Sun N1 Service Provisioning System and N1 Advanced Architecture for SAP Solutions (N1 AA) see the IT Management Hub (`http://www.sun.com/bigadmin/hubs/sysmgmt`) on BigAdmin.

You can access the Japanese versions of the manuals on the docs.sun.com Web site at `http://docs.sun.com/app/coll/1139.4?l=ja`.

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (`http://www.sun.com/documentation/`)
- Support (`http://www.sun.com/support/`)
- Training (`http://www.sun.com/training/`)

Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P–1 Typographic Conventions

Typeface	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories, and onscreen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
`AaBbCc123`	What you type, contrasted with onscreen computer output	`machine_name%` **`su`** `Password:`
aabbcc123	Placeholder: replace with a real name or value	The command to remove a file is `rm` *filename*.
AaBbCc123	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the *User's Guide*. A *cache* is a copy that is stored locally. Do *not* save the file. **Note:** Some emphasized items appear bold online.

Shell Prompts in Command Examples

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

TABLE P–2 Shell Prompts

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

◆ ◆ ◆ CHAPTER 1

What's New in the Sun N1 Service Provisioning System

This chapter briefly describes the new features included in the Sun N1 Service Provisioning System (Sun N1 SPS) software.

For more information about the Sun N1 Service Provisioning System and N1 Advanced Architecture for SAP Solutions (N1 AA) see the IT Management Hub (`http://www.sun.com/bigadmin/hubs/sysmgmt`) on BigAdmin.

What's New in the Sun N1 SPS 6.0 Release

This section describes the following new features in the Sun N1 SPS 6.0 release.

- "New Browser User Interface" on page 9
- "Sun N1 SPS Modeler" on page 10
- "Plan Variable Sets" on page 10
- "Import/Export Bundles" on page 11
- "Dynamic Targeting" on page 11
- "UNIX Reboot Step" on page 11
- "Configuring User Name and Password Constraints" on page 11
- "Linux RPM Installers" on page 11
- "Native Call Cancel on Timeout" on page 12
- "Viewing Installed Components With the `cdb.ic` Commands" on page 12
- "Install Step Component Variables" on page 12
- "Unrestrictive Host Locking" on page 12
- "Red Hat Enterprise Linux Workstation Platform Support" on page 13
- "Java Development Kit Upgrade" on page 13
- "PostgreSQL Upgrade" on page 13

New Browser User Interface

The browser user interface in the Sun N1 Service Provisioning System 6.0 release includes multiple improvements intended to enhance the usability of the software. These improvements include the following:

- **Integrated task flow** - The new user interface guides you through the tasks involved in preparing your environment, modeling your applications, and provisioning those applications.
- **Object creation wizards** – Interactive wizards guide you through the creation of components, plans, and other N1 SPS objects.
- **Java Server Faces 1.1** – The new user interface is based on the JSF framework.

Sun N1 SPS Modeler

The Sun N1 Service Provisioning System 6.0 release includes the N1 SPS Modeler, a NetBeans™ module that enables N1 SPS developers to create components, plans, and plug-ins in a feature-rich IDE. The N1 SPS Modeler includes the following features:

- **Wizards for creating N1 SPS objects** – The N1 Service Provisioning System Modeler enables you to create N1 SPS objects – plans, components, even plug-ins – through a set of interactive wizards. These wizards prompt you for the required information, and create the necessary directory and file structure for your object.
- **Advanced editing features** – The N1 Service Provisioning System Modeler provides the following editing features to facilitate your N1 SPS development.
  - Syntax highlighting
  - Code folding
  - Code completion
- **Integrated XML schema and JavaDoc** – The N1 Service Provisioning System Modeler provides context-sensitive access to the N1 SPS XML schema documentation and JavaDoc within the NetBeans interface.
- **Connectivity with existing N1 SPS master servers** – To take advantage of any existing development work, you can configure NetBeans to connect with N1 SPS master servers to check in and check out N1 SPS objects.
- **Integration with source control systems** – With the NetBeans IDE, you can take advantage of the integrated support for source control systems such as CVS and Subversion to control your N1 SPS development work.

Plan Variable Sets

The new Plan Variable Set feature enables you to capture plan execution information, as well as other common plan parameters, as a complete variable set. You can then select these plan variable sets when you run plans in your N1 SPS environment.

With this feature, you can collect the following information into a variable set, and reuse this information throughout your N1 SPS environment.

- Target hosts
- Target host set
- Component versions and variables

- Run level
- Plan throttle
- Native step timeout
- Timeout limit for native OS operations included in the plan
- Specific plan parameters.

Import/Export Bundles

In the Sun N1 Service Provisioning System 6.0 release, you can copy various Service Provisioning System objects from your development master server to your testing server, to your staging master server, and from there to your production master server. With *bundles*, Service Provisioning System objects such as components, plans and host sets can easily be copied from one master server into a single file and on to another master server.

When you create a bundle, you first create a bundle template that includes an ordered list of search criteria that add your selection of component types, system services, host types, folders, and other service provisioning system objects. Then, you export the bundle template as a bundle JAR, which you can easily copy from one master server to another.

You can also create a bundle by explicitly selecting N1 SPS objects.

Dynamic Targeting

The new dynamic targeting feature enables you to use variable substitution on a component targeter. With this new feature, you can now perform variable substitution for the name attribute on the following repository component targeters.

- `<component>`
- `<nestedRef>`
- `<toplevelRef>`

UNIX Reboot Step

For remote agents that are running a version of the UNIX operating system, you can now include reboot instructions in your execution plans. The new `<reboot>` step enables you to reboot a host that is running a UNIX variant.

Configuring User Name and Password Constraints

You now have the option to specify the minimum character length, maximum character length, and acceptable character set for you N1 SPS user names and passwords. You can include your custom regular expression patterns in the `config.properties` to configure the constraints for user names and passwords.

Linux RPM Installers

The Sun N1 Service Provisioning System software now includes Linux RPM installers. The Linux master server and CLI client software are now installed as Linux RPM packages.

Native Call Cancel on Timeout

In the Sun N1 Service Provisioning System 6.0 release, you can use the <execNative> and <execJava> elements to perform a remote procedure call (RPC) and terminate code that is running on a remote agent.

Viewing Installed Components With the cdb.ic Commands

With the new cdb.ic command suite, you can quickly identify all the components installed on a system, as well as dependencies between installed components.

The following commands are new in the Sun N1 Service Provisioning System 6.0 release.

- cdb.ic.la – Use this command to list all the components installed on a system.
- cdb.ic.ldo – Use this command to list the components upon which a specific installed component depends.
- cdb.ic.lod – Use this command to list the components that depend on a specific installed component.

Install Step Component Variables

To specify component variable values for top-level components in a plan, it is no longer necessary to select component variable sets only in the Plan Run screen of the browser user interface, or to specify existing component variable sets only at plan run time using the command line interface. In this release of the Sun N1 Service Provisioning System, you can supply component variable values in the <install> step of a plan.

As plan author, you no longer have to wait until the plan is accessible in the browser user interface or the command line interface. To be able to supply component variable values in the <install> step of a plan, the following elements have been provided.

- <compVarSet>
- <compVarList>

Both elements can be used for the same target component. The <compVarSet> element enables you specify an existing named variable setting for the target component. The <compVarList> element enables you to override one or more specific variables for the target component.

Unrestrictive Host Locking

This release of the N1 Service Provisioning System provides new functionality in the area of host locking. In previous releases, the N1 Service Provisioning System locked a host while executing steps on that host. To prevent plans interfering with each other, no other plans or subplans could be executed against a host while the host was locked by a plan. Now, you can elect to use less restrictive host locking.

This feature introduces the following enhancements to the N1 SPS XML schema.

- The implicitLocking attribute to the <simpleSteps> element indicates what type of host locking to use for the contained steps.

- The `<lockHost>` step indicates that the target host should be locked for the duration of the step.

Red Hat Enterprise Linux Workstation Platform Support

The Sun N1 Service Provisioning System 6.0 release supports the Red Hat Enterprise Linux Workstation 3 update 5 release.

Java Development Kit Upgrade

The Sun N1 Service Provisioning System 6.0 release includes the Java Development Kit (JDK) 1.5 release.

PostgreSQL Upgrade

The Sun N1 Service Provisioning System 6.0 release includes the PostgreSQL 8.1 release.

◆ ◆ ◆ CHAPTER 2

Sun N1 Service Provisioning System 6.0 Issues

This chapter describes Sun N1 Service Provisioning System 6.0 issues that are known to be problems.

- "Installation Issues" on page 15
- "Uninstallation Issues" on page 23
- "Runtime Issues" on page 24
- "Issues Interacting With the Windows 2000 Plug-In" on page 32
- "Issues Interacting With the BEA WebLogic Plug-In" on page 32
- "Localization Issues" on page 34
- "Upgrade Issues" on page 35

Installation Issues

This section describes known issues with installation.

Solaris: Master Server Installation in Non-Global Zone Fails (6423893)

If you try to install the Sun N1 Service Provisioning System master server software in a non-global zone on a Solaris 10 system, the installation fails. The following error is displayed.

```
 Checking your Shared Memory and Semaphore configuration.
               Checking for module 'shmsys'
               Module 'shmsys' is not loaded.  Attempting to load the module.
Insufficient privileges to load a module
        Load module 'shmsys' and then restart the N1 SPS Master Server Installer
       (try this: modload /kernel/sys/shmsys)
               Checking for module 'semsys'
               Module 'semsys' is not loaded.  Attempting to load the module.
Insufficient privileges to load a module
        Load module 'semsys' and then restart the N1 SPS Master Server Installer
        (try this: modload /kernel/sys/semsys)
```

Workaround: Manually load the `shmsys` and `semsys` modules, then retry the installation.

```
# modload /kernel/sys/shmsys
# modload /kernel/sys/semsys
```

Solaris x86: Secure Shell Session Does Not Terminate After Remote Installation of Remote Agent (6551914)

If you use the `cr_ra_remote` command to remotely install a remote agent over a secure shell connection (SSH) from a master server that is running the Solaris 9 OS, the SSH session does not terminate correctly.

Workaround: Apply patch ID 114357-05 or newer to the master server before you install the remote agent.

Solaris: Installation Scripts Fail in Bourne Shell (6568718)

If you run the Sun N1 Service Provisioning System scripts in a Bourne shell, the installation fails. An error message similar to the following is displayed.

```
cr_cli_solaris_sparc_pkg_6.0.sh: /: cannot execute
Usage: grep -hblcnsviw pattern file . . .
```

Workaround: Follow these steps.

1. Assign execution permissions to the installer script.

   ```
   # chmod +x installer-script
   ```

   Where *installer-script* refers to the following scripts.

   - `cr_ms_solaris_sparc_pkg_6.0.sh`
   - `cr_ms_solaris_x86__pkg_6.0.sh`
   - `cr_cli_solaris_sparc_pkg_6.0.sh`
   - `cr_cli_solaris_x86_pkg_6.0.sh`
   - `cr_ld_solaris_sparc_6.0.sh`
   - `cr_ld_solaris_x86_6.0.sh`
   - `cr_ra_solaris_sparc_6.0.sh`
   - `cr_ra_solaris_x86_6.0.sh`

2. Launch the installer.
   - For the master server, type the appropriate command.
     - For SPARC systems:

       ```
       # ./ksh cr_ms_solaris_sparc_pkg_6.0.sh
       ```

     - For x86 systems:

       ```
       # ./ksh cr_ms_solaris_x86_pkg_6.0.sh
       ```

   - For the CLI client, type the appropriate command.

- For SPARC systems:

```
# ksh cr_cli_solaris_sparc_pkg_6.0.sh
```

- For x86 systems:

```
# ksh cr_cli_solaris_x86_pkg_6.0.sh
```

- For the local distributor, type the appropriate command.
  - For SPARC systems:

```
# ksh cr_ld_solaris_sparc_6.0.sh
```

  - For x86 systems:

```
# ksh cr_ld_solaris_x86_6.0.sh
```

- For the remote agent, type the appropriate command.
  - For SPARC systems:

```
# ksh cr_ra_solaris_sparc_6.0.sh
```

  - For x86 systems:

```
# ksh cr_ra_solaris_x86_6.0.sh
```

N1 SPS Software Does Not Start After Reboot if SSL Connectivity Is Selected During Installation (6575906)

During the Sun N1 Service Provisioning System installation program, if you select an SSL selection, and select to reboot the host system after the installation, the N1 SPS software does not start after the reboot.

The following message is displayed in the `/var/svc/log/application-management-spsra:default.log` file.

```
Invalid password. The password has to be greater than 6 characters in length
Please enter the plaintext password for keystore:stty: : No such device or address
```

This issue occurs on systems that are running the Solaris OS or Linux operating systems.

Workaround: Choose the appropriate workaround.

- For a master server, follow these steps.
  1. Change to the `server/bin` directory for your master server.

```
# cd N1-SPS-homedir/server/bin
```

Where *N1-SPS-homedir* refers to the installation directory of the Sun N1 Service Provisioning System, for example, `/opt/SUNWn1sps/N1_Service_Provisioning_System_6.0/`.

2. In a text editor, open the `spsms` file.
3. In lines 45 and 49 of the `spsms` file, change `-noprompt` to `noprompt`.
4. Save and close the `spsms` file.
5. In a text editor, open the `cr_server` script file.
6. Add the following line to the `cr_server` file on line 12.

```
noprompt=$2
```

7. In line 146 of the `cr_server` file, change `$2` to `$noprompt`.
8. Save and close the `cr_server` file.
9. Start or stop the master server.
   - To start the master server, type the following command.

     ```
     # svcadm enable spsms
     ```
   - To stop the master server, type the following command.

     ```
     # svcadm disable spsms
     ```

- For a local distributor, follow these steps.
  1. Change to the `ld/bin` directory for your local distributor.

     ```
     # cd N1-SPS-homedir/ld/bin
     ```

     Where *N1-SPS-homedir* refers to the installation directory of the Sun N1 Service Provisioning System, for example, `/opt/SUNWn1sps/N1_Service_Provisioning_System_6.0/`.
  2. In a text editor, open the `spsld` file.
  3. In lines 45 and 49 of the `spsld` file, change `-noprompt` to `noprompt`.
  4. Save and close the `spsld` file.
  5. Start or stop the local distributor.
     - To start the local distributor, type the following command.

       ```
       # svcadm enable spsld
       ```
     - To stop the local distributor, type the following command.

       ```
       # svcadm disable spsld
       ```
- For a remote agent, follow these steps.

1. Change to the `agent/bin` directory for your remote agent

   ```
   # cd N1-SPS-homedir/agent/bin
   ```

   Where *N1-SPS-homedir* refers to the installation directory of the Sun N1 Service Provisioning System, for example, `/opt/SUNWn1sps/N1_Service_Provisioning_System_6.0/`.
2. In a text editor, open the `spsra` file.
3. In lines 45 and 49 of the `spsra` file, change `-noprompt` to `noprompt`.
4. Save and close the `spsra` file.
5. Start or stop the remote agent.
   - To start the remote agent, type the following command.

     ```
     # svcadm enable spsra
     ```
   - To stop the remote agent, type the following command.

     ```
     # svcadm disable spsra
     ```

Cannot Install in Root (/) Directory (6457372)

During the Sun N1 Service Provisioning System installation program, if you specify the root directory (/) as the installation location for Sun N1 Service Provisioning System, the installation fails. This failure occurs on the following platforms.

- Solaris OS (SPARC and x86)
- Linux
- HPUX
- AIX

Workaround: Specify a non-root directory as the installation directory for the Sun N1 Service Provisioning System.

Solaris: PostgreSQL Database Does Not Start After Installation if Shared Memory Is Not Available (6562505)

If, after you install the Sun N1 Service Provisioning System, the system shared memory is not available, the PostgreSQL database does not start successfully. An error message similar to the following is displayed.

```
FATAL:  could not create shared memory segment: Invalid argument
DETAIL:  Failed system call was shmget(key=9001001, size=427900928, 03600).
HINT:  This error usually means that PostgreSQL's request for a shared memory segment
exceeded your kernel's SHMMAX parameter.  You can either reduce the request size or
reconfigure the kernel with larger SHMMAX.  To reduce the request size (currently
427900928 bytes), reduce PostgreSQL's shared_buffers parameter (currently 51200)
```

```
and/or its max_connections parameter (currently 52).
        If the request size is already small, it's possible that it is less than
your kernel's SHMMIN parameter, in which case raising the request size or
reconfiguring SHMMIN is called for.
        The PostgreSQL documentation contains more information about shared memory
configuration.
Error! Failed to start the postgres database using pg_ctl!
```

Workaround: Choose the appropriate workaround.

- To avoid this issue, verify that your shared memory configuration satisfies the requirements in Chapter 2, "System Requirements for the Sun N1 Service Provisioning System 6.0," in *Sun N1 Service Provisioning System 6.0 Installation Guide*
- If you encounter this issue, follow these steps.
  1. Check your system for memory intensive applications by typing the following command.

     ```
     # ps -o pmem,pid,fname -e | sort
     ```

     The output of this command displays applications that are using large amounts of shared memory on your system.
  2. If appropriate, stop those applications listed in the previous command.
  3. Remove the N1 SPS master server packages from the system.
  4. Restart the installation.

Solaris x86: Master Server Installation Fails on Systems With Patch 118855-30 (6567294)

If you install the N1 SPS master server on a Solaris 10 x86 system that has patch ID 118855-30 installed, the installation fails. The following error message is displayed.

```
Checking for required and recommended Solaris 5.10 patches.
        Patch 124631-03 is required for this installation and does not exist on
your system.
        Patch 120273-13 is required for this installation and does not exist on
your system.
```

Workaround: Add patches 124631-03 and 120273-13 or greater version, then reinstall the N1 SPS software on the master server.

Windows: Resource Check Ins Might Be Rejected (6396403)

Per a recent change in the way resource space is managed, the variable used to configure the Master Server resource repository size has changed in name and function. Therefore, the default configuration files need to be changed.

The new variable, `rsrc.minMSRepoVolFreeSpace`, specifies the minimum number of bytes of disk space that should remain available before further resource check ins are rejected. If a value is not given to `rsrc.minMSRepoVolFreeSpace`, the Master Server can use as much disk space as needed, up to the entire disk.

Workaround: On Windows Master Servers, manually delete configuration variable `rsrc.maxMSRepoSize` and add the new configuration variable `rsrc.minMSRepoVolFreeSpace`. Both variables pertain to the management of resource disk space on the Master Server.

Windows: Windows 2000 Installation Might Fail When Configuring HTTPS (6398475)

While installing the Sun N1 Service Provisioning System 6.0 Master Server on Windows, the installation fails when selecting the `I Am Ready to Specify the HTTPS configuration now` option. When choosing this option, the installer prompts for `keystore` file path and `keystore` password. The installation might fail by throwing the following error:

```
Error 1720: There is a problem with this windows installer package. A script
required for this install to complete could not be run. Contact your support
personnel or package vendor.
```

The possible causes for this error are:

- File path provided for the `keystore` file is invalid
- The password given is not a valid password for the `keystore` file

Workaround: To prevent an error, verify the following:

- The file path is valid and is accessible
- The file type is a valid `keystore` file
- The password provided for the `keystore` file is valid

As an alternative, you can also select the `I will specify the HTTPS configuration after the install` option instead of the `I am ready to specify the HTTPS configuration now` option and perform keystore configuration later.

For more information, see "Creating a Keystore File and Keystore Password for HTTPS Connections" in *Sun N1 Service Provisioning System 6.0 Installation Guide*.

Problems Starting the Master Server on Solaris Systems That Do Not Meet Minimum System Configuration Requirements (6395197)

The N1 SPS Master Server uses the PostgreSQL database. PostgreSQL requires a shared memory segment when it is started. If the PostgreSQL's request for a shared memory segment exceeds available memory, then database startup fails with the following error message on the console:

```
Error! Failed to initialize the database (exit value was 1). Exiting..

The installation of the Master Server is incomplete. It can be removed by using
the following command:
```

```
# pkgrm SUNWspsms SUNWspsc1
```

Also the db error log would contain a message similar to the following:

```
IpcMemoryCreate: shmget(key=5432001, size=426688512, 03600) failed: Not enough
space
```

It is recommended, to stop all other processes that might be using shared memory during master server installation. If the master server could not be installed even after upgrading the physical RAM, refer to Chapter 11, "Upgrading to the Sun N1 Service Provisioning System 6.0," in *Sun N1 Service Provisioning System 6.0 Installation Guide*. This chapter describes the steps required to migrate the Master Server from this machine to a different one that meets the minimum system requirements.

Workaround: The workaround for this issue is to increase the physical RAM on the system. The Master Server cannot be installed on systems that do not meet the minimal system configuration requirements.

The minimal system configuration requirements for Master Server are documented at "Master Server Hardware Requirements" in *Sun N1 Service Provisioning System 6.0 Installation Guide*.

Also, if Master Server installation was successful, but fails to start up due to shared memory constraints, the shared memory requirement of the Master Server could be reduced by using one, or both, of the following methods:

- Reduce the `max_connections` and `shared_buffers` parameters in the postgres configuration file `$BASEDIR/N1_Service_Provisioning_System_5.2/server/postgres/data/postgresql.conf`. Set `max_connections` to 32 and `shared_buffers` to 8,000.
- Reduce the `db.maxconnections` property in the `$BASEDIR/N1_Service_Provisioning_System_5.2/server/config/config.properties` file to 30.

Windows: Installation Fails When User Does Not Have Correct Privileges or Incorrect Password Is Entered (6394017)

The user is installing a Master Server, Remote Agent, or Local Distributor on a Windows system. If the user chooses to run the Windows Service as `Other Account`, the user needs to provide a username that has `Log on as a service` privileges. If the user types an invalid password or the username does not have `Log on as a service` privileges, the installed services fail to start.

When the services fail to start, one of the following error messages is displayed:

- Master Server

After reboot, the installation will fail because the database setup requires that the postgres services are running. Since the credentials given for the `Other Account`are invalid, the postgres service fails to start, the installation hangs, and the following error message is displayed:

```
At least one service or driver failed during system startup. Use Event Viewer
to examine the event log for details.
```

- Remote Agent

  ```
  Error 1920.Service cragent (cragent) failed to start. Verify that you have
  sufficient privileges to start system services.
  ```

- Local Distributor

  ```
  Error 1920.Service crdistributor (crdistributor) failed to start. Verify that
  you have sufficient privileges to start system services.
  ```

This error occurs because the user typed an invalid password or the username does not have `Log on as a service` privileges. Username validation only validates the existence of the user on that computer. The credentials are not checked to see if the password is valid for that user or if the username has "Log on as a service" privileges.

Workaround: To prevent this error, implement one of the following workarounds:

- Verify that the password to be entered for the `Other Account`is valid and that the username has `Log on as a service` privileges.
- Select the `System Account` option instead of the Other Account option. In this case, the user is not required to provide a username or password. The installation will continue and the services will run under the SYSTEM user.

Uninstallation Issues

This section describes known issues with uninstallation.

Side-by-Side Upgrade of a Windows Master Server Uninstall Fails (6188943)

When you are performing a side-by-side upgrade of a Windows Master Server, immediate uninstallation fails. Uninstallation might require manual intervention and reboot to complete.

Workaround: Stop the Master Server service from the Services application in the Windows Control Panel before running the Master Server uninstallation. After the uninstallation completes, the Master Server services are still present. Reboot the machine to remove the Master Server services entries in the Services application in the Windows Control Panel.

Uninstallation Window Displays Previous Sun N1 Service Provisioning System Version Value (6189043)

After upgrading a Sun N1 Service Provisioning System Windows version of the Local Distributor or Remote Agent to the next version, if you uninstall that Local Distributor or Remote Agent, the title of the uninstallation window displays the previous version.

Workaround: The uninstallation program proceeds properly. Ignore the erroneous title.

Runtime Issues

This section describes known runtime issues.

Using Special Characters While Renaming Plans or Components Causes Future Deployments to Fail (6582020)

If you rename a plan or component, and include a special character in the object name, future deployments of the plan or component might fail. An Unexpected Error screen is displayed.

The provisioning system UI does not verify that you have used valid characters when you rename a plan or component.

Workaround: Use valid characters when you rename a plan or component.

Host Characteristics Are Not Checked Before Adding to Host Group (6583978)

The provisioning system browser user interface does not check that the characteristics of a host (such as operating system, platform, and version) match a host group when you add the host to a particular host group. For example, you can add a Solaris host to the system#AIX5.2 host group. A subsequent plan run that is targeted for AIX hosts might end up executing on the Solaris host. The provisioning system will not generate an error to warn you about this grouping

Workaround: None.

List of Folders Does Not Refresh After Importing Plug-ins (6581474)

If you import a plug-in, then cancel the import operation, the plug-in is successfully imported and the list of folders for the plug-in does not accurately reflect the plug-in folders. This occurs because the folder list does not refresh after you import a plug-in.

Workaround: Log out of the master server, then log in again to view the list of folders for the plug-in.

Cannot Edit or Delete Folder (6410481)

If a user does not have writer permissions on a folder, the Edit and Delete buttons are disabled on the folder even if the user belongs to the group owner of the folder.

Workaround: Edit the folder permissions to explicitly grant the owner group permission to read, write, and execute for the folder.

All Components Not Listed By Default When Creating Container Component (6558053)

If you use the browser user interface to create a new container component, the New Component creation wizard does not list all the components in the provisioning system by default when you try to add component references.

Workaround: In the Component Reference screen, type in a string in the Search field to search for specific components, then click Search.

If you want to view and select from all the components in the provisioning system, click the Search button without typing a search string.

Windows: Backslash Character (\) Escapes Quotation Marks (") at End of Paths (6347121)

If you include a backslash character (\) at the end of a Microsoft Windows path, and immediately before a quotation mark (") in an argument with the N1 SPS command line interface, the command might fail. For example, review the following command.

```
>a.exe "C:\ab\cd\" -dst
```

`C:\ab\cd\ -dst` is interpreted as a single argument instead of the separate `C:\ab\cd\` and `-dst`. This issue occurs because the backslash escapes the second quotation mark, creating a CLI syntax error.

Workaround: Omit trailing backslash characters from the end of Microsoft Windows paths with the N1 SPS CLI.

Importing Bundles That Include Container Components Might Fail (6562949)

If you import N1 SPS bundles that include container components that reference specific versions of subcomponents, the import might fail. This issue occurs because the import operation assigns the next available version number to a subcomponent of a container, and this version of the subcomponent might not exist on the target master server.

Workaround: To best avoid this issue, include bundle search criteria for all the referenced components and their exact versions in your bundle before including the container component that includes these subcomponents

---

Note – Because the master server might include varying versions of these subcomponents, you might unintentionally reference different subcomponents in your container component.

Working With N1 SPS in Multiple Browser Tabs Results in Errors (6544803, 6422998, 6548431)

If you work with N1 SPS software in multiple web browser tabs, the provisioning system might not work as expected. At the time of publication, some of the unexpected behavior includes:

- Errors when trying to rename folders with two open browser tabs
- Errors when trying to run two plans simultaneously in two open browser tabs

Workaround: While working with the N1 SPS software, log in to a single master server through a single web browser tab in a single web browser session.

Navigating With Web Browser Back Button Causes Unexpected Error (6571805)

If you use your web browser Back button to try to navigate to pages that were previously displayed, the pages might not display. Your browser might display an Unexpected Error.

Workaround: To navigate to a previous displayed page, click on the Back to Common Task Page link that is included in the error page.

Solaris: Plans Targeting Remote Agents on Same Host as Master Server Hang During Preflight (6552755)

If you run a plan that targets a Solaris 10 system that serves as both a master server and a remote agent, the plan might hang during preflight.

Workaround: Edit the TCP fusion settings in the `/etc/system` file. Follow these steps.

1. In the `/etc/system` file, disable TCP fusion by editing the do_tcp_fusion entry to read as follows.

   ```
   do_tcp_fusion=0
   ```

2. In the `/etc/system` file, set the `tcp_fusion_unread_min` value to 0.

   ```
   tcp_fusion_unread_min=0
   ```

Error When Adding Plan Variable Sets to Plans That Use Dynamic Targeting Feature (6556351)

If you try to add a plan variable set to a plan with the `pdb.vs.add` command, and the plan XML includes elements that use the dynamic targeting feature, the command fails. An error similar to the following is displayed.

```
The number of components entered is wrong. (031006)
```

Workaround: Do not add plan variable sets to a plan that uses the dynamic targeting feature.

Null Pointer Exception Error Occurs When Using `<matches>` With Null Pattern (6407827)

If you include a `<matches>` element with a null pattern value in a plan, and then try to check in the plan, the check in fails. A message similar to the following is displayed.

```
ERROR [main] com.raplix.rolloutexpress.systemmodel.plandb.ElementResolver
(ElementResolver.java:34) - unable to create element
java.lang.NullPointerException
```

Workaround: Include a dummy pattern with the `<matches>` element. For example:

```
<matches value=":[ip1]" pattern="121212"/>
<matches value=":[group]" pattern="121212"
```

Unable to Load Library Error Occurs When Calling Shared Objects (6562333)

If a shared library is called by both the Sun N1 Service Provisioning System and another application, an error similar to the following displays.

```
java.lang.UnsatisfiedLinkError: Unable to load library
"/opt/SUNWn1sps/N1_Service_Provisioning_System_5.2/cli/../
common/lib/solaris/libnative.so":
"Native Library /opt/SUNWn1sps/N1_Service_Provisioning_System_5.2/
common/lib/solaris/libnative.so already loaded in another classloader". (025004)
 at
 com.raplix.util.platform.common.PackageInfo.throwLibraryNotFound(PackageInfo.java:66)
 at com.raplix.util.platform.common.PlatformUtil.loadLibrary(PlatformUtil.java:389)
 at com.raplix.util.platform.common.LibraryLoader$Loader.create(LibraryLoader.java:27)
 at com.raplix.util.DelayedCreator.getValue(DelayedCreator.java:56)
 at com.raplix.util.platform.common.LibraryLoader.load(LibraryLoader.java:58)
 at com.raplix.util.platform.common.NativeLoader.load(NativeLoader.java:43)
```

This error occurs when an application and the Sun N1 Service Provisioning System CLI call the same shared object.

Workaround: Use a single CommandManager instance to call shared objects.

The following example illustrates how to call a single CommandManager instance.

```
/** Not thread safe */
public class CMBuilderFactory {
    public static CommandManagerBuilder builder;
    public static CommandManager mgr;

    private CMBuilderFactory() {
    }

    private static CommandManagerBuilder getBuilder() {
        if(builder == null) {
            builder = new CommandManagerBuilder();
        }

        return builder;
    }

    public static CommandManager getCommandManager() {
        if(mgr == null) {
            CommandManagerBuilder bld = getBuilder();
            bld.setCLIInstallationDirectory(..);
            ... // additional setup parameters
            mgr = bld.build();
        }
```

```
        return mgr;
    }
}
```

Reset Maximum Java Heap Size to Import Large Plug-ins (6515287)

If you use the default maximum Java heap size for your N1 SPS master server, large plug-ins might not be successfully imported into your N1 SPS environment. This issue occurs on all non-Microsoft Windows platforms.

Workaround: Follow these steps.Edit the master server startup script (cr_server)

1. If necessary, stop the master server.

   ```
   # N1-SPS-home/cr_server stop
   ```

2. Edit the `cr_server` startup script, increasing the value of the CR_MAX_HEAP_SIZE parameter from 256 to 512 or 1024.

   If necessary, keep increasing this amount until the import issue no longer occurs.

3. Restart the master server.

   ```
   # N1-SPS-home/cr_server start
   ```

Repeated Use of Differential Deploy When Checking in Components Might Consume Disproportionate Memory Resources (6327005)

If you repeatedly use the Differential Deploy feature to check in changes to components or resources, the resource might require disproportionately large memory resources to deploy.

Workaround: Do not use the Differential Deploy feature for components that you plan to revise repeatedly.

Windows: Database Optimization Should Be Performed On a Regular Basis (6262476)

If database optimization is not performed on a regular basis, performance deteriorates.

Workaround: Manually schedule a database optimization task.

This is a two phase process.

Note – The following steps are performed on the Master Server.

---

1. Creation of Database Optimization Script

   Create a new Windows command file called *file_name*`.cmd` in the `server\bin\` directory of the Master Server installation. Copy the following text to the *file_name*`.cmd` file.

   ```
   REM No changes need to be made to the script after this line
   cd %SPS_MS_DIR%\bin
   ..\cygwin\bin\bash.exe roxdbcmd vacuumdb -d rox
   ```

2. Scheduling
   a. Choose Start ⇒ Settings ⇒ Control Panel ⇒ Scheduled Tasks.
   b. Start the Task Scheduler Wizard by double-clicking Add Scheduled Task in the Scheduled Tasks folder. Click Next.
   c. Click Browse to open the Select Program To Schedule dialog box. Navigate to the `optimizedb.cmd` file.
   d. Choose the frequency of task runs.

      It is recommended that you run the task daily. Your options in subsequent screens will depend on your choices. The following steps assume that the user selected the daily option.
   e. Enter the time when the task should be run. Click Next.

      Note – It is advisable to run the database optimization task when the system is not being used. Choose the scheduling time accordingly.

   f. Type the name and password of the user who is associated with this task. Click Next.

      Make sure that you choose a user with sufficient permissions to run the program. By default, the wizard selects the name of the user who is currently logged on.
   g. Click Finish.

      The task is scheduled.
   h. For confirmation of successful task scheduling, it is advisable to choose Start ⇒ Settings ⇒ Control Panel ⇒ Scheduled Tasks and check the Task Exit Status Code. A successful task run is indicated by code `0x0`.

      Note – Please note that the scheduled run of the task should be completed before observing the exit status code.

      For more information on Windows task scheduling options, see `http://www.microsoft.com/technet/scriptcenter/guide/sas_man_lpja.mspx`.

- To delete the task, press Delete after selecting this task.
- To modify the scheduling options, right click on the task and choose properties and make the necessary modifications.

`Backup` and `Restore` Commands Fail To Restart Master Server (6398090)

When the `backup` and `restore` scripts are run, the Master Server with an SSL configuration fails to restart after the execution of these commands.

Workaround: Perform one of the following options:

- When the following message is displayed, type the keystore password:

  ```
  Starting the Master Server... This may take a moment.
  ```

- Start the Master Server manually.

Folder Add Command Fails With Permission Problems (6382198)

If you try to create subfolders and their parent folders by using the `fdb.f.add` command with the `-parents true` option, the command might fail. This error occurs if you try to create folders and subfolders of three levels or more.

For example, the following sample command fails because folder f1 does not exist.

```
r_cli -cmd fdb.f.add  -parents true -fullname /group1/f1/f2/f3 -u user1 -p user1
```

The following error message is displayed:

```
Unable to save folder /group1/f1/f2/ due to permissions problem. (013011) access
denied (com.raplix.rolloutexpress.systemmodel.userdb.FolderPermission
folder:129159219047-1139319070874-31478-1381549121 write)
```

This error occurs if you do not have administrator rights for a folder, but are a member of the group that owns the folder.

Workaround: When using the `-parents true` option, create only the new folder and its immediate parent.

Snapshot Data For Nested Components Might Not Be Purged When the Nested Components Get Reinstalled

If a nested component that is installed by way of the installation of a container component, creates snapshots, the snapshot data on the Remote Agent might not get purged when the nested component is uninstalled by the reinstall of the container component. This might lead to the Remote Agent, on which the nested component was installed, to consume more disk space than it should since the orphaned snapshot data was not purged.

Workaround: The orphaned snapshot data might be purged by installing and then uninstalling a simple component that creates snapshots on the Remote Agent with orphaned snapshot data. The install and uninstall cause the Remote Agent to compare its snapshot data with the Master Server. The result is that the snapshot data is purged for all the components that are no longer installed on the Remote Agent.

Plan Execution Pauses for 10 Minutes on `execJava` in Preflight on IBM AIX Remote Agents (6313197)

On an IBM AIX remote agent, the plan execution for `CreateManagedServerPlan` might pause for 10 minutes on an `execJava` step.

Workaround: None.

System Might Hang When Using SSL on Red Hat Linux Advanced Server 3.0 (5084676)

If you are running the Sun N1 Service Provisioning System on Red Hat Linux Advanced Server 3.0, the system might hang when using Secure Socket Layer (SSL) connections.

SSL uses SecureRandom which uses `/dev/random` to generate random numbers. Red Hat Linux Advanced Server 3.0 includes a bug that causes `/dev/random` not to collect entropy. Since `/dev/random` does not generate numbers unless sufficient entropy is collected, applications hang when attempting to read random data from `/dev/random`.

Workaround: Choose one of the following workarounds:

- Red Hat plans to include a patch in Update 3 to correct the problem. Apply the patch from Red Hat to your system when the patch is available. For more information about the Red Hat patch, see `http://bugzilla.redhat.com/bugzilla/show_bug.cgi?id=117218`.
- Do not use SSL as a connection type. Choose TCP/IP or SSH.
- Remove `/dev/random` and replace it with a symbolic link to `/dev/urandom`. `/dev/urandom` is less secure than `/dev/random` but the system does not hang when the provisioning system attempts an SSL connection on Red Hat Linux Advanced Server 3.0.

Notification Rules Might Cause Plans to Run Slowly (6176243)

If you create a notification rule that has few criteria or no criteria, plans might appear to run slowly. The plan does not complete slowly, but the display of the plan results might be delayed.

Workaround: When creating a notification rule, use as many criteria as possible. More criteria for a notification rule decreases the number of notification emails the provisioning system sends across the network. A lower number of notification emails is less likely to interfere with the display of plan results.

Security Issues

Closing Web Browser With Multiple Web Browser Sessions Open Does Not Log Out of N1 SPS Session (6569108)

If you have two or more web browser sessions running on a system , and close a web browser session that is running the Sun N1 Service Provisioning System without logging out of the application, the same N1 SPS session can be accessed from an open web browser session.

Additionally, if the web browser software that you are using to run the Sun N1 Service Provisioning System software includes additional applications, such as an email client, these applications can also cause you N1 SPS session to remain active.

Workaround: Log out of your N1 SPS session by clicking the Log Out button in the browser interface.

Issues Interacting With the Windows 2000 Plug-In

This section describes known issues with the Windows 2000 plug-in.

Changing a Microsoft IIS Setting and Then Resetting It Might Result in Differences Being Found (6189034)

When performing model to install comparisons that include snapshots of IIS settings, if an IIS setting is changed and then changed back to its original value on the target server, comparison results might indicate differences when no difference exists. In particular, IIS metabase properties that are inherited from parent nodes, such as read/write web site permissions or default document settings, are prone to this behavior.

Workaround: Ignore the differences that are found in these cases.

Cannot Uninstall Windows IIS Application (6197564)

When you uninstall a Windows IIS Application, the Master Server browser interface displays that the uninstallation was successful. However, the COM+ applications are not completely removed. The COM+ applications remain in the Add/Remove Software Programs in the Control Panel.

Workaround: Manually remove the remaining COM+ applications.

To prevent this problem, when you install the application, increase the value of the `shutdownDelaySecs` variable.

Issues Interacting With the BEA WebLogic Plug-In

This section describes known issues with the WebLogic plug-in.

EJB Component Is Not Uninstalled (5109783)

If you run the default uninstall procedure for an EJB component that was deployed to more than one virtual WebLogic managed server and select only one of the managed servers to be uninstalled, the EJB component does not appear to be uninstalled from the managed server.

After the uninstall, if you click the tab on the WebLogic console for the managed server from which you uninstalled the EJB, the console correctly reports that the EJB is no longer deployed. Also, when you click the EJB tab, the console reports that the EJB is no longer targeted at the managed server from which it was uninstalled.

However, on the EJB tab, the console reports that the EJB is deployed on the managed server.

If you uninstall the EJB from all managed servers, the EJB is removed from the WebLogic console correctly.

Workaround: The WebLogic Plug-In is uninstalled correctly. Ignore the erroneous display.

Comparison Fails With Snapshot Error When WebLogic Application Was Deleted From the WebLogic Console (6186456)

If you deploy a WebLogic web application that contains a web application container with a WAR file and web application settings and include a snapshot and then delete the web application from the WebLogic Console, the following error displays if you run a model to install comparison on the web application component:

```
Could not complete operation on webapp domain.
No such webapp exists on domain /domain/. (310101)
```

The comparison should report a difference between the model and what is installed on the server. However, the comparison fails.

Workaround: No workaround is available.

Comparison Does Not Report Differences For Undeployed Components (6186457)

If you use the WebLogic Console to undeploy a WebLogic WAR or EJB component from a managed server or cluster, the WebLogic Console reports that the WAR or EJB component is still targeted to that managed server or cluster. Consequently, if you run a model to install comparison on the managed server or cluster, the comparison reports no differences. The model to install comparison checks the WebLogic Console and reports targeted applications as deployed.

Workaround: No workaround is available.

Comparison Results Incorrect for Content Changes Made to the On Disk Representation of WebLogic Application Archives (6196108)

If a WebLogic application is installed using the Sun N1 Service Provisioning System 6.0 and then content changes are made to the on disk WAR archive on the administration server, the changes are not reported in comparison results. The problem does not occur when configuration changes are made.

Workaround: Comparisons can be customized using the generate and prepare extensions with more capabilities to preprocess the on disk representation prior to running the comparison. This type of customization might require some advanced scripting.

SSL Connections to WebLogic Administration Servers Are Not Supported (6203385)

When setting up a WebLogic administration server in the Sun N1 Service Provisioning System 6.0, clicking the Secure checkbox will attempt to set up connectivity using SSL. This selection causes an error when attempting to perform actions that require access to the WebLogic administration server.

Workaround: Always setup WebLogic administration server connections with requiring SSL connectivity. Do not select the Secure checkbox.

Issues Interacting With the SAP Plug-In

This section describes known issues with the SAP plug-in.

Plans Fail If Master Server Is Not Prepared After Loading Plug-in (6392022)

If you import the SAP plug-in into your provisioning system, and then run SAP plug-in plans without preparing the master server, the plans fail. A message that is similar to the following error is displayed.

```
Problems encountered during plan run or preflight
The plan (or preflight) "/com/sun/sap/CreateGroupPlan" finished with 1 failed host(s).
(017034)
Cannot perform operation on component system service: com.sun.sap#UtilSS because it was
not installed on host cliHost (017057)
Unable to resolve installed component for system service: com.sun.sap#UtilSS. (602021)
```

Workaround: After you import the SAP plug-in, prepare the master server.

Localization Issues

This section describes issues encountered when using the Sun N1 Service Provisioning System 6.0 in locales other than the English locale.

Cannot Import Variable Sets That Include Non-ASCII Characters(6576425)

If you try to import a variable set that includes non-ASCII characters in the set name or details, the import fails.

Workaround: None.

Cannot Save or Check Out Plans or Components That Contain Non-ASCII Characters (6565638, 6576430)

If you use the browser user interface to try to save or download the XML file of a plan or component that includes non-ASCII characters, the operation fails.

Workaround: Use the command line interface to save or checkout plan or component XML that includes non-ASCII characters.

Search Pattern With Non-ASCII Latin-1 Characters Does Not Work Correctly (6302462)

In the Latin-1 locale environment, non-ASCII characters should not be used in the search pattern. For example, umlauts in German and accents in French. The desired match might not be in the returned set when the find operation is executed.

Workaround: Latin-1 locale users should not use non-ASCII characters as the input to the find command. Using non-ASCII characters might not return the desired result. Use only ASCII characters in these locales.

Locale Sensitive Sorting Is Not Supported

String–based data within the Sun N1 Service Provisioning System is sorted using the standard dictionary lexicon. Locale-specific collation is not performed. Consequently, accented versions of characters appear in a different position than the same unaccented characters.

Upgrade Issues

Solaris: Master Server Migration From N1 SPS 5.2 Release to N1 SPS 6.0 Release Fails (6546854)

If you migrate a master server from the N1 SPS 5.2 release to the N1 SPS 6.0 release, the migration fails under the following circumstances.

- The master server is running the Solaris 10 OS.
- During the migration, you specify a user other than root to start or stop the master server.
- The non-root user you select has not been assigned the proper SMF authorization.

The following error message is displayed.

```
svcadm: svc:/application/management/spsms:default: Permission denied.
```

Workaround: Follow these steps.

1. Add the following entry in the `/etc/user_attr` file.

   ```
   n1sps::::auths=solaris.smf.manage.spsms
   ```

2. Add the following entry in the `/etc/security/auth_attr` file.

   ```
   solaris.smf.manage.spsms:::N1 SPS Master Server::help=
   ```

3. In a terminal window, execute the following command.

   ```
   # /usr/sbin/usermod -A solaris.smf.manage.spsms n1sps
   ```

Update Hosts Progress Dialog Box Does Not Continuously Refresh (6383815)

If you click the Update Entire Host Network button during an upgrade of remote agents or local distributors where the database has thousands of hosts, the Update Host Progress dialog box might not continuously refresh. The dialog box provides the current status for approximately 20 minutes. Although the dialog box stops refreshing, the upgrade continues.

Workaround: Go to the Hosts List page and click the View Current Host Updates link.

◆ ◆ ◆ CHAPTER 3

End–of–Software Support Statements

This chapter lists end–of–support statements.

- "Current Release" on page 37
- "Future Releases" on page 37

Current Release

No features were removed in the Sun N1 Service Provisioning System 6.0 release.

Future Releases

The following features might not be supported in a future release of the Sun N1 Service Provisioning System.

Sun N1 Service Provisioning System WebLogic 7.0 Plug-In

The Sun N1 Service Provisioning System WebLogic 7.0 Plug-In might not be supported in a future release of the Sun N1 Service Provisioning System.

Universal User Group

The `universal` user group might not be supported in a future release of the Sun N1 Service Provisioning System. Equivalent functionality is available by using the `registered` user group. For more information about the `registered` user group, see "registered User Group" in *Sun N1 Service Provisioning System 5.2 System Administration Guide*.

◆ ◆ ◆ CHAPTER 4

Documentation Issues

This chapter describes know issues related to documentation.

Documentation Not Fully Updated for the N1 SPS 6.0 Release

For the Sun N1 Service Provisioning System 6.0 release, the documentation on `http://docs.sun.com` has not been fully updated to include descriptions of all the features of the release. The following books have been updated for the N1 SPS 6.0 release.

- *Sun N1 Service Provisioning System 6.0 Installation Guide*
- *Sun N1 Service Provisioning System 6.0 Release Notes*

For more information about the new features in the Sun N1 Service Provisioning System and N1 Advanced Architecture for SAP Solutions (N1 AA) see the IT Management Hub (`http://www.sun.com/bigadmin/hubs/sysmgmt`) on BigAdmin.

What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release

This section describes corrections to the *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

Description of `bdb.b.mod` Command (6538610)

The description of the `bdb.b.mod` command inAppendix A, "Appendix — New Commands," in *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release* incorrectly refers to the `bdb.d.add` command. This syntax reference should refer to the `bdb.b.add` command.

Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide

This section describes corrections to the *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide*.

Character Limit Not Documented (6337930)

The *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide* does not identify the character limit for component, plan, and resource labels. The current limit is 32 characters.

Descriptions of `<member>`, `<host>`, and `<criteria>` Elements (6544841, 6515247)

In the *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide*, the following attributes listed for the `<memberList>`, `<hostSearch>`, and `<criteriaList>` elements in Chapter 6, "Plug-In Descriptor Schema," in *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide* should be listed instead for the `<member>`, `<host>`, and `<criteria>` elements.

- name – The name of the host variable to match.
- pattern – The pattern to match.
- match – The match type of the criteria. Valid values are EQUALS or CONTAINS. The default is EQUALS.

`version` and `schemaVersion` Attribute Values Are Not Accurate (6426490)

The descriptions of the `version` and `schemaVersion` for the `component`, `plan`, `plugin`, and `pluginUI` elements are inaccurate. The description should read as follows.

Currently, the only permitted values are 5.0, 5.1, 5.2, and 6.0.

Sun N1 Service Provisioning System 5.2 Command Line Interface Reference Guide

This section describes corrections to the *Sun N1 Service Provisioning System 5.2 Command-Line Interface Reference Manual*.

`pdb.p.del` Command Does Not Support `-all` Option (6385566)

The *Sun N1 Service Provisioning System 5.2 XML Schema Reference Guide* erroneously lists the `-all` for the `pdb.p.del` command. This option is not supported by this command.

Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide

This section describes corrections to the *Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide*.

Inaccuracies in Secondary Component Reference Syntax for Variable Subsitution (6400544)

The *Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide* erroneously lists the variable substitution syntax for secondary component references. The syntax should read as follows.

```
secondary-component-reference-list:
secondary-component-reference
secondary-component-reference:secondary-component-reference-list
```

Sun N1 Service Provisioning System User's Guide and Release Notes for the WebSphere Plug-In 2.0

This section describes corrections to specific chapters in the Sun N1 Service Provisioning System User's Guide and Release Notes for the WebSphere Plug-In 2.0.

Entire Document

All occurrences of the following text should be read as version 5.1, not version 2.0.

- WebSphere 2.0 application server
- WebSphere 2.0 infrastructure
- WebSphere 2.0 software
- WebSphere 2.0 environment

Configuring the WebSphere 2.0 Environment (Task)

The sentence after Step 7 of "How to Install a JDBC Provider Component," should read as follows:

You can target the JDBC provider component to one of the following hosts.