Sun N1 System Manager 1.3 Command Line Reference Manual

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Part No: 819–5139
April 2006

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Examples

Preface

The Sun N1™ System Manager Command Line Reference Manual includes the same information that is provided by the `n1sh help` command, in either interactive or non-interactive mode. Use this book as a reference for all the commands available for the N1 System Manager.

Who Should Use This Book

This guide is intended for system administrators who are responsible for managing provisionable servers running the N1 System Manager software. The system administrators are expected to have the following background:

- Knowledge of Linux and Solaris™ operating systems, and the network administration tools provided by each operating system
- Knowledge of network equipment and network devices from a variety of vendors such as Sun Microsystems and Cisco
- Knowledge of network device interconnections and cabling

Related Books

The following books and help provide useful information for installing and using the N1 System Manager.

- *Sun N1 System Manager 1.3 Introduction*
- *Sun N1 System Manager 1.3 Site Preparation Guide*
- *Sun N1 System Manager 1.3 Installation and Configuration Guide*
- *Sun N1 System Manager 1.3 Discovery and Administration Guide*
- *Sun N1 System Manager 1.3 Operating System Provisioning Guide*
- *Sun N1 System Manager 1.3 Troubleshooting Guide*
- *Sun N1 System Manager 1.3 Release Notes*

Documentation, Support, and Training

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

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

Typographic Conventions

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

TABLE P–1 Typographic Conventions

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

Shell Prompts in Command Examples

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

TABLE P–2 Shell Prompts

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

◆ ◆ ◆ CHAPTER 1

Command Line Interface Help

This chapter provides the same help that you can access by using the `help` command in the command line interface (CLI).

You can access the CLI in two ways:

- Through the `n1sh` shell, which uses an `N1–ok>` prompt. See the `n1sh` man page on the management server for more information.
- Through the browser interface, which includes the `n1sh` shell in the Command Line pane.

Command Help

`help` Command

You can get CLI help in the following ways:

- Type `help` *command* to describe the command and list the available *command object* commands. For example, `help show`.
- Type `help` *command object* to display detailed usage information for the *command object* tuple. For example, `help show server`.
- Type `help` *object* to display detailed information for the object. For example, `help server`.

The available commands are listed in the following table.

Command	Description
`add`	Add a member to an object or group.
`connect`	Connect to a server's serial console.

Command	Description
`create`	Create (or copy) a new object in the N1 System Manager.
`delete`	Delete an object from the N1 System Manager.
`discover`	Discover new servers to be managed.
`exit`	Exit user from the `N1-ok>` shell.
`help`	Get help about a command or object. You can also use `?` for the `help` command. Note that `help help` is not a valid command.
`load`	Install software on a server or group of servers.
`remove`	Remove a member from an object or group.
`reset`	Power off and power on a server or group of servers.
`set`	Change attributes on a server, a group of servers, or other object.
`show`	List summary or detailed information about an object or group.
`start`	Enable an object or issue a command, for example, power on and boot a server.
`stop`	Disable an object, for example, shut down and power off a server.
`unload`	Uninstall software from a server or group of servers.

The available objects are described in "Object Help" on page 91.

Command Line Interface Tips

This section contains a few tips to help you use the N1 System Manager CLI.

General Syntax

The general syntax for an N1 System Manager command is:

command object [*object-value*] [*object* [*object-value*]]* [*attribute*[=][*attribute-value*]]*

- *command* – The action taken on the object.
- *object* – A system-defined object that is fundamental to the operation being performed. The target of the operation is usually the first object in the command's syntax.
- *object-value* – A value for the object, which is usually user-defined. Values containing spaces must be enclosed within quotation marks.
- *attribute* – A system–defined and optional object that affects the way the operation is performed.
- *attribute–value* – A user-defined value for the attribute. Values containing spaces must be enclosed within quotation marks.

For simplification purposes, the attribute term is usually used to describe both objects and keywords.

User-Defined Names

User-defined names, such as OS profile or group names, may include numbers, letters, and some special symbols. The following special symbols are prohibited: comma, asterisk, single quotes, double quotes, parenthesis, question mark, equal sign, and newline.

`id` Keyword

The `id` keyword is an optional keyword that can be used on the N1 System Manager CLI before some attribute values, typically for the *server* attribute value. The purpose of this keyword is to allow the use of an attribute value that is the same name as a reserved keyword (for example, a server named `upgrade`).

Equal Sign

The equal sign (=) can be used between attribute names and attribute values on the N1 System Manager CLI. For example, the following commands are equivalent:

```
N1-ok> set role MyRole description myDescription
N1-ok> set role MyRole description=myDescription
```

The equal sign variant is not shown in the CLI help.

Script Comments

When creating a customized `n1sh` script, you can specify the comment character (#) at the beginning of the line to indicate that the rest of the line should be ignored. See "To Run a Script of N1 System Manager Commands" in *Sun N1 System Manager 1.3 Discovery and Administration Guide* for more information.

Multiple Attribute Values

Where allowed, multiple attribute values can be specified as a comma–separated list on the N1 System Manager command line. For example:

```
N1-ok> set server serverA,serverB,serverC locator on
```

In the CLI help, multiple attribute values are shown using the following syntax notation: `set server <server>[,<server>...]`

Note – Spaces are not allowed between commas.

Quotation Marks

Single and double quotation marks are supported in the `n1sh` shell mode. If needed, either type of quotation mark can be escaped using the backslash character. For example:

```
N1-ok> set role myRole description "Some Role that I’ve made up"
N1-ok> set role myRole description=’Some Role that I\’ve made up’
```

Special Characters in UNIX Command Mode

Depending on the shell you are using to run `n1sh` in UNIX command mode, some special characters may need to be escaped. For example, in the `bash` shell, quotation marks need to be escaped with the backslash character, like this:

```
$ n1sh set role MyRole description=\"Some Role that \\\"Paul\\\" made up\"
```

Or, you can use single quotation marks to escape double quotation marks:

```
$ n1sh set role MyRole description=’"Some Role that \\"Paul\\" made up"’
```

See your specific shell’s documentation for more information about escaping special characters.

In the `n1sh` shell mode, you do not have to escape special characters, so the same command described above would appear as follows:

```
N1-ok> set role MyRole description="Some Role that \"Paul\" made up"
```

Hiding Passwords

You can type a question mark (?) for any password attribute value if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password. Examples include the `rootpassword` and `agentssh` attributes.

add

This command adds a member to an object or group.

Description

The `add` command can be used on the following objects: `group`, `osprofile`, `role`, `server`, and `user`.

Type `help add` *object* for details.

add group

This command adds servers to an existing server group so you can more easily perform management operations on multiple servers. See “`create group`” on page 26 for information about how to create a new server group.

Synopsis

- Add one or more servers to a server group:

  ```
  add group group server server[,server...]
  ```

- Add all the available servers to a server group:

  ```
  add group group server all
  ```

Parameters

- `all` – Add all servers to a server group.
- *group* – The name of a server group.
- *server* – The management name of a server to be added.

add osprofile

This command adds a distribution group, disk partition, OS update, or custom installation script to an existing OS profile.

Description

If a distribution group is not specified in an OS profile, one of the following distribution groups is installed by default: `Entire Distribution plus OEM Support` (Solaris), `Everything` (Red Hat), or `Default Installation` (SUSE). At least one partition (root) is required for a valid Solaris profile, and at least two partitions (root and swap) are required for a valid Linux profile.

Synopsis

- Add a distribution group to an OS profile:

  ```
  add osprofile osprofile distributiongroup distributiongroup
  ```

- Add disk partition information to an OS profile:

  ```
  add osprofile osprofile partition partition device device maxsize maxsize
  size size sizeoption sizeoption type type
  ```

- Add an OS update to an OS profile:

  ```
  add osprofile osprofile update update
  ```

- Add a custom installation script to an OS profile:

  ```
  add osprofile osprofile script script type type
  ```

Parameters

- *device* – The disk slice for the partition. Examples: `c1t1d0s1` (Solaris) or `sda` (Linux).
- *distributiongroup* – The name of a distribution group (group of packages) to install. If you do not specify a distribution group, one of the following groups is installed by default: `Entire Distribution plus OEM Support` (Solaris), `Everything` (Red Hat), or `Default Installation` (SUSE). You can display the distribution group list for an OS by using the `show os` *os* command.
- *maxsize* – (Red Hat only) The maximum size for the file system in Mbytes. This option enables you to put a limit on the `free` value for *sizeoption*.
- *osprofile* – The name of an OS profile.
- *partition* – The mount point name for the partition.
- *script* – The name of a custom installation script. A fully qualified path is required.
- *size* – The size of the file system in Mbytes. This option must be specified with the `fixed` value for *sizeoption*.
- *sizeoption* – The way to size the file system. Valid values are:
  - `fixed` – The file system is set to a specific size, which is set by the *size* attribute.
  - `free` – The remaining unused space on the disk is used for the file system. With a Red Hat profile, you can specify *maxsize* to limit the size of the file system.
- *type* (adding partition) – The type of file system. Default values are `ufs` (Solaris) and `ext3` (Linux). Valid values are:
  - Solaris: `unnamed`, `swap`, or `ufs`
  - Red Hat: `ext2`, `ext3`, `swap`, or `vfat`
  - SUSE: `ext2`, `ext3`, `jfs`, `reiser`, `swap`, or `xfs`
- *type* (adding script) – The time when the custom script will run during the installation. Valid values are:
  - `pre` – Run the script before the installation (for example, drivers).
  - `post` – Run the script after the installation.
  - `postnochroot` – Run the script after the installation. The script does not have to be run as superuser (root).
- *update* – The name of an OS update.

add role

This command adds privileges to an existing role. See "`create role`" on page 34 for information about how to create a new role.

Synopsis

- Add all privileges to a role:

```
add role role privilege all
```

- Add one or more privileges to a role:

```
add role role privilege privilege[,privilege...]
```

Parameters

- `all` – Add all privileges to the role.
- *role* – The name of a role. You cannot add privileges to the system default roles: `Admin`, `SecurityAdmin`, and `ReadOnly`. These roles are predefined and cannot be modified.
- *privilege* – The name of a privilege to add to the role. Use the `show privilege all` command to list all available privileges.

add server

This command adds the N1 System Manager features to a server.

Description

To benefit from some of the N1 System Management functionality, you must add features to the servers. The two types of features are base management and OS monitoring. The base management feature is required for basic OS monitoring, OS updates, and remote commands. The OS monitoring feature provides advanced OS monitoring, including support for threshold monitoring. When a feature is added, the feature is installed on the server, the specified agent credentials are set, and the feature becomes supported on the server. In the case of the OS monitoring feature, monitoring is also enabled if not already enabled. The `Base Management Supported` and `OS Monitoring Supported` fields in the `show server` output provide the current support status on a server's features.

There are some situations when you need to use the `upgrade` keyword to upgrade the existing features on a server. Refer to the *N1 System Manager Discovery and Administration Guide* for more information

Synopsis

- Add the OS monitoring and base management features to a server:

```
add server server feature osmonitor agentip agentip agentssh agentssh
[agentsnmp agentsnmp] [agentsnmpv3 agentsnmpv3]
```

- Add the base management feature to a server:

```
add server server feature basemanagement agentip agentip agentssh agentssh
```

- Upgrade a feature on a server:

```
add server server feature feature upgrade [agentip agentip agentssh agentssh]
```

Parameters

- *agentip* – Specify the IP address used for the management features on the server, including OS monitoring. The agentip is usually the IP address of the provisioning network interface on the server.
- *agentsnmp* – Specify the SNMP credentials used for OS monitoring on the server. The *agentsnmp* format is a read community string. The default SNMP read community string is `public`.
- *agentsnmpv3* – Specify the SNMP Version 3 credentials used for OS monitoring on the server. The *agentsnmpv3* format is a user name/password pair: *snmpv3-username*/*snmpv3-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *agentssh* – Specify the SSH credentials used for the management features on the server, including OS monitoring. The SSH user must have root access on the server. The *agentssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- `basemanagement` – Add or upgrade the base management feature, which is required for OS update deployment and remote commands.
- *feature* – Valid values are `basemanagement` and `osmonitor`.
- `osmonitor` – Add or upgrade the OS monitoring feature, which also includes the base management feature. The OS monitoring feature is required to monitor a server's OS resource health state. See the `show server` command for more information.
- *server* – The management name of a server.
- `upgrade` – Upgrade the feature to the latest version.

add user

This command adds roles to a user. Once added, the user will be able to assume each role and gain the associated privileges.

Synopsis

- Add a role to a user:

```
add user user role role[,role...]
```

Parameters

- *role* – The name of a role to add to the user. Use the `show role all` command to list all available valid roles.
- *user* – The name of a user.

connect

This command connects you to the serial console of a server.

Description

The `connect` command can be used on the `server` object.

Type `help connect server` for details.

connect server

This command connects you to the serial console of a server.

Description

You can use the `connect server` command to monitor installations or perform administration tasks. For most hardware platforms, the first user to log in is given read and write privileges on the serial console, and subsequent user sessions are read-only mode. Some platforms don't allow multiple serial console sessions on the same server. You can exit the serial console at any time through the following escape sequences:

— ALOM-based systems: `# .`

— Sun Fire(TM) X4000 series systems: `ESC (`

— Sun Fire V20z and Sun Fire V40z systems: `^E c .`

This command is not available in the browser interface's command line, but you can access a server's serial console in the browser interface by choosing Open Serial Console in the Actions menu on a Server's Details page. Also, because this command requires user input, do not use it in a custom N1 System Manager script through the `n1sh -f` command.

Synopsis

- Connect to a server's serial console.

```
connect server server
```

Parameters

- *server* – The management name of a server.

create

This command creates a new object in the N1 System Manager. You can also use this command to copy objects that already exist outside N1 System Manager.

Description

The `create` command can be used on the following objects: `application`, `applicationprofile`, `dhcpconfig`, `firmware`, `group`, `notification`, `os`, `osprofile`, `role`, `update`, and `user`.

Type `help create` *object* for details.

See "`discover`" on page 42 for information about adding servers to the N1 System Manager.

create application

This command copies an application to the N1 System Manager. You can then provision the application on the servers.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager, and it is available from the Sun Download Center (SDLC). You must copy an OS-specific N1GE application for each OS you plan to support.

Unlike the behavior for OS profiles, a default application profile is not automatically created when you copy an application to the N1 System Manager.

Synopsis

- Copy the N1GE application to the N1 System Manager:

```
create application application file file[,file...] type n1ge
```

Parameters

- *application* – A unique name for the application.
- *file* – A fully qualified path to an application installation file to be copied. You can specify `*.tar.gz` installation files for the N1GE application, and each N1GE application requires the `n1ge-6_0u4–common.tar.gz` file.

create applicationprofile

This command creates an application profile.

Description

You use an application profile to deploy an application on the servers.

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager.

Synopsis

- Create an N1GE application profile:

  `create applicationprofile` *applicationprofile* `application` *application* `type n1ge` [*N1GE-Attributes*]

Parameters

- *application* – The name of an application to install.
- *applicationprofile* – A unique name for the application profile.

N1GE ATTRIBUTES

- `adminhomedir` *adminhomedir* – The home directory of the N1GE admin user. Default value is `/gridware/sge`.
- `adminuid` *adminuid* – The UID of the N1GE admin user. Default value is `218`.
- `adminusername` *adminusername* – The user name of the N1GE admin user. Default value is `sgeadmin`.
- `execdport` *execdport* – The TCP port to use for the N1GE `execd` daemon. Default value is `837`.
- `instversion` *instversion* – The version of N1GE that will be deployed on the compute and submit hosts. There is no default value.
- `lnxnfsmtopts` *lnxnfsmtopts* – The options used when mounting the "common" directory onto a Linux compute or submit host. The value in this field is inserted into the Linux `/etc/fstab` file on each host as: *nfsservername*`:`*nfsmountpoint nfsmountpoint* **`nfs`** *lnxnfsmtopts* **`0 0`**. Default value is `intr,softload`. This value cannot contain spaces.
- `loadcritical` *loadcritical* – Use this parameter to specify the load critical threshold. If this threshold is exceeded, a load critical alert appears in the Monitor. Similar to the Load Warning parameter, you set this parameter in terms of the system load scaled by number of CPUs. Default value is `3.00`.
- `loadwarning` *loadwarning* – Use this parameter to specify the load warning threshold. If this threshold is exceeded, a load warning alert appears in the Monitor. The value is in terms of system load, as reported by the OS, divided by the number of CPUs. Default value is `1.00`.

- `masterport` *masterport* – The TCP port to use for the N1GE `qmaster` daemon. Default value is `836`.
- `maxpendtime` *maxpendtime* – Use this parameter to specify the amount of time that a job spends pending after which a Job Pending alert appears in the Monitor. You set the value in hours. Default value is `24`.
- `memcritical` *memcritical* – Use this parameter to set the memory critical threshold. If the value drops below this threshold, a memory critical alert appears in the Monitor. You set the value in terms of megabytes of free virtual memory. Default value is `10`.
- `memwarning` *memwarning* – Use this parameter to set the memory warning threshold. If the value drops below this threshold, a memory warning alert appears in the Monitor. You set the parameter value in terms of megabytes of free virtual memory. Default value is `100`.
- `nfsmountpoint` *nfsmountpoint* – The directory that is mounted from the NFS server for the N1GE "common" directory. When deploying the master host using N1GE, this value is set automatically to *sgeroot*`/`*sgecell*`/common`. Once you deploy the master host, you cannot edit this value and it remains in effect for all further deployments of compute and submit hosts. You can edit this setting again only if you uninstall the master host. Default value is `/gridware/sge/default/common`.
- `nfsservername` *nfsservername* – The name of the NFS server from which all compute and submit hosts will mount the N1GE "common" directory. When you deploy the master host using N1GE, this parameter is set automatically to the master host. Once you deploy the master host, you cannot edit this value and it remains in effect for all further deployments of compute and submit hosts. You can edit this setting again only if you uninstall the master host. There is no default value.
- `proxyhost` *proxyhost* – Indicates the host on which monitoring commands are executed. If the master host has been previously deployed using N1GE, then the proxy host is set to this host and cannot be changed until the master is uninstalled. The host you chose must be an N1GE admin host; otherwise, installation and uninstallation of other hosts, as well as monitoring, could fail. There is no default value.
- `sgecell` *sgecell* – The N1GE cell name used for the deployment. Default value is `default`.
- `sgeroot` *sgeroot* – The root directory under which the N1GE files will be installed. The files will be installed on all hosts in this directory. Default value is `/gridware/sge`.
- `solnfsmtopts` *solnfsmtopts* – The options used when mounting the "common" directory onto a Solaris compute or submit host. The value in this field is inserted into the Solaris `/etc/vfstab` file on each host as: *nfsservername*`:`*nfsmountpoint nfsmountpoint* **`nfs -yes`** *solnfsmtopts*. There is no default value. This value cannot contain spaces.

create dhcpconfig

This command creates a new instance of a DHCP configuration.

Synopsis

- Create a new instance of a DHCP configuration:

```
create dhcpconfig dhcpconfig defaultgw defaultgw dns1 dns1 domain domain
highip highip lowip lowip netmask netmask network network
[dns2 dns2] [dns3 dns3] [domain2 domain2]
```

Parameters

- *defaultgw* – Specify the IP address of the default gateway.
- *dhcpconfig* – A unique name for the DHCP configuration.
- *dns1* – Specify the IP address of the first DNS server.
- *dns2* – Specify the IP address of the second DNS server.
- *dns3* – Specify the IP address of the third DNS server.
- *domain* –Specify the first domain name.
- *domain2* – Specify the second domain name.
- *highip* –Specify the IP address of the highest IP value available in the DHCP configuration.
- *lowip* – Specify the IP address of the lowest IP value available in the DHCP configuration.
- *netmask* – Specify the netmask for the DHCP configuration
- *network* – Specify the IP address of the base network for the DHCP configuration.

create firmware

This command copies a firmware update to the N1 System Manager. You can then install the firmware update on the servers.

Synopsis

- Copy a firmware update to the N1 System Manager:

```
create firmware firmware [description description] model model[,model]
[type type] url url vendor vendor [version version]
```

Parameters

- *description* – A description for the firmware update.
- *firmware* – A unique name for the firmware update.
- *model* – The model name of a valid hardware system for the firmware update. Valid values are:
  - `NETRA-240` – Netra(TM) 240

- `NETRA-440` – Netra 440
- `SF-T1000` – Sun Fire T1000
- `SF-T2000` – Sun Fire T2000
- `SF-V210` – Sun Fire V210
- `SF-V240` – Sun Fire V240
- `SF-V250` – Sun Fire V250
- `SF-V440` – Sun Fire V440
- `V20z` – Sun Fire V20z
- `V40z` – Sun Fire V40z
- `X4100` – Sun Fire X4100
- `X4200` – Sun Fire X4200

- *type* – The type of firmware update. This attribute is required only for the Sun Fire V20z and Sun Fire V40z system firmware updates. Valid values are:
  - `BIOS` – Server platform BIOS
  - `PIC` – Service processor operator panel
  - `SP` – Service processor
- *url* – The URL path to a firmware update to copy. Use `file:///` for a file accessible from the management server or `http://` for a file located on a web site. Refer to your hardware documentation to find out where to get the latest firmware updates for your server.

  Examples: `file:///mydir/firmware/bios.sp` or `http://10.5.157.11/fw/v20z/v2.1.0/16b/bios.sp`
- *vendor* – The name of the firmware update vendor. Valid value is `Sun`.
- *version* – The version number of the firmware update.

create group

This command creates a new server group, which enables you to group servers by business or management needs.

Synopsis

- Create a new server group and add servers to it:

  ```
  create group group server server[,server]
  ```
- Create a new server group and add all servers to it:

  ```
  create group group server all
  ```

Parameters

- `all` – Add all servers to server group.
- *group* – A name for the new server group.
- *server* – The management name of a server.

create notification

This command creates a new notification rule.

Synopsis

- Create a new notification rule:

```
create notification notification destination destination topic topic
type type [description description]
```

Parameters

- *description* – A description for the notification rule.
- *destination* – Where to send the notification. This value must match the specified *type*. Valid values are:
  - *email-addresses* – One or more email addresses separated by commas.
  - *script* – A fully qualified path to a custom Bourne shell script used to manage the notification. The script must be executable by the root user.
  - *snmp-host*[:*port*] – An SNMP host. *snmp-host* is a valid SNMP host name and *port* is a valid port on the host.
- *notification* – A name for the notification rule.
- *topic* – The type of event to trigger the notification. Valid values are:
  - `Action.Logical.FirmwareCreate` – firmware created
  - `Action.Logical.FirmwareDelete` – firmware deleted
  - `Action.Logical.JobCompleted` – job completed
  - `Action.Logical.JobStarted` – job started
  - `Action.Logical.JobTimedOut` – job timed out
  - `Action.Logical.ProfileCreate` – OS profile created
  - `Action.Logical.ProfileDelete` – OS profile deleted
  - `Action.Logical.OSDeployComplete` – OS deployment completed
  - `Action.Logical.OSDeployStart` – OS deployment started
  - `Action.Physical.AddCoreJobSuccess` – base management feature added
  - `Action.Physical.AgentIPJobSuccess` – management feature configuration modified
  - `Action.Physical.AlreadyKnown` – server discovery already known
  - `Action.Physical.Discovered` – server discovered
  - `Action.Physical.DriverNotFound` – server discovery driver not found
  - `Action.Physical.FWNotCompatible` – firmware level is not compatible or supported

- `Action.Physical.InitialAddOsmJobSuccess` – OS monitoring and base management feature added
- `Action.Physical.IPUnreachable` – server discovery IP address unreachable
- `Action.Physical.LoadUpdateSuccess` – OS update deployment succeeded
- `Action.Physical.LoadUpdateFailure` – OS update deployment failed
- `Action.Physical.LoadUpdateCanceled` – OS update deployment canceled
- `Action.Physical.MultipleAuths` – server discovery multiple authorizations
- `Action.Physical.MultipleIPs` – server discovery multiple IP addresses
- `Action.Physical.RemoteCmdFailure` – remote command failed
- `Action.Physical.RemoteCmdSuccess` – remote command succeeded
- `Action.Physical.RemoteCmdTimedOut` – remote command timed out
- `Action.Physical.RemoteCmdUnauthorized` – remote command unauthorized
- `Action.Physical.RemoveOsmJobSuccess` – OS monitoring feature removed
- `Action.Physical.ServerDelete` – server deleted
- `Action.Physical.ServerStateChange` – server changed
- `Action.Physical.Unauthorized` – server discovery unauthorized
- `Action.Physical.UnloadUpdateSuccess` – OS update unload succeeded
- `Action.Physical.UnloadUpdateFailure` – OS update unload failed
- `Action.Physical.UnloadUpdateCanceled` – OS update unload canceled
- `EReport.Logical.ThresholdExceeded` – OS resource threshold exceeded
- `EReport.Physical.DomainException` – domain exception
- `EReport.Physical.Exception` – remote command exception
- `EReport.Physical.FWMgmtException` – firmware update exception
- `EReport.Physical.IOException` – IO exception
- `EReport.Physical.OpGrpException` – server discovery operation group exception
- `EReport.Physical.RemoteCmdUnknownOS` – remote command unknown OS
- `EReport.Physical.RemoteCmdUnknownServer` – remote command unknown server
- `EReport.Physical.ThresholdExceeded` – hardware health threshold exceeded
- `Lifecycle.Logical.AddServer` – server added to group
- `Lifecycle.Logical.ChangeSessionRole` – session role changed
- `Lifecycle.Logical.CreateGroup` – group created
- `Lifecycle.Logical.CreateUpdate` – OS update created
- `Lifecycle.Logical.DeleteGroup` – group deleted
- `Lifecycle.Logical.DeleteUpdate` – OS update deleted
- `Lifecycle.Logical.RemoveServer` – server removed from group

- `Lifecycle.Physical.DBUpdateFailed` – firmware update database update failed
- `Lifecycle.Physical.InvalidState` – firmware update invalid device state
- `Lifecycle.Physical.ObjectJobNotFound` – server not found for operation
- `Lifecycle.Physical.UpdateSucceeded` – firmware updated

- *type* – How to send the notification. Valid values are `email` (send to email address), `script` (send to custom script), or `snmp` (send to SNMP host).

create os

This command is used in three different ways to provide an OS distribution for a server.

Description

The three different ways to use this command are:

– For the Windows OS, you configure a link to an existing RIS server.

– For a Solaris/Linux OS, you copy an OS image from ISO files, CDs, or a DVD. Note that N1 System Manager does not support copying Solaris OS CDs and CD ISO files. You must copy a Solaris DVD or DVD ISO file.

– To set up diskless clients, you configure a link to a diskless client image. The diskless client feature is not available for the Windows OS.

ABOUT COPYING SOLARIS/LINUX OS IMAGES

Solaris/Linux OS distributions are stored in different locations based on the various management server and OS combinations. See the *N1 System Manager Site Preparation Guide* for more information.

When copying an OS distribution from multiple installation CDs, you need to run the `create os` command multiple times with the same OS distribution name. For example, if you are trying to copy an OS distribution that is provided on two CDs, you must insert the first CD, run the `create os` command, and wait for the job to complete. Once the first job completes, you then must insert the second CD, run the `create os` command again, and wait for the job to complete. The OS distribution is successfully installed when the second job completes.

When copying the SUSE Linux Enterprise Server 9 SP1 distribution, you must run the `create os` command multiple times. First, copy the SLES 9 base distribution. When that job finishes, you can then copy the SLES 9 Update 1 distribution.

A default OS profile configured for Sun Fire V20z servers is automatically created for each newly created OS distribution, with the same name as the OS distribution. The default profile is provided as an example. You can either update the default profile to match your hardware or create a new profile. Use the `show osprofile` *osprofile* command to list the configuration of an OS profile.

Synopsis

- Copy a Solaris or Linux OS image from ISO files:

  ```
  create os os file file[,file...] type type
  ```

- Copy a Solaris or Linux OS image from an installation CD/DVD:

  ```
  create os os cdrom cdrom type type
  ```

- Configure a link to an existing Windows RIS server:

  ```
  create os os type windows arch arch languageedition languageedition
  rissourcepath rissourcepath version version
  ```

- Configure a link to a diskless client image:

  ```
  create os os type type format diskless kernelimage kernelimage
  [bootimage1 bootimage1] [bootimage2 bootimage2] [tftpserver tftpserver]
  ```

Parameters

COPYING A SOLARIS OR LINUX OS IMAGE

- *cdrom* – The fully qualified path to the installation CD/DVD. For Solaris DVDs, the slice must be specified as part of the path. For example, `/cdrom/cdrom/s2`.
- *file* – The name of an ISO file accessible from the management server. A fully qualified path is required.
- *type* – The type of OS. Valid values are `redhat`, `solaris`, or `suse`.
- *os* – A name for the OS distribution.

CONFIGURING A LINK TO A WINDOWS RIS SERVER

- *arch* – The architecture of the systems to be installed. Valid values are `amd64` (AMD based systems) or `i386` (Intel based systems).
- *languageedition* – The language support enabling users to view web pages and other content encoded in a different language and character set. Use tab completion for valid values.
- *os* – A name for the OS distribution.
- *rissourcepath* – The path to the Windows distribution on the RIS server. Example: `D:\win2003se`
- *version* – The Windows version. Valid values are:
  - `2000AS` – Windows 2000 Advanced Server
  - `2000SS` – Windows 2000 Standard Server
  - `2003EE` – Windows 2003 Enterprise Edition
  - `2003EESP1` – Windows 2003 Enterprise Edition Service Pack 1
  - `2003SE` – Windows 2003 Standard Edition
  - `2003SESP1` – Windows 2003 Standard Edition Service Pack 1
  - `2003WE` – Windows 2003 Web Edition

CONFIGURING A LINK TO A DISKLESS CLIENT IMAGE

- *bootimage1* – The URL of the first boot image.
- *bootimage2* – The URL of the second boot image.
- *kernelimage* – The URL of the kernel image.
- *os* – A name for the OS distribution.
- *tftpserver* – The IP address of the tftp server. Default is the IP address of the management server.
- *type* – The type of OS. Valid values are `redhat`, `solaris`, or `suse`.

`create osprofile`

This command creates a new OS profile.

Description

For Solaris and Linux OS profiles, you must also use the `add osprofile` command to add distribution groups, partition information, resources, and scripts to the OS profile to make it usable.

You can also use this command to clone (copy) an existing profile. This command must be used if you want to modify or copy a profile that has been used to install a server.

Synopsis

- Create a new Solaris or Linux OS profile:

  `create osprofile` *osprofile* `os` *os* `rootpassword` *rootpassword*
  `[description` *description*`] [flar` *flar*`] [language` *language*`] [timezone` *timezone*`]`

- Create a new Windows OS profile:

  `create osprofile` *osprofile* `os` *os* `rootpassword` *rootpassword*
  `fullname` *fullname* `organizationname` *organizationname* `productkey` *productkey*
  `[`*Optional-Windows-Attributes*`]`

- Create a new diskless client OS profile:

  `create osprofile` *osprofile* `os` *os* `[description` *description*`]`
  `[nfsopts` *nfsopts*`[,`*nfsopts*`]] [ramdisksize` *ramdisksize*`]`

- Copy an existing OS profile:

  `create osprofile` *osprofile* `clone` *oldprofile*

Parameters

SOLARIS AND LINUX PROFILES

- *description* – A description for the new OS profile.
- *flar* – (Solaris only) A fully qualified path to a flash archive file.
- *language* – The default language for the installation. Default value is `en_US` (English).

  Valid values for a Linux profile are `cs_CZ`, `da_DK`, `de_DE`, `en_US`, `es_ES`, `fr_FR`, `is_IS`, `it_IT`, `ja_JP.eucJP`, `ko_KR.eucKR`, `nl_NL`, `no_NO`, `pt_PT`, `ru_RU.k0I8r`, `sl_SI`, `sv_SE`, `uk_UA`, `zh_CN.GB2312`, and `zh_TW.Big5`.

  Valid values for a Solaris profile are `C`, `en_US.ISO8859-15`, `en_US.ISO8859-1`, and `en_US`.
- *os* – The name of the OS distribution to install.
- *osprofile* – A name for the new OS profile.
- *rootpassword* – The root password for the server after installation. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.
- *timezone* – The time zone for the installation. Default value is `gmt`.

  Valid values for a Linux profile are any of the time zones listed by the `timeconfig` command.

  Valid values for a Solaris profile are provided by the directories and files in the `/usr/share/lib/zoneinfo` directory on a Solaris system. The `timezone` value is the name of the path relative to the `/usr/share/lib/zoneinfo` directory. For example, the `timezone` value for Mountain Standard Time in the United States is `US/Mountain`. The `timezone` value for Japan is `Japan`.

WINDOWS PROFILES

- *fullname* – The user's full name in quotation marks.
- *organizationname* – The organization's name in quotation marks.
- *os* – The name of the OS distribution to install.
- *osprofile* – A name for the new OS profile.
- *productkey* – The product key for each unique installation of Windows.
- *rootpassword* – The root/admin password for the server after installation. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.

OPTIONAL WINDOWS ATTRIBUTES

- `description` *description* – A description for the new OS profile.
- `domainadmin` *domainadmin* – The name of the user account in the domain that has permission to create a system account in that domain.
- `domainadminpassword` *domainadminpassword* – The password of the `domainadmin` user account.

- `firstloginscript` *firstloginscript* – A fully qualified path to a file that contains the commands that run the first time a user logs on to the system after the final installation setup stage. This value should be *directory-path*.
- `joindomain` *joindomain* – The name of the domain for the system.
- `joinworkgroup` *joinworkgroup* – The name of the workgroup for the system.
- `language` *language* – The default language/locale for the installation. Refer to `http://www.microsoft.com/globaldev/reference/lcid-all.mspx` for valid values.
- `languagegroup` *languagegroup* – The language group for the installation. Use tab completion to list the valid values.
- `licensingmode` *licensingmode* – Specify whether to install Windows in a per-seat or a per-server license mode. Valid values are `perseat` and `peruser`.
- `licenseperserver` *licenseperserver* – The number of client licenses purchased for the server. Valid value is a number.
- `oemdriverpath` *oemdriverpath* – A fully qualified path to a folder that contains the OEM PnP drivers. This value should be *directory-path*.
- `primarydnsserver` *primarydnsserver* – The IP address of the primary DNS server. This attribute is required with the `joindomain` attribute.
- `repartition` *repartition* – Specify whether to delete all partitions on the first drive of the system and reformat it with the NTFS file system. Valid values are `true` and `false`.
- `secondarydnsserver` *secondarydnsserver* – The IP address of the secondary DNS server. This attribute is required with the `joindomain` attribute.
- `targetpath` *targetpath* – A fully qualified path to a folder in which to install Windows. Default is `\windows`.
- `timezone` *timezone* – The time zone for the installation. Example: `GMT Standard Time`
- `wtsallowconnection` *wtsallowconnection* – Specify whether the terminal server enables connections from other systems. Valid values are `true` and `false`.
- `wtsenable` *wtsenable* – Specify whether to enable installation of the terminal server. Valid values are `true` and `false`.
- `wtslicensingmode` *wtsenable* – Specify how the terminal server manages its Client Access Licenses (CALs). Valid values are `perseat` and `peruser`.
- `wtspermissionssetting` *wtspermissionssetting* – Security mode for the terminal server during a session. Valid values are `admin` and `all`.

DISKLESS CLIENT PROFILES

- *description* – A description for the new OS profile.
- *nfsopts* – An NFS option in an *option*/*value* format.
- *ramdisksize* – The RAM disk size. Default is 512 Mbytes.
- *os* – The name of the OS distribution to install.
- *osprofile* – A name for the new OS profile.

create role

This command creates a new role. Unless privileges are specified, a new role has no privileges added to it by default.

Synopsis

- Create a new role with one or more privileges:

```
create role role [description description]
[privilege privilege[,privilege...]]
```

Parameters

- *description* – A description for the new role.
- *privilege* – The name of a privilege to add to the role. Use the `show privilege all` command to list all the available privileges. You can also use the `add role` command to add more privileges later.
- *role* – A name for the new role.

create update

This command copies an OS update to the N1 System Manager. You can then install the OS update on the servers.

Description

You can copy various types of OS updates: RPMs for the Linux operating systems and packages or patches for the Solaris Operating System. By default, the `load` command installs an OS update using the corresponding native OS commands. However, you can specify an installation script to override the default installation and perform a customized installation. See "Managing Packages, Patches and RPMs" in *Sun N1 System Manager Administration Guide* for more information.

Synopsis

- Copy a standard Linux RPM, Solaris package, or Solaris patch:

```
create update update file file ostype ostype[,ostype...][adminfile adminfile]
[installscriptfile installscriptfile] [responsefile responsefile]
```

- Copy a non-standard file to be used with an installation script for a custom OS update installation:

```
create update update updatetype other file file ostype ostype[,ostype...]
installscriptfile installscriptfile [adminfile adminfile] [description description]
[release release] [responsefile responsefile] [vendor vendor] [version version]
```

Parameters

- *adminfile* – (Solaris package only) A fully qualified path to an admin file.
- *description* – A description for the OS update, which is typically the standard name of the package, patch, or RPM.
- *file* – A fully qualified path to a Linux RPM, Solaris package, or Solaris patch file accessible from the management server or a URL. When `updatetype other` is not specified, the following sources are allowed:
  - Linux RPM – A single `.rpm` file.
  - Solaris package – A `.pkg` file in a valid datastream format, which may include one or more packages. The `.pkg` extension is not required. You can also specify a `.tar` file, which may include one or more packages. An installation script must be specified for a `.tar` file that contains more than one package.

    If an installation script is not used, the `.tar` file must match the top-level directory name after the tar expansion. For example, if the tar file is `SUNWstade.tar`, the top-level directory of the tar expansion must be `SUNWstade`.
  - Solaris patches – A `*.zip` file, which may include one patch.

  Examples: `/tmp/test-i386.rpm` or `http://updatesite1/rpms/test-i386.rpm`
- *ostype* – A list of OS versions compatible with the OS update. The specified OS type must match the type of OS updates being added. Typically, only one OS type is valid for Solaris OS updates. Valid values are:
  - `redhat-as3` – Red Hat Enterprise Linux AS 3.0
  - `redhat-as3-64` – Red Hat Enterprise Linux AS 3.0, 64-bit
  - `redhat-as4`– Red Hat Enterprise Linux AS 4.0
  - `redhat-as4-64` – Red Hat Enterprise Linux AS 4.0, 64-bit
  - `redhat-es3` – Red Hat Enterprise Linux ES 3.0
  - `redhat-es3-64` – Red Hat Enterprise Linux ES 3.0, 64-bit
  - `redhat-es4` – Red Hat Enterprise Linux ES 4.0
  - `redhat-es4-64` – Red Hat Enterprise Linux ES 4.0, 64-bit
  - `redhat-ws3` – Red Hat Enterprise Linux WS 3.0
  - `redhat-ws3-64` – Red Hat Enterprise Linux WS 3.0, 64-bit
  - `redhat-ws4` – Red Hat Enterprise Linux WS 4.0
  - `redhat-ws4-64` – Red Hat Enterprise Linux WS 4.0, 64-bit
  - `solaris9sparc` – Solaris 9 7/05 on SPARC
  - `solaris9x86` – Solaris 9 7/05 on x86
  - `solaris10sparc` – Solaris 10 on SPARC
  - `solaris10x86` – Solaris 10 on x86
  - `suse-es9` – SUSE Linux Enterprise Server 9
  - `suse-es9-64` – SUSE Linux Enterprise Server 9, 64-bit
  - `suse-pro92` – SUSE Professional Edition 9.2
  - `suse-pro92-64` – SUSE Professional Edition 9.2, 64-bit
  - `suse-pro93` – SUSE Professional Edition 9.3
  - `suse-pro93-64` – SUSE Professional Edition 9.3, 64-bit

- *installscriptfile* – A fully qualified path to an executable Bourne (`/bin/sh`) shell script used to install packages, patches, or RPMs. When you specify an installation script, the `load` command used to install the OS update copies both the OS update file and the installation script to the managed server's `/tmp` directory for the installation. This behavior enables you to perform customized installations with your packages, patches, or RPMs.

  If you specify the `updatetype other` attribute, the `installscript` is required and you can copy any type of source file, such as `.tgz`, `.tar`, `.Z`, or `.zip`.
- *release* – The release of the OS update, which usually refers to the build number of the version.
- *responsefile* – (Solaris package only) A fully qualified path to a response file.
- *update* – A name for the OS update.
- `updatetype other` – Indicates that the *file* source is not a known format for N1 System Manager, and you must specify the `installscriptfile` attribute to perform the OS update installation. When you specify this attribute, the OS update's metadata is not automatically extracted and the `description`, `vendor`, and `version` attribute values will be empty unless you provide the information.
- *vendor* – The name of the OS update vendor.
- *version* – The version of the OS update.

create user

This command creates a new N1 System Manager user.

Description

The user must already exist on the OS of the management server. Unless roles are specified, a new user has no roles added to it by default.

Synopsis

- Create a new N1 System Manager user with one or more roles:

```
create user user [role role[,role...]]
```

Parameters

- *role* – The name of a role to add to the user. Use the `show role all` command to list all available valid roles. You can also use the `add user` command to add more roles later.
- *user* – The name for the new user. The name must be the same as the corresponding user on the management server's operating system.

delete

This command deletes an object from the N1 System Manager.

Description

The `delete` command can be used on the following objects: `application`, `applicationprofile`, `dhcpconfig`, `firmware`, `group`, `job`, `notification`, `os`, `osprofile`, `role`, `server`, `update`, and `user`.

Type `help delete` *object* for details.

delete application

This command deletes an application from the N1 System Manager.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned by N1 System Manager with this release.

An application cannot be deleted if it is currently deployed on a server.

Synopsis

- Delete the N1GE application from the N1 System Manager:

  `delete application` *application* `type n1ge`

Parameters

- *application* – The name of an application.

delete applicationprofile

This command deletes an application profile.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned by N1 System Manager with this release.

An N1GE application profile cannot be deleted if a master host installed with the profile has not been uninstalled.

Synopsis

- Delete an N1GE application profile from the N1 System Manager:

```
delete applicationprofile applicationprofile type n1ge
```

Parameters

- *applicationprofile* – The name of an application profile.

delete dhcpconfig

This command deletes a DHCP configuration from N1 System Manager.

Synopsis

- Delete a DHCP configuration:

```
delete dhcpconfig dhcpconfig
```

Parameters

- *dhcpconfig* – The name of a DHCP configuration.

delete firmware

This command deletes a firmware update from the N1 System Manager.

Synopsis

- Delete a firmware update.

```
delete firmware firmware
```

Parameters

- *firmware* – The name of a firmware update.

delete group

This command deletes a server group. This command will not delete the servers from the N1 System Manager.

Synopsis

- Delete a server group:

  ```
  delete group group
  ```

Parameters

- *group* – The name of a server group to delete.

delete job

This command deletes jobs.

Synopsis

- Delete a job:

  ```
  delete job job
  ```

- Delete all jobs:

  ```
  delete job all
  ```

Parameters

- `all` – Delete all jobs.
- *job* – A job identification number.

delete notification

This command deletes a notification rule.

Synopsis

- Delete a notification rule:

  ```
  delete notification notification
  ```

Parameters

- *notification* – The name of a notification rule to delete.

delete os

This command deletes an OS distribution from the N1 System Manager.

Description

An OS distribution can be deleted if it is currently deployed on a server. However, you cannot delete an OS distribution until all of its associated OS profiles are deleted from the management server by using the `delete osprofile` command.

Synopsis

- Delete an OS distribution:

```
delete os os
```

Parameters

- *os* – The name of an OS distribution to delete.

delete osprofile

This command deletes an OS profile.

Description

An OS profile can be deleted even if it is currently deployed on a server. However, you cannot delete a profile that is currently in use, which means it is actively being deployed on a server. Use the `show osprofile` command to see whether an OS profile is in use.

Synopsis

- Delete an OS profile:

```
delete osprofile osprofile
```

Parameters

- *osprofile* – The name of an OS profile to delete.

delete role

This command deletes a role. You cannot delete a role if it is assigned to a user.

Synopsis

- Delete a role:

```
delete role role
```

Parameters

- *role* – The name of a role to delete.

delete server

This command deletes servers from the N1 System Manager. The server will no longer appear in the list displayed using the `show server all` command.

Synopsis

- Delete all servers from the N1 System Manager:

```
delete server all
```

- Delete a server from the N1 System Manager:

```
delete server server
```

Parameters

- `all` – Delete all servers from the N1 System Manager.
- *server* – The management name of a server.

delete update

This command deletes an OS update from the N1 System Manager.

Synopsis

- Delete an OS update:

```
delete update update
```

Parameters

- *update* – The name of an OS update to delete.

delete user

This command deletes an N1 System Manager user. This command does not delete the user from the OS of the management server.

Synopsis

- Delete a N1 System Manager user:

```
delete user user
```

Parameters

- *user* – The name of a user to delete.

discover

This command discovers and adds new servers to be managed by the N1 System Manager.

Description

See the *Sun N1 System Manager Site Preparation Guide* for information about setting up a new server for discovery.

You can discover a server in three different ways: management network interface (SP-based discovery), provisioning network interface (OS-based discovery), or MAC address (manual discovery).

For SP-based discovery, each hardware platform requires a minimum set of credentials to be discovered. See the *Sun N1 System Manager Site Preparation Guide* for the list of system-specific default credentials that the discovery process uses if you do not specify credentials.

Note that the available N1 System Manager features for a server depend on how the server is discovered. Refer to the "Discovering Servers" chapter in *Sun N1 System Manager Discovery and Administration Guide* for more information.

Synopsis

- Discover servers through their management network interface (SP-based discovery):

```
discover ip[,ip...] format ip [group group] [ipmi ipmi] [snmp snmp] [ssh ssh]
[telnet telnet]
```

- Discover servers through their provisioning network interface (OS-based discovery):

```
discover ip[,ip...] format ip ssh ssh [group group] [ipmi ipmi] [snmp snmp]
[telnet telnet]
```

- Discover servers through their MAC addresses (manual discovery):

  `discover` *file* `format file [group` *group*`]`

Parameters

- *file* – Specify a fully qualified path to an XML file containing server MAC addresses. For details about creating this file, refer to the "Discovering Servers" chapter in the *Sun N1 System Manager Discovery and Administration Guide*.
- `format` – The type of discovery to perform. Valid values are `ip` and `file`.
- *ip* – Specify the management or provisioning network IP addresses of the servers you want to discover. You can specify multiple instances of *ip*, separated by commas, in one of the following ways:
  - *ip-address* – A single IP address.
  - *ip-address–ip-address* – A range of IP addresses. Example: `10.5.10.1-10.5.10.100`
  - *subnet/mask-length* – A subnet with a mask length. Example: `10.0.8/24` or `10.0.8.128/28`
- *group* – The name of a server group in which to add the discovered servers. If the server group does not exist, it will be created during the discovery.
- *ipmi* – Specify the IPMI credentials used to authenticate the discovery process based on the server's network IP address. The *ipmi* value is an IPMI user name/password pair. If IPMI credentials are not specified and a Sun Fire V20z or Sun Fire V40z server is in the factory default state, the discovery process sets the server's IPMI user/password to `Null/admin`. The default IPMI credentials used for discovery depend on your server model.

  You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *snmp* – Specify the SNMP credentials used to authenticate the discovery process based on the server's network IP address. The *snmp* format is a read community string for the SNMP credentials. The default SNMP read community string is `public`.
- *ssh* – Specify the SSH credentials used to authenticate the discovery process based on the server's network IP address. The *ssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. If SSH credentials are not specified and a Sun Fire V20z or Sun Fire V40z server is in the factory default state, the discovery process sets the server's SSH user name/password to `admin/admin`. The default SSH credentials used for discovery depend on your server model.

  You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *telnet* – Specify the telnet credentials used to authenticate the discovery process based on server's network IP address. The telnet credential is used only by ALOM-based systems. The *telnet* format is a user name/password pair for telnet credentials: *telnet-username*/*telnet-password*. The default telnet credentials used for discovery depend on your server model.

  You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.

exit

This command exits you out of the N1–ok> shell. If the N1–ok> shell is your default shell, you will be logged out of the N1 System Manager completely; otherwise, you will be returned to your previous shell on the management server.

Synopsis

- Exit the N1-ok> shell.

```
exit
```

load

This command installs software on servers.

Description

The load command installs an OS distribution (using an OS profile), firmware update, OS update (packages, patches, and RPMs), or application (using an application profile). The load command can be used on the following objects: group and server.

Type help load *object* for details.

load group

This command installs software on a group of servers, such as an OS distribution (through an OS profile), OS update, firmware update, or application (through an application profile).

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager.

Synopsis

- Install a Solaris OS profile on a group of servers:

```
load group group osprofile osprofile ip ip networktype static
[excludeserver server[,server...]
[feature feature agentssh agentssh [agentsnmp agentsnmp] [agentsnmpv3 agentsnmpv3]]
[unix-configuration-attributes]
```

- Install a Red Hat Linux or SUSE Linux OS profile on a group of servers:

```
load group group osprofile osprofile bootip bootip networktype networktype
[ip ip] [excludeserver server[,server...]
[feature feature agentssh agentssh [agentsnmp agentsnmp] [agentsnmpv3 agentsnmpv3]]
[unix-installation-attributes] [unix-configuration-attributes]
```

- Install a Windows OS profile on a group of servers:

```
load group group osprofile osprofile networktype networktype [ip ip]
[excludeserver server[,server...]
[windows-installation-attributes]
```

- Configure a group of servers as diskless clients:

```
load group group osprofile osprofile bootip bootip
[excludeserver server[,server...]
[diskless-client-installation-attributes]
```

- Install an OS update on a group of servers:

```
load group group update update[,update...]
```

- Install a firmware update on a group of servers:

```
load group group firmware firmware [force]
```

- Install the N1GE application on a group of servers:

```
load group group[,group...] applicationprofile applicationprofile
type n1ge hosttype [hosttype]
```

Parameters

- *agentssh* – Specify the SSH credentials used for the management features on the server, including OS monitoring. The SSH user must have root access on the servers. The *agentssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *agentsnmp* – Specify the SNMP credentials used for OS monitoring on the server. The *agentsnmp* format is a read community string.
- *agentsnmpv3* – Specify the SNMP Version 3 credentials used for OS monitoring on the server. The *agentsnmpv3* format is a user name/password pair: *snmpv3-username*/*snmpv3-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *applicationprofile* – The name of an application profile.
- *bootip* – (Linux only) The IP address for the server's provisioning network interface used to install the server, also known as the Provisioning IP. You can specify a range of IP addresses or a subnet mask. Specify a range of IP addresses as follows: *ip-address-ip-address*. Example: `10.0.0.1–10.0.0.3`

- `excludeserver` – Exclude one or more servers from the installation. *server* is the management name of a server.
- `feature` *feature* – Add management features to the servers as part of the installation. The `agentssh` attribute must be specified with the `feature` attribute. The server's agentip is set automatically to the *ip* attribute value during the load process. Valid values are:
  - `basemanagement` – Add the base management feature, which is required for OS update deployment and remote commands.
  - `osmonitor` – Add the OS monitoring feature, which also includes the base management feature. The OS monitoring feature is required to monitor a server's OS resource health state. See the `show server` command for more information.
- *firmware* – The name of a firmware update. By default, the firmware update's model and vendor settings must match every server selected for installation. If the settings do not match, the update fails.
- `force` – Force the firmware update installation without server validation.
- *group* – The name of a server group.
- *hosttype* – The type of N1 Grid Engine host to install. Valid values are:
  - `compute` – Compute host (also called execution host)
  - `submit` – Submit host (also called access host)
- *ip* – The IP address assigned to the server's provisioning network interface after the server is installed. This IP address is automatically used as the *bootip* (Provisioning IP) when installing the Solaris operating system. This attribute is required only if *networktype* is set to `static`. You can specify a range of IP addresses or a subnet mask. Specify a range of IP addresses as follows: *ip-address-ip-address* (Example: `10.0.0.1–10.0.0.3`).
- *networktype* – Specify how to assign an IP address to the server's provisioning network interface after the server is installed. Valid values are `static` or `dhcp`. If *networktype* is set to `static`, the *ip* attribute must be specified.
- *osprofile* – The name of an OS profile used to install the OS.
- *update* – The name of an OS update. If you specify more than one OS update, the updates must be the same OS type and ordered properly for any dependency issues. The OS updates will be installed in the order listed.

UNIX INSTALLATION ATTRIBUTES

The following attributes are temporarily used to boot and install the servers. The N1 System Manager provides default values for all of these attributes.

- `bootgateway` *bootgateway* – (Linux only) A gateway used to install the servers.
- `bootnameserver` *bootnameserver* – (Linux only) A name server used to install the servers.
- `bootnetmask` *bootnetmask* – (Linux only) A netmask used to install the servers.

- `bootnetworkdevice` *bootnetworkdevice* – (Linux only) The server's provisioning network interface is used to install the server. Valid Solaris values are `bge0` (default), `bge1`, `bge2`, and `bge3`. Valid Linux values are `eth0` (default), `eth1`, `eth2`, `eth3`, and `eth4`. Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *bootnetworkdevice* value must be set to `eth1`. The default value does not work for this situation.
- `console` *console* – The device name for the server's system console, which may be used to monitor the installation. Default is `ttys0` (Linux) and `ttya` (Solaris).
- `consolebaud` *consolebaud* – The baud rate for the server's system console. Default is `9600`.
- `installprotocol` *installprotocol* – The protocol used to install the server. The HTTP protocol is typically faster. Valid values are `http` (default) and `nfs`.

UNIX CONFIGURATION ATTRIBUTES

The following attributes are used to configure the server's network information during the installation. The N1 System Manager provides default values for all of these attributes.

- `domainname` *domainname* – (Solaris only) A domain assigned to the installed servers. If you do not specify this attribute, the management server domain will be used or `sun.com`.
- `gateway` *gateway* – A gateway assigned to the installed servers.
- `kernelparameter` *kernelparameter* – (Linux only) A parameter passed to the kernel during the install process.
- `manualnetboot` *manualnetboot* – Specify whether to enable manual netboot. Enabling manual netboot allows you to control the netboot process, which is required as part of the bootstrapping process to provision an OS on a server. A manual netboot is required for OS-based or manually discovered servers, since the N1 System Manager is not able to automatically netboot these systems. Valid values are `true` and `false` (default).
- `nameserver` *nameserver* – A name server assigned to the installed servers.
- `netmask` *netmask* – A netmask assigned to the installed servers.
- `networkdevice` *networkdevice* – (Linux only) The server's provisioning network interface after the server is installed. Default is `eth0` Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *networkdevice* value must be set to `eth1`. The default value does not work for this situation.

WINDOWS INSTALLATION ATTRIBUTES

- `gateway` *gateway* – A gateway assigned to the installed server.
- `manualnetboot` *manualnetboot* – Specify whether to enable manual netboot. Enabling manual netboot allows you to control the netboot process, which is required as part of the bootstrapping process to provision an OS on a server. A manual netboot is required for OS-based or manually discovered servers, since the N1 System Manager is not able to automatically netboot these systems. Valid values are `true` and `false` (default).
- `netmask` *netmask* – A netmask assigned to the installed server.
- `productkey` *productkey* – Use this product key value instead of the value specified in the OS profile.

DISKLESS CLIENT INSTALLATION ATTRIBUTES

- `bootgateway` *bootgateway* – (Linux only) A gateway used to install the server.
- `boothostname` *boothostname* – (Single server and Linux only) A host name used to install the server.
- `bootnameserver` *bootnameserver* – (Linux only) A name server used to install the server.
- `bootnetmask` *bootnetmask* – (Linux only) A netmask used to install the server.
- `bootnetworkdevice` *bootnetworkdevice* – The server's provisioning network interface used to install the server. Valid Solaris values are `bge0` (default), `bge1`, `bge2`, and `bge3`. Valid Linux values are `eth0` (default), `eth1`, `eth2`, `eth3`, and `eth4`. Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *bootnetworkdevice* value must be set to `eth1`. The default value does not work for this situation.
- `console` *console* – The device name for the server's system console, which may be used to monitor the installation. Default is `ttys0` (Linux) and `ttya` (Solaris).
- `consolebaud` *consolebaud* – The baud rate for the server's system console. Default is `9600`.
- `nfsroot` *nfsroot* – The location of the NFS root, such as `10.0.0.115:/my_roots/sol_a`. You can specify a comma-separated list of paths, or you can specify a range of paths as follows: `10.1.10.1:/diskless/home/1–40`. When specifying a range of paths, the nfsroot directory names must be numbers. This attribute is not required for initrd-based diskless clients.

load guidconfig

This command provides a way to set the GUID on a large number of Windows systems.

Synopsis

- Set the GUID on the specified servers:

  ```
  load guidconfig file file
  ```

Parameters

- *file* – A fully qualified path to a file containing a list of server management names with associated GUIDs in the following format:*server-management-name*,*GUID*

  Example of a GUID: 5D607F6A-AF48-4003–AFA8–69E019A4496F

load server

This command installs software on servers, such as an OS distribution (through an OS profile), OS update, firmware update, or application (through an application profile).

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager.

Synopsis

- Install a Solaris OS profile on one or more servers:

  ```
  load server server[,server...] osprofile osprofile ip ip networktype static
  [feature feature agentssh agentssh [agentsnmp agentsnmp] [agentsnmpv3 agentsnmpv3]]
  [unix-installation-attributes] [unix-configuration-attributes]
  ```

- Install a Red Hat Linux or SUSE Linux OS profile on one or more servers:

  ```
  load server server[,server...] osprofile osprofile bootip bootip
  networktype networktype [ip ip]
  [feature feature agentssh agentssh [agentsnmp agentsnmp] [agentsnmpv3 agentsnmpv3]]
  [unix-installation-attributes] [unix-configuration-attributes]
  ```

- Install a Windows OS profile on one or more servers:

  ```
  load server server[,server...] osprofile osprofile networktype networktype [ip ip]
  [windows-installation-attributes]
  ```

- Configure one or more servers as diskless clients:

  ```
  load server server[,server...] osprofile osprofile bootip bootip
  [diskless-client-installation-attributes]
  ```

- Install OS updates on one or more servers:

  ```
  load server server[,server...] update update[,update...]
  ```

- Install a firmware update on one or more servers:

  ```
  load server server[,server...] firmware firmware [force]
  ```

- Install the N1GE application on one or more servers:

  ```
  load server server[,server...] applicationprofile applicationprofile
  type n1ge hosttype [hosttype]
  ```

Parameters

- *agentssh* – Specify the SSH credentials used for the management features on the server, including OS monitoring. The SSH user must have root access on the server. The *agentssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.

- *agentsnmp* – Specify the SNMP credentials used for OS monitoring on the server. The *agentsnmp* format is a read community string.
- *agentsnmpv3* – Specify the SNMP Version 3 credentials used for OS monitoring on the server. The *agentsnmpv3* format is a user name/password pair: *snmpv3-username*/*snmpv3-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *applicationprofile* – The name of an application profile.
- *bootip* – (Linux only) The IP address for the server's provisioning network interface used to install the server, also known as the Provisioning IP. You can specify a single IP address, a range of IP addresses, or subnet mask if you are installing more than one server. Specify a range of IP addresses as follows: *ip-address-ip-address* Example: `10.0.0.1–10.0.0.3`
- `feature` *feature* – Add management features to the server as part of the installation. The `agentssh` attribute must be specified with the `feature` attribute. The server's agentip is set automatically to the *ip* attribute value during the load process. Valid values are:
  - `basemanagement` – Add the base management feature, which is required for OS update deployment and remote commands.
  - `osmonitor` – Add the OS monitoring feature, which also includes the base management feature. The OS monitoring feature is required to monitor a server's OS resource health state. See the `show server` command for more information.
- *firmware* – The name of a firmware update. By default, the firmware update's model and vendor settings must match every server selected for installation; otherwise, the update fails.
- `force` – Force the firmware update installation without server validation.
- *hosttype* – The type of N1 Grid Engine host to install. Valid values are:
  - `compute` – Compute host (also called execution host)
  - `master` – Master host
  - `submit` – Submit host (also called access host)
- `gateway` *gateway* – A gateway assigned to the installed server.
- *ip* – The IP address assigned to the server's provisioning network interface after the server is installed. This IP address is automatically used as the *bootip* (Provisioning IP) when installing the Solaris operating system. This attribute is required only if *networktype* is set to `static`. You can specify a single IP address, a range of IP addresses, or a subnet mask if you are installing more than one server. Specify a range of IP addresses as follows: *ip-address-ip-address* (Example: `10.0.0.1–10.0.0.3`).
- `netmask` *netmask* – A netmask assigned to the installed server.
- *networktype* – Specify how to assign an IP address to the server's provisioning network interface after the server is installed. Valid values are `static` or `dhcp`. If *networktype* is set to `static`, the *ip* attribute must be specified.
- *osprofile* – The name of an OS profile used to install the OS.
- *server* – The management name of a server.

- *update* – The name of an OS update. If you specify more than one OS update, the updates must be the same OS type and ordered properly for any dependency issues. The OS updates will be installed in the order listed.

UNIX INSTALLATION ATTRIBUTES

The following attributes are temporarily used to install one or more servers. Some attributes can be specified only when installing a single server. The N1 System Manager provides default values for all the attributes that are not single-server specific.

- `bootgateway` *bootgateway* – (Linux only) A gateway used to install the server.
- `boothostname` *boothostname* – (Single server and Linux only) A host name used to install the server.
- `bootnameserver` *bootnameserver* – (Linux only) A name server used to install the server.
- `bootnetmask` *bootnetmask* – (Linux only) A netmask used to install the server.
- `bootnetworkdevice` *bootnetworkdevice* – The server's provisioning network interface used to install the server. Valid Solaris values are `bge0` (default), `bge1`, `bge2`, and `bge3`. Valid Linux values are `eth0` (default), `eth1`, `eth2`, `eth3`, and `eth4`. Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *bootnetworkdevice* value must be set to `eth1`. The default value does not work for this situation.
- `bootpath` *bootpath* – (Single server, Solaris x86 only) The server's provisioning boot device used to install the server. This attribute supersedes the `bootnetworkdevice` value, if specified. Valid values are:
  - `/pci@0,0/pci1022,7450@a/pci17c2,10@2` – Sun Fire V20z, `bge0` (default)
  - `/pci@0,0/pci1022,7450@a/pci17c2,10@3` – Sun Fire V20z, `bge1`
  - `/pci@0,0/pci1022,7450@a/pci17c2,20@2` – Sun Fire V40z, `bge0` (default)
  - `/pci@0,0/pci1022,7450@a/pci17c2,20@3` – Sun Fire V40z, `bge1`
  - `/pci@0,0/pci1022,7450@1/pci8086,1011@1` – Sun Fire X4000 series, `bge0` (default)
  - `/pci@0,0/pci1022,7450@1/pci8086,1011@1,1` – Sun Fire X4000 series, `bge1`
  - `/pci@0,0/pci1022,7450@1/pci8086,1011@2` – Sun Fire X4000 series, `bge2`
  - `/pci@0,0/pci1022,7450@1/pci8086,1011@2,1` – Sun Fire X4000 series, `bge3`
  - `/pci@0,0/pci108e,5348@a` – Sun Fire X2100, `bge0` (default)
- `console` *console* – The device name for the server's system console, which may be used to monitor the installation. Default is `ttys0` (Linux) and `ttya` (Solaris).
- `consolebaud` *consolebaud* – The baud rate for the server's system console. Default is `9600`.
- `installprotocol` *installprotocol* – The protocol used to install the server. The HTTP protocol is typically faster. Valid values are `http` (default) and `nfs`.
- `kernelparameter` *kernelparameter* – (Linux only) A parameter passed to the kernel during the install process.

UNIX CONFIGURATION ATTRIBUTES

The following attributes are used to configure the server's network information during the installation. Some attributes can be specified only when installing a single server. The N1 System Manager provides default values for all the attributes that are not single-server specific.

- `domainname` *domainname* – (Solaris only) A domain assigned to the installed server. If you do not specify this attribute, the management server domain will be used or `sun.com`.
- `gateway` *gateway* – A gateway assigned to the installed server.
- `hostname` *hostname* – (Single server only) A host name assigned to the installed server.
- `manualnetboot` *manualnetboot* – Specify whether to enable manual netboot. Enabling manual netboot allows you to control the netboot process, which is required as part of the bootstrapping process to provision an OS on a server. A manual netboot is required for OS-based or manually discovered servers, since the N1 System Manager is not able to automatically netboot these systems. Valid values are `true` and `false` (default).
- `nameserver` *nameserver* – A name server assigned to the installed server.
- `netmask` *netmask* – A netmask assigned to the installed server.
- `networkdevice` *networkdevice* – (Linux only) The server's provisioning network interface after the server is installed. Default is `eth0`. Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *networkdevice* value must be set to `eth1`. The default value does not work for this situation.

WINDOWS INSTALLATION ATTRIBUTES

- `gateway` *gateway* – A gateway assigned to the installed server.
- `manualnetboot` *manualnetboot* – Specify whether to enable manual netboot. Enabling manual netboot allows you to control the netboot process, which is required as part of the bootstrapping process to provision an OS on a server. A manual netboot is required for OS-based or manually discovered servers, since the N1 System Manager is not able to automatically netboot these systems. Valid values are `true` and `false` (default).
- `netmask` *netmask* – A netmask assigned to the installed server.
- `productkey` *productkey* – Use this product key value instead of the value specified in the OS profile.

DISKLESS CLIENT INSTALLATION ATTRIBUTES

- `bootgateway` *bootgateway* – (Linux only) A gateway used to install the server.
- `boothostname` *boothostname* – (Single server and Linux only) A host name used to install the server.
- `bootnameserver` *bootnameserver* – (Linux only) A name server used to install the server.
- `bootnetmask` *bootnetmask* – (Linux only) A netmask used to install the server.
- `bootnetworkdevice` *bootnetworkdevice* – The server's provisioning network interface used to install the server. Valid Solaris values are `bge0` (default), `bge1`, `bge2`, and `bge3`. Valid Linux values are `eth0` (default), `eth1`, `eth2`, `eth3`, and `eth4`. Note that when installing the Red Hat 4 OS on Sun Fire X2100 servers, the *bootnetworkdevice* value must be set to `eth1`. The default value does not work for this situation.

- `console` *console* – The device name for the server's system console, which may be used to monitor the installation. Default is `ttys0` (Linux) and `ttya` (Solaris).
- `consolebaud` *consolebaud* – The baud rate for the server's system console. Default is `9600`.
- `nfsroot` *nfsroot* – The location of the NFS root, such as `10.0.0.115:/my_roots/sol_a`. You can specify a comma-separated list of paths, or you can specify a range of paths as follows: `10.1.10.1:/diskless/home/1–40`. When specifying a range of paths, the nfsroot directory names must be numbers. This attribute is not required for initrd-based diskless clients.

remove

This command removes a member from an object or group.

Description

The `remove` command can be used on the following objects: `group`, `osprofile`, `role`, `server`, and `user`.

Type `help remove` *object* for details.

remove group

This command removes servers from a server group.

Synopsis

- Remove one or more servers from a server group:

  ```
  remove group group server server[,server...]
  ```

- Remove all servers from a server group:

  ```
  remove group group server all
  ```

Parameters

- `all` – Remove all servers from a server group.
- *group* – The name of a server group.
- *server* – The management name of a server to remove.

remove osprofile

This command removes a distribution group, disk partition, OS update, or a custom installation script from an OS profile.

Description

You cannot run this command against a profile that is currently in use, which means it is actively being deployed on a server. Use the `show osprofile` command to see whether an OS profile is in use.

Synopsis

- Remove a distribution group from an OS profile:

  `remove osprofile` *osprofile* `distributiongroup` *distributiongroup*
- Remove a disk partition information from an OS profile:

  `remove osprofile` *osprofile* `partition` *partition*
- Remove an OS update from an OS profile:

  `remove osprofile` *osprofile* `update` *update*
- Remove a custom installation script from an OS profile:

  `remove osprofile` *osprofile* `script` *script*

Parameters

- *distributiongroup* – The name of a distribution group (group of packages) to remove.
- *osprofile* – The name of an OS profile.
- *partition* – The mount point name for the disk partition to remove.
- *script* – The name of the custom installation script to remove.
- *update* – The name of the OS update to remove.

remove role

This command removes privileges from a role.

Synopsis

- Remove one or more privileges from a role:

  `remove role` *role* `privilege` *privilege*`[,`*privilege*`...]`
- Remove all privileges from a role:

  `remove role` *role* `privilege all`

Parameters

- `all` – Remove all privileges from the role.
- *role* – The name of a role. You cannot remove privileges from the system default roles: `Admin`, `SecurityAdmin`, and `ReadOnly`. These roles are predefined and cannot be modified.
- *privilege* – The name of a privilege to remove from the role.

remove server

This command removes the OS monitoring or base management feature from a server.

Description

This command provides two levels of removing the OS monitoring feature with this command. If you don't specify the `uninstall` keyword, the OS monitoring feature remains installed on the server but the feature is no longer supported and the server's OS can no longer be monitored with N1 System Manager. If you specify the `uninstall` keyword, the OS monitoring feature is uninstalled from the server and consequently the OS monitoring feature is no longer supported.

When you remove the base management feature, the feature is uninstalled from the server and it is no longer supported. The OS monitoring feature must be uninstalled from a server before the base management feature can be removed.

After you remove a feature, you can always use the `add server` command to add the feature back again. The `Base Management Supported` and `OS Monitoring Supported` fields in the `show server` output provide the current status of a server's features.

Synopsis

- Remove the OS monitoring feature from a server:

  ```
  remove server server feature osmonitor [uninstall]
  ```

- Remove the base management feature from a server:

  ```
  remove server server feature basemanagement
  ```

Parameters

- `basemanagement` – Uninstall the base management feature from the server. The OS monitoring feature must be uninstalled on a server before the base management feature can be removed.
- `osmonitor` – Remove support for the OS monitoring feature on the server.
- *server* – The management name of a server.
- `uninstall` – Uninstall the OS monitoring feature from the server.

remove user

This command removes roles from a user.

Synopsis

- Remove one or more roles from a user:

```
remove user user role role[,role...]
```

- Remove all roles from a user:

```
remove user user role all
```

Parameters

- `all` – Remove all the roles from the specified user.
- *role* – The name of a role to remove from the user. Use the `show user` *user* command to list all the roles currently assigned to a user.
- *user* – The name of a user.

reset

This command reboots servers.

Description

The `reset` command can be used on the following objects: `group` and `server`.

Type `help reset` *object* for details.

reset group

This command reboots (power off and power on) a group of servers. A boot of the operating system typically, which is dependent on the server's configuration.

Synopsis

- Reboot a group of servers:

```
reset group group [force] [netboot]
```

Parameters

- `force` – Force a power off without a graceful shutdown. If not specified, a graceful shutdown is attempted by default. This option must be used to power off servers without an OS installed or servers without the base management feature added.
- *group* – The name of a server group.
- `netboot`– Force the servers in the group to boot from their default network boot interface. This option enables you to install your servers over the network using an install server setup, which must be configured outside the N1 System Manager environment.

reset server

This command reboots (power off and power on) servers. A boot of the operating system typically occurs, which is dependent on the server's configuration.

Synopsis

- Reboot one or more servers:

```
reset server server[,server...] [force] [netboot]
```

- Reboot all servers:

```
reset server all [force] [netboot]
```

Parameters

- `all` – Reboot all servers.
- `force` – Force a power off without a graceful shutdown. If not specified, a graceful shutdown is attempted by default. This option must be used to power off servers without an OS installed or servers without the base management feature added.
- `netboot`– Force the servers to boot from their default network boot interface. This option enables you to install your servers over the network using an install server setup, which must be configured outside the N1 System Manager environment.
- *server* – The management name of a server.

set

This command changes the attributes on an object or group.

Description

The `set` command can be used on the following objects: `applicationprofile`, `dhcpconfig`, `firmware`, `group`, `notification`, `os`, `osprofile`, `role`, `server`, `session`, `user`, and `module`.

Type `help set` *object* for details.

set applicationprofile

This command changes the configuration of an application profile.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager.

If an N1GE application profile is currently installed and the N1GE master host is one of servers managed by N1 System Manager, you can change only the following attributes: `loadcritical`, `loadwarning`, `maxpentime`, `memcritical`, and `memwarning`. If the N1GE master host is not managed by N1 System Manager, then you can change only the `proxyhost` attribute.

Synopsis

- Change the configuration of an N1GE application profile.

  `set applicationprofile` *applicationprofile* `type n1ge` *N1GE-attributes*

Parameters

- *applicationprofile* – The name of an application profile.

N1GE ATTRIBUTES

- `adminhomedir` *adminhomedir* – The home directory of the N1GE admin user. Default value is `/gridware/sge`.
- `adminuid` *adminuid* – The UID of the N1GE admin user. Default value is `218`.
- `adminusername` *adminusername* – The user name of the N1GE admin user. Default value is `sgeadmin`.
- `execdport` *execdport* – The TCP port to use for the N1GE `execd` daemon. Default value is `837`.
- `instversion` *instversion* – The version of N1GE that will be deployed on the compute and submit hosts. There is no default value.
- `lnxnfsmtopts` *lnxnfsmtopts* – The options used when mounting the "common" directory onto a Linux compute or submit host. The value in this field is inserted into the Linux `/etc/fstab` file on each host as: *nfsservername*`:`*nfsmountpoint nfsmountpoint* **`nfs`** *lnxnfsmtopts* **`0 0`**. Default value is `intr,softload`. This value cannot contain spaces.

- `loadcritical` *loadcritical* – Use this parameter to specify the load critical threshold. If this threshold is exceeded, a load critical alert appears in the Monitor. Similar to the Load Warning parameter, you set this parameter in terms of the system load scaled by number of CPUs. Default value is `3.00`.
- `loadwarning` *loadwarning* – Use this parameter to specify the load warning threshold. If this threshold is exceeded, a load warning alert appears in the Monitor. The value is in terms of system load, as reported by the OS, divided by the number of CPUs. Default value is `1.00`.
- `masterport` *masterport* – The TCP port to use for the N1GE `qmaster` daemon. Default value is `836`.
- `maxpendtime` *maxpendtime* – Use this parameter to specify the amount of time that a job spends pending after which a Job Pending alert appears in the Monitor. You set the value in hours. Default value is `24`.
- `memcritical` *memcritical* – Use this parameter to set the memory critical threshold. If the value drops below this threshold, a memory critical alert appears in the Monitor. You set the value in terms of megabytes of free virtual memory. Default value is `10`.
- `memwarning` *memwarning* – Use this parameter to set the memory warning threshold. If the value drops below this threshold, a memory warning alert appears in the Monitor. You set the parameter value in terms of megabytes of free virtual memory. Default value is `100`.
- `nfsmountpoint` *nfsmountpoint* – The directory that is mounted from the NFS server for the N1GE "common" directory. When deploying the master host using N1GE, this value is set automatically to *sgeroot*`/`*sgecell*`/common`. Once you deploy the master host, you cannot edit this value and it remains in effect for all further deployments of compute and submit hosts. You can edit this setting again only if you uninstall the master host. Default value is `/gridware/sge/default/common`.
- `nfsservername` *nfsservername* – The name of the NFS server from which all compute and submit hosts will mount the N1GE "common" directory. When you deploy the master host using N1GE, this parameter is set automatically to the master host. Once you deploy the master host, you cannot edit this value and it remains in effect for all further deployments of compute and submit hosts. You can edit this setting again only if you uninstall the master host. There is no default value.
- `proxyhost` *proxyhost* – Indicates the host on which monitoring commands are executed. If the master host has been previously deployed using N1GE, then the proxy host is set to this host and cannot be changed until the master is uninstalled. The host you chose must be an N1GE admin host; otherwise, installation and uninstallation of other hosts, as well as monitoring, could fail. There is no default value.
- `sgecell` *sgecell* – The N1GE cell name used for the deployment. Default value is `default`.
- `sgeroot` *sgeroot* – The root directory under which the N1GE files will be installed. The files will be installed on all hosts in this directory. Default value is `/gridware/sge`.
- `solnfsmtopts` *solnfsmtopts* – The options used when mounting the "common" directory onto a Solaris compute or submit host. The value in this field is inserted into the Solaris `/etc/vfstab` file on each host as: *nfsservername*`:`*nfsmountpoint nfsmountpoint* **`nfs -yes`** *solnfsmtopts*. There is no default value. This value cannot contain spaces.

set dhcpconfig

This command changes the settings for a DHCP configuration.

Synopsis

- Change the settings for a DHCP configuration:

```
set dhcpconfig dhcpconfig defaultgw defaultgw dns1 dns1 dns2 dns2 dns3 dns3
domain domain domain2 domain2 highip highip lowip lowip netmask netmask
network network
```

Parameters

- *defaultgw* – Specify the IP address of the default gateway.
- *dhcpconfig* – Change the name for the DHCP configuration.
- *dns1* – Specify the IP address of the first DNS server.
- *dns2* – Specify the IP address of the second DNS server.
- *dns3* – Specify the IP address of the third DNS server.
- *domain* –Specify the first domain name.
- *domain2* – Specify the second domain name.
- *highip* –Specify the IP address of the highest IP value available in the DHCP configuration.
- *lowip* – Specify the IP address of the lowest IP value available in the DHCP configuration.
- *netmask* – Specify the netmask for the DHCP configuration
- *network* – Specify the IP address of the base network for the DHCP configuration.

set firmware

This command changes the attributes of a firmware update.

Synopsis

- Change various attributes of a firmware update:

```
set firmware firmware [description description] [model model[,model]]
[name name] [type type] [vendor vendor] [version version]
```

Parameters

- *description* – A description for the firmware update.
- *firmware* – The name of a firmware update.
- *model* – The model name of a valid hardware system for the firmware update. Valid values are:
  - `NETRA-240` – Netra 240
  - `NETRA-440` – Netra 440
  - `SF-T1000` – Sun Fire T1000
  - `SF-T2000` – Sun Fire T2000
  - `SF-V210` – Sun Fire V210
  - `SF-V240` – Sun Fire V240
  - `SF-V250` – Sun Fire V250
  - `SF-V440` – Sun Fire V440
  - `V20z` – Sun Fire V20z
  - `V40z` – Sun Fire V40z
  - `X4100` – Sun Fire X4100
  - `X4200` – Sun Fire X4200
- *name* – A new name for the firmware update.
- *type* – Specify the type of firmware update. This attribute is required only for the Sun Fire V20z and Sun Fire V40z system firmware updates. Valid values are:
  - `BIOS` – Server platform BIOS
  - `PIC` – Service processor operator panel
  - `SP` – Service processor
- *vendor* – The name of the firmware update vendor. Valid value is `Sun`.
- *version* – The version number of the firmware update.

set group

This command changes the name of a server group, or changes the locator lights or monitoring status on a group of servers.

Synopsis

- Change the name of a server group:

  `set group` *group* `name` *name*
- Refresh the N1 System Manager with the latest settings and status of the group of servers:

  `set group` *group* `refresh`
- Enable or disable monitoring on a group of servers:

  `set group` *group* `monitored` *monitored-state*

- Turn the locator light on or off on a group of servers:

  ```
  set group group locator locator-state
  ```

- Set the threshold values for one or more OS monitoring attributes on a group of servers:

  ```
  set group group threshold threshold
  [criticallow value] [criticalhigh value] [warninglow value] [warninghigh value]
  ```

- Set the threshold values for the `fsusage.kbspacefree` file system monitoring attribute on a group of servers:

  ```
  set group group [filesystem filesystem] threshold fsusage.kbspacefree
  [criticallow value] [criticalhigh value] [warninglow value] [warninghigh value]
  ```

- Set the threshold values for the `fsusage.pctused` file system monitoring attribute on a group of servers:

  ```
  set group group [filesystem filesystem] threshold fsusage.pctused
  [criticallow value] [criticalhigh value] [warninglow value] [warninghigh value]
  ```

Parameters

- *filesystem*– Choose a file system for which to set one or more threshold values. Only the `fsusage.pctused` and `fsusage.kbspacefree` monitored attribute thresholds can be set for file systems. If no file system is specified, the thresholds are set for all file systems on all servers in the group. Example values are `/` and `/usr`.
- *group* – The name of a server group.
- *locator-state* – Turn the locator light on or off on the group of servers. Valid values are `true` (on) and `false` (off).
- *monitored-state* – Enable or disable monitoring on the group of servers. Valid values are `true` (enable) and `false` (disable)
- *name* – A new name for the server group.
- `refresh` – Refresh the management server with the latest settings and status of the group of servers. This status includes monitoring information, currently installed software, and other details.
- *threshold* – Choose OS or file system monitoring attribute for which to set one or more threshold values. Valid values are:
  - `cpustats.loadavg1min` – System load expressed as average number of queued processes over 1 minute.
  - `cpustats.loadavg5min` – System load expressed as average number of queued processes over 5 minutes.
  - `cpustats.loadavg15min` – System load expressed as average number of queued processes over 15 minutes.
  - `cpustats.pctusage` – Overall CPU usage percentage.

- `cpustats.pctidle` – Overall CPU idle percentage.
- `fsusage.kbspacefree` – Free file system space (Kbytes). Can be used with the `filesystem` attribute to set thresholds for a specific file system.
- `fsusage.pctused` – Percentage of file system space in use. Can be used with the `filesystem` attribute to set thresholds for a specific file system.
- `memusage.pctmemused` – Percentage of memory in use.
- `memusage.pctmemfree` – Percentage of memory free.
- `memusage.mbmemused` – Memory in use (Mbytes).
- `memusage.mbmemfree` – Memory free (Mbytes).
- `memusage.pctswapused` – Percentage of swap space in use.
- `memusage.mbswapfree` – Free swap space (Mbytes).
- `memusage.kbswapused` – Used swap space (Kbytes).

- *value*– Set a threshold value for an OS or file system monitoring attribute on the group of servers. Valid values for the `criticallow`, `criticalhigh`, `warninglow`, and `warninghigh` thresholds depend on the attribute. For attributes measuring percentages, the valid value range is 0–100. A value of `none` disables monitoring of the attribute for that threshold.

set notification

This command changes the name, description, or notification destination for a notification rule.

Synopsis

- Change the name, description, or notification destination for a notification group:

```
set notification notification [name name] [description description]
[destination destination]
```

Parameters

- *description* – A new description for the notification rule.
- *destination* – A new destination where the notification should be sent. The new destination must match the notification rule's *type*, which was set when the rule was created. Valid values are:
  - *email-addresses* – One or more email addresses separated by commas.
  - *script* – A fully qualified path to a custom script used to manage the notification.
  - *snmp-host*[:*port*] – An SNMP host. *snmp-host* is a valid SNMP host name and *port* is a valid port on the host.
- *name* – A new name for the notification rule.
- *notification* – The name of a notification rule.

set os

This command changes the name of an OS distribution.

Synopsis

- Change the name of an OS distribution.

  `set os` *os* `name` *name*

Parameters

- *name* – A new name for the OS distribution.
- *os* – The name of an OS distribution.

set osprofile

This command changes the configuration of an OS profile.

Synopsis

- Change the configuration of a Solaris OS profile.

  `set osprofile` *osprofile* [*solaris-profile-attributes*]
- Change the configuration of a Red Hat Linux OS profile.

  `set osprofile` *osprofile* [*redhat-profile-attributes*]
- Change the configuration of a SUSE Linux OS profile.

  `set osprofile` *osprofile* [*SUSE-profile-attributes*]
- Change the configuration of a Windows OS profile.

  `set osprofile` *osprofile* [*Windows-profile-attributes*]
- Change the configuration of a diskless client OS profile.

  `set osprofile` *osprofile* [*Diskless-client-profile-attributes*]

Parameters

- *osprofile* – The name of an OS profile.

SOLARIS PROFILE ATTRIBUTES

- `description` *description* – Specify a description for the OS profile.

- `flar` *flar* – Specify the name of a Flash archive file. A fully qualified path is required.
- `language` *language* – Specify the default language for the installation. Default value is `en_us`. Valid values for a Solaris profile are `C`, `en_US.ISO8859-15`, `en_US.ISO8859-1`, and `en_US`.
- `ldap` *ldap* – Configure LDAP on the server. Valid values are `true` and `false`.
- `ldapserver` *ldapserver* – Specify the name of an LDAP server.
- `ldapbasename` *ldapbasename* – Specify the base name of an LDAP server.
- `name` *name* – Change the name of the OS profile.
- `nis` *nis* – Enable NIS on the installed server. Valid values are `enabled` and `disabled`.
- `nisdomain` *nisdomain* – Specify a NIS domain for the installed server.
- `nisserver` *nisserver* – Specify a NIS server for the installed server, or set to `broadcast` for the installation to automatically find an available NIS server.
- `rootpassword` *rootpassword* – Change the root password for the installed server. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.
- `timezone` *timezone* – Specify the time zone for the installation. Default value is `gmt`. Valid values for a Solaris profile are provided by the directories and files in the `/usr/share/lib/zoneinfo` directory on a Solaris system. The `timezone` value is the name of the path relative to the `/usr/share/lib/zoneinfo` directory. For example, the `timezone` value for Mountain Standard Time in the United States is `US/Mountain`. The `timezone` value for Japan is `Japan`.

RED HAT LINUX PROFILE ATTRIBUTES

- `clearmbr` *clearmbr* – Clear the master boot record on server. Valid values are `true` and `false`.
- `description` *description* – Specify a description for the OS profile.
- `existingpartition` *existingpartition* – Action to take on existing partitions on the server during the installation. Valid values are:
  - `all` – Default value. Remove all existing partitions.
  - `linux` – Remove all Linux partitions.
  - `preserve` – Preserve all existing partitions.
- `initdisklabel` *initdisklabel* – Initialize disk label. If enabled, the first sector of disk that contains geometry and partition information will be initialized during the installation. Valid values are `true` and `false`.
- `language` *language* – Specify the default language for the installation. Default value is `en_us`. Valid values for a Red Hat profile are `cs_CZ`, `da_DK`, `de_DE`, `en_US`, `es_ES`, `fr_FR`, `is_IS`, `it_IT`, `ja_JP.eucJP`, `ko_KR.eucKR`, `nl_NL`, `no_NO`, `pt_PT`, `ru_RU.k0I8r`, `sl_SI`, `sv_SE`, `uk_UA`,`zh_CN.GB2312`, and `zh_TW.Big5`.
- `ldap` *ldap* – Configure LDAP on the server. Valid values are `true` and `false`.
- `ldapserver` *ldapserver* – Specify the name of an LDAP server.
- `ldapbasename` *ldapbasename* – Specify the base name of an LDAP server.

- `md5` *md5* – Enable MD5 checksum. If enabled, the integrity of the files and messages will be verified during the installation. Valid values are `true` and `false`.
- `name` *name* – Change the name of the OS profile.
- `nis` *nis* – Enable NIS on the installed server. Valid values are `enabled` and `disabled`.
- `nisdomain` *nisdomain* – Specify a NIS domain for the installed server.
- `nisserver` *nisserver* – Specify a NIS server for the installed server, or set to `broadcast` for the installation to automatically find an available NIS server.
- `rebootafterinstall` *rebootafterinstall* – Reboot system after install. Valid values are `true` and `false`.
- `rootpassword` *rootpassword* – Change the root password for the installed server. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.
- `shadowpassword` *shadowpassword* – Enable a shadow password. Valid values are `true` and `false`.
- `timezone` *timezone* – Specify the time zone for the installation. Default value is `gmt`. Valid values for a Red Hat profile are any of the time zones listed by the `timeconfig` command.

SUSE LINUX PROFILE ATTRIBUTES

- `description` *description* – Specify a description for the OS profile.
- `ftpproxy` *ftpproxy* – Specify an FTP proxy server for the installed server. The `proxy` attribute must be enabled for this attribute to be recognized. You can specify an IP address or host name of the HTTP proxy server and you must include the port number. If you specify a proxy server by its host name, your name server must be set up accordingly. Examples: `http://129.101.1.240:3128` or `http://proxy.provider.com:3128`
- `httpproxy` *httpproxy* – Specify an HTTP proxy server for the installed server. The `proxy` attribute must be enabled for this value to be recognized. You can specify an IP address or hostname of the HTTP proxy server. You must include the port number. If you specify a proxy server by its host name, your name server must be set up accordingly. Examples: `http://129.101.1.240:3128` or `http://proxy.provider.com:3128`
- `language` *language* – Specify the default language for the installation. Default value is `en_us`. Valid values for a SUSE profile are `cs_CZ`, `da_DK`, `de_DE`, `en_US`, `es_ES`, `fr_FR`, `is_IS`, `it_IT`, `ja_JP.eucJP`, `ko_KR.eucKR`, `nl_NL`, `no_NO`, `pt_PT`, `ru_RU.k0I8r`, `sl_SI`, `sv_SE`, `uk_UA`,`zh_CN.GB2312`, and `zh_TW.Big5`.
- `ldap` *ldap* – Configure LDAP on server. Valid values are `true` and `false`.
- `ldapserver` *ldapserver* – Specify the name of an LDAP server.
- `ldapbasename` *ldapbasename* – Specify the base name of an LDAP server.
- `name` *name* – Change the name of the OS profile.
- `nis` *nis* – Enable NIS on the installed server. Valid values are `enabled` and `disabled`.
- `nisdomain` *nisdomain* – Specify a NIS domain for the installed server.
- `nisserver` *nisserver* – Specify a NIS server for the installed server, or set to `broadcast` for the installation to automatically find an available NIS server.

- `proxy` *proxy* – Enable or disable proxy servers on the installed server. Valid values are `enabled` (default) and `disabled`. Use the `ftpproxy` and `httpproxy` attributes to specify the proxy servers.
- `rebootafterinstall` *rebootafterinstall* – Reboot the system after install. Valid values are `true` and `false`.
- `rootpassword` *rootpassword* – Change the root password for the installed server. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.
- `timezone` *timezone* – Specify the time zone for the installation. Default value is `gmt`. Valid values for a SUSE profile are any of the time zones listed by the `timeconfig` command.

WINDOWS PROFILE ATTRIBUTES

- `description` *description* – A description for the new OS profile.
- `domainadmin` *domainadmin* – The name of the user account in the domain that has permission to create a system account in that domain.
- `domainadminpassword` *domainadminpassword* – The password of the `domainadmin` user account.
- `firstloginscript` *firstloginscript* – A fully qualified path to a file that contains the commands that run the first time a user logs on to the system after the final installation setup stage. This value should be *directory-path*.
- `fullname` *fullname* – The user's full name in quotation marks.
- `joindomain` *joindomain* – The name of the domain for the system.
- `joinworkgroup` *joinworkgroup* – The name of the workgroup for the system.
- `language` *language* – The default language/locale for the installation. Refer to `http://www.microsoft.com/globaldev/reference/lcid-all.mspx` for valid values.
- `languagegroup` *languagegroup* – The language group for the installation. Use tab completion to list the valid values.
- `licensingmode` *licensingmode* – Specify whether to install Windows in a per-seat or a per-server license mode. Valid values are `perseat` and `peruser`.
- `licenseperserver` *licenseperserver* – The number of client licenses purchased for the server. Valid value is a number.
- `organizationname` *organizationname* – The organization's name in quotation marks.
- `oemdriverpath` *oemdriverpath* – A fully qualified path to a folder that contains the OEM PnP drivers. This value should be *directory-path*.
- `primarydnsserver` *primarydnsserver* – The IP address of the primary DNS server. This attribute is required with the `joindomain` attribute.
- `productkey` *productkey* – The product key for each unique installation of Windows.
- `repartition` *repartition* – Specify whether to delete all partitions on the first drive of the system and reformat it with the NTFS file system. Valid values are `true` and `false`.

- `rootpassword` *rootpassword* – The root/admin password for the server after installation. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the password.
- `secondarydnsserver` *secondarydnsserver* – The IP address of the secondary DNS server. This attribute is required with the `joindomain` attribute.
- `targetpath` *targetpath* – A fully qualified path to a folder in which to install Windows. Default is `\windows`.
- `timezone` *timezone* – The time zone for the installation. Example: `"GMT Standard Time"`
- `wtsallowconnection` *wtsallowconnection* – Specify whether the terminal server enables connections from other systems. Valid values are `true` and `false`.
- `wtsenable` *wtsenable* – Specify whether to enable installation of the terminal server. Valid values are `true` and `false`.
- `wtslicensingmode` *wtsenable* – Specify how the terminal server manages its Client Access Licenses (CALs). Valid values are `perseat` and `peruser`.
- `wtspermissionssetting` *wtspermissionssetting* – Security mode for the terminal server during a session. Valid values are `admin` and `all`.

DISKLESS CLIENT PROFILE ATTRIBUTES

- *description* – A description for the new OS profile.
- *nfsopts* – An NFS option in an *option*/*value* format.
- *ramdisksize* – The RAM disk size. Default is 512 Mbytes.

set role

This command changes the description of a role.

Synopsis

- Change the description for a role:

```
set role role description description
```

Parameters

- *role* – The name of a role.
- *description* – A new description for the role.

set server

This command changes the N1 System Manager configuration information for a server or refreshes the N1 System Manager with the server's current settings and status.

Description

This command does not change the actual configuration parameters on the server, for example, like SSH credentials. It changes only configuration information used by N1 System Manager to manage the server.

Synopsis

- Change the configuration of a server:

  `set server` *server configuration-attributes*

- Refresh the N1 System Manager with a server's current settings and status:

  `set server` *server* `refresh`

- Change the IP address and the SSH credentials used for the management features on the server, including OS monitoring:

  `set server` *server* `agentip` *agentip* `agentssh` *agentssh*

- Change the SNMP credentials used for OS monitoring on the server:

  `set server` *server* `agentsnmp` *agentsnmp*
  `set server` *server* `agentsnmpv3` *agentsnmpv3*

- Enable or disable monitoring on a server:

  `set server` *server* `monitored` *monitored-state*

- Turn the locator light on or off on a server:

  `set server` *server* `locator` *locator-state*

- Set the threshold values for an OS monitoring attribute on a server:

  `set server` *server* `threshold` *threshold*
  `[criticallow` *value*`] [criticalhigh` *value*`] [warninglow` *value*`] [warninghigh` *value*`]`

- Set the threshold values for the `fsusage.kbspacefree` file system monitoring attribute on a server:

  `set server` *server* `[filesystem` *filesystem*`] threshold fsusage.kbspacefree`
  `[criticallow` *value*`] [criticalhigh` *value*`] [warninglow` *value*`] [warninghigh` *value*`]`

- Set the threshold values for the `fsusage.pctused` file system monitoring attribute on a server:

  `set server` *server* `[filesystem` *filesystem*`] threshold fsusage.pctused`
  `[criticallow` *value*`] [criticalhigh` *value*`] [warninglow` *value*`] [warninghigh` *value*`]`

Parameters

- *agentip* – Change the IP address used for the management features on the server, including OS monitoring. The agentip is usually the IP address of the provisioning network interface on the server.
- *agentsnmp* – Change the SNMP credentials used for OS monitoring on the server. The *agentsnmp* format is a read community string for the SNMP credentials.
- *agentsnmpv3* – Change the SNMP Version 3 credentials used for OS monitoring on the server. The *agentsnmpv3* format is a user name/password pair: *snmpv3-username*/*snmpv3-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *agentssh* – Change the SSH credentials used for the management features on the server, including OS monitoring. The SSH user must have root access on the server. The *agentssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *filesystem*– Choose a file system for which to set one or more threshold values. Only the `fsusage.pctused` and `fsusage.kbspacefree` monitored attribute thresholds can be set for file systems. If no file system is specified, the thresholds are set for all file systems on the server. Example values are `/` and `/usr`
- *locator-state* – Turn the server's locator light on or off. Valid values are `true` (on) and `false` (off).
- *monitored-state*– Enable or disable monitoring on the server. Valid values are `true` (enable) and `false` (disable).
- `refresh` – Refresh the management server with the server's current settings and status. This includes monitoring information, currently installed software, and other details.
- *server* – The management name of a server.
- *telnet* – Change the telnet credentials used for the management features on the ALOM-based systems. The *telnet* format is a user name/password pair for telnet credentials: *telnet-username*/*telnet-password*.

  You can type a question mark (?) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- *threshold* – Choose an OS or file system monitoring attribute for which to set one or more threshold values. Valid values are:
  - `cpustats.loadavg1min` – System load expressed as average number of queued processes over 1 minute.
  - `cpustats.loadavg5min` – System load expressed as average number of queued processes over 5 minutes.
  - `cpustats.loadavg15min` – System load expressed as average number of queued processes over 15 minutes.
  - `cpustats.pctusage` – Overall CPU usage percentage.
  - `cpustats.pctidle` – Overall CPU idle percentage.

- `fsusage.kbspacefree` – Free file system space (Kbytes). Can be used with the `filesystem` attribute to set thresholds for a specific file system.
- `fsusage.pctused` – Percentage of file system space in use. Can be used with the `filesystem` attribute to set thresholds for a specific file system.
- `memusage.pctmemused` – Percentage of memory in use.
- `memusage.pctmemfree` – Percentage of memory free.
- `memusage.mbmemused` – Memory in use (Mbytes).
- `memusage.mbmemfree` – Memory free (Mbytes).
- `memusage.pctswapused` – Percentage of swap space in use.
- `memusage.kbswapused` – Used swap space (Kbytes).

- *value*– Set a threshold value for an OS or file system monitoring attribute on a server. Valid values for the `criticallow`, `criticalhigh`, `warninglow`, and `warninghigh` thresholds depend on the attribute. For attributes measuring percentages, the valid value range is 0–100. A value of `none` disables monitoring of the attribute for that threshold.

CONFIGURATION ATTRIBUTES

- `guid` *guid* – (Windows only) Change the server's Globally Unique Identifier (GUID). Example: 5D607F6A-AF48-4003–AFA8–69E019A4496F
- `ip` *ip* – Change the IP address used to manage the server.
- `ipmi` *ipmi* – Change the IPMI credentials for the server's management network IP address. The *ipmi* value is an IPMI user name/password pair *ssh-username*/*ssh-password*. Note that Sun Fire V20z and Sun Fire V40z servers require only a password for IPMI credentials. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.
- `name` *name* – Change the name of the server.
- `note` *note* – Change the notes for the server. The notes must be in quotation marks and the new notes will overwrite the current notes.
- `snmp` *snmp* – Change the SNMP credentials for the server's management network IP address. The *snmp* format is a read community string for the SNMP credentials: *read-community*.
- `ssh` *ssh* – Change the SSH credentials for the server's management network IP address. The *ssh* format is a user name/password pair for SSH credentials: *ssh-username*/*ssh-password*. You can type a question mark (`?`) if you do not want the password to display in the command line. Once you issue the command, you are prompted for the user name/password.

set session

This command changes the user's role or the output format for the current session.

Synopsis

- Change the user's role for the current session:

  ```
  set session role role
  ```

- Change the output format for the current session:

  ```
  set session output output
  ```

Parameters

- *output* – The output format for the current session. Valid values are `text` (default), `html`, or `xml`.
- *role* – The name of the new role.

set user

This command changes the default role for a user.

Description

The default role for the `root` user is automatically set to `Admin` after you reboot the management server or if you restart the N1 System Manager. While you can still set the root user's default role to a different role, the assignment is not permanent.

Synopsis

- Change the default role for a user:

  ```
  set user user defaultrole defaultrole
  ```

Parameters

- *defaultrole* – The name of the new default role for the user.
- *user* – The name of a user.

set module

This command enables or disables a module.

Description

Do not use this command concurrently with other N1 System Manager commands. Doing so might make the other commands fail.

Synopsis

- Enable or disable a module:

```
set module module enabled enabled licensekey licensekey
```

Parameters

- *enabled* – Enable or disable the module. Valid values are `true` (enable) or `false` (disable).
- *licensekey* – The license key to enable the module. The license key for the N1 Grid Engine module is the management server's MAC address. Issue the `ifconfig -a` command on the management server to determine its MAC address.
- *module* – The name of a module. Valid value is `n1ge` for the N1 Grid Engine module.

show

This command lists summary or detailed information about an object or group.

Description

The `show` command can be used on the following objects: `application`, `applicationprofile`, `dhcpconfig`, `firmware`, `group`, `job`, `log`, `notification`, `os`, `osprofile`, `privilege`, `role`, `server`, `session`, `update`, `user`, and `module`.

Type `help show` *object* for details.

show application

This command lists all available applications from the N1 System Manager or detailed information about a specific application.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned by N1 System Manager with this release.

Synopsis

- List all the available N1GE applications:

```
show application [all] type n1ge
```

- List detailed information about a specific N1GE application:

```
show application application type n1ge
```

Parameters

- `all` – List all the available applications.
- *application* – The name of an application.

show applicationprofile

This command lists all available application profiles or detailed information about a specific application profile.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned by N1 System Manager with this release.

Synopsis

- List all the available N1GE application profiles:

  ```
  show applicationprofile [all] type n1ge
  ```

- List detailed information about a specific N1GE application profile:

  ```
  show applicationprofile applicationprofile type n1ge
  ```

Parameters

- `all` – List all the available application profiles.
- *applicationprofile* – The name of an application profile.

show dhcpconfig

This command lists all the available DHCP configurations or detailed information about a specific DHCP configuration.

Synopsis

- List all the available DHCP configurations:

  ```
  show dhcpconfig [all]
  ```

- List detailed information about a specific DHCP configuration:

  ```
  show dhcpconfig dhcpconfig
  ```

Parameters

- `all` – List all the available DHCP configurations.
- *dhcpconfig* – The name of an DHCP configuration.

show firmware

This command lists all the copied firmware updates or detailed information about a firmware update.

Synopsis

- List all the firmware updates:

  ```
  show firmware [all]
  ```

- Filter the list of firmware updates:

  ```
  show firmware [model model] [type type] [vendor vendor]
  ```

- List detailed information about a firmware update:

  ```
  show firmware firmware
  ```

Parameters

- `all` – List all the firmware updates.
- *firmware* – The name of a firmware update.
- *model* – Filter the list of firmware updates by model name. Valid values are:
  - `NETRA-240` – Netra 240
  - `NETRA-440` – Netra 440
  - `SF-T1000` – Sun Fire T1000
  - `SF-T2000` – Sun Fire T2000
  - `SF-V210` – Sun Fire V210
  - `SF-V240` – Sun Fire V240
  - `SF-V250` – Sun Fire V250
  - `SF-V440` – Sun Fire V440
  - `V20z` – Sun Fire V20z
  - `V40z` – Sun Fire V40z
  - `X4100` – Sun Fire X4100
  - `X4200` – Sun Fire X4200
- *type* – Filter the list of firmware updates. This filter is available only for the Sun Fire V20z and Sun Fire V40z system firmware updates. Valid values are:
  - `BIOS` – Server platform BIOS

- `PIC` – Service processor operator panel
- `SP` – Service processor

- *vendor* – Filter the list of firmware updates based on the vendor.

show group

This command lists all server groups or detailed information about a specific server group.

Synopsis

- List all the server groups:

```
show group [all]
```

- List detailed information about a server group:

```
show group group
```

Parameters

- `all` – List all the server groups.
- *group* – The name of a server group.

show job

This command lists all jobs, detailed information about a specific job, or jobs based on a specified filter.

Synopsis

- List detailed information about a specific job:

```
show job job
```

- List all the jobs in descending order:

```
show job all
```

- Filter the listing of the jobs:

```
show job [count count]  [endbefore endbefore] [endafter endafter]
[owner owner] [startbefore startbefore] [startafter startafter]
[state state] [target server] [type type]
```

Parameters

- `all` – List all the jobs in descending order.
- *count*– A number specifying how many jobs to list in descending order. Default is 500.
- *endafter* – List jobs finished after a specific date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *endbefore* – List jobs finished before a specific date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *job* – A job identification number.
- *server* – The management name of a server. List all jobs based on a specific server.
- *startafter* – List jobs started after a specific date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *startbefore* – List jobs started before a specific date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *state* – List all jobs based on a specific job state:
  - `completed` – List completed jobs.
  - `error` – List jobs that ended with errors.
  - `notstarted` – List jobs that have not started.
  - `preflight` – List jobs that are in a pre-run, test state.
  - `pendingstop` – List jobs that a user has canceled. A job must finish the current step on all servers before it can be canceled, so a job is in this state during that time period.
  - `running` – List currently running jobs.
  - `stopped` – List canceled or stopped jobs.
  - `timedout` – List jobs that have timed out and not finished.
  - `warning` – List jobs completed with warnings.
- *type* – List all jobs based on a specific job type:
  - `addbase` – Add base management feature
  - `addosmonitor` – Add OS monitoring feature
  - `createos` – Create OS distribution from CD/DVD media or ISO files
  - `deletejob` – Job deletion
  - `discover` – Server discovery
  - `loadfirmware` – Load firmware update
  - `loados` – Load OS
  - `loadupdate` – Load OS update
  - `refresh` – Server refresh
  - `removeosmonitor` – Remove OS monitoring feature
  - `reset` – Server reboot
  - `setagentip` – Modify management feature configuration
  - `start` – Server power on
  - `startcommand` – Remote command execution

- `stop` – Server power off
- `unloadupdate` – Unload OS update

- *owner* – The name of a user. List all jobs based on a specific user.

DATE FORMAT

The following date format is used for the `endbefore`, `endafter`, `startbefore`, and `startafter` options:

[*CC*]*YY*[-*MM*[-*DD*[T*hh*[:*mm*[:*ss*[*Z*]]]]]]

- *CC* – Century (a year divided by 100 and truncated to an integer) as a decimal number [00-99]. For example, CC is 19 for the year 1988 and 20 for the year 2007.
- *YY* – Last two digits of the year number. If century (*CC*) is not specified, then values in the range 69-99 refer to years 1969 to 1999 inclusive, and values in the range 00-68 shall refer to years 2000 to 2068, inclusive.
- *MM* – Month number.
- *DD* – Day number in the month. The *DD* format can have values from 1 to 31 depending on the month and year.
- `T` – Date/time separator.
- *hh* – Hour number (24 hour system). The *hh* format can have values from 0 to 23.
- *mm* – Minute number. The *mm* format can have values from 0 to 59.
- *ss* – Second number. The *ss* format can have values from 0 to 60.
- *Z* – Indicates a time zone. You can specify a general time zone such as `Pacific Standard Time` or `PST`, or an RFC 822 time zone such as `–0800`.

show log

This command lists all known events from the N1 System Manager or managed servers, detailed information about a specific event, or events based on a specified filter.

Synopsis

- List detailed information about a specific event:

  `show log` *log*

- List the events in descending order. By default, the last 500 events are listed:

  `show log [count` *count*`]`

- Filter the listing of the events:

  `show log [after` *after*`] [before` *before*`] [count` *count*`] [severity` *severity*`]`

Parameters

- *after* – List events after a specified date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *before* – List events before a specified date. See the detailed date format below. Example: 2005-07-20T11:53:04
- *count*– A number specifying how many events to list in descending order. The default is 500.
- *log* – An event identification number.
- *severity* – List events with a specific event severity. Valid values are:
  - `unknown`
  - `other`
  - `information`
  - `warning`
  - `minor`
  - `major`
  - `critical`
  - `fatal`

DATE FORMAT

The following date format is used for the `after` and `before` options:

[*CC*]*YY*[-*MM*[-*DD*[T*hh*[:*mm*[:*ss*[*Z*]]]]]]

- *CC*– Century (a year divided by 100 and truncated to an integer) as a decimal number [00-99]. For example, CC is 19 for the year 1988 and 20 for the year 2007.
- *YY* – Last two digits of the year number. If century (*CC*) is not specified, then values in the range 69-99 refer to years 1969 to 1999 inclusive, and values in the range 00-68 shall refer to years 2000 to 2068, inclusive.
- *MM* – Month number.
- *DD* – Day number in the month. The *DD* format can have values from 1 to 31 depending on the month and year.
- `T` – Date/time separator.
- *hh* – Hour number (24 hour system). The *hh* format can have values from 0 to 23.
- *mm* – Minute number. The *mm* format can have values from 0 to 59.
- *ss* – Second number. The *ss* format can have values from 0 to 60.
- *Z* – Indicates a time zone. You can specify a general time zone such as `Pacific Standard Time` or `PST`, or an RFC 822 time zone such as `–0800`.

show notification

This command lists all notification rules or detailed information about a specific notification rule.

Synopsis

- List all the notification rules:

  ```
  show notification [all]
  ```

- List detailed information about a specific notification rule:

  ```
  show notification notification
  ```

Parameters

- `all` – List all the notification rules.
- *notification* – The name of a notification rule.

show os

This command lists all available OS distributions from the N1 System Manager or detailed information about a specific OS distribution.

Synopsis

- List all the available OS distributions:

  ```
  show os [all]
  ```

- List the available OS distributions of a specific OS type:

  ```
  show os type
  ```

- List detailed information about a specific OS distribution, which includes the list of distribution groups.

  ```
  show os os
  ```

Parameters

- `all` – List all the available OS distributions.
- *os* – The name of an OS distribution.
- *type* – The type of OS distribution. Valid values are `redhat`, `solaris`, and `suse`.

show osprofile

This command lists all available OS profiles or detailed information about a specific OS profile.

Synopsis

- List all the available OS profiles:

  ```
  show osprofile [all]
  ```

- List the available OS profiles for a specific OS distribution:

  ```
  show osprofile os os
  ```

- List details about a specific OS profile:

  ```
  show osprofile osprofile
  ```

Parameters

- `all` – List all the available OS profiles.
- *osprofile* – The name of an OS profile.
- *os* – The name of an OS distribution to filter on.

show privilege

This command lists all available privileges or detailed information about a specific privilege.

Synopsis

- List all the available privileges:

  ```
  show privilege [all]
  ```

- List detailed information about a specific privilege:

  ```
  show privilege privilege
  ```

Parameters

- `all` – List all the available privileges.
- *privilege* – The name of a privilege.

show role

This command lists all available roles or the privileges for a specific role.

Synopsis

- List all the available roles and the privileges assigned to them:

```
show role [all]
```

- List the privileges for a specific role:

```
show role role
```

Parameters

- `all`– List all the available roles and the privileges assigned to them.
- *role* – The name of a role.

show server

This command lists all the available managed servers, a filtered list of managed servers, or detailed information for a specific server.

Synopsis

- List all the available servers:

```
show server [all]
```

- List details for a server:

```
show server server
```

- Filter the list of servers based on various attributes or states:

```
show server [ip ip[,ip...]] [jobcount jobcount] [model model]
[name name] [runningos runningos]
[heardwarehealth heardwarehealth] [oshealth oshealth] [power power]
```

Parameters

- `all` – List all the available servers.
- *ip* – Filter based on a server's management IP address. You can specify multiple instances of *ip* in one of the following ways, separated by commas:
  - *ip-address* – A single IP address.
  - *ip-address–ip-address* – A range of IP addresses. Example: `10.5.10.1-10.5.10.100`
  - *subnet/mask-length* – A subnet with a mask length. Example: `10.0.8/24` or `10.0.8.128/28`
- *jobcount* – Filter based on a number of jobs currently running on the server. *jobcount* can be 0 or any positive integer.

- *model* – Filter based on the server's model name. The server's model name is displayed in the Hardware column of the `show server` command. Wildcard matching is implicit and quotation marks must be used around a value with spaces. Valid values are:
  - `NETRA-240` – Netra 240
  - `NETRA-440` – Netra 440
  - `SF-RSC` – Sun Fire V490 and Sun Fire V890 (SP-based discovery)
  - `SF-T1000` – Sun Fire T1000
  - `SF-T2000` – Sun Fire T2000
  - `SF-V210` – Sun Fire V210
  - `SF-V240` – Sun Fire V240
  - `SF-V250` – Sun Fire V250
  - `SF-V440` – Sun Fire V440
  - `SF-V490` – Sun Fire V490 (OS-based and manual discovery)
  - `SF-V890` – Sun Fire V890 (OS-based and manual discovery)
  - `V20z` – Sun Fire V20z
  - `V40z` – Sun Fire V40z
  - `X4100` – Sun Fire X4100
  - `X4200` – Sun Fire X4200
- *name* – Filter based on a server's management name. Wildcard matching is implicit and quotation marks must be used around a value with spaces.
- *runningos* – Filter based on the server's running OS. The server's running OS is displayed in the OS Usage column of the `show server` command. Wildcard matching is implicit and quotation marks must be used around a value with spaces.
- *hardwarehealth* – Filter the servers based on a hardware health state. Valid values are:
  - `critical` – A fault condition has occurred on the server and corrective action is required.
  - `good` – The server hardware is working properly.
  - `nonrecoverable` – The server has completely failed; recovery is not possible.
  - `monitored` – Monitoring is enabled on the server.
  - `unknown` – The server is not returning any hardware health information.
  - `unmonitored` – The server is not returning hardware health information because monitoring has been disabled.
  - `unreachable` – The server cannot be contacted for hardware health information. This state is most often caused by a network problem.
  - `warning` – A potential or impending fault condition has been detected on the server. Action should be taken to prevent the problem from becoming more serious.
- *oshealth* – Filter the servers based on a specific OS resource health state. Valid values are:
  - `critical` – A fault condition has occurred on the server, and corrective action is required.
  - `good` – The server with booted OS is working properly.
  - `monitored` – Monitoring is enabled on the server.

- `uninitialized` – The server is not sending OS resource health information because the OS monitoring feature has not been added.
- `unknown` – The server is not returning any OS resource health information.
- `unmonitored` – The server is not returning OS resource health information because monitoring has been disabled.
- `unreachable` – The server cannot be contacted for OS resource health information. This state is most often caused by a network problem.
- `warning` – A potential or impending fault condition has been detected on the server. Action should be taken to prevent the problem from becoming more serious.

- *power* – Filter the servers based on a specific power state. Valid values are:
  - `on` – The server is powered on and running.
  - `standby` – The server is powered down, but it is still responsive to commands, for example, booting.
  - `unknown` – The server is not returning any power status information.
  - `unreachable` – The server cannot be contacted for power status information. This state is most often caused by a network problem.
- *server* – The management name of a server.

show session

This command lists the user's current role in the session.

Synopsis

- List the user's current role in the session:

```
show session
```

show update

This lists all the OS updates or detailed information about a specific OS update.

Synopsis

- List all the available OS updates:

```
show update [all]
```

- Filter the list of OS updates available for a specific OS distribution:

```
show update os os
```

- List detailed information about a specific OS update:

  ```
  show update update
  ```

Parameters

- `all` – List all the available OS updates.
- *os* – The name of an OS distribution by which to filter list.
- *update* – The name of an OS update.

show user

This command lists all the available users or detailed information about a specific user.

Synopsis

- List all the available users:

  ```
  show user [all]
  ```

- List detailed information about a specific user, including the user's assigned roles and default role:

  ```
  show user user
  ```

Parameters

- `all` – List all the available users.
- *user* – The name of a user.

show module

This command lists all the installed modules or detailed information about a specific module. This command also indicates whether the module is enabled.

Synopsis

- List all the installed modules:

  ```
  show module [all]
  ```

- List detailed information about a specific module:

  ```
  show module module
  ```

Parameters

- `all` – List all the installed modules.
- *module* – The name of a module. Valid value is `n1ge` for the N1 Grid Engine module.

start

This command enables an object or issues a command. For example, you can power on and boot servers or enable a notification rule.

Description

The `start` command can be used on the following objects: `group`, `notification`, and `server`.

Type `help start` *object* for details.

start group

This command powers on and boots a group of servers or issues a remote command on a group of servers. You can view the output of the remote command from the associated job that is started.

Synopsis

- Power on and boot a group of servers:

  `start group` *group* `[netboot]`

- Issue a remote command on a group of servers:

  `start group` *group* `command "`*command*`" [agentssh` *agentssh*`] [timeout` *timeout*`]`

Parameters

- *agentssh* – Override SSH credentials on the server for the remote command.
- *command* – A UNIX command to run on the group of servers. The command must be surrounded by quotation marks. You can view the output of the command from the associated job that is started.
- *group* – The name of a server group.
- `netboot` – Force the servers in the group to boot from their default network boot interface. This option enables you to install your servers over the network using an install server setup, which must be configured outside the N1 System Manager environment.
- *timeout*– Number of seconds command can run before timing out.

start notification

This command enables or tests a notification rule.

Synopsis

- Enable a notification rule:

  ```
  start notification notification
  ```

- Send a test notification message based on the destination and type of the rule:

  ```
  start notification notification test
  ```

Parameters

- *notification* – The name of a notification rule.
- `test` – Test the notification rule.

start server

This command powers on and boots servers or issues a remote command remotely on the servers. You can view the output of the remote command from the associated job that is started.

Synopsis

- Power on and boot all servers:

  ```
  start server all [netboot]
  ```

- Power on and boot one or more servers:

  ```
  start server server[,server...] [netboot]
  ```

- Issue a remote command remotely on one or more servers:

  ```
  start server server[,server] command "command" [agentssh agentssh]
  [timeout timeout]
  ```

- Issue a remote command remotely on all servers:

  ```
  start server all command "command" [agentssh agentssh] [timeout timeout]
  ```

Parameters

- *agentssh* – Override SSH credentials on the server for the remote command.
- `all` – Power on or issue a remote command on all servers.

- *command* – A UNIX command to run on the server. The command must be surrounded by quotation marks. You can view the output of the command from the associated job that is started.
- `netboot` – Force the servers to boot from their default network boot interface. This option enables you to install your servers over the network using an install server setup, which must be configured outside of the N1 System Manager environment.
- *server* – The management name of a server.
- *timeout*– Number of seconds the command can run before timing out.

stop

This command disables an object. For example, you can shut down and power off a server or cancel a job.

Description

The `stop` command can be used on the following objects: `group`, `job`, `notification`, and `server`.

Type `help stop` *object* for details.

stop group

This command shuts down and powers off a group of servers.

Synopsis

- Shut down and power off a group of servers:

```
stop group group [force]
```

Parameters

- `force` – Force a power off without a graceful shutdown. If not specified, a graceful shutdown is attempted by default. This option must be used to power off servers without an OS installed or servers without the base management feature added.
- *group* – The name of a server group.

stop job

This command stops a job from running. When a job is stopped, it is in the `aborted` state.

Synopsis

- Stop a single job from running.

```
stop job job
```

Parameters

- *job* – A job identification number.

stop notification

This command disables a notification rule.

Synopsis

- Disable a notification rule:

```
stop notification notification
```

Parameters

- *notification* – The name of a notification rule.

stop server

This command shuts down and powers off servers.

Synopsis

- Shut down and power off one or more servers:

```
stop server server[,server...] [force]
```

- Shut down and power off all servers:

```
stop server all [force]
```

Parameters

- `all` – Shut down and power off all servers.
- `force` – Force a power off without a graceful shutdown. If not specified, a graceful shutdown is attempted by default. This option must be used to power off servers without an OS installed or servers without the base management feature added.

- *server* – The management name of a server.

unload

This command uninstalls software from servers or a group of servers.

Description

The `unload` command can be used on the following objects: `group` and `server`.

Type `help unload` *object* for details.

unload group

This command uninstalls an application, OS profile (for diskless clients only), and OS update from a group of servers.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager. You cannot use the `unload group` command to uninstall a N1GE master host; you must use the `unload server` command.

Synopsis

- Uninstall the N1GE application from a group of servers:

  `unload group` *group* `applicationprofile` *applicationprofile* `type n1ge`
- Remove diskless client support from a group of servers:

  `unload group` *group* `osprofile`
- Uninstall an OS update from a group of servers:

  `unload group` *group* `update` *update*

Parameters

- *applicationprofile* – The name of an application profile.
- *group* – The name of a server group.
- *update* – The name of an OS update. Note that if this user–specified name is not found, the command will try to uninstall an OS update with a matching file name. Use the `show update` command to list an OS update's corresponding file name.

unload server

This command uninstalls an application, OS profile (diskless clients only), or OS update from servers.

Description

N1 Grid Engine (N1GE) is the only application that can be provisioned with this release of N1 System Manager.

Synopsis

- Uninstall the N1GE application from one or more servers:

  ```
  unload server server[,server...] applicationprofile applicationprofile type n1ge
  ```

- Remove diskless client support from one or more servers:

  ```
  unload server server[,server...] osprofile
  ```

- Uninstall an OS update from one or more servers:

  ```
  unload server server[,server...] update update
  ```

Parameters

- *applicationprofile* – The name of an application profile.
- *server* – The management name of one or more servers.
- *update* – The name of an OS update. If this user–specified name is not found, the command will try to uninstall an OS update with a matching file name. Use the `show update` command to list an OS update's corresponding file name.

Object Help

This section describes the objects that can be managed by the N1 System Manager commands.

The following table lists the available objects.

Object	Definition
application	One or more installation files for an application that can be installed by N1 System Manager.

Object	Definition
applicationprofile	An application profile, which is a configuration file that defines how to install an application.
dhcpconfig	A DHCP configuration used by N1 System Manager.
firmware	A firmware update for the servers.
group	A group of servers.
guidconfig	A file containing a list of server names with corresponding GUIDs.
job	An asynchronous action initiated and tracked by a user to perform some management task.
log	An event generated from a managed server or the N1 System Manager.
notification	A notification rule created by a user to define when, where, and how to notify an external source, such as a user, of a N1 System Manager event.
os	An installable image of an OS, also known as an OS distribution.
osprofile	An OS profile, which is a configuration file that defines how to install an OS distribution.
privilege	A predefined set of permissions enabling a user to perform certain operations within the N1 System Manager. To grant a privilege to a user, assign the privilege to a role.
role	A set of privileges that can be assigned to a N1 System Manager user. The N1 System Manager provides three predefined roles: `ReadOnly`, `SecurityAdmin`, and `Admin`. Authorized users may create customized roles, but users cannot modify the predefined roles.
server	A managed server, which is a server that has been discovered by and can be managed by the N1 System Manager.
session	The role and other contextual information that is associated with every active user session. A separate user session is created for each user logged into the browser interface and `n1sh` command line interface. The browser interface and the browser interface's command line share a common session and hence have a common session role.
update	An OS update, such as a patch or package for the Solaris operating system or an RPM for the Red Hat operating system.
user	A person who is authorized to log into the N1 System Manager.
module	Add-on features for the N1 System Manager.

application

The `application` object consists of one or more installation files for an application that can be installed by N1 System Manager.

Description

The following commands are available for the `application` object: `create`, `delete`, `set`, and `show`. You must use the `load server` or `load group` commands to install an application.

Type `help` *command* `application` for details on each command.

applicationprofile

The `applicationprofile` object is a configuration file that defines how to install an application.

Description

The following commands are available for the `applicationprofile` object: `create`, `delete`, `set`, and `show`. You must use the `load server` or `load group` commands to install an application through an application profile.

Type `help` *command* `applicationprofile` for details on each command.

dhcpconfig

The `dhcpconfig` object specifies a DHCP configuration for the N1 System Manager.

Description

The following commands are available for the `dhcpconfig` object: `create`, `delete`, `set`, and `show`.

Type `help` *command* `dhcpconfig` for details on each command.

firmware

The `firmware` object is a firmware update for the servers.

Description

The following commands are available for the `firmware` object: `create`, `delete`, `set`, and `show`. You must use the `load server` or `load group` commands to install a firmware update.

Type `help` *command* `firmware` for details on each command.

group

The `group` object is a group of servers.

Description

The following commands are available for the `group` object: `add`, `create`, `delete`, `load`, `remove`, `reset`, `set`, `show`, `start`, `stop`, and `unload`.

Type `help` *command* `group` for details on each command.

guidconfig

The `guidconfig` object is a file containing a list of server names with their corresponding GUIDs.

Description

The `load` command is available for the `guidconfig` object.

Type `help load guidconfig` for details.

job

The `job` object is an asynchronous action that is initiated and tracked by a user to perform some management task.

Description

The following commands are available for the `job` object: `delete`, `show`, and `stop`.

Type `help` *command* `job` for details on each command.

log

The `log` object is an event generated from a managed server or the N1 System Manager.

Description

The following commands are available for the `log` object: `show`.

Type `help` *command* `log` for details on each command.

notification

The `notification` object is a notification rule created by a user to define when, where, and how to notify an external source, such as a user, of a N1 System Manager event.

Description

The following commands are available for the `notification` object: `create`, `delete`, `set`, `show`, `start`, and `stop`.

Type `help` *command* `notification` for details on each command.

os

The `os` object is an installable image of an OS, also known as an OS distribution.

Description

The following commands are available for the `os` object: `create`, `delete`, `set`, and `show`.

Type `help` *command* `os` for details on each command.

osprofile

The `osprofile` object is a configuration file that defines how to install an OS distribution.

Description

The following commands are available for the `osprofile` object: `add`, `create`, `delete`, `remove`, `set`, and `show`. You must use the `load server` or `load group` commands to install an OS profile.

Type `help` *command* `osprofile` for details on each command.

privilege

The `privilege` object is a predefined set of permissions enabling a user to perform certain operations within the N1 System Manager. To grant a privilege to a user, assign the privilege to a role.

Description

The following commands are available for the `privilege` object: `show`. You must use the `add role` and `remove role` commands to add and remove privileges from a role.

Type `help` *command* `privilege` for details on each command.

role

The `role` object is a set of privileges that can be assigned to a N1 System Manager user. The N1 System Manager provides three predefined roles: `ReadOnly`, `SecurityAdmin`, and `Admin`. Authorized users may create customized roles, but they cannot modify the predefined roles.

Description

The following commands are available for the `role` object: `add`, `create`, `delete`, `remove`, `set`, and `show`. You must use the `add user` and `remove user` commands to add and remove roles from a user.

Type `help` *command* `role` for details on each command.

server

The `server` object is a managed server, which is a server that has been discovered by and can be managed by the N1 System Manager.

Description

The following commands are available for the `server` object: `add`, `connect`, `delete`, `load`, `remove`, `reset`, `show`, `start`, `stop`, and `unload`. You must use the `discover` command to discover a server.

Type `help` *command* `server` for details on each command.

session

The `session` object is the role and other contextual information that is associated with every active user session. A separate user session is created for each user logged into the browser interface and `n1sh` command line interface. The browser interface and the browser interface's command line share a common session and hence have a common session role.

Description

The following commands are available for the `session` object: `set` and `show`.

Type `help` *command* `session` for details on each command.

update

The `update` object is an OS update, such as a patch or package for the Solaris Operating System or an RPM for the Red Hat operating system.

Description

The following commands are available for the `update` object: `create`, `delete`, and `show`. You must use the `load server` or `load group` commands to install an OS update.

Type `help` *command* `update` for details on each command.

user

The `user` object is a person who is authorized to log in to the N1 System Manager.

Description

The following commands are available for the `user` object: `add`, `create`, `delete`, `remove`, `set`, and `show`.

Type `help` *command* `user` for details on each command.

module

The `module` object is an add-on feature for the N1 System Manager.

Description

The following commands are available for the `module` object: `set` and `show`.

Type `help` *command* `module` for details on each command.