3

Setting Up a Basic Network Configuration

Enlighten**DSM** helps you easily manage individual users and groups of users, as well as hardware such as printers, servers, backup devices, and disk space.

This chapter describes some of the more common and basic tasks of setting up a network. It includes information about setting up user accounts, creating user groups, and configuring network printers.

For information about how to manage disk partitions, NFS servers, cron jobs, and archive files, refer to Chapter 4, "Managing the Network Systems."

Setting Up User Accounts

Setting up and modifying user accounts is probably one of the most common tasks you'll perform. The User Configuration window provides you with the ability to add, modify, and delete users, and set passwords. It also provides you with management features such as locking and unlocking user accounts, and monitoring user information and processes.

This section describes how to set up, modify, and remove user accounts and passwords. For information about managing a user's system access, see "Managing a User's System Access," on page 4-2.

Adding a New User Account

To add a single new user account,

1) Choose Configure from the User menu. The User Configuration window appears.
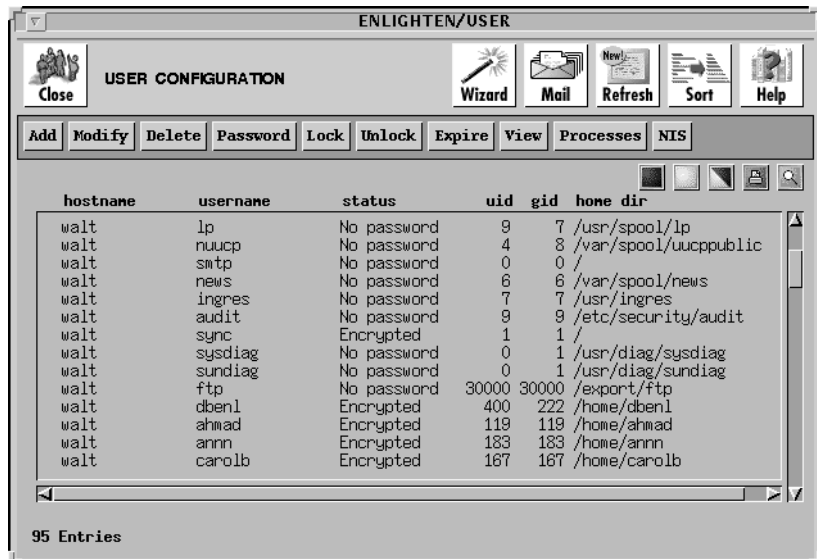

Figure 3-1 User Configuration window

The User Configuration window lists all of the current user accounts by hostname and user name. It also lists their password status, user id, group id, and home directory.

2) Click the Add button. The Create New User Account window appears.

Figure 3-2 Create New User Account window

The Create New User Account window allows you to add a single new user or multiple users.

3) Enter the appropriate information in each field. Refer to the section "New User Account and Modify User Fields," on page 3-6 for information about each of the fields.

4) When you have finished entering the information in the fields, click the Add button.

☞ To add multiple users in a single operation, you create a text file of the new users and click the Multi-User Add button in the User Configuration window to bring up the Add Multiple User window. For information on using this feature, refer to Chapter 4, "User," in the Enlighten**DSM** *Reference Manual.*

Creating New User Accounts from Templates

When you are setting up new user accounts, you might find that much of the information in the Create New User Account window is the same from one user to the next. Creating a new user account from an existing template can reduce the amount of redundant typing you'll have to do. Each time you create a new user account, that account record becomes a template that you can modify to create a new account.

To create a new user account from an existing record (template),

1) Click the Template button in the Create New User Account window. A list of templates appears in a pick list.

2) Select the template that best matches the parameters of the new user.

3) Change any of the information in the template.

4) Click the Add button to create a new user account.

5) If you are running NIS, click the NIS button to make the changes to NIS and NIS+.

Modifying a User Account

To modify a user account,

1) Highlight the user(s) whose accounts you want to modify.

2) Click the Modify button in the User Configuration window. A Modify User window similar to the Create New User Account window appears.

Figure 3-3 Modify User window

3) Change the information in the fields you want. For information about each field refer to "New User Account and Modify User Fields," on page 3-6.

4) Click the Modify button to save the changes you have made for the selected user.

5) Click the Next button to modify additional user accounts if you selected more than one account to modify from the User Configuration list.

6) If you are running NIS, click the NIS button to make the changes to NIS and NIS+.

New User Account and Modify User Fields

The Create New User Account and Modify User windows are similar and share the same fields:

Hostnames field

If you want to limit the creation of this account to specific hostnames within a pool, enter those hostnames in this field. If you are using multiple entries, leave a blank between each entry. You can also use the arrow button to the right to select the available hosts from the current pool. If you leave this field blank, the user will be added to all hosts in the pool.

Login Name field

The Login name is a unique name that identifies a user account. A user needs a login and a password to gain access to the system. The login name must be unique and the first character should be set in lowercase (for example, cHE034). You may also use macros in this field; see Appendix K, "Macros," in the Enlighten**DSM** *Reference Manual* for more details. In the Modify User window, this field is read-only.

Real Name field

Enter the user's actual name. This field can identify a person, company, or organization. You can use this field to associate the sometimes cryptic Login Name with the actual user's name. On larger systems, this name matching is invaluable.

Office field

This field should contain the location where the user will normally access the system. The field can be an office number, an assigned location code, or a department name. This field does not allow punctuation characters.

Telephone field

This field can contain the telephone number, telephone extension, or some other information to help locate and contact the user. The format of the field is user definable.

At this point you can have Enlighten**DSM** automatically fill in the remainder of the form by clicking on the Add button. Otherwise, you should fill in the rest of the fields yourself. The fields are:

User ID field

This field contains the user ID number which the UNIX operating system uses to identify each user. This number does not have to be unique, but should be for easier system administration. Enter the UserID number to be assigned to this user account.

If the New User Template is set to automatically generate a unique UID, then this field will be initialized with that number.

☞ If this field is left blank, Enlighten**DSM** selects an entry that is unique in this field when it tries to create the user.

Home Dir. field

The Home Dir. field specifies where the user's start-up directory is attached. Most systems will use `/usr` or `/home` as the default parent directory. Each user will have their own directory created under the default home directory, for example, `/usr/charlie`. Enlighten**DSM** stores `/home` as the default `HOME` directory unless you change this field.

If you specify a `HOME` directory that does not exist, Enlighten**DSM** creates one and initializes it. Enlighten**DSM** initializes the `HOME` directory by executing the `HOME` directory initialization script `$ENLIGHTEN/scripts/user.rc`. This copies the initialization files (for example, `.profile` and `.cshrc`) into the `HOME` directory. You can modify this script to perform other initialization procedures.

Shell field

The Shell is a program that acts as a translator between the user and the UNIX operating system. There may be several standard shells on a system, including the C Shell, the Bourne Shell, the Korn Shell and the restricted Bourne, C, and Korn Shells. You can also create a custom shell. Each shell has its own start-up executable program:

Bourne Shell	`/bin/sh`
Restricted Bourne Shell	`/bin/rsh`
C Shell	`/bin/csh`
Korn Shell	`/bin/ksh`
Restricted Korn Shell	`/bin/rksh`
Other	user defined

Enlighten**DSM** uses the Bourne Shell (`/bin/sh`) as the default shell in this field. Each shell offers different functionality and all users on the system do not have to use the same shell. The number of standard shells available for this field depends on your system. Click the arrow button to display a pick list of available shells.

Group Name field

Every user account must be assigned to at least one User Group. The User Group is part of the UNIX security system. Each user group has specific read, write, and execute privileges associated with every file created on the system.

Enter the primary Group name for this user. Click the arrow button for a pick list of defined User Groups. If you enter a Group Name that does not exist, Enlighten**DSM** prompts you for a correct Group Name when it tries to create the user.

Add Groups field

You can use this field to assign the user in additional user groups, giving the user more group privileges beyond those set in the primary user group. Enter the names of the user groups to which the user

should also belong, or click the arrow button for a pick list of defined User Groups. Select the User Groups and click the Apply button to import them.

Password field

The password is part of the UNIX security system and each user must have a password. You can make the password the same characters as the user login, and the user can change the password.

☞   If the entry in the password field is not long enough, an error message will be displayed when you try to add this user account.

Expires field

For systems that support password aging, this optional field contains the time when the password will expire. When a password expires, the system forces the user to change the password at the next system login.

If you leave the Expires field blank, the appropriate default parameter is used. If you don't set a default when you add a user, password aging will be turned off for that user. For more details, refer to Appendix D, "Password Aging," in the Enlighten**DSM** *Reference Manual*.

To specify a time format, see Appendix C, "Time Formats," in the Enlighten**DSM** *Reference Manual*.

Span field

The Span field and Expires field define the minimum period of time which needs to elapse before the user can change the password. You can, however, change the user's password at any time by using the Password button in the User Configuration window. To specify a time format, see Appendix C, "Time Formats," in the Enlighten**DSM** *Reference Manual*.

Mail Alias field (Create New User Account window only)

This field specifies the default mail alias the account will use. An alias designates a short name as the substitute for the full pathname for a particular user or group. You may also use macros in this field, see Appendix K, "Macros," in the Enlighten**DSM** *Reference Manual* for more details.

Mail Lists field (Create New User Account window only)

This field specifies which mailing lists will be updated to include this user. A mail list defines a group of people under one alias, so sending mail to that alias distributes a copy to everyone on that list. Click the arrow button for a pick list of defined mail lists.

Deleting a User

To delete a user from the system,

1) Highlight the username(s) you wish to delete from the system and then click the Delete button in the User Configuration window (Figure 3-1).

   The user account, the HOME directory (optionally), and all of its contents (files and subdirectories) associated with the user is removed. Enlighten**DSM** will prompt you to confirm your action.

2) Confirm whether or not you want to delete the users and files.

3) Click the NIS button if applicable.

Enlighten**DSM** will not delete the user's HOME directory if:

- It is considered to be a system (required) directory. The system directories are:

```
/              /usr            /etc         /bin
/lib           /home           /dev         /sbin
/usr/bin       /usr/adm        /usr/lib     /usr/sbin
/usr/man       /usr/lib/uucp
```

- It is shared by more than one user. In this case, the HOME directory is not deleted since this would also delete the HOME directory of any sharing co-users.

- It is not owned by the user whose HOME directory it belongs to. In this case, you are asked to confirm before deleting it.

- It is the root user account.

Changing a User Password

You don't have to know the password in order to change it.

To change a currently defined User Account password,

1) Highlight the user(s) whose password you want to change from the User Configuration window (Figure 3-1).

2) Click the Password button. A pop-up window will ask you to set the new password for the selected user (Figure 3-4).

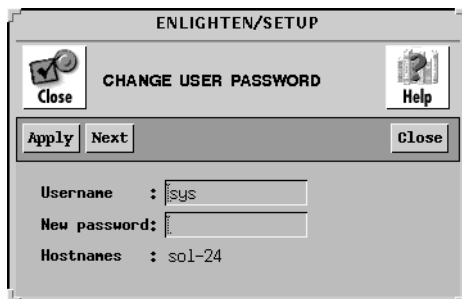
Figure 3-4 Change User Password window

3) Enter the new password.

4) If you have selected multiple usernames, click the Apply button to set the current password and bring up the next user.

5) Click the Next button to skip to the next selected user without changing the user's password.

6) Click the Close button to discontinue changing passwords. Any previous changes made by using the Apply button remain; they are not undone by clicking this button.

7) If you are running NIS or NIS+, then click the NIS button to make the change to the password.

Expiring a Password

In addition to changing a user's password, you can set an expiration date if your system supports password aging. When you set a password expiration, the next time the user logs on after the expiration date, the user is forced to change passwords. For details on password aging, refer to Appendix D, "Password Aging," in the Enlighten**DSM** *Reference Manual*.

Setting Up User Groups

User groups consist of individual users (rather than hosts) and are part of the UNIX file permission system. You can use Enlighten**DSM** to create new user groups, modify or delete user groups, or assign new users to groups.

To create a new user group,

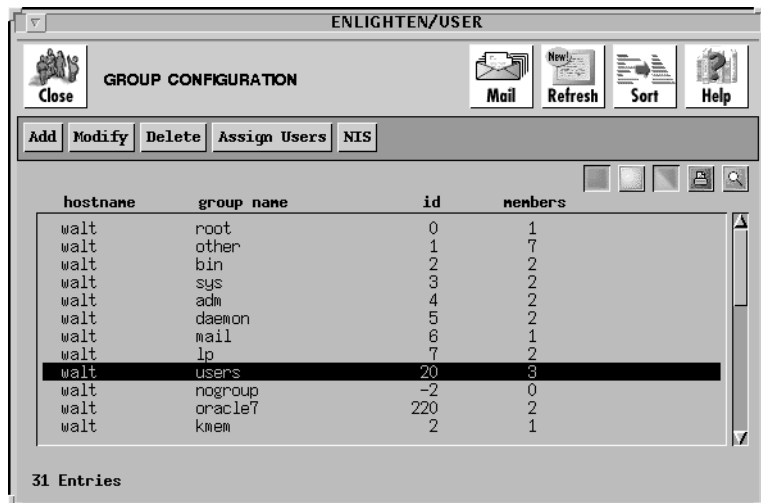1) Choose Groups from the User menu. The Group Configuration window appears.

Figure 3-5 Group Configuration window

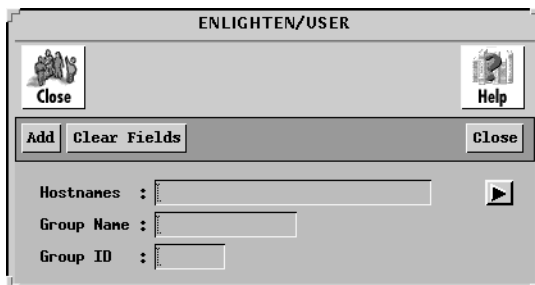2) Click the Add button. The New User Group window appears.

Figure 3-6 New User Group window

3) If you want to limit the group to certain hostnames, type the hostnames in the Hostnames field. Leave a blank between each name if you are including more than one hostname.

4) Type the name of the group in the Groupname field. In general, you probably want to choose a name that reflect the groups function, such as marketing, bizteam, and so on.

5) Enter a unique number (no decimal points). The group ID (GID) is used by the operating system to identify the group rather than the Groupname. SCO operating system has a limit of eight digits.

6) Click the Add button to add the new user group, and then click Close to return to the Group Configuration window.

7) Click the NIS button to push the NIS/NIS+ maps, if applicable.

Modifying Group Parameters

To modify the group parameters that you set up when you created a
new user group,

1) Click the Modify button in the Group Configuration window
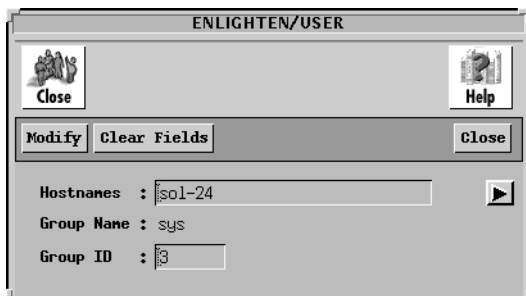([Figure 3-5](#)). The Modify Group Configuration window
appears.

Figure 3-7 Modify Group Configuration window

2) Change the parameters that you want.

3) Click the Modify button to make the changes. Or, click the Next
button to modify additional user accounts if you've selected
more than one account from the User Configuration list.

4) Click the NIS button, if applicable.

Deleting User Groups

To delete an entire user group, select the user group(s) you want to
delete from the list in the Group Configuration window ([Figure 3-5](#))
and then click the Delete button. In addition to removing the
highlighted user groups, links between the user group and members
of the group are deleted. Click the NIS button to make the changes to
the NIS server, if applicable.

Assigning Users

Clicking the Assign Users button (see Figure 3-5) displays the User Group List window (Figure 3-8), which allows you to add users, delete users, or move users to other user groups.

Figure 3-8 User Group List window

To add a new user,

1) Click the Add Users button. A pop-up menu appears listing all of the current users on the system.

2) Highlight the users you want to add.

3) Click the Apply button.

To delete new users,

1) Select the users you want to delete from the User Group List.

2) Click the Delete button.

To move a user from one group to another,

1) Click the Move Users button. A pop-up window appears.

2) Enter the user group that you want to move to in the field, or click the arrow button to display a list of user groups and highlight the group you want.

3) Click the Apply button.

4) Click the NIS button to make all changes.

Setting Up Print Services

Enlighten**DSM** allows you to define a printer as a printer server or a printer client. Printer servers act to efficiently manage print jobs. They receive all of the print requests, queue the jobs, and then distribute each print job to various available printer clients. The printer clients print the jobs sent to them by the printer server.

Enlighten**DSM** provides two configuration options: the Configuration Local option reports only local printer destinations, the Configuration All option displays all of the network and local printers. A local printer refers to a printer directly connected to a host. A network printer is connected directly to your network and so has an IP address.

This section describes how to set up network printers, enable and disable print jobs, and manage print jobs and queues. This section assumes that you have already made the necessary physical connections of your printer to either your host or network.

Refer to Chapter 7, "Printer," in the Enlighten**DSM** *Reference Manual* for information about

- Defining custom printer models or drivers

- Displaying and managing print jobs

Setting Up a Local Print Service

To set up a print service for a locally attached printer,

1) Choose Configure Local from the Printer menu. The Configured Printers window appears.
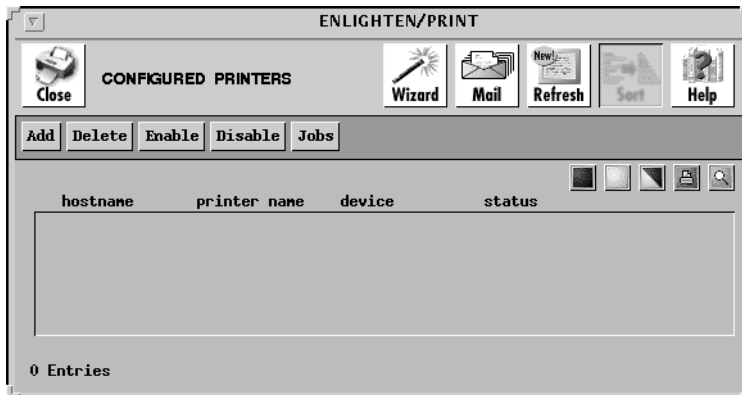

Figure 3-9 Configured Printers window

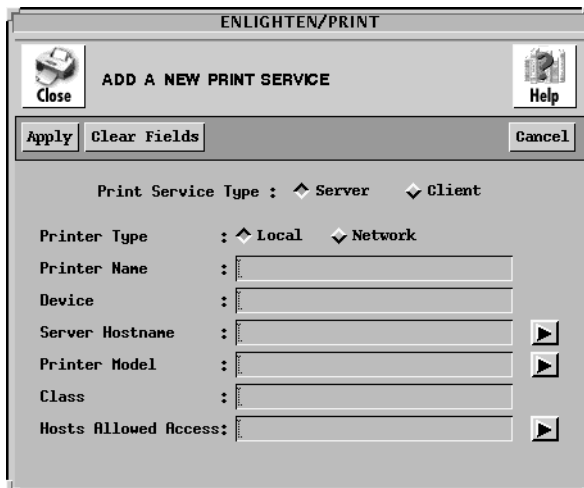2) Click the Add button. The Add a New Print Service window appears.

Figure 3-10 Add a New Print Service window

3)   Click the Print Service Type Server button.

4)   Click the Printer Type Local button.

5)   Enter the printer name that users will refer to the printer in the Printer Name field. Use a meaningful name, such as the printer's location, type, or purpose. This name is also referred to as a printer *queue* or *destination*.

6)   Enter the device, such as `/dev/lp` (parallel) or `/dev/ttyh7` (serial), where the printer will be attached in the Device field. This device must already exist.

7)   Enter the hostname from the current pool that you want to use as the print server for this printer in the Server Hostname field.

8)   Specify the type of printer driver you want to use in the Printer Model field. You must enter a hostname before selecting a driver.

9)   Enter a printer in the Class field. The print job is sent to the first available printer in the printer class. For systems using the System V type spooling system, you can better distribute print jobs on multiple printers of the same type.

   This field is optional. If you don't enter a printer class, then the printer (queue) will not be put into a printer class. If you enter a printer class that does not exist, the class will automatically be created.

☞   The class field is not used by systems using the Berkeley style printer spooler (lpd) or by IBM AIX systems.

10) Enter the hostnames that you want to have access to this printer in the Hosts Allowed Access field.

11) Click the Apply button.

Setting Up a Print Server for a Network Printer

Adding a network print server is similar to adding a local print server.

To add a network print server, follow the steps described in the previous section, <u>"Setting Up a Local Print Service," on page 3-17</u>, and

- Click the Network button for the Printer Type option.

- In the IP Address field, specify the printer's IP address.

Setting Up a Client Print Service

To set up a client print service,

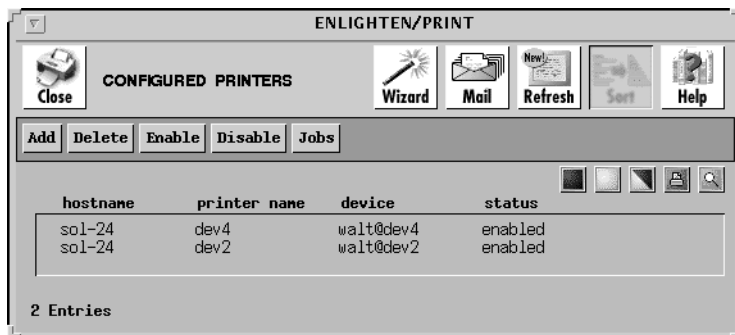1) Choose Configure All from the Printer menu. The Configured Printers window appears.

Figure 3-11 Configured Printers window

2) Click the Add button. The Add a New Print Service window appears.

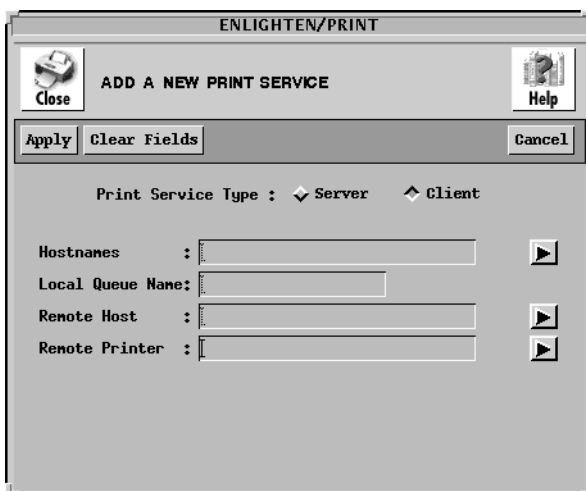3) Click the Client button in the Print Service Type option.

Figure 3-12 Add a New Print Service window

4) Enter the hostname to configure the new printer on a subset of the currently managed hosts. Leave a blank space between each hostname if you are specifying multiple entries. You can also click the arrow button to the right of the field to display a pick list of all currently managed hosts and make your selections from there.

5) Enter the full pathname for the local printer queue (for example, /var/spool/lp).

6) Enter the hostname you want to use as the print server for this particular client. You can also click the arrow button to the right of the field to display a list of all hosts in the current pool.

7) Enter the remote printer you want to use to service the print jobs. Click the arrow button to the right of the field to display a list of all known printers defined on hosts in the current pool.

8) Click the Apply button to save the printer configuration.

Deleting a Printer

To delete a printer from the system,

1) Click the Delete button. The Configured Printers window appears (Figure 3-11).

2) Highlight the printers you want to delete from the system. Enlighten**DSM** prompts you to confirm your choice in order to ensure the selection was correct.

☞ Enlighten**DSM** cannot delete a printer configuration if there are pending print requests. Choose Queue from the Printer menu to move or cancel all pending print requests on the printer you want to delete.

Enabling and Disabling a Printer

The Enable command is similar to turning on the printer. It also tells the print queue administrator daemon that the printer is available for printing. Any print jobs that might have been waiting in the print queue begin to print.

To enable a printer that has been disabled, click the Enable button in the Configured Printers window (Figure 3-11).

☞ When you add a printer to the system, it is automatically enabled.

To stop the highlighted printers from receiving print requests from the spooler, click the Disable button. Any job that is currently printing will be added back to the print queue to be reprinted once the printer is enabled. This command does not stop users from sending print jobs to the disabled printer; those print requests will be added to the print queue.