What's New in the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 Release

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Part No: 820–0252–10
January 2007

070130@16599

Contents

Preface

The *What's New in the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 Release* document describes how to install and use the new features in the Sun N1 ™Advanced Architecture (N1 AA) for SAP Solutions 5.2 Update 2 release.

Who Should Use This Book

This book is for system administrators and IT operators who are responsible for configuring and maintaining the Sun N1 Advanced Architecture for SAP Solutions software.

Before You Read This Book

This book assumes that you have already installed the Sun N1 Advanced Architecture for SAP Solutions 5.2.1 release in your data center environment. For information about how to install the Sun N1 Advanced Architecture for SAP Solutions 5.2.1 release, see the following books.

- *Sun N1 Service Provisioning System 5.2 Installation Guide*
- *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*
- *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*
- *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*
- *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*

These books are all available in the Sun N1 Service Provisioning System 5.2 Update 2 Collection (`http://docs.sun.com/app/docs/coll/1119.6`).

How This Book Is Organized

This book explains the following topics.

- Chapter 1 briefly describes the new features in the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release.
- Chapter 2 describes how to install and configure the software on SPARC and x86 based systems.

- Chapter 3 describes how to create and manage Solaris zones in an SAP environment with N1 Service Provisioning System and N1 AA software.
- Chapter 4 describes how to create and manage J2EE application servers in your SAP environment with N1 Service Provisioning System and N1 AA software.
- Chapter 5 describes how to create and manage SAP Central Services (SCS) in your SAP environment with N1 Service Provisioning System.

Related Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

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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.`

TABLE P–1 Typographic Conventions *(Continued)*

Typeface	Meaning	Example
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 N1 AA 5.2 Update 2 Release

The Sun N1 Advanced Architecture (N1 AA) for SAP Solutions 5.2 Update 2 (5.2.4) release includes the following new features.

Support for Solaris 10 Zones in an SAP Environment

The Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release provides support for the creation and management of Solaris 10 non-global zones in your SAP environment. With the SAP plug-in version 1.3, you can perform the following tasks in your SAP environment.

- Create a non-global zone on a Solaris 10 host
- Deploy applications into a non-global zone
- Manage these applications with the SAP plug-in
- Start or stop a non-global zone
- Import existing non-global zones into your N1 Service Provisioning System environment
- Manage the non-global zone as a resource

These new features are available in both the SAP plug-in and N1 AA graphical user interface. For more information, see Chapter 3.

Support for J2EE Application Servers

The SAP plug-in version 1.3 and N1 AA 5.2 Update 2 release now support the management of J2EE application servers. You can now model and manage J2EE application servers with the SAP plug-in.

For more information, see Chapter 4.

Support for SAP 7.0 Software

The SAP plug-in version 1.3 and the N1 AA 5.2 Update 2 release now support SAP version 7.0 software. You can now model SAP Central Services (SCS) in your N1 Service Provisioning System or N1 AA environment. You can also continue to model the SAP Enqueue and Message Servers as separate components.

For more information, see Chapter 5.

N1 AA Platform Support for x86 Systems

The N1 AA 5.2 Update 2 release is supported on Solaris 10 x86 based systems. The N1 AA 5.2 Update 2 release for x86 based systems is provided in a set of packages that are available for download at the Sun Download Center.

For more information about how to acquire and install the N1 AA 5.2 Update 2 release on x86 based systems, see Chapter 2.

◆ ◆ ◆ CHAPTER 2

Installing and Configuring the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 Release

This chapter describes how to install and configure the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release. This chapter explains the following topics.

Installation Overview

Installing the Sun N1 AA 5.2 Update 2 release is a multiple step process.

1. Verify that your environment meets the system requirements for this release.

   For more information, see "System Requirements" on page 14.

2. If necessary, install the N1 Service Provisioning System 5.2 Update 2 software.

   To install the N1 AA 5.2 Update 2 release, you must first install the N1 Service Provisioning System 5.2 Update 2 (5.2.4) release. For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

3. Acquire the N1 AA 5.2 Update 2 release software.

   For more information, see "How to Acquire the N1 AA 5.2 Update 2 Release" on page 15.

4. Install the N1 AA 5.2 Update 2 release.

   For more information see the appropriate procedure.

   - For SPARC based systems, see "SPARC: How to Install the N1 AA 5.2 Update 2 Release" on page 16

- For x86 based systems, see "x86: How to Install the N1 AA 5.2 Update 2 Release" on page 21

System Requirements

To run the N1 AA 5.2 Update 2 release, the systems in your environment must meet the following requirements.

- **Operating system** - The following versions of the Solaris OS are supported.
  - SPARC: Solaris 9 and 10 OS
  - x86: Solaris 10 OS
- **Sun N1 Service Provisioning System** – To install the patches that comprise this update release of the N1 Advanced Architecture, you must first install the N1 Service Provisioning System 5.2 Update 2 patch release. To install the N1 Sevice Provisioning System 5.2 Update 2 patch release, you must already have installed and configured a compatible previous release or patch update of the Sun N1 Service Provisioning System. Compatible previous releases and patch updates are as follows:
  - N1 Service Provisioning System 5.2 release
  - N1 Service Provisioning System 5.2.1 patch update
  - N1 Service Provisioning System 5.2.2 patch update
  - N1 Service Provisioning System 5.2.3 patch update

  For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.
- **SPARC based systems only: Sun N1 AA 5.2.1 release** – To install the N1 AA 5.2 Update 2 release on a SPARC based system, you must first install the N1 AA 5.2.1 release. The N1 AA 5.2.1 SPARC patch is available for download with the N1 AA 5.2 Update 2 release on Sun's Software Portfolio download page. For more information about how to install the N1 AA 5.2.1 release, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.
- **SAP software** – If you want to use the N1 AA Deployer features, you must have SAP software installed and configured on the systems that you want to manage. For more information, see the SAP web site at `http://www.sap.com`.
- **Sun Java Web Console** - The N1 AA Manager server must have Sun Java Web Console 2.2.5 installed.
- **N1 Service Provisioning System SAP plug-in** – The N1 Service Provisioning System SAP plug-in version 1.3 is required for the N1 AA 5.2 Update 2 release. This version of the plug-in is available in the `123849-03.tar.gz` file on the Sun Download Center.
- **N1 Service Provisioning System OS Provisioning plug-in** - If you want to install operating systems in your N1 AA environment, you must import the OS Provisioning plug-in in your N1 Service Provisioning System environment. If the OS Provisioning plug-in (`SUNWspsosp` package) is not installed on your master server, download and extract the file "SPS5.2.1

Plug-ins including N1 Advanced Architecture for SAP, English - `n1_sps-5_2_1-supp-ga.zip`" available on the Sun Download Center.

Installing the N1 AA 5.2 Update 2 Release

This section describes how to install the N1 AA 5.2 Update 2 release. This section explains the following topics.

How to Acquire the N1 AA 5.2 Update 2 Release

The N1 AA 5.2 Update 2 (5.2.4) release is available for download from `http://www.sun.com`.

Before You Begin Before you install the N1 AA 5.2 Update 2 release, you must have the following software installed on your systems.

- **SPARC systems only:** N1 Advanced Architecture for SAP Solutions 5.2.1 release

  The N1 AA 5.2.1 SPARC patch is available for download with the N1 AA 5.2 Update 2 release on Sun's Software Portfolio download page. You must download and apply N1 AA 5.2.1 SPARC patch before you apply the N1 AA 5.2 Update 2 SPARC patch. For more information about how to install the N1 AA 5.2.1 release, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

- N1 Service Provisioning System 5.2 Update 2 release

  If the N1 Service Provisioning System 5.2 Update 2 release is not currently running on your system, you must acquire and install the N1 Service Provisioning System 5.2 Update 2 release from the Sun Download Center. For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

1. **In your web browser, type the URL `http://www.sun.com/software/swportfolio/get.jsp`.**

   The Sun's Software Portfolio download page is displayed.

2. **In the Select Your Software section, click the check box next to Sun N1 Service Provisioning System.**

3. **Click the Get Downloads & Media button.**

4. **If prompted, log in or register for a Sun Online account**

   The Download Sun Products page is displayed.

5 **In the My Downloads table, click the arrow beneath the product platform that you want to download.**

The Download Page is displayed.

6 **Review and accept the license agreement.**

If you do not agree to the terms of the license agreement, click the radio button beside Decline License Agreement to cancel your download.

7 **Click the check boxes next to the files that you want to download.**

- For SPARC based systems, select the following files.
  - `124046-02.tar.gz` contains the new features in the N1 AA 5.2 Update 2 release.
  - `123849-03.tar.gz` contains the new version of the SAP plug-in.
- For x86 based systems, select the following files.
  - `n1aax86.tar.gz` contains the new features in the N1 AA 5.2 Update 2 release.
  - `123849-03.tar.gz` contains the new version of the SAP plug-in.

You must download the README file. Select the .zip file of the product that you want to install. You can also download ISO images compressed in .zip files if you want to create physical media for the product.

Note – If the Sun N1 Service Provisioning System 5.2 Update 2 release is not currently installed on your system, you must download and install the patches for the N1 Service Provisioning System 5.2 Update 2 release. Select the appropriate patches for the N1 Service Provisioning System 5.2 Update 2 release in addition to the N1 AA 5.2 Update 2 release.

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8 **Click the Download selected with Sun Download Manager button to download the files. The files are downloaded to your system.**

9 **After you download the files, uncompress the files on your system.**

▼ SPARC: How to Install the N1 AA 5.2 Update 2 Release

Follow these steps to apply the N1 AA 5.2 Update 2 patch to your SPARC based system.

Before You Begin To install the N1 AA 5.2 Update 2 release, you must have already installed the following software on your system.

- N1 Advanced Architecture for SAP Solutions 5.2.1 release

The N1 AA 5.2.1 SPARC patch is available for download with the N1 AA 5.2 Update 2 release on Sun's Software Portfolio download page. You must download and apply N1 AA 5.2.1 SPARC patch before you apply the N1 AA 5.2 Update 2 SPARC patch. For more information about how to install the N1 AA 5.2.1 release, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

- N1 Service Provisioning System 5.2 Update 2 release

  If the N1 Service Provisioning System 5.2 Update 2 release is not currently running on your system, you must acquire and install the N1 Service Provisioning System 5.2 Update 2 release from the Sun Download Center. For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

This procedure also assumes that you have downloaded the N1 AA 5.2 Update 2 SPARC patch 124046-02 and the SAP plug-in patch 123849-03. For more information about how to acquire the patch, see "How to Acquire the N1 AA 5.2 Update 2 Release" on page 15.

1 If the N1 Service Provisioning System 5.2.1 release is not installed on your system, acquire and install the N1 Service Provisioning System 5.2.1 release.

To install the N1 Service Provisioning System 5.2 Update 2 release, you must already have installed and configured a compatible previous release or patch update of the Sun N1 Service Provisioning System. Compatible previous releases and patch updates are as follows:

- N1 Service Provisioning System 5.2 release
- N1 Service Provisioning System 5.2.1 patch update
- N1 Service Provisioning System 5.2.2 patch update
- N1 Service Provisioning System 5.2.3 patch update

To determine which release is installed on your system, type the `cr_server -version` command in a terminal window.

You can download and install the N1 Service Provisioning System 5.2.1 zip file (`n1_sps-5_2_1-ga-solaris-sparc.zip`) from the Sun Software Portfolio download page.

For more information about how to install the N1 Service Provisioning System 5.2.1 release, see *Sun N1 Service Provisioning System 5.2 Installation Guide*.

2 If the N1 Service Provisioning System 5.2 Update 2 release is not installed on your system, acquire and install the N1 Service Provisioning System 5.2 Update 2 release.

Download and apply the following patches that are available at the SunSolve web site (`http://sunsolve.sun.com`).

- 122989-12 for the Master Server
- 122991-12 for the Command Line Interface

For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

3 Log in as superuser on the master server.

4. **Stop the web server on the system.**

   - **Starting with the Solaris 10 11/06 release, type the following command.**

     ```
     # /usr/sbin/svcadm disable svc:/system/webconsole:console
     ```

   - **For all other supported Solaris releases, type the following command.**

     ```
     # /usr/sbin/smcwebserver stop
     ```

5. **Unregister the N1 AA Manager software.**

   - **Starting with the Solaris 10 11/06 release, type the following command.**

     ```
     # wcadmin undeploy -a n1aa -x n1aa
     ```

   - **For all other supported Solaris releases, type the following commands.**

     ```
     # /usr/sbin/smreg remove -a com.sun.web.admin.n1aa_2.2.4
     # cd /var/opt/webconsole/work/com_sun_web_console/localhost && rm -rf n1aa
     ```

6. **Apply patch 124046-02. For example:**

   ```
   # patchadd /var/spool/patch/124046-02
   ```

7. **Change users to assume the role of the `n1aa` user.**

   ```
   # su - n1aa
   ```

8. **Change to the PostgreSQL binary directory.**

   ```
   $ cd /opt/SUNWn1aa/pgsql/bin/
   ```

9. **Specify the port on which the PostgreSQL database should listen.**

   ```
   $ ./psql -p 5433 n1aa
   ```

   In the previous example, the PostgreSQL database is set to listen on port 5433. Change the port value as appropriate for your environment.

10. **At the `psql` prompt, apply the patch SQL scripts.**

    ```
    n1aa-# \i /usr/share/webconsole/n1aa/upgrade/install_patch_124046-02.sql

    n1aa-# \q
    ```

11. **Exit from the `psql` prompt.**

    ```
    $ exit
    ```

12. **Exit from the `n1aa` user role.**

    ```
    $ exit
    ```

13 Recreate the link to the N1 Service Provisioning System Java Library.

```
# cd /usr/share/webconsole/n1aa/WEB-INF/lib
# rm sps-api.jar
# ln -s /opt/SUNWn1sps/N1_Service_Provisioning_System_5.2/cli/lib/sps-api.jar
```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

14 Register the N1 AA Manager software.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # wcadmin deploy -a n1aa -x n1aa /usr/share/webconsole/n1aa
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smreg add -a /usr/share/webconsole/n1aa
  ```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

15 Restart the web server.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # /usr/sbin/svcadm enable svc:/system/webconsole:console
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smcwebserver start
  ```

16 If you want to provision software on your SAP systems, install the SAP plug-in on the master server.

Follow these steps.

a. Log in to the Sun N1 Service Provisioning System master server.

b. Apply patch 123849-03.

For example:

```
# patchadd /var/spool/patch/123849-03
```

c. In the Administrative section of the browser interface main window, click Plug-ins.

d. In the Action Column of the Plug-ins page, click Import.

e. Click the Browse button and navigate to the location of the JAR file.

f. Select the JAR file, and click Open.

- **If you have no version of the plug-in currently loaded, select the** `com.sun.sap_1.3.jar`**.**
- **If you have version 1.0 of the plug-in currently loaded, select the** `com.sun.sap_1.0_1.1.jar` **to bring it to version 1.1, then follow the next step.**
- **If you have version 1.1 of the plug-in currently loaded, select the** `com.sun.sap_1.1_1.2.jar` **to bring it to version 1.2, then follow the next step.**
- **If you have version 1.2 of the plug-in currently loaded, select the** `com.sun.sap_1.2_1.3.jar`**.**

g. Click the Continue to Import button to import the plug-in.

For more information, see the README file included with the SAP plug-in 1.3.

17 If you want to provision software on your SAP systems, install the OS Provisioning plug-in on the master server.

Follow these steps.

a. Log in to the Sun N1 Service Provisioning System master server.

b. In the Administrative section of the browser interface main window, click Plug-ins.

c. In the Action Column of the Plug-ins page, click Import.

d. Click the Browse button and navigate to the location of the JAR file.

e. Select the JAR file, and click Open.

- **If you have no version of the plug-in currently loaded, select the** `com.sun.n1osp_3.1.jar`**.**
- **If you have version 2.0 of the plug-in currently loaded, select the** `com.sun.n1osp_2.0_3.0.jar` **to bring it to version 3.0, then follow the next step.**
- **If you have version 3.0 of the plug-in currently loaded, select the** `com.sun.n1osp_3.0_3.1.jar`**.**

f. Click the Continue to Import button to import the plug-in.

For more information, see the README file included with the OS Provisioning plug-in 3.1.

See Also For more information about how to install the N1 AA 5.2 Update 2 release, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

For more information about how to install the SAP plug-in, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

▼ x86: How to Install the N1 AA 5.2 Update 2 Release

Before You Begin To install the N1 AA 5.2 Update 2 release, you must have already installed the N1 Service Provisioning System 5.2 Update 2 release. If the N1 Service Provisioning System 5.2 Update 2 release is not currently running on your system, you must acquire and install the N1 Service Provisioning System 5.2 Update 2 release from the Sun Download Center. For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

This procedure also assumes that you have downloaded the N1 AA 5.2 Update 2 x86 packages file (`n1aax86.tar.gz`) and the SAP plug-in patch 123849-03. For more information about how to acquire these packages, see "How to Acquire the N1 AA 5.2 Update 2 Release" on page 15.

The x86 based system on which you want to run the N1 AA 5.2 Update 2 release must be running the Solaris 10 OS.

1 If necessary, install the N1 Service Provisioning System 5.2 .1 release.

To install the N1 Service Provisioning System 5.2 Update 2 release, you must already have installed and configured a compatible previous release or patch update of the Sun N1 Service Provisioning System. Compatible previous releases and patch updates are as follows:

- N1 Service Provisioning System 5.2 release
- N1 Service Provisioning System 5.2.1 patch update
- N1 Service Provisioning System 5.2.2 patch update
- N1 Service Provisioning System 5.2.3 patch update

To determine which release is installed on your system, type the `cr_server -version` command in a terminal window.

You can download and install the N1 Service Provisioning System 5.2.1 zip file (`n1_sps-5_2_1-ga-solaris-x86.zip`) from the Sun Software Portfolio download page.

For more information about how to install the N1 Service Provisioning System 5.2.1 release, see *Sun N1 Service Provisioning System 5.2 Installation Guide*.

2 If the N1 Service Provisioning System 5.2 Update 2 release is not installed on your system, acquire and install the N1 Service Provisioning System 5.2 Update 2 release.

Download and apply the following patches that are available at the SunSolve web site (`http://sunsolve.sun.com`).

- 122990-12 for the Master Server

- 122992-12 for the Command Line Interface

For more information, see *What's New in the Sun N1 Service Provisioning System 5.2 Update 2 Release*.

3 If necessary, configure the `n1aa` user on the master server.

If the `n1aa` user and group are not configured in your environment, follow these steps.

a. On the master server, create the user group `n1aa`.

```
# /usr/sbin/groupadd n1aa
```

b. Create the `n1aa` user.

```
# /usr/sbin/useradd -d /opt/SUNWn1aa -g n1aa n1aa
```

c. Assign a user password to the user `n1aa`.

```
# passwd n1aa
  Password:
  Confirm password:
```

4 Configure the PostgreSQL database.

Follow these steps.

a. Become superuser on the master server.

b. If the `/opt/SUNWn1aa/pgsql` directory already exists, move it to a backup location by using the following command.

```
# mv /opt/SUNWn1aa/pgsql /opt/SUNWn1aa/pgsql_backup
```

c. Change to the directory in which you extracted the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release.

d. Install the package `SUNWn1aapgsql.pkg`.

```
# pkgadd -d SUNWn1aapgsql.pkg
```

e. Start the database.

```
# /usr/sbin/svcadm enable svc:/application/n1aapgsql:default
```

5 If necessary, install the Sun™ Web Console Software. The Solaris 10 11/06 release includes the Sun Web Console software. If your system is not running the Solaris 10 11/06 release, follow these steps.

a. Create a temporary installation directory on the N1 AA server and copy `image-ext.tar` and `l10n.tar` into this directory.

b. Extract the Sun Web Console software.

```
# tar -xf image-ext.tar
# tar -xf l10n.tar
```

c. Change to the temporary installation directory.

d. Install the Sun Web Console software.

```
# ./setup
```

6 Install the Sun N1 Advanced Architecture Manager package.

Follow these steps.

a. Change to the directory in which you extracted the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release.

b. Install the `SUNWn1aamngr.pkg` package as superuser.

```
# pkgadd -d SUNWn1aamngr.pkg
```

c. Register the Sun N1 Advanced Architecture Manager.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # wcadmin deploy -a n1aa -x n1aa /usr/share/webconsole/n1aa
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smreg add -a /usr/share/webconsole/n1aa
  ```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

d. Change the session timeout parameter of the Sun N1 Advanced Architecture Manager.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # wcadmin add -p -a n1aa session.timeout.value=60
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smreg add -p session.timeout.value=60
  ```

e. Change the memory parameter of the Sun N1 Advanced Architecture Manager.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # wcadmin add -p -a n1aa java.options="-server -Xms256m -Xmx512m"
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smreg add -p java.options="-server -Xms256m -Xmx512m"
  ```

f. Restart the Sun N1 Advanced Architecture Manager.

i. Start the PostgreSQL database.

```
# /usr/sbin/svcadm enable svc:/application/n1aapgsql:default
```

ii. Start the Sun Web Console.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # /usr/sbin/svcadm enable svc:/system/webconsole:console
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smcwebserver start
  ```

7 Install the Sun N1 Advanced Architecture Command Line Interface.

Follow these steps.

a. Change to the directory in which you extracted the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release.

b. Install the `SUNWn1aacli.pkg` **package as superuser.**

```
# pkgadd -d SUNWn1aacli.pkg
```

8 Create a link to the N1 Service Provisioning System Java Library.

```
# cd /usr/share/webconsole/n1aa/WEB-INF/lib
# ln -s /opt/SUNWn1sps/N1_Service_Provisioning_System_5.2/cli/lib/sps-api.jar
```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

9 Unregister the N1 AA Manager software.

- **Starting with the Solaris 10 11/06 release, type the following command.**

  ```
  # wcadmin undeploy -a n1aa -x n1aa com.sun.web.admin.n1aa_2.2.4
  ```

- **For all other supported Solaris releases, type the following command.**

  ```
  # /usr/sbin/smreg remove -a com.sun.web.admin.n1aa_2.2.4
  ```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

10 Register the N1 AA Manager software.

- **Starting with the Solaris 10 11/06 release, type the following command.**

```
# wcadmin deploy -a n1aa -x n1aa /usr/share/webconsole/n1aa
```

- **For all other supported Solaris releases, type the following command.**

```
# /usr/sbin/smreg add -a /usr/share/webconsole/n1aa
```

For more information, see Chapter 2, "Installation of the N1 AA Manager," in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

11 Stop the web server.

- **Starting with the Solaris 10 11/06 release, type the following command.**

```
# /usr/sbin/svcadm disable svc:/system/webconsole:console
```

- **For all other supported Solaris releases, type the following command.**

```
# /usr/sbin/smcwebserver stop
```

12 Restart the web server.

- **Starting with the Solaris 10 11/06 release, type the following command.**

```
# /usr/sbin/svcadm enable svc:/system/webconsole:console
```

- **For all other supported Solaris releases, type the following command.**

```
# /usr/sbin/smcwebserver start
```

13 If you want to provision software on your SAP systems, install the SAP plug-in on the master server.

Follow these steps.

a. Apply patch 123849-03.

For example:

```
# patchadd /var/spool/patch/123849-03
```

b. Log in to the Sun N1 Service Provisioning System master server.

c. In the Administrative section of the browser interface main window, click Plug-ins.

d. In the Action Column of the Plug-ins page, click Import.

e. Click the Browse button and navigate to the location of the JAR file.

f. Select the JAR file, and click Open.

- **If you have no version of the plug-in currently loaded, select the** `com.sun.sap_1.3.jar`**.**
- **If you have version 1.0 of the plug-in currently loaded, select the** `com.sun.sap_1.0_1.1.jar` **to bring it to version 1.1, then follow the next step.**
- **If you have version 1.1 of the plug-in currently loaded, select the** `com.sun.sap_1.1_1.2.jar` **to bring it to version 1.2, then follow the next step.**
- **If you have version 1.2 of the plug-in currently loaded, select the** `com.sun.sap_1.2_1.3.jar`**.**

g. Click the Continue to Import button to import the plug-in.

14 If you want to provision software on your SAP systems, install the OS Provisioning plug-in on the master server.

Follow these steps.

a. Log in to the Sun N1 Service Provisioning System master server.

b. In the Administrative section of the browser interface main window, click Plug-ins.

c. In the Action Column of the Plug-ins page, click Import.

d. Click the Browse button and navigate to the location of the JAR file.

e. Select the JAR file, and click Open.

- **If you have no version of the plug-in currently loaded, select the** `com.sun.n1osp_3.1.jar`**.**
- **If you have version 2.0 of the plug-in currently loaded, select the** `com.sun.n1osp_2.0_3.0.jar` **to bring it to version 3.0, then follow the next step.**
- **If you have version 3.0 of the plug-in currently loaded, select the** `com.sun.n1osp_3.0_3.1.jar`**.**

f. Click the Continue to Import button to import the plug-in.

For more information, see the README file included with the OS Provisioning plug-in 3.1.

15 (Optional) Configure the `aasap` and `aasapd` services.

If you want to execute remote commands on your servers, install the `aasap` and `aasapd` services on your systems. Follow these steps.

a. Change to the directory in which you extracted the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release

b. Install the `SUNWn1aad.pkg` package as superuser.

```
# pkgadd -d SUNWn1aad.pkg
```

16 Install the Performance Collector package on all N1 Advanced Architecture clients.

Follow these steps.

a. Change to the directory in which you extracted the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release.

b. Install the `SUNWn1aaperf.pkg` package as superuser.

```
# pkgadd -d SUNWn1aaperf.pkg
```

17 Update all the Remote Agents in your N1 Service Provisioning System environment.

For more information, see the *Sun N1 Service Provisioning System 5.2 Installation Guide*.

See Also For more information about how to install the N1 AA 5.2 Update 2 release, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

For more information about how to install the SAP plug-in, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

Uninstalling the N1 AA 5.2 Update 2 Release

To uninstall the N1 AA 5.2 Update 2 release, perform the following tasks.

1. **SPARC systems only:** Remove the N1 AA 5.2 Update 2 patch (124046-02).

   For more information, see the "Special Uninstallation Instructions" section of the patch `README` file.

2. **SPARC and x86 systems:** Uninstall the N1 AA software.

   To uninstall the N1 AA software, you remove the N1 AA software packages. For more information, see "N1 AA Uninstallation" in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 Installation Guide*.

Deleting the SAP Plug-in Version 1.3

To delete the SAP plug-in 1.3, you must delete or uninstall all the objects created by all versions of the plug-in. If you used the SAP plug-in to create non-global zones, you must uninstall all those non-global zones.

To delete the SAP plug-in version 1.3, perform the following tasks.

1. Delete or uninstall all the objects that you created with the SAP plug-in.

   For more information, see "Managing Components" in *Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide*.

2. Uninstall any non-global zone that you created with the SAP plug-in.

   For more information, see "Managing Zone Hosts" on page 50 or "Managing Zone Resources" on page 62.

3. Delete the container component from all global zone hosts.

   Run the default uninstall component procedure for the container component. You must run this procedure on all global zone target hosts.

   For more information, see "Managing Components" in *Sun N1 Service Provisioning System 5.2 Plan and Component Developer's Guide*.

4. For all hosts that use any of the SAP plug-in host types, change the host type to `system#crhost`.

   When you modify the hosts, uncheck the Update or Prepare Host With Most Recent System Updates or Services checkbox on the Plan Run Details page before you click Save.

   For more information, see "About Hosts" in *Sun N1 Service Provisioning System 5.2 System Administration Guide*

5. Delete the SAP plug-in version 1.3.

   Run the `/com/sun/sap/RemoveSAPSystemServicePlan` on all hosts that have SAP system services installed.

   For more information, see Chapter 5, "Plug-In Administration," in *Sun N1 Service Provisioning System 5.2 System Administration Guide*.

Solaris: Installing an N1 Service Provisioning System Master Server and an N1 System Manager Management Server on the Same System

If you use the default installation scripts for the N1 Service Provisioning System (N1 SPS) master server and N1 System Manager (N1 SM) management server, you cannot install both applications on the same system.

If you want to install both applications on the same system, you can modify the N1 SPS master server installation script to install the master server in an alternate root directory. To use this workaround, perform the following steps.

Note – Do not install the N1 SPS OS Provisioning plug-in on a system that hosts both the N1 SM management server and the N1 SPS master server.

---

1. Install the N1 SM management server. For more information, see *Sun N1 System Manager 1.3 Installation and Configuration Guide*.
2. Log in as root on the N1 SM management server system.
3. Copy the appropriate N1 SPS master server installation script to the system.

   Copy either the `cr_ms_solaris_x86_pkg_5.2.sh` or the `cr_ms_solaris_sparc_pkg_5.2.sh` from the N1 SPS distribution.
4. If necessary, start a Korn shell session.

   ```
   # ksh
   ```
5. Create a shell script file that is named `aliases.sh` with the following contents.

   ```
   #!/bin/ksh
   alias -x pkgadd='pkgadd -R $NEW_PKG_ROOT'
   alias -x pkginfo='pkginfo -R $NEW_PKG_ROOT'
   alias -x pkgparam='pkgparam -R $NEW_PKG_ROOT'
   ```
6. Create an alternate root directory for the N1 SPS installation.

   ```
   # mkdir -p alternate-root-path
   ```

   In the previous step, **`alternate-root-path`** specifies the root directory in which you want to install the N1 SPS Master Server, for example, `root1`. This alternate root directory will contain a new package repository for the N1 SPS master server packages.
7. Export the value of the alternate root directory to use with the N1 SPS installation script.

   ```
   # export NEW_PKG_ROOT=alternate-root-path
   ```

   In the previous step, *alternate-root-path* specifies the root directory in which you want to install the N1 SPS Master Server, for example, `root1`. This alternate root directory will contain a new package repository for the N1 SPS Master Server packages.
8. Create a symbolic link from the opt directory to an alternate `opt` directory in the new alternate root directory.

   ```
   # ln -s /opt alternate-root-path/opt
   ```
9. Create a new installation script by prepending the `aliases.sh` script to the default N1 SPS Master Server installation script. For example:

```
# cat aliases.sh cr_ms_solaris_x86_pkg_5.2.sh > new_ms_installer.sh
```

10. Install the N1 SPS Master Server by running the new installation script.

```
# ./new_ms_installer.sh
```

11. Answer the installer questions.

    During the installation, consider the following limitations.

    - When you are prompted to specify the installation directory for the master server, enter a new subdirectory under `/opt`. To avoid overwriting the master server that is installed with N1 SM, ensure that this new subdirectory is different from the installation directory of the master server that is installed with N1 SM. For example, if, in step 7, you created a symbolic link from `/opt` to `/root1/opt`, specifying an installation directory of `/opt/ms1` during the installation installs the new N1 SPS master server in `/root1/opt/ms1`.
    - When you are prompted to choose a port to use with the master server, ensure that you specify a port that is different from the port that is used by the master server used by N1 SM.

    For more information about how to install N1 SPS, see *Sun N1 Service Provisioning System 5.2 Installation Guide*.

12. After the installation is completed, change to the directory that contains the N1 SPS master server scripts. For example:

```
# cd /root1/opt/ms1/N1_Service_Provisioning_System_5.2/server/bin
```

13. Create a backup copy of the N1 SPS Master Server uninstallation script.

```
# cp cr_uninstall_ms.sh cr_uninstall_ms.sh.backup
```

14. Edit the `cr_uninstall_ms.sh.backup` script to perform the package operations on the alternate root. You can use the `sed` command to make these changes to the script by typing the following command.

```
# /usr/bin/sed -e 's!pkginfo!& -R '${NEW_PKG_ROOT}'!g' \
-e 's!pkgrm!& -R '${NEW_PKG_ROOT}'!g' \
-e 's!pkgparam!& -R '${NEW_PKG_ROOT}'!g' \
cr_uninstall_ms.sh.backup > cr_uninstall_ms.sh
```

15. Remove the backup copy of the uninstallation script.

```
# rm cr_uninstall_ms.sh.backup
```

    To uninstall the N1 SPS Master Server, use this revised version of the `cr_uninstall_ms.sh` script.

Note – Do not remove the new alternate root directory. This directory is required to uninstall the N1 SPS master server.

◆ ◆ ◆ CHAPTER 3

Solaris 10 Zones in an SAP Environment

This chapter describes how to use the N1 SPS SAP plug-in and the N1 Advanced Architecture web console to create and manage Solaris 10 zones in your SAP environment. This chapter explains the following topics.

Overview of Solaris 10 Zones Support in the N1 Advanced Architecture for SAP Solutions 5.2 Update 2 Release

The Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release provides support for the creation and management of Solaris 10 non-global zones in your SAP environment. The SAP plug-in now provides two different methods for modelling and managing Solaris 10 non-global zones.

- **Zone Hosts** - With the SAP plug-in, you can create Solaris non-global zones on Solaris 10 hosts in your SAP environment. With zone hosts, you can perform the following tasks.
  - Create a non-global zone on a Solaris 10 host
  - Deploy SAP resources into a non-global zone
  - Manage these resource with the SAP plug-in
  - Start or stop a non-global zone
  - Import existing non-global zones into your N1 SPS environment
- **Zone Resources** - You can also capture a non-global zone as a zone resource, enabling you to perform the following tasks.
  - Import an existing non-global zone on a Solaris 10 host into your N1 SPS environment
  - Install a non-global zone on a target host

- Provision a non-global zone on a zone host
- Import existing non-global zones
- Start or stop a non-global zone
- Manage the non-global zone as a resource in the N1 Advanced Architecture for SAP Solutions graphical user interface
- Starting with the Solaris 10 11/06 release, move non-global zones from one system to another

Solaris 10 Zones Support Process Overview

Working with the Solaris 10 zones support in the Sun N1 Advanced Architecture for SAP Solutions 5.2 Update 2 release is a multi-step process.

1. Install the Solaris 10 OS on the target hosts on which you want to manage Solaris 10 zones.

   If you want to move your zones resources between systems, the systems must support the zone attach and detach features. Starting with the Solaris 10 11/06 release, these features are supported.

2. Install the N1 SPS remote agent software on the systems that you want to provision and manage zones.

   For more information, see *Sun N1 Service Provisioning System 5.2 Installation Guide*.

3. Plan your Solaris 10 zones support environment.

   For more information, see "Planning Your Configuration to Support Solaris Zones" on page 35.

4. Create your Solaris 10 non-global zones.
   - If you want to manage your non-global zones as physical hosts, create zone hosts. For more information, see "Creating Zone Hosts" on page 36.
   - If you want to manage your non-global zones as SAP resources, create zone resources. For more information, see "Creating Zone Resources in the N1 Service Provisioning System" on page 55.

5. Manage your Solaris 10 non-global zones in N1 Service Provisioning System or the N1 Advanced Architecture browser user interface.

   For more information, see the appropriate section.

   - "Managing Zone Hosts" on page 50
   - "Managing Zone Resources" on page 62

Solaris 10 Zones Support Requirements

To create and manage non-global zones in your SAP environment, the Solaris 10 OS, or compatible version, must be installed on the systems that you want to manage.

Note – If you want to move non-global zones between systems in your SAP environment, your systems must be running a Solaris release that supports the zone attach and detach features. Starting with the Solaris 10 11/06 release, the zone attach and detach features are supported.

For more information, see *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.

You must also import the SAP plug-in version 1.3 into your N1 SPS environment. For more information, see Chapter 2.

Planning Your Configuration to Support Solaris Zones

With the N1 SPS SAP plug-in version 1.3, you can manage Solaris 10 non-global zones as either zone hosts or zone resources. Use the following matrix to help you decide on which approach to take.

Task	Supported by Zone Hosts	Supported by Zone Resources
Creating non-global zones	Yes	Yes
Importing existing non-global zones into N1 Service Provisioning System	Yes	Yes
Deploying SAP resources on a non-global zone	Yes	No
Deploying non-global zones with other SAP resources on a global zone	No	Yes
Managing applications running in a non-global zone	Yes	No
Starting and stopping a non-global zone	Yes	Yes
Viewing online and offline status of a non-global zone	No	Yes

Task	Supported by Zone Hosts	Supported by Zone Resources
Moving a non-global zone between systems in N1 Advanced Architecture	No	Yes

Preparing Your Systems for Zones Support in N1 Service Provisioning System and N1 Advanced Architecture

Before you can create a non-global zone in your N1 SPS environment, the name of the non-global zone must be a resolvable name, paired with an IP address, on both the N1 SPS master server and the target host onto which you plan to deploy the non-global zone. You can specify the non-global zone name and IP address in the following locations.

- LDAP server
- NIS name service
- NIS+ name service
- DNS name server
- `/etc/hosts` file

For more information, see *System Administration Guide: Naming and Directory Services (DNS, NIS, and LDAP)* and *System Administration Guide: Naming and Directory Services (NIS+)*.

Creating and Managing Zone Hosts

The SAP plug-in version 1.3 enables you to create and manage Solaris non-global zones as zone hosts in your SAP environment. When you create a Solaris zone host, you essentially create a physical host onto which you can deploy SAP services.

This section explains the following topics.

- "Creating Zone Hosts" on page 36
- "Managing Zone Hosts" on page 50

Creating Zone Hosts

To create a zone host, perform the following tasks.

1. Create a physical host record for the global zone host in N1 Service Provisioning System.

   For more information, see "How to Create a Global Zone Host Record" on page 37.
2. (Optional) Create an SAP Logical Host component or Storage component for the global zone host.

Based on your business needs, you can create a Logical Host or High Availability Storage component for the global zone. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

Note – When you create the Logical Host or Storage component for the global zone host, you must change the value for the `globalZoneHostName` variable to an empty string, or the component creation fails. For a non-global zone, you must not change the default value of the `globalZoneHostName`.

---

3. Create the Container component variables for the zone host.

   For more information see "How to Create Container Component Variables for a Zone Host" on page 39.

4. Create the zone host.

   You can create a zone host in the N1 SPS browser user interface or the N1 AA web console. For more information, see the appropriate procedure.

   - "How to Create Non-Global Zone as a Physical Host in the N1 Service Provisioning System" on page 41
   - "How to Import a Non-Global Zone as a Physical Host in the N1 Service Provisioning System" on page 43
   - "How to Create Non-Global Zone as a Physical Host in the N1 Advanced Architecture" on page 45

▼ How to Create a Global Zone Host Record

This procedure describes how to create a new global zone host record. You can also edit an existing host and assign the host the `com.sun.sap#global_zone` host type.

1 In the N1 SPS browser user interface, go to the Hosts page.

2 In the Host text box, type a name for the new host.

3 In the Host Type drop down menu, select the `com.sun.sap#global_zone` host type.

4 In the Description text box, type a brief description of the new host.

5 Click Create.

The Edit page for the new host is displayed.

6 Ensure that the host name, description, and host type display properly.

7 Indicate that you are creating a physical host by selecting Physical Host.

8. **If necessary, change the host type attribute values for the target host.**

   Verify that the `local_zone_connection_type`, `local_zone_port`, and `local_zone_advanced_params` attributes match the settings for the remote agent on the target host. If you need to change these values, select the check box next to the attribute value, then type in the new value in the text field.

9. **Select the check box next to Include Remote Agent on This Physical Host.**

10. **Configure the connection type, network address, and parent information for this host.**

    Note – For information on configuring SSL and SSH network connections, see *Sun N1 Service Provisioning System 5.2 Installation Guide*.

11. **(Optional) To add this host to a host set, click Add to Host Sets in the Host Relationships area of the page.**

    In the window that appears, select the host set to which you want to add the host. For more information on host sets, see "About Host Sets" in *Sun N1 Service Provisioning System 5.2 System Administration Guide*.

12. **To hide the host, select Hidden at the bottom of the page.**

13. **Verify that the check box beside the Update or Prepare Host With Most Recent System Updates or Services option is checked.**

14. **Click Save.**

15. **Repeat the previous procedure for each zone host you want to create.**

Next Steps After you create the global zone host records, you must create container component variables to install and configure the zone host on your target host. For more information, see "How to Create Container Component Variables for a Zone Host" on page 39.

Based on your business needs, you can create a Logical Host or High Availability Storage component for the global zone. If you create the Logical Host or Storage component for the global zone host, you must change the value for the `globalZoneHostName` variable to an empty string, or the component creation fails. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

If you want to provision SAP resources in this global zone, you must change the host type of this global zone from `com.sun.sap#global_zone` to `com.sun.sap#SAPHT`. For more information about how to modify host types in N1 Service Provisioning System, see "About Hosts" in *Sun N1 Service Provisioning System 5.2 System Administration Guide*.

How to Create Container Component Variables for a Zone Host

After you create a Zone Host record, you must create the container component variables to install and configure the zone host on your target host. Follow these steps.

1. **From the N1 SPS Common Tasks page, click Create New Component.**

   The Components page is displayed.

2. **If necessary, change to the `/com/sun/sap/components` folder.**

3. **In the Component table, click the Details link in the Actions column for the Container component.**

   The Components > Details page is displayed.

4. **Scroll to the bottom of the page and click the Variable Settings button.**

   The Components > Details > Variable Settings page is displayed.

5. **Click the Create Set link at the bottom of the Create and Edit Variable Settings table.**

   A new variable set column is displayed in the Create and Edit Variable Settings table.

6. **Type the name of the container component variable set in the Set Name text field.**

   Note the name of this variable set. The variable set name is required to create the zone host.

7. **Edit the variable settings by selecting the check box for each variable that you want to modify, then typing the value in the text field.**

Note – Do not specify values for the `local_zone_pool` or the `installPath` variables. You specify these values when you create the zone host, as described in "How to Create Non-Global Zone as a Physical Host in the N1 Service Provisioning System" on page 41.

`local_zone_base_path`
: Required. Specifies the boot path to the non-global zone file system.

`local_zone_autoboot`
: Required. Setting this variable value to TRUE specifies that the non-global zone should be booted during system boot. Setting this variable to FALSE specifies that the non-global zone should not be booted at system boot. Default is FALSE.

`local_zone_pool`
: Specifies the resource pool to which this non-global zone is assigned.

`installPath`
: Do not specify a value for this variable. If necessary, manually delete any value for this variable.

`local_zone_filesystem`
Required. Specifies the type of file system for the non-global zone.

`local_zone_connection_type`
Specifies the type of connection for the non-global zone. Valid values are `raw`, `ssh`, and `ssl`. Ensure that this value matches the value for the remote agent on the non-global zone.

`local_zone_port`
Specifies the port on which the non-global zone will listen. Ensure that this value matches the value for the remote agent on the non-global zone.

`local_zone_advanced_params`
Specifies any advanced parameters for the non-global zone. Ensure that this value matches the value for the remote agent on the non-global zone.

`n1sps_cli_host`
Specifies the name of the host on which the N1 SPS command line interface (CLI) is installed.

`n1sps_cli_path`
Specifies the path to the N1 SPS CLI on the target host.

`globalZoneHostName`
Do not specify a value for this variable. If necessary, manually delete any value for this variable.

`zoneIfaceDetails`
Specifies the network interface information for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: hme0,192.168.2.5/6#eri0,192.167.2.4/5

`zoneFsLayout`
Specifies the file systems in the global zone to mount in the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: dir=/usr/local special=/opt/local raw=/dev/rdsk/c0t0d0s7 type=lofs [ro,nodevices]#dir=/opt/mydir special=empty type=lofs ro

`inheritPkgDir`
Specifies the global zone directories to inherit on the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Note – You must set the `local_zone_filesystem` variable to SPARSE to use this variable.

Example: /opt/sfw#/var/tmp

`device`
Specifies the device file systems for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: /dev/sound#/dev/cdrom

`rctl`
Specifies the name value pairs for the resource controls to use with this non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: zone.cpu-shares:priv=priveleged,limit=20,action=none #zone.max-lwps:priv=priveleged,limit=500,action=deny

`attributes`
Specifies the attributes for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: audio:boolean:true#group:string:zoneUser

For information about the zone information to include for each variable, see the `zoneadm`(1M) and `zonecfg`(1M) man pages.

8 Click the Save button.

The Components > Details > Variable Settings page is displayed, with your new variable set included in the table.

Next Steps After you create the container component variables, you can create the zone host on a target host. For more information, see the appropriate procedure.

- "How to Create Non-Global Zone as a Physical Host in the N1 Service Provisioning System" on page 41
- "How to Import a Non-Global Zone as a Physical Host in the N1 Service Provisioning System" on page 43
- "How to Create Non-Global Zone as a Physical Host in the N1 Advanced Architecture" on page 45

▼ How to Create Non-Global Zone as a Physical Host in the N1 Service Provisioning System

Before You Begin Before you can create a non-global zone host, you must first create a global zone host record and a container component variable set for the `com/sun/sap/components/Container` component. For more information, see the following procedures.

- "How to Create a Global Zone Host Record" on page 37
- "How to Create Container Component Variables for a Zone Host" on page 39

1 In the Common Tasks section in the N1 SPS browser interface, click SAP.

2 **Click the Solaris Non-Global Zone as a Physical Host: Create link.**

The Plan Details page is displayed.

3 **Click Run.**

The Plan Details Run page is displayed.

4 **In the Plan Parameters section of the page, specify the target host that you want to set up as the non-global zone host.**

You can select an individual host, or all the members of a host set.

5 **Specify the plan variables for your zone host creation.**

- In the Name of the Container component variable setting field, specify the container component variable set you created in "How to Create Container Component Variables for a Zone Host" on page 39.
- In the Name of the local Zone field, specify a name for the non-global zone that you want to create.
- In the Name of the pool field, specify the resource pool that you want to associate with the zone host.

6 **Click Run Plan (Includes Preflight).**

The plan performs the following tasks on the physical host.

- Creates a non-global zone on the host of the host type `com.sun.sap#SAPHT`.
- Installs the N1 SPS Remote Agent software in the non-global zone.
- Starts the non-global zone.
- Checks the status of the non-global zone.
- Stops the non-global zone.

Next Steps After you create the non-global zone, you must start the non-global zone to bring the non-global zone online. For more information, see "How to Start a Non-Global Zone on a Physical Host" on page 51.

Based on your business needs, you can create a Logical Host or High Availability Storage component for the non-global zone. When you create the Logical Host or High Availability Storage component, you must not change the default value of the `globalZoneHostName`. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

After you create the Logical Host or Storage component for this non-global zone, you can provision SAP resources into this non-global zone. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

Troubleshooting If the N1 Service Provisioning System reports that the zone host creation plan failed, check the operating system to verify that the non-global zone was not indeed created. If the non-global zone is installed and configured on the target host, delete the non-global zone with the `zonecfg delete` command, then recreate the zone host in SPS. For more information, see the `zonecfg`(1M) man page.

▼ How to Import a Non-Global Zone as a Physical Host in the N1 Service Provisioning System

1. **In the Common Tasks section in the N1 SPS browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Physical Host: Attach link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.
4. **In the Plan Parameters section of the page, click the Select From List link in the Variable Settings column.**
   The Select Variable Settings From List window is displayed.
5. **Click the Create Set link at the bottom of the Select a Variable Setting table.**
   A new variable set column is displayed in the Select a Variable Setting table.
6. **Type the name of the container component variable set in the Set Name text field.**
7. **Edit the variable settings by selecting the check box for each variable that you want to modify, then typing the value in the text field.**

Note – Be sure to specify the name of the non-global zone that you want to import for the `installPath` variable.

`local_zone_base_path`
Required. Specifies the boot path to the non-global zone file system.

`local_zone_autoboot`
Required. Setting this variable value to TRUE specifies that the non-global zone should be booted during system boot. Setting this variable to FALSE specifies that the non-global zone should not be booted at system boot. Default is FALSE.

`local_zone_pool`
Specifies the resource pool to which this non-global zone is assigned.

`installPath`
Required. Specifies the name of the non-global zone that you want to import.

`local_zone_filesystem`
Required. Specifies the type of file system for the non-global zone.

`globalZoneHostName`
Required. Specifies the name of the global host on which the non-global zone is installed.

`zoneIfaceDetails`
Specifies the network interface information for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: hme0,192.168.2.5/6#eri0,192.167.2.4/5

`zoneFsLayout`
Specifies the file systems in the global zone to mount in the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: dir=/usr/local special=/opt/local raw=/dev/rdsk/c0t0d0s7 type=lofs [ro,nodevices]#dir=/opt/mydir special=empty type=lofs ro

`inheritPkgDir`
Specifies the global zone directories to inherit on the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Note – You must set the `local_zone_filesystem` variable to SPARSE to use this variable.

Example: /opt/sfw#/var/tmp

`device`
Specifies the device file systems for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: /dev/sound#/dev/cdrom

`rctl`
Specifies the name value pairs for the resource controls to use with this non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: zone.cpu-shares:priv=priveleged,limit=20,action=none #zone.max-lwps:priv=priveleged,limit=500,action=deny

`attributes`
Specifies the attributes for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: audio:boolean:true#group:string:zoneUser

For information about the zone information to include for each variable, see the `zoneadm`(1M) and `zonecfg`(1M) man pages.

8 **Click the Save button.**

The Select Variable Settings From List window is displayed, with your new variable set included in the table.

9 **Click the Select button at the bottom of the column for the variable set you created.**

The Plan > Details > Run page is displayed.

10 **Specify the target host from which you want to import the non-global zone.**

11 **In the Plan Variables section, specify the install path of the non-global zone that you want to import.**

12 **If necessary, modify the values in the Limits section.**

13 **Click Run Plan (Includes Preflight).**

The non-global zone is imported into your N1 SPS environment from the target host. You can now manage the non-global zone as a zone host with the SAP plug-in.

Next Steps Based on your business needs, you can create a Logical Host or High Availability Storage component for the non-global zone. When you create the Logical Host or High Availability Storage component, you must not change the default value of the `globalZoneHostName`. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

After you create the Logical Host or Storage component for this non-global zone, you can provision SAP resources into this non-global zone. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

▼ How to Create Non-Global Zone as a Physical Host in the N1 Advanced Architecture

This procedure describes how to create a zone host in the N1 AA web console.

Before You Begin Before you can create a non-global zone host, you must perform the following tasks.

- Create a zone host record in N1 Service Provisioning System.

  For more information, see "How to Create a Global Zone Host Record" on page 37.
- Create the container component variables for you non-global zones.

  For more information, see "How to Create Container Component Variables for a Zone Host" on page 39.

- Create the server group and physical host entries in the N1 Advanced Architecture for the systems on which you want to install zone hosts.

  For more information, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*.

1 **In the N1 AA web console, click the Sun™ N1 Advanced Architecture for SAP Solutions link in the Systems section.**

  The Sun N1 Advanced Architecture for SAP Solutions page is displayed.

2 **In the left pane, click the arrow for the appropriate server group.**

3 **Click the arrow for the Builder entry for the server group.**

4 **Click the Zone Provisioning link.**

  The N1AA Builder - Zone Provisioning page is displayed.

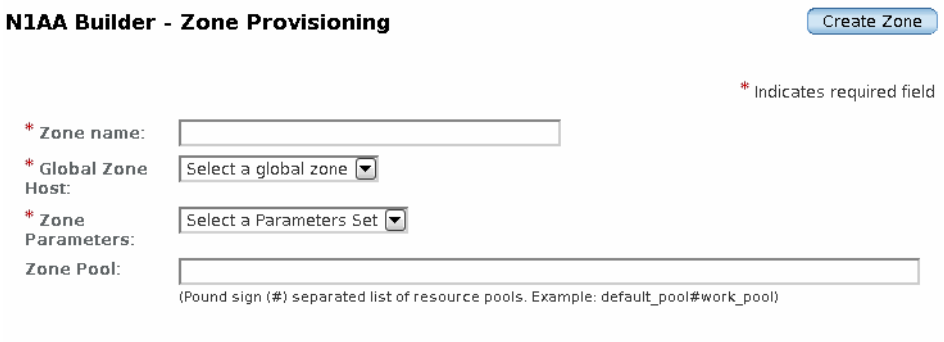

FIGURE 3–1 N1 AA Builder — Zone Provisioning Page

5 **In the Zone name field, type the name of the non-global zone host that you want to create.**

6 **From the Global Zone Host drop-down menu, select the global zone on which you want to create a non-global zone host.**

7 **From the Zone Parameters drop-down menu, select the name of the container component variable set that you created in "How to Create Container Component Variables for a Zone Host" on page 39.**

8 **In the Zone Pool field, type the name of the resource pool that you want to associate with the non-global zone host.**

  To include multiple resource pools, type the pool names, separated by the pound sign (#). For more information about using resource pools with non-global zones, see the `zonecfg`(1M) man page.

9 Click the Create Zone button.

The plan performs the following tasks on the global zone host.

- Creates a non-global zone on the host of the host type `com.sun.sap#SAPHT`.
- Installs the N1 SPS Remote Agent software in the non-global zone.
- Starts the non-global zone.
- Adds the newly created non-global zone host record to the list of N1AA Physical Hosts.

Note – This new physical host is defined as a non-global zone host and as a non OS Provisionable host.

- Checks the status of the non-global zone.
- Stops the non-global zone.

Next Steps After you create the non-global zone host, perform the following tasks.

- Start the non-global zone to bring the non-global zone online. For more information, see "How to Start a Non-Global Zone on a Physical Host" on page 51.
- Based on your business needs, you can create a Logical Host or High Availability Storage component for the non-global zone. When you create the Logical Host or High Availability Storage component, you must not change the default value of the `globalZoneHostName`. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.
- After you create the Logical Host or Storage component for this non-global zone, you can provision SAP resources into this non-global zone. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

Troubleshooting If the N1 AA web console reports that the zone host creation plan failed, check the operating system to verify that the non-global zone was not indeed created. If the non-global zone is installed and configured on the target host, delete the non-global zone with the `zonecfg delete` command, then recreate the zone host in SPS. For more information, see the `zonecfg`(1M) man page.

▼ How to Create Non-Global Zone as a Physical Host With the N1 AA Command Line Interface

This procedure describes how to create a zone host with the N1 AA command line interface (CLI). The N1 Advanced Architecture 5.2 Update 2 release includes two new commands for creating non-global zone hosts.

- `n1aa_exec deployment.ListSPSHosts`

  This command lists all the N1 SPS hosts of a specified host type. This command requires the following syntax.

```
# n1aa_exec deployment.ListSPSHosts host-type
```

where *host-type* specifies an N1 SPS host type, for example, `com.sun.sap#global_zone`.

- `n1aa_exec deployment.CreateZoneHost`

  This command creates a new non-global zone host. This command requires the following syntax.

```
# n1aa_exec deployment.CreateZoneHost
servergroup=server-group-ID
globalzonename=global-zone-name
localzonename=local-zone-name
zonepool=zone-pool
zoneparamsetname=zone-param-set-name
```

  For more information about the arguments and syntax for the `n1aa_exec deployment.CreateZoneHost` command, see the following procedure.

Before You Begin Before you can create a non-global zone host, you must perform the following tasks.

- Create a zone host record in the N1 Service Provisioning System.

  For more information, see "How to Create a Global Zone Host Record" on page 37.
- Create the container component variables for you non-global zones.

  For more information, see "How to Create Container Component Variables for a Zone Host" on page 39.
- Create the server group and physical host entries in the N1 Advanced Architecture for the systems on which you want to install zone hosts.

  For more information, see *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*.

1 Check the identifier of the server group on which you want to create a zone host.

```
# ./n1aa_exec GetServerGroups
```

The output of the previous command lists the unique IDs and names of the server groups in your N1 AA environment.

2 Check the names of the global zone hosts in your N1 SPS environment.

```
# ./n1aa_exec deployment.ListSPSHosts com.sun.sap#global_zone
```

The output of the previous command lists the names of all the global zone hosts in your N1 SPS environment.

3 Create the non-global zone host.

```
# ./n1aa_exec deployment.CreateZoneHost
servergroup=server-group-ID
```

globalzonename=*global-zone-name*
localzonename=*local-zone-name*
zonepool=*zone-pool*
zoneparamsetname=*zone-param-set-name*

server-group-ID	Specifies the server group ID that you identified in Step 1.
global-zone-name	Specifies the name of the global zone that you identified in Step 2.
local-zone-name	Specifies the name of the non-global zone host that you want to create.
zone-pool	Specifies the name of the resource pool that you want to associate with the non-global zone host.
zone-param-set-name	Specifies the name of the container component variable set that you created in "How to Create Container Component Variables for a Zone Host" on page 39.

The plan performs the following tasks on the global zone host.

- Creates a non-global zone on the host of the host type `com.sun.sap#SAPHT`.
- Installs the N1 SPS Remote Agent software in the non-global zone.
- Starts the non-global zone.
- Adds the newly created non-global zone host record to the list of N1AA Physical Hosts.

Note – This new physical host is defined as a non-global zone host and as a non OS Provisionable host.

- Checks the status of the non-global zone.
- Stops the non-global zone.

Next Steps After you create the non-global zone host, perform the following tasks.

- Start the non-global zone to bring the non-global zone online. For more information, see "How to Start a Non-Global Zone on a Physical Host" on page 51.
- Based on your business needs, you can create a Logical Host or High Availability Storage component for the non-global zone. When you create the Logical Host or High Availability Storage component, you must not change the default value of the `globalZoneHostName`. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.
- After you create the Logical Host or Storage component for this non-global zone, you can provision SAP resources into this non-global zone. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

Troubleshooting If the N1 AA CLI reports that the zone host creation plan failed, check the operating system to verify that the non-global zone was not indeed created. If the non-global zone is installed and configured on the target host, delete the non-global zone with the `zonecfg delete` command, then recreate the zone host in SPS. For more information, see the `zonecfg`(1M) man page.

Managing Zone Hosts

After you create zone hosts, you can perform the following management tasks through the N1 Service Provisioning System.

- View information about the zone hosts in your environment.

  For more information, see "Viewing Zone Host Information in the N1 Advanced Architecture" on page 50.
- Start a non-global zone.

  For more information, see "How to Start a Non-Global Zone on a Physical Host" on page 51.
- Stop a non-global zone.

  For more information, see "How to Stop a Non-Global Zone on a Physical Host" on page 52.
- Delete a non-global zone from a physical host.

  For more information, see " How to Delete a Non-Global Zone From a Physical Host in the N1 Service Provisioning System" on page 52 or "How to Delete a Non-Global Zone in the N1 Advanced Architecture" on page 53.
- Delete a non-global zone from your N1 SPS environment without deleting the non-global zone from the physical host.

  For more information, see "How to Delete a Non-Global Zone From the N1 SPS Environment" on page 54.

Viewing Zone Host Information in the N1 Advanced Architecture

The Physical Hosts table in the N1 AA – Customizing page now includes information about the presence of non-global zones on the physical hosts in your environment. The table now includes a Local Zone column that indicates if a non-global zone is installed on the physical host.

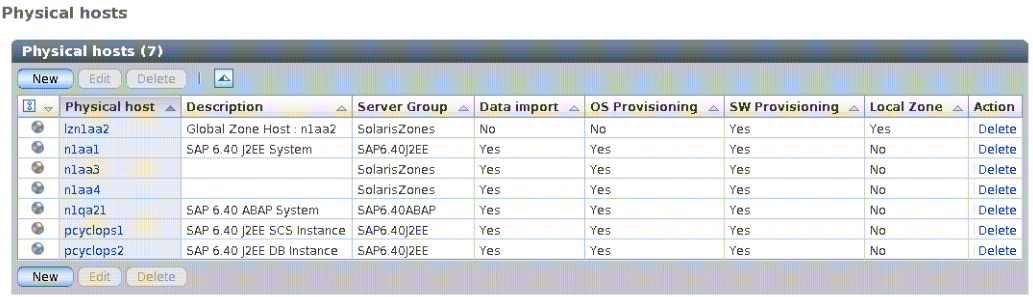

FIGURE 3–2 Physical Hosts Table of N1 AA – Customizing Page

You can access the Physical Hosts table by clicking on the Administration arrow in the left panel of the N1 AA web console, then clicking on the Customizing link.

For more information, see "Physical Hosts" in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*.

▼ How to Start a Non-Global Zone on a Physical Host

Before You Begin To start a zone host, you need to know the install path of the non-global zone host that you want to start. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Physical Host section of the SAP plug-in page.

1. **In the Common Tasks section in the N1 SPS browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Physical Host: Start link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.
4. **In the Plan Parameters section of the page, specify the target host on which you want to start the non-global zone.**
   You can select an individual host, or all the members of a host set.
5. **In the Plan Variables section, specify the install path of the non-global zone that you want to start.**
6. **If necessary, modify the values in the Limits section.**
7. **Click Run Plan (Includes Preflight).**
   The non-global zone is started on the target host.

How to Stop a Non-Global Zone on a Physical Host

Before You Begin To stop a zone host, you need to know the install path of the non-global zone host that you want to stop. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Physical Host section of the SAP plug-in page.

1. **In the Common Tasks section in the N1 SPS browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Physical Host: Stop link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.
4. **In the Plan Parameters section of the page, specify the target host on which you want to stop the non-global zone.**
   You can select an individual host, or all the members of a host set.
5. **In the Plan Variables section, specify the install path of the non-global zone that you want to stop.**
6. **If necessary, modify the values in the Limits section.**
7. **Click Run Plan (Includes Preflight).**
   The non-global zone is halted on the target host.

How to Delete a Non-Global Zone From a Physical Host in the N1 Service Provisioning System

Before You Begin To delete a zone host, you need to know the install path of the non-global zone host that you want to delete. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Physical Host section of the SAP plug-in page.

1. **In the Common Tasks section in the browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Physical Host: Delete link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.

4. **In the Plan Parameters section of the page, specify the target host on which you want to delete the non-global zone.**

   You can select an individual host, or all the members of a host set.

5. **In the Plan Variables section, specify the install path of the non-global zone that you want to delete.**

6. **If necessary, modify the values in the Limits section.**

7. **Click Run Plan (Includes Preflight).**

Next Steps To completely delete the non-global zone from the operating system, you must delete the non-global zone with the `zonecfg delete` command. For more information, see the `zonecfg`(1M) man page.

If you are using the N1 Advanced Architecture to manage your zone hosts, you must manually delete the zone host from your N1 AA environment after you delete the zone host in N1 SPS. For more information, see "How to Delete a Non-Global Zone in the N1 Advanced Architecture" on page 53.

▼ How to Delete a Non-Global Zone in the N1 Advanced Architecture

This procedure explains how to delete a non-global zone host from your N1 AA environment.

Note – This procedure does not delete a non-global zone from the N1 Service Provisioning System or the operating system.

---

1. **In the N1 AA web console, click the Sun N1 Advanced Architecture for SAP Solutions link in the Systems section.**

   The Sun N1 Advanced Architecture for SAP Solutions page is displayed.

2. **In the left navigation pane, click the arrow next to the Administration section.**

   The Administration section is expanded.

3. **Click the Customizing link.**

   The N1AA - Customizing page is displayed.

4. **Click the Physical Hosts link the top of the N1AA - Customizing page.**

5. **Click the radio button for the physical host entry on which you want to delete the non-global zone.**

6 **Click the Delete button.**

7 **If prompted, confirm the deletion by clicking the OK button in the confirmation pop-up window.**

The non-global zone host is removed from the Physical Hosts table. The non-global zone host is not deleted from the N1 Service Provisioning System, and it is not deleted from the operating system.

Next Steps If you want to delete the non-global zone host from the N1 Service Provisioning System, but leave the non-global zone intact on the operating system, see "How to Delete a Non-Global Zone From the N1 SPS Environment" on page 54.

If you want to delete the non-global zone host from both the N1 Service Provisioning System and the operating system, see " How to Delete a Non-Global Zone From a Physical Host in the N1 Service Provisioning System" on page 52.

▼ How to Delete a Non-Global Zone From the N1 SPS Environment

You can use the SAP plug-in to remove a non-global zone from your N1 SPS environment, without affecting the status of the non-global zone on the physical host. Follow these steps.

1 **In the Common Tasks section in the browser interface, click SAP.**

2 **Click the Solaris Non-Global Zone as a Physical Host: Detach link.**

The Plan Details page is displayed.

3 **Click Run.**

The Plan Details Run page is displayed.

4 **Specify the target host that includes the non-global zone that you want to delete from your N1 SPS environment.**

5 **If necessary, modify the values in the Limits section.**

6 **Click Run Plan (Includes Preflight).**

The non-global zone is deleted from your N1 SPS environment. The status on the non-global zone on the physical host is not affected.

Creating and Managing Zone Resources

You can use the SAP plug-in to model a non-global zone as an N1 SPS resource. With the SAP plug-in and N1 AA web console, you can perform the following tasks.

- Create a new non-global zone as an SAP resource
- Import an existing non-global zone as an SAP resource
- Provision a zone resource on servers in your SAP environment
- Manage zone resources in your SAP environment

This section explains the following topics.

- "Creating Zone Resources in the N1 Service Provisioning System" on page 55
- "Managing Zone Resources" on page 62

Creating Zone Resources in the N1 Service Provisioning System

To import an existing non-global zone as a zone resource, perform the following tasks.

- Create a new physical host record for the zone resource in the N1 Service Provisioning System.

  For more information, see "How to Create a Global Zone Host Record" on page 37.

- (Optional) Create a new resource group for the non-global zone.

  You can create a new resource group for your zone resources, or you can assign your zones resource to an existing resource group. For more information, see "Creating and Managing Groups" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

  Note – If you want to move the zone resource between servers in your N1 AA environment, you must group your zone resource with a High Availability Storage component.

- Create the zone resource.

  For more information, see the appropriate procedure.

  - "How to Import an Existing Non-Global Zone as a Zone Resource in the N1 Service Provisioning System" on page 56
  - "How to Create a Non-Global Zone as a Zone Resource in the N1 Service Provisioning System" on page 59

How to Import an Existing Non-Global Zone as a Zone Resource in the N1 Service Provisioning System

Before You Begin When you import an existing non-global zone as a zone resource, you must assign the zone resource to an SAP resource group. If you need to create a new resource group, perform the steps described in "Creating and Managing Groups" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

1. **In the Common Tasks section in the browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Resource: Create link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.
4. **In the Plan Parameters table, select the variable settings for the LocalZone component.**
   - **If the variable settings have been created for this component, select the appropriate settings from the drop-down menu.**
   - **If the variable settings are not available from the drop-down menu, follow these steps.**
     a. **Click Select From List. The Select Variable Settings From List window displays.**
        - **To create a new variable settings set, click Create Set and type a Set Name.**
          The following list provides commonly updated variables for the LocalZone component. To create a value for the component variable, click the check box in the component variable's row.

Note – For information about component variables ending in UserExit, see "User Exits" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

`groupName`
Required. Specifies the name of the resource group to which the zone resource will be assigned.

In the Sun Cluster environment, the `groupName` must equal the Sun Cluster resource group name.

Note – If you want to move your zone resource between systems in your N1 AA environment, the resource group to which you assign the zone resource must meet the following requirements.

- The group must contain a High Availability Storage component.
- The group must not contain a J2EE application server resource.

`groupDescription`
A description of the group.

`resourceName`
Required. Specifies the name of the non-global zone that you want to import.

`installPath`
Required. Specifies the path to the non-global zone.

`envType`
Required. Specifies whether this component will be deployed to a default or Sun Cluster environment. Value can be `sc` or `default`.

`createdBy`
Identifies the installer of the component.

`local_zone_base_path`
Required. Specifies the boot path to the non-global zone file system.

`local_zone_autoboot`
Required. Setting this variable value to TRUE specifies that the non-global zone should be booted during system boot. Setting this variable to FALSE specifies that the non-global zone should not be booted at system boot. Default is FALSE.

`local_zone_pool`
Specifies the resource pool to which this non-global zone is assigned.

`local_zone_filesystem`
Required. Specifies the type of file system for the non-global zone.

`globalZoneHostName`
Required. Specifies the name of the global zone on which the existing non-global zone is installed.

`zoneIfaceDetails`
Specifies the network interface information for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: hme0,192.168.2.5/6#eri0,192.167.2.4/5

`zoneFsLayout`
Specifies the file systems in the global zone to mount in the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: dir=/usr/local special=/opt/local raw=/dev/rdsk/c0t0d0s7 type=lofs [ro,nodevices]#dir=/opt/mydir special=empty type=lofs ro

`inheritPkgDir`
Specifies the global zone directories to inherit on the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Note – You must set the `local_zone_filesystem` variable to SPARSE to use this variable.

Example: /opt/sfw#/var/tmp

`device`
Specifies the device file systems for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: /dev/sound#/dev/cdrom

`rctl`
Specifies the name value pairs for the resource controls to use with this non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: zone.cpu-shares:priv=priveleged,limit=20,action=none #zone.max-lwps:priv=priveleged,limit=500,action=deny

`attributes`
Specifies the attributes for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: audio:boolean:true#group:string:zoneUser

For information about the zone information to include for each variable, see the `zoneadm`(1M) and `zonecfg`(1M) man pages.

b. Click Save.

- **To use component variables from another component, click Import Set. For more information about importing variable sets, see "How to Run a Plan" in** *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide***.**

5 Specify the target host from which you want to import the non-global zone as a zone resource.

6 **Click Run Plan (Includes Preflight).**

The plan imports the non-global zone into your N1 SPS environment as a zone resource.

▼ How to Create a Non-Global Zone as a Zone Resource in the N1 Service Provisioning System

1 **In the Common Tasks section in the browser interface, click SAP.**

2 **Click the Solaris Non-Global Zone as a Resource: Create (Deploy) link.**

The Plan Details page is displayed.

3 **Click Run.**

The Plan Details Run page is displayed.

4 **In the Plan Parameters table, select the variable settings for the LocalZone component.**

- **If the variable settings have been created for this component, select the appropriate settings from the drop-down menu.**
- **If the variable settings are not available from the drop-down menu, follow these steps.**

  a. **Click Select From List. The Select Variable Settings From List window displays.**

     - **To create a new variable settings set, click Create Set and type a Set Name.**

       The following list provides commonly updated variables for the LocalZone component. To create a value for the component variable, click the check box in the component variable's row.

Note – For information about component variables ending in UserExit, see "User Exits" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

`groupName`

Required. Specifies the name of the resource group to which the zone resource will be assigned.

In the Sun Cluster environment, the `groupName` must equal the Sun Cluster resource group name.

Note – If you want to move your zone resource between systems in your N1 AA environment, the resource group to which you assign the zone resource must meet the following requirements.

- The group must contain a High Availability Storage component.
- The group must not contain a J2EE application server resource.

`groupDescription`
A description of the group.

`resourceName`
Required. Specifies the name of the non-global zone that you want to create

`installPath`
Required. Specifies the path to the non-global zone.

`envType`
Required. Specifies whether this component will be deployed to a default or Sun Cluster environment. Value can be `sc` or `default`.

`createdBy`
Identifies the installer of the component.

`local_zone_base_path`
Required. Specifies the boot path to the non-global zone file system.

`local_zone_autoboot`
Required. Setting this variable value to TRUE specifies that the non-global zone should be booted during system boot. Setting this variable to FALSE specifies that the non-global zone should not be booted at system boot. Default is FALSE.

`local_zone_pool`
Specifies the resource pool to which this non-global zone will be assigned.

`local_zone_filesystem`
Required. Specifies the type of file system for the non-global zone.

`globalZoneHostName`
Required. Specifies the name of the global zone on which the existing non-global zone will be installed.

`zoneIfaceDetails`
Specifies the network interface information for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: hme0,192.168.2.5/6#eri0,192.167.2.4/5

`zoneFsLayout`
Specifies the file systems in the global zone to mount in the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: dir=/usr/local special=/opt/local raw=/dev/rdsk/c0t0d0s7 type=lofs [ro,nodevices]#dir=/opt/mydir special=empty type=lofs ro

`inheritPkgDir`
Specifies the global zone directories to inherit on the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Note – You must set the `local_zone_filesystem` variable to SPARSE to use this variable.

Example: /opt/sfw#/var/tmp

`device`
Specifies the device file systems for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: /dev/sound#/dev/cdrom

`rctl`
Specifies the name value pairs for the resource controls to use with this non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: zone.cpu-shares:priv=priveleged,limit=20,action=none #zone.max-lwps:priv=priveleged,limit=500,action=deny

`attributes`
Specifies the attributes for the non-global zone. Use the pound sign (#) as a delimiter between multiple entries.

Example: audio:boolean:true#group:string:zoneUser

For information about the zone information to include for each variable, see the `zoneadm`(1M) and `zonecfg`(1M) man pages.

b. Click Save.

- **To use component variables from another component, click Import Set. For more information about importing variable sets, see "How to Run a Plan" in** *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide***.**

5 Specify the target host from which you want to import the non-global zone as a zone resource.

6 **Click Run Plan (Includes Preflight).**

The plan creates a non-global zone on the target global zone.

Next Steps After you install non-global zone as a zone resource, you must start the non-global zone to bring the non-global zone online. For more information, see "How to Start a Zone Resource in the N1 Service Provisioning System" on page 64.

Managing Zone Resources

After you create zone resources, you can perform the following management tasks.

- Set the timeout parameters for zone resource management tasks.

  The N1 AA web console supports several new timeout parameters for zone resource management tasks.

  For more information, see "How to Set Timeout Parameters in the N1 Advanced Architecture" on page 63.

- Start a non-global zone.

  For more information, see the appropriate procedure.

  - "How to Start a Zone Resource in the N1 Service Provisioning System" on page 64
  - "How to Start a Zone Resource in the N1 Advanced Architecture" on page 64

- Stop a non-global zone.

  For more information, see the appropriate procedure.

  - "How to Stop a Zone Resource in the N1 Service Provisioning System" on page 65
  - "How to Stop a Zone Resource in the N1 Advanced Architecture" on page 66

- Delete a non-global zone from a physical host.

  For more information, see "How to Delete a Zone Resource in the N1 Service Provisioning System" on page 66.

- View the online status of a zone resource.

  For more information, see "How to View the Online Status of a Zone Resource in the N1 Service Provisioning System" on page 67.

- View the offline status of a zone resource.

  For more information, see "How to View the Offline Status of a Zone Resource in the N1 Service Provisioning System" on page 68.

- Move the zone resource between systems in your N1 AA environment.

  If the Solaris 10 release on your systems supports the Solaris zone attach and detach features, you can move zone resources from one system to another with the N1 AA web console. Starting with the Solaris 10 11/06 release, the Solaris zone attach and detach features are supported.

For more information, see "How to Move Zone Resources in the N1 Advanced Architecture" on page 68.

How to Set Timeout Parameters in the N1 Advanced Architecture

In the N1 AA web console, you can modify the timeout parameters for the following tasks.

- Starting a zone resource
- Stopping a zone resource
- Checking the online status of a zone resource
- Checking the offline status of a zone resource

1. **In the N1 AA web console, click the Sun N1 Advanced Architecture for SAP Solutions link in the Systems section.**

   The Sun N1 Advanced Architecture for SAP Solutions page is displayed.

2. **In the left pane, click the arrow for the Administration section.**

3. **Click the arrow for the Deployer entry.**

4. **Click the Customizing link.**

   The N1AA Deployment - Customizing page is displayed.

5. **If necessary, scroll down the right page to view the Timeout Parameter section.**

   The various timeout parameters are displayed in a three column table. The new parameters that control zone resource management tasks include the following

   none.deployment.generaltimeout.LocalZoneComponent.start
   : This parameter sets the timeout value, in minutes, for starting a zone resource.

   none.deployment.generaltimeout.LocalZoneComponent.stop
   : This parameter sets the timeout value, in minutes, for stopping a zone resource.

   none.deployment.generaltimeout.LocalZoneComponent.isoffline
   : This parameter sets the timeout value, in minutes, for checking the offline status of a zone resource.

   none.deployment.generaltimeout.LocalZoneComponent.isonline
   : This parameter sets the timeout value, in minutes, for checking the online status of a zone resource.

   For detailed information about the timeout parameters that are supported in the N1 Advanced Architecture, see "Timeout Parameter" in *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*.

6. **If necessary, click the arrow buttons at the bottom of the Timeout Parameter table to navigate to the parameter that you want to modify.**

7 **Click the radio button for the parameter that you want to modify.**

8 **Click the Edit button.**

The N1AA Deployment - Customizing page refreshes. The parameter and timeout value are displayed in writable text fields at the bottom of the page.

9 **Type the new timeout value in the Value text field.**

10 **Click the Save button.**

▼ How to Start a Zone Resource in the N1 Service Provisioning System

This procedure describes how to start a zone resource in the N1 SPS browser user interface.

Before You Begin To start a zone resource, you need to know the install path of the non-global zone resource that you want to start. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page.

1 **In the Common Tasks section in the browser interface, click SAP.**

2 **Click the Solaris Non-Global Zone as a Resource: Start link.**

The Plan Details page is displayed.

3 **Click Run.**

The Plan Details Run page is displayed.

4 **In the Plan Parameters section of the page, specify the target host on which you want to start the non-global zone.**

You can select an individual host, or all the members of a host set.

5 **In the Plan Variables section, specify the install path of the non-global zone that you want to start.**

6 **If necessary, modify the values in the Limits section.**

7 **Click Run Plan (Includes Preflight).**

The non-global zone is started on the target host.

▼ How to Start a Zone Resource in the N1 Advanced Architecture

This procedure describes how to start a zone resource in the N1 AA web console.

Before You Begin To start a zone resource in the N1 AA web console, you need to know the resource group for the zone resource that you want to start. You can view the resource group by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page, then clicking the variable set link for the zone resource.

1. **In the N1 AA web console, click the Sun N1 Advanced Architecture for SAP Solutions link in the Systems section.**
   The Sun N1 Advanced Architecture for SAP Solutions page is displayed.
2. **In the left pane, click the arrow for the appropriate server group.**
3. **Click the arrow for the Deployer entry for the server group.**
4. **Click the Resource Groups link.**
   The N1AA Deployer - Resource Groups page is displayed.
5. **In the Action column of the zone resource group, click the Start link.**
   The zone resource is started. A secondary window displays the status of the zone resource.

▼ How to Stop a Zone Resource in the N1 Service Provisioning System

This procedure describes how to start a zone resource in the N1 SPS browser user interface.

Before You Begin To stop a zone resource, you need to know the install path of the non-global zone resource that you want to stop. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page.

1. **In the Common Tasks section in the browser interface, click SAP.**
2. **Click the Solaris Non-Global Zone as a Resource: Stop link.**
   The Plan Details page is displayed.
3. **Click Run.**
   The Plan Details Run page is displayed.
4. **In the Plan Parameters section of the page, specify the target host on which you want to stop the non-global zone.**
   You can select an individual host, or all the members of a host set.
5. **In the Plan Variables section, specify the install path of the non-global zone that you want to stop.**
6. **If necessary, modify the values in the Limits section.**

7 **Click Run Plan (Includes Preflight).**

The non-global zone is halted on the target host.

How to Stop a Zone Resource in the N1 Advanced Architecture

This procedure describes how to stop a zone resource in the N1 AA web console.

Before You Begin To stop a zone resource in the N1 AA web console, you need to know the resource group for the zone resource that you want to stop. You can view the resource group by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page, then clicking the variable set link for the zone resource.

1 **In the N1 AA web console, click the Sun N1 Advanced Architecture for SAP Solutions link in the Systems section.**

The Sun N1 Advanced Architecture for SAP Solutions page is displayed.

2 **In the left pane, click the arrow for the appropriate server group.**

3 **Click the arrow for the Deployer entry for the server group.**

4 **Click the Resource Groups link.**

The N1AA Deployer - Resource Groups page is displayed.

5 **In the Action column of the zone resource group, click the Stop link.**

The zone resource is halted. A secondary window displays the status of the zone resource.

How to Delete a Zone Resource in the N1 Service Provisioning System

This procedure explains how to delete a non-global zone resource from the operating system and from the N1 Service Provisioning System.

Note – If you want to delete a non-global zone resource from the N1 Service Provisioning System, but leave the non-global zone intact on the operating system, perform a markOnly uninstall of the Container component for the non-global zone.

Before You Begin To delete a zone resource, you need to know the install path of the non-global zone resource that you want to delete from the operating system. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page.

Before you delete a non-global zone, you must first stop the zone. For more information, see "How to Stop a Zone Resource in the N1 Service Provisioning System" on page 65.

1 **In the Common Tasks section in the browser interface, click SAP.**

2. **Click the Solaris Non-Global Zone as a Resource: Delete link.**

   The Plan Details page is displayed.

3. **Click Run.**

   The Plan Details Run page is displayed.

4. **In the Plan Parameters section of the page, specify the target host on which you want to delete the non-global zone.**

   You can select an individual host, or all the members of a host set.

5. **In the Plan Variables section, specify the install path of the non-global zone that you want to delete.**

6. **If necessary, modify the values in the Limits section.**

7. **Click Run Plan (Includes Preflight).**

   The non-global zone is deleted from the operating system on the target host. The non-global zone host record is also deleted from the N1 Service Provisioning System.

Next Steps If you are using the N1 Advanced Architecture to manage your zone hosts, you must manually delete the zone resource from your N1 AA environment after you delete the zone resource in the N1 Service Provisioning System. For more information, see "How to Delete a Non-Global Zone in the N1 Advanced Architecture" on page 53.

▼ How to View the Online Status of a Zone Resource in the N1 Service Provisioning System

Before You Begin To view the online status of a zone resource, you need to know the install path of the non-global zone resource that you want to check. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page.

1. **In the Common Tasks section in the browser interface, click SAP.**

2. **Click the Solaris Non-Global Zone as a Resource: Online Status link.**

   The Plan Details page is displayed.

3. **Click Run.**

   The Plan Details Run page is displayed.

4. **In the Plan Parameters section of the page, specify the target host that you want to check.**

   You can select an individual host, or all the members of a host set.

5 **In the Plan Variables section, specify the install path of the non-global zone that you want to check.**

6 **If necessary, modify the values in the Limits section.**

7 **Click Run Plan (Includes Preflight).**

The Deployment Results page is displayed. If the plan fails, error messages are displayed.

Next Steps For instructions about how to stop an online zone resource, see "How to Stop a Zone Resource in the N1 Service Provisioning System" on page 65.

▼ How to View the Offline Status of a Zone Resource in the N1 Service Provisioning System

Before You Begin To view the offline status of a zone resource, you need to know the install path of the non-global zone resource that you want to check. You can view the install path by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page.

1 **In the Common Tasks section in the browser interface, click SAP.**

2 **Click the Solaris Non-Global Zone as a Resource: Offline Status link.**

The Plan Details page is displayed.

3 **Click Run.**

The Plan Details Run page is displayed.

4 **In the Plan Parameters section of the page, specify the target host that you want to check.**

You can select an individual host, or all the members of a host set.

5 **In the Plan Variables section, specify the install path of the non-global zone that you want to check.**

6 **If necessary, modify the values in the Limits section.**

7 **Click Run Plan (Includes Preflight).**

The Deployment Results page is displayed. If the plan fails, error messages are displayed.

Next Steps For instructions about how to start an offline zone resource, see "How to Start a Zone Resource in the N1 Service Provisioning System" on page 64.

▼ How to Move Zone Resources in the N1 Advanced Architecture

This procedure describes how to move a zone resource in the N1 AA web console.

Before You Begin To move a zone resource, you need to know the resource group for the zone resource that you want to relocate. You can view the resource group by clicking the View All link in the Solaris Non-Global Zone as a Resource section of the SAP plug-in page, then clicking the variable set link for the zone resource.

To successfully move a zone resource to another system, your environment must meet the following requirements.

- The systems involved in the move must be running a Solaris release that supports the Solaris zone attach and detach features. Starting with the Solaris 10 11/06 release, the Solaris zone attach and detach features are supported.
- The systems involved in the move must have compatible file systems, as defined in the `zoneadm`(1M) man page.
- The systems involved in the move must have the same set of packages and patches installed.

  For more information, see *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.
- The resource group that includes the zone resource must include a High Availability Storage component.
- The High Availability Storage component path must include the zone-specific root path. This path must not terminate at a level above the zone-specific root, or the move will fail. For example, if you are trying to move a zone resource named `myzone` located in `/share/zones`, specify the path `/share/zones/myzone` in the High Availabilty Storage component.

  For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*
- The resource group that includes the zone resource must not include a J2EE application server resource.

1 **In the N1 AA web console, click the Sun N1 Advanced Architecture for SAP Solutions link in the Systems section.**

  The Sun N1 Advanced Architecture for SAP Solutions page is displayed.

2 **In the left pane, click the arrow for the appropriate server group.**

3 **Click the arrow for the Deployer entry for the server group.**

4 **Click the Resource Groups link.**

  The N1AA Deployer - Resource Groups page is displayed.

5 **Click the radio button for the resource group that you want to move.**

6 **In the Action column of the zone resource group, click the Move link.**

7 Specify the physical host name of the target host to which you want to move the zone resource.

The following tasks are performed for the zone resource move.

- The High Availability Storage device is unmounted from the first host.
- The non-global zone is detached from the first host.
- The High Availability Storage device is created and mounted on the target host.
- The non-global zone is attached on the target host.

Troubleshooting If the move of the non-global zone fails, verify that the following conditions are true.

- Both systems involved in the move are running a Solaris release that supports the zone attach and detach features. Starting in the Solaris 10 11/06 release, the zone attach and detach features are supported.
- Both systems involved in the move have compatible file systems, as defined in the `zoneadm`(1M) man page.
- Both systems involved in the move have the same set of packages and patches installed.
- The resource group that includes the zone resource that you want to move includes a High Availability Storage component.
- The resource group that includes the zone resource that you want to move does not include a J2EE application server resource.

◆ ◆ ◆ CHAPTER 4

J2EE Application Server Support in N1 Advanced Architecture 5.2 Update 2 Release

This chapter describes how to model a J2EE application server in your SAP environment with the SAP plug-in.

Creating J2EE Applications Servers With the SAP Plug-In

The new version of the SAP plug-in supports the creation of J2EE application server components. The new component variable `isJ2EE` allows you to indicate that an application server component refers to a J2EE application server.

Note – You cannot move J2EE application servers between systems in the N1 AA web console. If you try to move a resource group that includes a J2EE application server resource, the move will fail.

▼ How To Create a J2EE Application Server in the N1 Service Provisioning System

This task creates an SAP Application Server entry in the N1 SPS database.

Note – This task is a markOnly task. The J2EE application server must be running in your SAP environment before you perform this task.

---

1. **In the Common Tasks section of the N1 SPS browser interface, click SAP.**
2. **In the Application Server section of the SAP Tasks page, click Create.**
3. **Click Run.**

4 In the Plan Parameters table, select the variable settings for the AppServer component.

- **If the variable settings have been created for this component, select the appropriate settings from the drop-down menu.**
- **If the variable settings are not available from the drop-down menu, follow these steps.**

  a. Click Select From List. The Select Variable Settings From List window displays.

  - **To create a new variable settings set, click Create Set and type a Set Name.**

    The following list provides commonly updated variables for the AppServer component. To create a value for the component variable, click the check box in the component variable's row.

    Note – For information about component variables ending in UserExit, see "User Exits" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

`groupName`	This is a required field. **Note –** In the Sun Cluster environment, the `groupName` must equal the Sun Cluster resource group name.
`groupDescription`	A description of the group.
`resourceName`	Required for the Sun Cluster environment.
`envType`	Identifies whether this component will be deployed to a default, Sun Cluster, or SAP AC environment. Value can be `ac`, `sc`, or `default`.
`createdBy`	Identifies the installer of the component.
`ciLhName`	Required for default install only. This value names the Central Instance logical host.
`asLhName`	Required for the default environment. This value names the Application Server logical host.
`sapSid`	Required for the default environment. The SAP system ID consists of three uppercase alphanumeric characters. The first character must be a letter.
`asSystemInstanceNumber`	Required for the default environment. Application Server instance number. Generate from variable input.

`instanceSize`	Application Server instance size which is generated from variable input. Possible values are `small`, `medium`, or `big`. Default value: `medium`.
`accServiceID`	Required for the SAP AC environment. The service ID of the SAP Application Server instance (only applicable in the SAP AC environment).
`srmProject`	The Solaris Resource Management (SRM) project name. Default value: `default`.
`ciInstanceName`	Required for the default environment. The Central Instance name (as in the SAP Central Instance start profile).
`isNewSapVersion`	Required for the default environment. `TRUE` means the central scripts are used to start and stop the application server. `FALSE` means instance-specific start and stop scripts from the SAP user home directory will be used to start and stop the application server. Default value: `TRUE`.
`isJ2EE`	Required for the default environment. `TRUE` indicates that the application server is a J2EE application server. `FALSE` indicates that the application server is an ABAP application server. Change this value to `TRUE` when you create your J2EE application server. Default value: `FALSE`.

b. Click Save.

- **To use component variables from another component, click Import Set. For more information about importing variable sets, see "How to Run a Plan" in** *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide***.**

5 Select the target host or target host set.

6 Click the Run Plan (Includes Preflight) button.

The Deployment Results page is displayed. If the plan fails, error messages are displayed.

Next Steps After you have created the J2EE application server, you can manage the application server in the N1 AA web console. For more information about how to manage application servers in your SAP environment, *Sun N1 Advanced Architecture for SAP Solutions 5.2.1 User's Guide*.

◆ ◆ ◆ CHAPTER 5

N1 Advanced Architecture Support for the SAP 7 Release

The Sun N1 Advanced Architecture 5.2 Update 2 release supports the SAP 7.0 release, including changes to the configuration of Message and Enqueue Servers.

Changes to Configuring Message Servers and Enqueue Servers in the SAP 7.0 Release

In the SAP 7.0 release, you can group the Message Server and Enqueue Server as SAP Central Services (SCS). You can choose from two different configurations for SCS in your environment.

- Model the message server and enqueue server as separate, standalone resources, similar to the approach used by Sun Cluster. You can edit the SCS instance to remove the enqueue resource from SCS control, then use the SAP plug-in in N1 Service Provisioning System to create a resource group that includes a separate message server component and an enqueue server component.
- Allow the SCS to manage both the message server an enqueue server. This approach is the default configuration starting with the SAP 7.0 release, and requires no additional changes to the SCS instance profiles. With the SAP plug-in, you create a resource group that includes a message server component, but, on the systems themselves, both the message server and enqueue server resources will be running.

▼ How to Create an SAP Central Services or Message Server Component

This task creates either an SAP Central Services (SCS) or an SAP Message Server component in SPS database. The SAP SCS or Message Server is created by the user at the OS level outside the SAP plug-in.

Note – This task is a markOnly task.

1 **In the Common Tasks section of the N1 SPS browser interface, click SAP.**

2 **In the SAP SCS (Message + Enqueue) or Stand Alone Message Server section of the SAP Tasks page, click Create.**

The Plan > Details page is displayed.

3 **Click Run.**

The Plan > Details > Run page is displayed.

4 **In the Plan Parameters table, select the variable settings for the Message Server component.**

- **If the variable settings have been created for this component, select the appropriate settings from the drop-down menu.**
- **If the variable settings are not available from the drop-down menu, follow these steps.**

  a. **Click Select From List. The Select Variable Settings From List window displays.**

  - **To create a new variable settings set, click Create Set and type a Set Name.**

    The following list provides commonly updated variables for the Message Server component. To create a value for the component variable, click the check box in the component variable's row.

    Note – For information about component variables ending in UserExit, see "User Exits" in *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

`groupName`	This is a required field. **Note –** In the Sun Cluster environment, the `groupName` must equal the Sun Cluster resource group name.
`groupDescription`	A description of the group.
`resourceName`	Required for the Sun Cluster environment. The `resourceName` must equal the Sun Cluster resource name for the Sun Cluster `envType`.
`installPath`	Required. Specifies the location of the SCS or Message Server..

`envType`	Identifies whether this component will be deployed to a default or Sun Cluster environment. Value can be `sc` or `default`.
`createdBy`	Identifies the installer of the component.
`ciLhName`	Required for default install only. This value names the Central Instance logical host.
`asLhName`	Required for the default environment. This value names the Application Server logical host.
`sapSid`	Required for the default and Sun Cluster environment. The SAP system ID consists of three uppercase alphanumeric characters. The first character must be a letter.
`msgLhName`	Required for the default and Sun Cluster environment. Logical host name for the message server.
`instanceName`	Required for the default and Sun Cluster environment. Name of the instance (`INSTANCE_NAME` in SAP start profile). The name must contain at least three uppercase alpha characters and two numeric characters. For example, `ABC01`.
`srmProject`	The Solaris Resource Management (SRM) project name. Default value: `default`.

b. Click Save.

- **To use component variables from another component, click Import Set. For more information about importing variable sets, see "How to Run a Plan" in** *Sun N1 Service Provisioning System 5.2 Operation and Provisioning Guide***.**

5 Select target host or target host set.

6 Click the Run Plan (Includes Preflight) button.

The Deployment Results page is displayed. If the plan fails, error messages are displayed.

Note – There is no code verification to enforce the required fields for the Sun Cluster environment when the components are created in the Sun N1 Service Provisioning System.

Next Steps If you want to create separate Message Server and Enqueue Server components, you must create an Enqueue Server. For more information, see *Sun N1 Service Provisioning System User's Guide for SAP Plug-In 1.0*.

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