Digital SNA Data Transfer Facility for OpenVMS

Installation

Part Number: AA-JM76F-TE

May 1996

This document describes how to install either the Digital SNA Data Transfer Facility (OpenVMS/DTF) Server software or the Digital SNA Data Transfer Facility (OpenVMS/DTF) Utilities software from a VMSINSTAL kit.

Revision/Update Information:	This is a revised manual.
Operating System and Version:	OpenVMS VAX Versions 6.1, 6.2, or 7.0 OpenVMS Alpha Versions 6.1, 6.2, or 7.0
Software Version:	Digital SNA Data Transfer Facility for OpenVMS, Version 3.2

May 1996

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Preface

The Digital SNA Data Transfer Facility (DTF) software is a Digital Equipment Corporation product that allows you to transfer files between IBM MVS or VM systems in an SNA network and systems in a Digital network. To use the DTF access routine, you must first install the appropriate versions of the software and hardware that you plan to use. See the Software Product Description (SPD) for this information.

The DTF access routine consists of two major parts: the IBM-resident software (DTF for IBM) and the Digital-resident software (OpenVMS/DTF). The IBM-resident software can be installed on an MVS system or a VM system.

This guide tells you how to install:

- OpenVMS/DTF server software on an OpenVMS server node, or
- OpenVMS/DTF utilities software on an OpenVMS client node

To install the OpenVMS/DTF utilities software successfully, you must also install the OpenVMS/DTF server software on at least one server node.

The postage-prepaid Reader's Comments form on the last page of this manual is for your critical evaluation to assist us in preparing future documentation.

Associated Documents

The Digital SNA Data Transfer Facility software documentation consists of the following manuals:

- *Digital SNA Data Transfer Facility for OpenVMS Installation*
- *Digital SNA Data Transfer Facility for OpenVMS Management*
- *Digital SNA Data Transfer Facility for OpenVMS Problem Solving and Messages*
- *Digital SNA Data Transfer Facility for OpenVMS Use*

You should have the following Digital documents available for reference when you use the Digital SNA Data Transfer Facility software:

- *Common Data Dictionary Summary Description*
- *Common Data Dictionary User's Guide*
- *Common Data Dictionary Utilities Reference*
- *Common Data Dictionary Data Definition Language Reference*
- *Digital SNA Domain Gateway Installation*
- *Digital SNA Domain Gateway Management*
- *Digital SNA Domain Gateway Guide to IBM Resource Definition*
- *DECnet SNA Gateway Problem Determination Guide*
- *DECnet SNA Gateway-CT Installation*
- *DECnet SNA Gateway-CT Problem Solving (OpenVMS & ULTRIX)*
- *DECnet SNA Gateway-CT Management (OpenVMS)*
- *DECnet SNA Gateway-CT Guide to IBM Parameters*
- *DECnet SNA Gateway-ST Installation*
- *DECnet SNA Gateway-ST Problem Solving (OpenVMS)*
- *DECnet SNA Gateway-ST Guide to IBM Parameters*
- *DECnet SNA Gateway Management for OpenVMS*
- *Digital Peer Server Installation and Configuration*
- *Digital Peer Server Management*
- *Digital Peer Server Network Control Language Reference*
- *Digital Peer Server Guide to IBM Resource Definition*
- *OpenVMS SNA Installation*
- *OpenVMS SNA Problem Solving*
- *OpenVMS SNA Guide to IBM Parameters*
- *OpenVMS SNA Management*
- *OpenVMS SNA Problem Determination Guide*

OpenVMS client users may also find the following Digital OpenVMS manuals to be helpful:

- *OpenVMS User's Manual*
- *OpenVMS Record Management Utilities Reference Manual*
- *DEC DATATRIEVE User's Guide*
- *OpenVMS DCL Dictionary*
- *OpenVMS DCL Concepts Manual*
- *Guide to OpenVMS File Applications*

ULTRIX client users may also find the following Digital DECnet–ULTRIX manual to be helpful:

- *DECnet–ULTRIX Use*

DOS client users may also find the following PATHWORKS for DOS manual to be helpful:

- *PATHWORKS for DOS DECnet User's Guide*

OS/2 client users may also find the following PATHWORKS for OS/2 manual to be helpful:

- *PATHWORKS for OS/2 Utilities Guide*

IBM client users may also find the following IBM manuals to be helpful:

- *JCL Reference*
- *CMS Primer*
- *IBM Access Method Services*

The following IBM manuals provide additional reference information that could be helpful in problem determination:

- *DFP: Access Method Services Reference*
- *IBM VTAM Customization*
- *MVS JCL Reference Manual*
- *MVS Service Aids Manual*
- *MVS System Commands*
- *MVS System Messages*
- *VTAM Operator Commands*

- *VM Planning and Reference*
- *VM/SP6 Connectivity, Planning, and Administration*
- *VM/SP5 TSAF*

Acronyms

The following acronyms are used throughout this guide:

DCL	Digital Command Language
DTF	Digital SNA Data Transfer Facility access routine
IBM SNA	IBM's Systems Network Architecture
SNADTFCFG	SNA DTF Configuration utility
TRANSFER /DTF	SNA DTF Transfer utility
OpenVMS/DTF	Digital-resident Data Transfer Facility software

Graphic Conventions

The following conventions are used throughout this guide:

`Special type`	This special type indicates system output or user input.
UPPERCASE	Uppercase letters in command lines indicate keywords that must be entered. You can enter keywords in either uppercase or lowercase. You can abbreviate command keywords to the first three characters or their minimum unique abbreviation.
lowercase italics	Lowercase italics in command syntax or examples indicate variables for which either the user or the system supplies a value.
[ ]	Square brackets in command syntax statements indicate that the enclosed values are optional. You can enter none or one. Default values apply for unspecified options. (Do not type the brackets when you enter a command.)
Return	Press the RETURN key. The RETURN key, which you must press to execute commands, is assumed in command examples and therefore is not always shown in command displays.

1

Preparing to Install the Software

The Digital SNA Data Transfer Facility software (OpenVMS/DTF) is divided into the following software installation kits:

- OpenVMS/DTF Server software
- OpenVMS/DTF Utilities software

This chapter describes the preparations you must make before you install either the OpenVMS/DTF server software or OpenVMS/DTF utilities software.

1.1 A Server Node or a Client Node?

To use DTF to transfer data, you must install the OpenVMS/DTF server software on at least one OpenVMS node in your network. The OpenVMS/DTF server software kit includes the OpenVMS/DTF utilities software, so it is not necessary to install both the server and utilities software on the same node. You can also optionally install the OpenVMS/DTF utilities software on additional client nodes in your network. The OpenVMS/DTF utilities software lets you use features such as recoverable file transfer from a client node.

A typical DTF site consists of multiple client nodes and a single server node. You can also set up your system with multiple client nodes attached to multiple server nodes. You should consider the price/performance ratio of server nodes to client nodes when deciding how many server and client nodes your site needs.

Server nodes contain the SNA file access software necessary for communicating with the DTF for IBM software. A server node communicates with the IBM system through the DECnet SNA Gateway-ST, the DECnet SNA Gateway-CT, the Digital SNA Domain Gateway-CT, the Digital SNA Domain Gateway-ST, the Digital SNA Peer Server, or OpenVMS SNA (OpenVMS VAX Version 6.1 and Version 6.2 only).

Client nodes initiate file transfer requests. A client node can be the source or the destination of the transfer request. DECnet client nodes communicate with server nodes through DECnet. IBM client nodes communicate with the OpenVMS/DTF server through a DECnet SNA Gateway-ST, DECnet SNA Gateway-CT, Digital SNA Domain Gateway-CT, Digital SNA Domain Gateway-ST, Digital SNA Peer Server, or OpenVMS SNA.

After you decide how many server nodes and client nodes you need, you can begin to install the OpenVMS/DTF software.

1.2 Installation Requirements

Before you begin to install the OpenVMS/DTF software, you need to know what software, system privileges, and disk space are required for your installation. Table 1–1 and Table 1–2 list the preliminary installation requirements that you must satisfy before you can begin to install the OpenVMS/DTF software.

Table 1–1 OpenVMS/DTF Server Software Installation Specifications

Requirements	OpenVMS VAX Specifications	OpenVMS Alpha Specifications
Required software	Versions 6.1, 6.2, or 7.0	Versions 6.1, 6.2, or 7.0
Optional software	VAX Common Data Dictionary Version 4.2 or later DEC DATATRIEVE Version 4.1 or later Digital SNA Gateway Management Version 2.0 or later[1]	CDD/Repository for OpenVMS Version 5.2 or later
Privileges	System manager level	
Disk space	7070 blocks minimum during installation 2704 blocks minimum after installation	7606 blocks 4012 blocks
Global pages	1777	2643
Global sections	12	10
Estimated time to install	5 to 15 minutes	
Associated documents	Your processor-specific installation/operations guide	

[1]Gateway Management software is bundled with DECnet SNA Gateway-CT Version 2.1 or later and DECnet SNA Gateway-ST Version 1.2 or later. It is no longer a separate product.

Table 1–2 OpenVMS/DTF Utilities Software Installation Specifications

Requirements	OpenVMS VAX Specifications	OpenVMS Alpha Specifications
Required software	Versions 6.1, 6.2, or 7.0	Versions 6.1, 6.2, or 7.0
Optional software	DEC DATATRIEVE Version 4.1 or later Digital SNA Gateway Management Version 2.0 or later[1]	
Privileges	System manager level	
Disk space	2441 blocks minimum during installation 1139 blocks minimum after installation	2537 blocks 1582 Blocks
Global pages	283	572
Global sections	7	6
Estimated time to install	5 to 15 minutes	
Associated documents	Your processor-specific installation/operations guide	

[1]Gateway Management software is bundled with DECnet SNA Gateway-CT Version 2.1 or later and DECnet SNA Gateway-ST Version 1.2 or later. It is no longer a separate product.

1.3 Inspect the Distribution Kit

The software Bill of Materials (BOM) included with your distribution kit specifies the contents of the distribution kit. Carefully compare the items you received with the items listed in the BOM. If any components are missing or damaged, contact your Digital representative before continuing with the installation.

1.4 Verify Required Disk Space

Make sure that you have adequate disk space before you install the OpenVMS /DTF software. You can check your available disk space by entering the following command:

```
$ SHOW DEVICE system-disk
```

where *system-disk* refers to the device name of the system disk. For more information about the SHOW DEVICE command, refer to the *OpenVMS DCL Dictionary*.

1.5 Verify Required Amount of Global Pages and Global Sections

Make sure that you have enough global pages and global sections free. If there are not enough global pages and global sections, the OpenVMS/DTF software cannot be installed as a shareable image. You can check the number of global pages and global sections available by entering the following commands:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN> SHOW GBLPAGES
SYSGEN> SHOW GBLSECTIONS
```

You can then check the number of global pages and global sections in use by entering the following commands:

```
$ INSTALL
INSTALL> LIST/GLOBAL
```

By subtracting the second set of values from the first, you can determine if there are enough global pages and global sections free for your use. If you need to increase the total available, you must edit the SYS$SYSTEM:MODPARAMS.DAT file and include the following lines:

For server installation:

```
ADD_GBLPAGES=n
ADD_GBLSECTIONS=n
```

For client installation:

```
ADD_GBLPAGES=n
ADD_GBLSECTIONS=n
```

Where *n* is the appropriate value from Table 1–2.

After modifying these values, you must run AUTOGEN by using the following commands:

```
$ @SYS$UPDATE:AUTOGEN SAVPARAMS GENPARAMS
$ @SYS$UPDATE:AUTOGEN SETPARAMS REBOOT
```

These commands will recompute your system parameters. AUTOGEN will also perform an automatic shutdown and reboot when it is finished.

1.6 Register and Load the Product Authorization Key

Make sure that you have registered and loaded the Product Authorization Key (PAK) before you begin the installation. Refer to the *OpenVMS License Management Utility Reference Manual* for this information.

1.7 Choose Locations for the DTF Directories–New Installation Only

Select locations for the DTF directories. You need to determine which disk you want to contain the DTF work directories ([SNADTF] and [DTF$SERVER]). The default directory location, SYS$COMMON, is available to an entire cluster.

The [SNADTF] directory contains the following information:

- All OpenVMS/DTF databases (OpenVMS/DTF server only)
- Execution queue work files
- Execution queue job files
- DTF log files

The [DTF$SERVER] directory contains the log files for all IBM-initiated DTF transfer operations directed to nodes that do not have the OpenVMS/DTF utilities software installed. In the case of IBM-initiated transfer requests without access control information, both the files and the log files for the transfer are placed in the DTF$SERVER directory.

Current directories will be used for an upgrade to an existing installation.

1.8 Select UICs for the DTF Directories–New Installation Only

Select user identification codes (UICs) for the DTF directories. You must assign unused UICs to the [SNADTF] and [DTF$SERVER] directories. The DTF directory UICs keep unauthorized users from accessing OpenVMS/DTF databases and work files. The [SNADTF] directory default UIC of [55,56] is in the same group as the SNACSV account default UIC (the DECnet SNA Gateway-ST, DECnet SNA Gateway-CT, Digital SNA Domain Gateway-CT, Digital SNA Domain Gateway-ST, Digital SNA Peer Server, or OpenVMS SNA work directory). The [DTF$SERVER] directory default UIC is [54,56].

The current UICs will be retained for an upgrade to an existing installation.

1.9 Select a Password for the SNADTF$MGR Account–New Installation Only (Server Only)

Select a password of at least 6 characters for the SNADTF$MGR account. The SNADTF$MGR account is created by the server installation procedure and allows users on other nodes to access the OpenVMS/DTF databases. This password ensures that only authorized users can access the OpenVMS/DTF databases.

The existing account will be updated for an upgrade to an existing installation.

1.10 Verify That the Queue Manager Is Running

The installation procedure starts an OpenVMS/DTF execution queue. Make sure that the queue manager is running; if it is not, the installation will fail. You can use the following command to start the queue manager:

```
$ START/QUEUE/MANAGER
```

For more information about the START/QUEUE/MANAGER command, refer to the *OpenVMS DCL Dictionary*.

When installing OpenVMS/DTF on a node where any version of the product has previously been installed, you must stop all queues created by the previous installation of the DTF software. This ensures that the newly installed software rather than the previously installed software will handle the DTF queues.

1.11 Back Up Your System Disk

Before you start an installation that involves writing to your system disk, Digital Equipment Corporation recommends that you make a backup copy of your system disk. The *System Manager's Manual* explains how to back up your system disk.

2
Installing the Software

This chapter describes the steps when you install OpenVMS/DTF software products. If you install the OpenVMS/DTF utilities software on a node that contains the OpenVMS/DTF server software, the information that was added during the server software installation will be deleted.

2.1 The Installation Dialog

The procedure for installing files on an OpenVMS system is automated. You simply answer questions displayed while the procedure (VMSINSTAL) runs. Most questions require a simple yes (Y) or no (N) answer. The OpenVMS/DTF installation (whether server or utilities) should take no longer than 15 minutes, depending on the type of medium you use. The estimated installation time does not include preparation time or problem resolution time.

Note

You can install the OpenVMS/DTF software from two locations: the Consolidated Software Distribution CD-ROM or a remote node in your local area network using the Remote Installation Service (RIS). The VMSINSTAL procedure presented in this chapter assumes the OpenVMS/DTF software is being installed from your local area network.

To install the OpenVMS/DTF product from the Consolidated Software Distribution CD-ROM, see the master index table in the document *Consolidated Software Distribution Disk User's Guide* for the directory containing the OpenVMS/DTF files.

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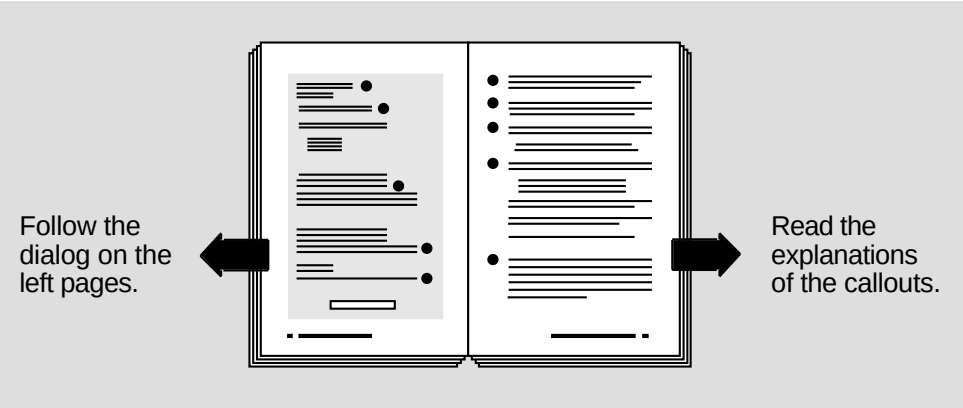
The following illustration shows how the installation information is presented.



LKG–8311–93R

Most of the questions supply default answers which appear in brackets throughout the installation procedure. Press Return to accept a default answer. Press Ctrl/Y to abort the installation procedure at any time; later, you can restart the installation.

Example 2–1 Installation Dialog - Part 1

```
Username: SYSTEM    Return  1
Password: password  Return

$ SET DEFAULT SYS$UPDATE  Return

$ @VMSINSTAL product-name ddcu:  [OPTIONS N]  Return  2

        OpenVMS VAX Software Product Installation Procedure V6.1

It is dd-mmm-yyyy at hh:mm.
Enter a question mark (?) at any time for help.

%VMSINSTAL-W-ACTIVE, The following processes are still active:
   JONES
* Do you want to continue anyway [NO]? Y  Return  3
* Are you satisfied with the backup of your system disk [YES]?  Return  4

Please mount the first volume of the set on  MUA0:.
* Are you ready? yes  Return  5
%MOUNT-I-MOUNTED, SNADTF mounted on _MUA0:
```

The following callout descriptions refer to Example 2–1:

1 Digital Equipment Corporation recommends that you install software from the system manager's account [SYSTEM] with your default device and directory set to SYS$UPDATE.

2 VMSINSTAL prompts you if you do not supply the product and device names. If you want to be prompted for the product name, device name, and installation options, type the following:

```
$ @SYS$UPDATE:VMSINSTAL Return
```

product-name
SNADTFU for the OpenVMS/DTF utilities software distribution kit.
SNADTFS for the OpenVMS/DTF server software distribution kit.

ddcu:
A device name where the distribution kit for the OpenVMS/DTF installation media will be mounted, where *dd* is the device, *c* is the controller, and *u* is the unit number. It is not necessary to use the console drive to install OpenVMS/DTF. MUA0: is the device name used in this example.

OPTIONS N
An optional parameter you should provide if you want to be prompted to display or print the release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not prompt you to display or print the release notes, but does copy them to SYS$HELP. VMSINSTAL also permits the use of several other options. For more information on options, see your processor-specific installation/operations guide.

3 If users are logged in, you are asked whether you want to continue the installation. To continue, type Y and press Return. To stop the installation, press Return.

4 Before you proceed with the installation, make sure you have a good backup copy. If you are satisfied with the backup of your system disk, press Return. If you do not have a good backup copy, type N and press Return to end the installation.

5 This group of three lines appears only when your distribution medium is a tape. Mount the distribution kit volume on the appropriate drive. Type YES and press Return when you are ready.

Example 2–2 Installation Dialog - Part 2

```
The following products will be processed:
  product-name V3.2


        Beginning installation of product-name V3.2 at hh:mm

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
    Release notes included with this kit are always copied to SYS$HELP.

    Additional Release Notes Options:

    1. Display release notes
    2. Print release notes
    3. Both 1 and 2
    4. None of the above

* Select option [2]: Return 6
* Queue name [SYS$PRINT]: Return
Job product-name032 (queue SYS$PRINT, entry 681) started on LPA0
* Do you want to continue the installation [NO]? Y Return 7
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.
* Do you want to purge files replaced by this installation [YES]? Return 8

        Product:      SNA-DTF-xxx 9
        Producer:     DEC
        Version:      V3.2
        Release Date: dd-mmm-yyyy

* Does this product have an authorization key registered and loaded?Y Return 10
```

The following callout descriptions refer to Example 2–2:

6 This step applies only if you specified OPTIONS N.

If you select option 1, VMSINSTAL displays the release notes. Press Ctrl/C to terminate the display.

If you select option 2, VMSINSTAL prompts you for a queue name. Either type a queue name or press Return to send the file to the default output print device.

If you select option 3, VMSINSTAL displays the release notes and then prompts you for a queue name.

If you select option 4, VMSINSTAL does not display or print the release notes.

Note

Printing the release notes is recommended because of their length.

Read the release notes carefully before continuing with the VMSINSTAL procedure.

7 To continue the installation, type Y and press Return. If you type N or press Return, VMSINSTAL moves the release notes to SYS$HELP and ends the installation.

8 If you answer YES to this prompt, VMSINSTAL deletes previous versions of the distribution files.

Press Return after the prompt if you want to purge the files replaced during installation.

9 SNA-DTF-SVR for OpenVMS/DTF server software; SNA-DTF-UTL for OpenVMS/DTF utilities software.

10 Use the OpenVMS License Management Facility (LMF) to register the product.

Check to see if this is the same information contained in your Product Authorization Key (PAK). Type YES or NO in response to the question.

If you do not register and load your authorization key, the product will not install and run correctly. For more information on LMF, refer to the *OpenVMS License Management Utility Reference Manual*.

Example 2–3 Installation Dialog - Part 3

```
* Do you want to run the IVP after the installation [YES]? Return 11
* Device to be used for the DTF directories [SYS$COMMON:]: Return 12
%VMSINSTAL-I-SYSDISK, This product creates system disk directory SYS$COMMON:[SNADTF].
* Do you want the installation to delete old DTF databases [YES]?Return 13
```

The following callout descriptions refer to Example 2–3:

11 After you install the OpenVMS/DTF software, you should verify that the software was properly installed. To include verification checking, press Return.

The verification procedure begins later in the installation procedure and verifies the installation of the following:

- SNADTFCFG utility
- SNADTFCFG utility help files
- TRANSFER/DTF utility
- TRANSFER/DTF utility help files
- Default DTF queue file
- SNARCOPY object

On server systems only: The verification procedure also verifies the modification of the File Access Listener (FAL) object.

12 This prompt is displayed if you are installing OpenVMS/DTF for the first time. Specify the disk on which you want the OpenVMS/DTF [SNADTF] and [DTF$SERVER] directories to reside. The default device is SYS$COMMON. If a previous version of DTF is found you will receive a DIRALREXI error message in place of this prompt.

13 DTF V3.0 server account, proxy, and file definition databases are not compatible with DTF V3.2. If the installation procedure finds these databases, the procedure automatically upgrades the databases to be DTF V3.2 compatible. The procedure then changes the extension of the old databases to be .OLD. These old databases are no longer needed. If you wish to delete the old databases, answer YES to this question.

Example 2–4 Installation Dialog - Part 4

```
* UIC for directory SNADTF (include brackets) [[55,56]]: Return 14
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named SNADTF. 15
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier SNADTF value: [000055,000056] added to rights data
base.
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named SNADTF.
%UAF-I-MDFYMSG, user record(s) updated
* Password for SNADTF$MGR account (6 characters minimum):      Return 16
* Password verification:       Return 17
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named SNADTF$MGR. 18
%UAF-I-ADDMSG, user record successfully added
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named SNADTF$MGR.
%UAF-I-MDFYMSG, user record(s) updated
VMSINSTAL-I-SYSDIR, This product creates system disk directory SYS$COMMON:[DTF 19
$SERVER]
* UIC for account DTF$SERVER (include brackets) [[54,56]]: Return
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named DTF$SERVER. 20
%UAF-I-ADDMSG, user record successfully added
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named DTF$SERVER.
%UAF-I-MDFYMSG, user record(s) updated
```

The following callout descriptions refer to Example 2–4:

14 This prompt is displayed if you are installing OpenVMS/DTF for the first time. Specify the user identification code (UIC) for the SNADTF account using the following standard UIC format:

[*g*,*u*]

where

g is the group number in octal. For security reasons, the group number should never be the same as an existing group number or the same as a system management group number (less than 10).

u is the user number in octal.

15 These five lines are displayed if you are installing the OpenVMS/DTF server software. If DTF is already installed, only the two update messages are displayed.

16 This prompt is displayed if you are installing the OpenVMS/DTF server software for the first time. Type a password for the SNADTF$MGR account and press Return; the password is not displayed on the screen for security reasons.

17 This question is displayed to catch any typing errors that might have occurred when you entered the password for the SNADTF$MGR account. Type the password again and press Return.

18 These 4 messages are displayed for server software installations only. If DTF is already installed, only the update message is displayed.

19 These 2 messages are displayed for server and utilities software installations.

20 These 4 messages are displayed for server and utilities software installations. If DTF is already installed, only the update message is displayed.

Example 2–5 Installation Dialog - Part 5

```
%product-name-I-NOMORQUES, no further questions 21

%REGISTER-I-ADDED added SNADTF$DISPATCHER to registry 22
%REGISTER-I-SUMMARY  images examined: 1, dependent images: 1
%REGISTER-I-ADDED added SNADTF$COPY to registry
%REGISTER-I-SUMMARY  images examined: 1, dependent images: 1
     Checksum file updated last by ZZZZZZ on DD-MMM-YYY HH:MM:SS.ss
%NET$CONFIGURE-I-VERCHEKSUM, verifying checksums  23
%NET$CONFIGURE-I-USECOMMON, using cluster common APPLICATION script
%NET$CONFIGURE-I-USECOMMON, using cluster common EVENT script
%NET$CONFIGURE-I-OVERRIDECOMMON, node specific MOP_CLIENT script
 overrides the cluster common settings

    The following NCL script files have been modified since being
    created by this procedure:

        SYS$SPECIFIC: [SYSMGR]NET$MOP_CIRCUIT_STARTUP.NCL;

    This procedure may create a new version of these scripts or modify
    information contained within them.  In all cases, any previously
    created NCL scripts are rename to "file.NCL-OLD", so that you
    may review any of your previous changes.

%NETCONFIGURE-I-MAKEACCOUNT, this procedure creates user account DTF$SERVER
$NCL @SYS$COMMON:[SYSMGR]NET$APPLICATION_STARTUP.NCL-TEMP;

Node 0 Session Control Application SNARCOPY
at YYYY-MM-DDD=HH:MM:SS.sss-TDF


Node 0 Session Control Application SNARCOPY
at YYYY-MM-DDD=HH:MM:SS.sss-TDF

Characteristics

    Addresses                       =
       {
            name = SNARCOPY
       }
    Client                          = <Default value>
    Incoming Alias                  = True
    Incoming Proxy                  = True
    Outgoing Alias                  = True
    Outgoing Proxy                  = True
    Node Synonym                    = True
    Image Name                      = SYS$SYSTEM:SNARCOPY.EXE
    User Name                       = "DTF$SERVER"
    Incoming OSI TSEL               = <Default value>
```

The following callout descriptions refer to Example 2–5:

21 No more input is required. If you typed Y in response to the purged files prompt, previous versions of the files are now purged.

If the installation procedure is successful, the executable files are moved to their target directory.

22 These informational messages are displayed on Alpha systems running OpenVMS Version 7.0.

23 The following network informational messages are displayed on systems running DECnet/OSI network software.

Example 2–6 Installation Dialog - Part 6

```
$vef = F$verify(vef)
%NET$CONFIGURE-I-MODCHECKSUM, checksumming NCL management scripts modified by NET$CONFIGURE
%NET$CONFIGURE-I-CONFIGCOMPLETED, DECnet/OSI for OpenVMS configuration completed
    Checksum file updated last by XXXXXX on DD-MMM-YYY HH:MM:SS.ss
%NET$CONFIGURE-I-VERCHECKSUM, verifying checksums  24
%NET$CONFIGURE-I-USECOMMON, using cluster common APPLICATION script
%NET$CONFIGURE-I-USECOMMON, using cluster common EVENT script
%NET$CONFIGURE-I-OVERRIDECOMMON, node specific MOP_CLIENT script
 overrides the cluster common settings

    The following NCL script files have been modified since being
    created by this procedure:

          SYS$SPECIFIC: [SYSMGR]NET$MOP_CIRCUIT_STARTUP.NCL;

    This procedure may create a new version of these scripts or modify
    information contained within them.  In all cases, any previously
    created NCL scripts are rename to "file.NCL-OLD", so that you
    may review any of your previous changes.

%NET$CONFIGURE-I-MODCHECKSUM, checksumming NCL management scripts modified by NET$CONFIGURE
%NET$CONFIGURE-I-CONFIGCOMPLETED, DECnet/OSI for OpenVMS configuration completed
    Checksum file updated last by XXXXXX on DD-MMM-YYY HH:MM:SS.ss
%NET$CONFIGURE-I-VERCHECKSUM, verifying checksums  25
%NET$CONFIGURE-I-USECOMMON, using cluster common APPLICATION script
%NET$CONFIGURE-I-USECOMMON, using cluster common EVENT script
%NET$CONFIGURE-I-OVERRIDECOMMON, node specific MOP_CLIENT script
 overrides the cluster common settings

    The following NCL script files have been modified since being
    created by this procedure:

         SYS$SPECIFIC: [SYSMGR]NET$MOP_CIRCUIT_STARTUP.NCL;

    This procedure may create a new version of these scripts or modify
    information contained within them.  In all cases, any previously
    created NCL scripts are rename to "file.NCL-OLD", so that you
    may review any of your previous changes.

$NCL @SYS$COMMON:[SYSMGR]NET$APPLICATION_STARTUP.NCL-TEMP;

Node 0 Session Control Application FAL
at YYYY-MM-DDD=HH:MM:SS.sss-TDF


Node 0 Session Control Application FAL
at YYYY-MM-DDD=HH:MM:SS.sss-TDF

Characteristics
```

The following callout descriptions refer to Example 2–6:

24 The following network informational messages are displayed on systems running DECnet/OSI network software.

25 The following network informational messages are displayed on systems running DECnet/OSI network software.

Example 2–7 Installation Dialog - Part 7

```
    Addresses                       =
       {
           number = 17
       }
    Client                          = <Default value>
    Incoming Alias                  = True
    Incoming Proxy                  = True
    Outgoing Alias                  = True
    Outgoing Proxy                  = True
    Node Synonym                    = True
    Image Name                      = SYS$SYSTEM:SNADTF$FAL.EXE
    Incoming OSI TSEL               = <Default value>

$vef = F$verify(vef)
%NET$CONFIGURE-I-MODCHECKSUM, checksumming NCL management scripts modified by NET$CONFIGURE
%NET$CONFIGURE-I-CONFIGCOMPLETED, DECnet/OSI for OpenVMS configuration completed
    This installation has added the following files:

        [SYSHLP]SNADTF$CFG_HELP.HLB
        [SYSLIB]SNADTF$COPY.EXE
        [SYSMSG]SNADTF$MESSAGE.EXE
        [SYSHLP]SNADTF$RCOPY_HELP.HLB
        [SYSEXE]SNADTF$SYMBIONT.EXE
        [SYSEXE]SNADTFCFG.EXE
        [SYSEXE]SNARCOPY.EXE

    In addition, the following server specific files are added: 26

        [SNADTF]SNADTF$DISPATCHER.COM
        [SYSEXE]SNADTF$DISPATCHER.EXE
        [SYSEXE]SNADTF$FAL.COM
        [SYSEXE]SNADTF$FAL.EXE
        [SNADTF]SNADTF$FILE_DEFINITION.DAT
        [SNADTF]SNADTF$FILE_DEFINITION.FDL
        [SYSEXE]SNADTF$LOGIN.COM
        [SNADTF]SNADTF$PROXY.FDL
        [SNADTF]SNADTF$SERVER_ACCOUNT.DAT
        [SNADTF]SNADTF$SERVER_ACCOUNT.FDL
        [SYSTEST]SNADTF$SERVER_IVP.COM
        [SYS$STARTUP]SNADTF$STARTUP_SERVER.COM
        [SYSHLP]SNADTFS032.RELEASE_NOTES

    In addition, the following utilities specific files are added: 27

        [SYSTEST]SNADTF$CLIENT_IVP.COM
        [SYS$STARTUP]SNADTF$STARTUP_CLIENT.COM
        [SYSHLP]SNADTFU032.RELEASE_NOTES
```

The following callout descriptions refer to Example 2–7:

26 These 13 files are added if you are installing the OpenVMS/DTF server software.

27 These 3 files are added if you are installing the OpenVMA/DTF utilities software.

Example 2–8 Installation Dialog - Part 8

```
This installation has defined a network task object called SNARCOPY.

The FAL network object has been redefined to use the DTF server software. 28

Run SYS$SYSTEM:NCP and issue the following to examine the object database:

    NCP> LIST OBJECT SNARCOPY CHARACTERISTICS
    NCP> LIST OBJECT FAL CHARACTERISTICS
Or, if you have a DECnet Phase V system, run NCL and issue the following
to examine the objects:

    NCP> SHOW SESSION CONTROL APPLICATION SNARCOPY ALL
    NCP> SHOW SESSION CONTROL APPLICATION FAL ALL  29

You must add the following line to the SYS$STARTUP:SYSTARTUP_VMS.COM system
startup procedure:

    $ @SYS$STARTUP:SNADTF$STARTUP_SERVER SYS$COMMON: [P2] [P3] [P4] -
    [P5] [P6] [P7] [P8] 30

            where P2 is the list of SNADTF queues to be started at
            system startup time, and P3 is a YES/NO value indicating
            whether a generic SNADTF queue is to be started at system
            startup time.  P4 is the list of server account names to be
            used for server sessions by SNADTF$DISPATCHER and P5 is the
            time interval the dispatcher is to wait before trying to
            reconnect to the IBM host after a session disconnect. P6 is
            the list of transfer account names to be used for transfer
            sessions between SNADTF$FAL and DTF for IBM. P7 is YES or NO,
            indicating whether SNADTF$DISPATCHER should send a cluster
            alias or system-specific node name to DTF for IBM. P8 is the
            translation table file name that will be used by
            SNADTF$DISPATCHER for translating ASCII to EBCDIC and
            vice versa. Please see the OpenVMS/DTF Management manual for more
            information and defaults used.

    $ @SYS$STARTUP:SNADTF$STARTUP_CLIENT SYS$COMMON: [P2] [P3] 31

            where P2 is the list of SNADTF queues to be started at
            system startup time, and P3 is a YES/NO value indicating
            whether a generic SNADTF queue is to be started at system
            startup time.  Please see the OpenVMS/DTF Management manual for
            more information.
```

The following callout descriptions refer to Example 2–8:

28 This message is displayed if you are installing the OpenVMS/DTF server software.

29 These lines are displayed if you are installing the OpenVMS/DTF server software.

30 This line and the following paragraph are displayed if you are installing the OpenVMS/DTF server software.

31 This line and the following paragraph are displayed if you are installing the OpenVMS/DTF utilities software.

Example 2–9 Installation Dialog - Part 9

```
    The installation process will now add the server accounts SNADTF and
    SNASERVER to the server account database. 32

%SNADTF-I-ADDSER, server account SNADTF added 33
%SNADTF-I-ADDSER, server account SNASERVER added
%SNADTF-I-CREATEACC, if SNASERVER is used for file transfer, add an OpenVMS account 34

    The installation process will now update the DTF databases to V3.2 35
    format, if necessary.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
Starting SNADTF Dispatcher; process name SNADTF$DISPATCH 36
%RUN-S-PROC_ID, identification of created process is xxxxxxxx
```

The following callout descriptions refer to Example 2–9:

32 This sentence is displayed if you are installing the OpenVMS/DTF server software for the first time.

33 These two messages are displayed if you are installing the OpenVMS/DTF server software for the first time.

34 This message is displayed if you are installing the OpenVMS/DTF server software for the first time. You can ignore this message because the SNASERVER account is used to handle IBM requests and not to transfer files.

35 This sentence is displayed if you are installing the OpenVMS/DTF server and you requested that the server databases be updated.

36 These two messages are displayed if you are installing the OpenVMS/DTF server software.

Example 2–10 Installation Dialog - Part 10

```
    Running the product-name Installation Verification Procedure at hh:mm 37

   Checking NCP data base if Object FAL file is SNADTF$FAL.COM 38

Object Volatile Summary as of dd-mmm-yyyy hh:mm:ss
   Object   Number  File/PID                  User Id          Password
  FAL           17  SYS$SYSTEM:SNADTF$FAL.COM

   Checking NCP data base if Object SNARCOPY file is SNARCOPY.EXE

Object Volatile Summary as of dd-mmm-yyyy hh:mm:ss
   Object   Number  File/PID                  User Id          Password
  SNARCOPY       0  SYS$SYSTEM:SNARCOPY.EXE

    Testing configuration utility HELP command

  Information available:

  ADD        DISABLE    ENABLE     EXIT       HELP       MODIFY     REMOVE
  SHOW       USE_NODE

    Testing configuration utility SERVER_ACCOUNT commands
%SNADTF-I-CREATEACC, if SNADTFIVP is used for file transfers, add an OpenVMS account

Server account:  SNADTFIVP
Access Name:                PU:                       Node:
Application:                Logon Mode:               Session:
Translation:     LOCAL      Null:        NONE         Service m/c:
File Definition:                                      IBM_Prefix:
Gateway:
```

The following callout descriptions refer to Example 2–10:

37 If you responded Y to the IVP prompt, the installation procedure now calls the IVP to verify that the DTF software was successfully installed.

If the installation procedure or IVP fails for any reason, the following message is displayed:

```
%VMSINSTAL-E-INSFAIL, the installation of product-name V3.2
```

Errors can result if any of the following conditions are true:

- Incorrect version of the OpenVMS operating system
- Insufficient disk quotas

The *OpenVMS System Manager's Manual* explains error messages generated by these conditions.

If you are notified that any of these conditions exist, you should take the action described in the message. You might need to change a system parameter or increase an authorized quota value.

If an IVP failure causes the installation to fail, contact a Digital field service representative.

38 The SNADTF$FAL section is displayed if you are running the OpenVMS /DTF server IVP.

Example 2–11 Installation Dialog - Part 11

```
    Testing configuration utility FILE_DEFINITION commands

!
!   File definition: SNADTFIVP
!
BASE
    RELEASE                     NO
    SINGLE                      NO
    SPANNED                     NO
    SUPERSEDE                   NO
    TRANSLATE                   YES
    VSAM_SEQUENTIAL             NO

    Testing TRANSFER/DTF utility HELP command

HELP

    The HELP command displays on-line documentation for the OpenVMS/DTF
    utility.

    Format:

      HELP [keyword...]

  Additional information available:

  CANCEL     COPY       EXIT       HELP       SET        SHOW

    Testing TRANSFER/DTF  utility SHOW QUEUE command

SNADTF queue SNADTF$QUEUE, on OSAKA::
    /BASE_PRIORITY=4 /OWNER=[SYSTEM] /PROTECTION=(S:E,O:D,G:R,W:W)

  Default INTERVAL:     0 00:30:00.00  Minimum INTERVAL:  Unspecified
  Default RETRIES:     48              Maximum RETRIES:   Unspecified
  Default TIME:         1 00:00:00.00  Maximum TIME:      Unspecified

    product-name Installation Verification Procedure completed successfully.
        Installation of product-name V3.2 completed at hh:mm

        VMSINSTAL procedure done at hh:mm

$ LOGOUT  39
SYSTEM     logged out at dd-mmm-yyyy hh:mm
```

The following callout descriptions refer to Example 2–11:

39 VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you are going to continue using the system manager's account and want to restore those symbols, you should log out and log in again.

2.2 Files Installed

All files are installed in SYS$COMMON.

VMSINSTAL installs the following files on both OpenVMS/DTF server nodes and OpenVMS/DTF client nodes:

File	Description
[SYSHLP]:SNADTF$CFG_HELP.HLB	SNADTFCFG help library
[SYSLIB]:SNADTF$COPY.EXE	OpenVMS/DTF shareable library
[SYSMSG]:SNADTF$MESSAGE.EXE	OpenVMS/DTF error message file
[SYSHLP]:SNADTF$RCOPY_HELP.HLB	TRANSFER/DTF help library
[SYSEXE]:SNADTF$SYMBIONT.EXE	Symbiont for OpenVMS/DTF queues
[SYSEXE]:SNADTFCFG.EXE	SNADTFCFG utility
[SYSEXE]:SNARCOPY.EXE	TRANSFER/DTF utility

Note

The DCL tables found in SYS$LIBRARY:DCLTABLES.EXE are updated during installation.

VMSINSTAL installs the following additional files on your OpenVMS/DTF server node:

File	Description
[SYS$STARTUP]:SNADTF$STARTUP_ SERVER.COM	Command procedure executed at system startup
[SNADTF]:SNADTF$DISPATCHER.COM	Dispatcher startup file
[SYSEXE]:SNADTF$DISPATCHER.EXE	IBM command dispatcher
[SYSEXE]:SNADTF$FAL.COM	Command file for FAL object
[SYSEXE]:SNADTF$FAL.EXE	File Access Listener (FAL)
[SNADTF]:SNADTF$FILE_DEFINITION.DAT	File definition database
[SNADTF]:SNADTF$FILE_DEFINITION.FDL	RMS file definition for the file definition database
[SYSEXE]:SNADTF$LOGIN.COM	Login command file used by VMS /DTF server accounts

File	Description
[SNADTF]:SNADTF$PROXY.FDL	RMS file definition for proxy database
[SNADTF]:SNADTF$SERVER_ACCOUNT.DAT	Server account database
[SNADTF]:SNADTF$SERVER_ACCOUNT.FDL	RMS file definition for the server account database
[SYSTEST]:SNADTF$SERVER_IVP.COM	Server verification procedure
[SYSHLP]:SNADTFS032.RELEASE_NOTES	Release notes

VMSINSTAL installs the following additional files on your OpenVMS/DTF client node:

File	Description
[SYSTEST]:SNADTF$CLIENT_IVP.COM	Utilities verification procedure
[SYS$STARTUP]:SNADTF$STARTUP_CLIENT.COM	Command procedure executed at system startup
[SYSHLP]:SNADTFU032.RELEASE_NOTES	Release notes

2.3 Changes to the DECnet Databases

The following changes are made to the DECnet databases as a result of installing the OpenVMS/DTF software:

1. For OpenVMS/DTF server software only, the File Access Listener (FAL) object is modified in both the DECnet permanent database and the DECnet volatile database.
2. The SNARCOPY object is defined in both the DECnet permanent database and the DECnet volatile database.

Note

If you have altered the FAL on your OpenVMS/DTF server node, you must add the alterations to the FAL installed with the OpenVMS/DTF server software.

3

After Installing the Software

This chapter describes the tasks you should do after you install the OpenVMS /DTF software on the system.

3.1 Configure the OpenVMS/DTF Software

After you have successfully installed the OpenVMS/DTF software and before you can begin transferring files, you must configure OpenVMS/DTF. To configure OpenVMS/DTF, do the following tasks:

1. **Server Only:** Set up the server account database.
2. **Server Only:** Authorize access to server accounts.
3. **Server Only:** Optionally, set up the proxy database.
4. **Server Only:** Optionally, set up the file definition database.
5. Edit the SYS$MANAGER:SYSTARTUP_VMS.COM system startup procedure to include either:

   ```
   @SYS$STARTUP:SNADTF$STARTUP_SERVER
   ```

   or

   ```
   @SYS$STARTUP:SNADTF$STARTUP_CLIENT
   ```

   Optionally, add startup parameters to control the DTF operating environment.

Refer to *Digital SNA Data Transfer Facility for OpenVMS Management* for information on configuring and managing OpenVMS/DTF.

3.2 Verify the Installation of the OpenVMS/DTF Server Software

The installation verification procedure (IVP) runs automatically at the end of the installation if you have chosen that option. You can run the IVP at any time by executing the following command:

For Server Nodes:

```
$ @SYSTEST:SNADTF$SERVER_IVP.COM
```

For Client Nodes:

```
$ @SYSTEST:SNADTF$CLIENT_IVP.COM
```

If the software was not properly installed, error messages are displayed. Correct the problems indicated by the messages and rerun the OpenVMS/DTF installation procedure. If you receive IVP errors, you have a bad kit; contact your Digital representative.

Note

The IVP does not verify whether the OpenVMS/DTF server software can communicate with an IBM system.

3.3 Verify DTF for IBM with OpenVMS/DTF

After the OpenVMS/DTF and DTF for IBM software has been installed and configured, use the OpenVMS/DTF software to see if DTF for IBM can perform the following functions:

- Create and delete a non-VSAM file.
- Copy to and from a non-VSAM file.
- Create and delete a VSAM file.
- Copy to and from a VSAM file.

If you cannot perform these functions, see the *Digital SNA Data Transfer Facility for OpenVMS Use.*

3.4 Verify DTF for IBM Security Exits

Verify DTF for IBM security exits by using the DCL commands supported by DTF in the manner described in the following paragraphs.

You should test the following cases using the DIRECTORY command:

- An invalid user ID
- A valid user ID with an invalid password
- A valid user ID with an expired password

You should test the following case using the DELETE command:

- A valid user ID and password but no authorization to delete

You should test the following case using the CREATE command:

- A valid user ID and password but no authorization to create

You should test the following case using the TYPE command:

- A valid user ID and password but no authorization to read

You should test the following case using the OPEN and WRITE commands:

- A valid user ID and password but no authorization to write

You should test the following case using the COPY command:

- A valid user ID and password but no authorization to update

On VM systems, you may wish to test the following additional cases:

- An invalid owner ID
- A valid owner ID with an invalid minidisk password
- A valid owner ID and password but not authorized for delete, create, read, write, and update