2
Preparing for the Installation

Before starting the installation procedures described in Chapter 3, you should complete the preparation requirements outlined in this chapter. It provides the information necessary to make your installation run smoothly, including your installation options. Read this chapter to determine the following:

- Whether you need to read the Release Notes
- Whether you are installing DIGITAL InfoServer Client for DIGITAL UNIX software from distribution media or using the DIGITAL UNIX Remote Installation Service (RIS)
- Whether you are installing DIGITAL InfoServer Client for DIGITAL UNIX locally or into a Diskless Management Services (DMS) server area for diskless clients
- If installing DIGITAL InfoServer Client for DIGITAL UNIX software from media, whether your distribution kit includes all the components listed on the Bill of Materials (BOM)
- Whether you need superuser privileges for the system on which you will be installing DIGITAL InfoServer Client for DIGITAL UNIX software
- If the system on which you will install DIGITAL InfoServer Client for DIGITAL UNIX software meets the DIGITAL InfoServer Client for DIGITAL UNIX hardware, software, and disk space requirements
- Which optional DIGITAL InfoServer Client for DIGITAL UNIX subsets you should install
- How much disk space you will need
- Whether you have to back up your system disk

2.1 Release Notes

The DIGITAL InfoServer Client for DIGITAL UNIX distribution kit includes hardcopy release notes. DIGITAL strongly recommends that you read the release notes before using the product.

2.2 Using RIS for Client Installations

If you expect to use DIGITAL InfoServer Client for DIGITAL UNIX subsets from a Remote Installation Services (RIS) server area of a remote system for installation on your local system, first check the following with your site system administrator:

- A DIGITAL InfoServer Client for DIGITAL UNIX kit is installed in the RIS server area and is available for use
- Your system is registered as a RIS client

If DIGITAL InfoServer Client for DIGITAL UNIX subsets are available to you on a RIS server system, you will need the name of that system to start the installation procedure described in this guide.

2.3 Installing into a RIS Server Area

If you manage a RIS server area and intend to install DIGITAL InfoServer Client for DIGITAL UNIX software into your server area, read the following sections of this guide:

- Section 2.5 for information about contents of the media kit
- Section 2.6.3 and Section 2.6.4 for hardware and software requirements, for the names and numbers of software subsets, and for disk space requirements
- Sections 3.1.2.1 and 3.1.2.2 explain the displays and prompts that are specific to DIGITAL InfoServer Client for DIGITAL UNIX installations

To start the installation procedure, do not use the setld command. Use the `ris` utility (see Section 3.2).

2.4 Installing into a DMS Server Area

If you manage a DMS server area and want to install DIGITAL InfoServer Client for DIGITAL UNIX software into a DMS server area, read the following sections of this guide:

- Section 2.5 for information about contents of the media kit
- Section 2.6.3 and Section 2.6.4 for hardware and software requirements, the names and numbers of software subsets, and for disk space requirements
- Sections 3.1.2.1 and 3.1.2.2 explain the displays and prompts that are specific to DIGITAL InfoServer Client for DIGITAL UNIX installations

To start the installation procedure, do not use the `setld` command. Use the `dms` utility (see Section 3.2).

In a local (node-specific) installation, the system on which you are installing DIGITAL InfoServer Client for DIGITAL UNIX software will use its own disks when DIGITAL InfoServer Client for DIGITAL UNIX software is run. A local (node-specific) installation procedure loads DIGITAL InfoServer Client for DIGITAL UNIX files on the disks that belong to the system on which you perform the installation. When DIGITAL InfoServer Client for DIGITAL UNIX software is run, its executable files are mapped into memory on the same system.

In a diskless client environment, the system on which you are installing DIGITAL InfoServer Client for DIGITAL UNIX software is a server for Diskless Management Services and provides the disks for client systems running DIGITAL InfoServer Client for DIGITAL UNIX software. This installation environment is referred to as "diskless" because the system uses DIGITAL InfoServer Client for DIGITAL UNIX software accessed through the network by Network File System (NFS) software. When DIGITAL InfoServer Client for DIGITAL UNIX software is run by users logged into a client system, DIGITAL InfoServer Client for DIGITAL UNIX executables are mapped into memory on the client system rather than the server system. From the perspective of the client node, DIGITAL InfoServer Client for DIGITAL UNIX installation is handled entirely by the manager of the DMS server area.

Note

The diskless server area does not provide DIGITAL InfoServer Client for DIGITAL UNIX software to users logged in to the server system itself. Installing DIGITAL InfoServer Client for DIGITAL UNIX software into the diskless environment provides DIGITAL InfoServer Client for DIGITAL UNIX software only to client systems. Therefore, if users at your site need to use DIGITAL InfoServer Client for DIGITAL UNIX software when logged in to the local server system, you must perform a local (node-specific) installation of DIGITAL InfoServer Client for DIGITAL UNIX software in addition to the diskless installation.

2.4.1 ISO 9660 Compact Disk File System

The ISO 9660 Compact Disk File System (CDFS) kernel option must be compiled into the kernel before accessing ISO 9660 CD-ROMs served by the InfoServer. Refer to the DIGITAL UNIX System Administration and Installation Guide for information about configuring the kernel with the CDFS option.

2.5 Checking the Media Software Distribution Kit

For installations from media, use the BOM to check the contents of your software distribution kit.

The kit includes this installation guide and the CD-ROM optical disk for systems with RRD optical disk drives.

2.6 Installation Procedure Requirements

This section discusses various requirements for installing DIGITAL InfoServer Client for DIGITAL UNIX software.

2.6.1 Time Required for Installation

A local server, DMS server, or RIS server installation takes from 10 minutes to 2 hours, depending on your type of media and your system configuration. A RIS client installation might take longer because it is dependent on network activity at the time you do the installation. If the network is not active, you should expect an installation time roughly equal to a local installation with the Installation Verification Procedure (IVP).

2.6.2 Checking Login Privileges

You must be able to log in as superuser on the system on which you are installing DIGITAL InfoServer Client for DIGITAL UNIX software. Only when you are logged in as superuser, do you have sufficient privileges to install the DIGITAL InfoServer Client for DIGITAL UNIX software.

2.6.3 Hardware Requirements

To perform the installation, you need the following hardware:

- Software distribution device (if installing from media)

  You need a distribution device that corresponds with the software distribution media. You must know how to load the media supplied with the software distribution kit on the appropriate drive. The documentation for the tape or disk drive that you are using explains how to load media.

- Terminal

  You can use a terminal to communicate with the operating system and respond to prompts from the installation procedure for DIGITAL InfoServer Client for DIGITAL UNIX software.

2.6.4 Software Requirements

DIGITAL InfoServer Client for DIGITAL UNIX software requires DIGITAL UNIX V3.2g or V4.0b to be installed. In addition, DIGITAL InfoServer Client for DIGITAL UNIX software requires the following DIGITAL UNIX software subsets to be loaded on the system on which you install DIGITAL InfoServer Client for DIGITAL UNIX software:

- OSFBASE350[1]
- OSFINET350

To install the optional DIGITAL InfoServer Client for DIGITAL UNIX reference pages (manual pages), the following DIGITAL UNIX software subset must be installed on the system on which you install DIGITAL InfoServer Client for DIGITAL UNIX software:

- OSFMANOS350, which is named "Reference Pages Administrator/User".

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[1] The version number (350) in the OSFBASE350 subset applies to DIGITAL UNIX V3.2 only. Use OSFBASE410 for DIGITAL UNIX V4.0b.

If you are installing DIGITAL InfoServer Client for DIGITAL UNIX software in a local (node-specific) environment, perform the following steps to determine whether the preceding DIGITAL UNIX subsets are loaded:

1. Log in to the system on which you plan to install DIGITAL InfoServer Client for DIGITAL UNIX software .
2. Enter the following commands:

```
# setld -i | grep BASE350
# setld -i | grep INET350
# setld -i | grep MANOS350
```

Check the displayed rows for the relevant subset names and for any related patch names. The word `installed` appears in a row after the subset identifier code when a subset is loaded. If the word `installed` does not appear (the second column in a row is blank), the subset or patch is not loaded. In this case, you must load the missing DIGITAL UNIX software before installing DIGITAL InfoServer Client for DIGITAL UNIX software.

2.6.5 Determining Which Subsets to Load

You must choose the DIGITAL InfoServer Client for DIGITAL UNIX subsets you want to load. Table 2-1 lists the product subsets.

Table 2-1 DIGITAL InfoServer Client for DIGITAL UNIX Subsets

Machine	Subset	Name	Description
Alpha	`LPABASE100`	InfoServer Client Drivers	Includes software for the driver and utilities
Alpha	`LPAMAN100`	InfoServer Client Manuals	Includes software for the reference pages

2.6.6 Determining Disk Space Requirements

The disk space requirements discussed in this section apply to the disks on which you load the InfoServer Client for DIGITAL UNIX subsets.

Table 2-2 lists the disk space requirements for loading DIGITAL InfoServer Client for DIGITAL UNIX software subsets on Alpha systems. This table specifies disk space requirements for the convenience of those doing installations on systems on which these file systems are mount points for different disk partitions.

Note

Table 2-2 notes disk space occupied by files after installation. If you are extracting files from media using the `ris` utility only, the DIGITAL InfoServer Client for DIGITAL UNIX files are compressed during the extraction process and require only the following amount of space to be available in the RIS server area:
Distribution files for installing DIGITAL InfoServer Client for DIGITAL UNIX software on Alpha systems require 1835 Kb.

Table 2-2 Subset Sizes (Kilobytes Required) on Alpha Systems

Subset Title	Subset Name	Kilobytes
InfoServer Client Drivers	`LPABASE100`	1800
InfoServer Client Manuals	`LPAMAN100`	35

Using the disk space requirements listed in Table 2-2 for an Alpha system that applies to your system, total the values for the subsets that you plan to load in each file system.

Compare the space required for subsets with the free space currently on the disks on which DIGITAL InfoServer Client for DIGITAL UNIX files will reside.

To determine the current amount of free space for a directory path, log in to the system on which you plan to install DIGITAL InfoServer Client for DIGITAL UNIX software and check the amount of space available in the /usr/opt directory using the DIGITAL UNIX `df` utility:

```
# df -k /usr/opt
```

```
Filesystem   Total    kbytes   kbytes   %
node         kbytes   used     free     used  Mounted on
/dev/rd0g    122598   54447    55892    49%   /usr
```

The previous display indicates that 55892 Kb are free. This free space must accommodate subset requirements listed in Table 2-2.

2.6.6.1 Checking Disk Space for Installation into a Diskless Environment

For DIGITAL InfoServer Client for DIGITAL UNIX installations into the diskless environment, the disks on which DIGITAL InfoServer Client for DIGITAL UNIX subsets reside are on a server system. Therefore, for installations into diskless environments, log in to the server system to check disk space requirements.

Inspect the free space in the environment(s) that you want to install the client. For example, if you have only one diskless installation environment set up on your system, it is found on the path `/var/adm/dms/dms0.alpha`.

This free space must be large enough to hold the subset requirements listed in Table 2-1. Consult the DIGITAL UNIX document entitled, *Sharing Software on a Local Area Network*, for more information on sizing disk space necessary for a DMS installation.

2.6.7 Configuring the Network

The network must be configured for the installation to work properly. If the network is not configured, the installation script will attempt to use the ln0 device as the default when executing the `loadlast` and `startlast` commands. If the default device does not actually exist on the system, error messages will be displayed during the installation as follows:

```
Enabling LAD on network interface "ln0"
loadlast: ioctl (SIOCPHYSADDR): No such device or address
loadlast: illegal node id or device name:  No such device or address
startlast:  LAiocPORTLOAD:  No such device or address
startlast:  Cannot add LAST to the ifnet family
loadladc: setsockopt (LASTPROTO_LADC, LADC_LOAD)
failed:  No such device or address
```

Should this occur, you must either de-install the DIGITAL InfoServer Client for DIGITAL UNIX, set up the network, then perform a re-install or enable the Client manually as described in Section 5.3.5.

Use `grep` to perform a quick check to determine if a network device is configured on your system. If the NETDEV_0 variable is not assigned, then the network needs to be configured. In this case, the NETDEV_0 variable is assigned to the "tu0" device, indicating that the network was configured at one point in time.

```
# grep NETDEV_ /etc/rc.config

# NETDEV_n -- network device name for network devices currently
#             for example, NETDEV_0="ln0"
   NETDEV_0="tu0"
   NETDEV_1=
   NETDEV_2=
   NETDEV_3=
   NETDEV_4=
   NETDEV_5=
   NETDEV_6=
   NETDEV_7=
export NETDEV_0 NETDEV_1 NETDEV_2 NETDEV_3 NETDEV_4 NETDEV_5
NETDEV_6 NETDEV_7
```

Consult the DIGITAL UNIX System Administration documentation for more information on configuring the network under your specific version of the operating system.

2.7 Backing Up Your System Disk

You should back up your system disk before installing any software. Use the backup procedures established at your site. For details on performing a system disk backup, see your DIGITAL UNIX documentation.

2.8 Stopping the Installation

You can stop the installation procedure at any time by using Ctrl/C. However, files created up to that point are not deleted. You must delete these files interactively. Appendix A lists the files and directories created during the installation procedure.

2.9 Error Recovery

If errors occur during the installation, the system displays failure messages. If the installation fails because of insufficient disk space, the installation procedure displays the following messages for Alpha systems:

```
There is not enough file system space for subset LPABASE100.
InfoServer Client Drivers (LPABASE100) will not be loaded.
```

Errors can occur during the installation if any of the following conditions exist:

- The operating system version is incorrect.
- The prerequisite software version is incorrect.
- The system parameter values for successful installation are insufficient.

For descriptions of error messages generated by these conditions, see the DIGITAL UNIX documentation on system messages, recovery procedures, and DIGITAL UNIX software installation. If you are notified that any of these conditions exist, take the appropriate action described in the message. For information on system requirements, see Section 2.6.4.