BASEstar Open Client for OpenVMS

Installation and Management Guide

Order Number: XX-YYYYY-ZZ

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This manual contains instructions for installing and setting up the BASEstar Open Client product.

Revision/Update Information:	This is a new document for the current release.
Operating System and Version:	OpenVMS Alpha Version V6.1 or higher OpenVMS VAX Version V6.1 or higher
Software Version:	BASEstar Open Client Version 3.2

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Preface

This guide describes how to install the BASEstar Open Client software, and how to manage the BASEstar Open Client environment and make it available to end users.

Intended Audience

This manual is addressed to system managers responsible for installing and setting up BASEstar Open Client software.

Prerequisites

Any user responsible for installing and managing the BASEstar Open Client environment must know how to manage the native operating system. A basic knowledge of BASEstar Open features is also recommended.

Structure of this Document

This document consists of the following chapters and appendices:

- Chapter 1 provides a product overview.
- Chapter 2 describes the procedures that you must complete before installing BASEstar Open Client on OpenVMS Alpha and OpenVMS VAX systems.
- Chapter 3 describes the BASEstar Open Client installation procedure for OpenVMS Alpha and OpenVMS VAX systems.
- Chapter 4 describes the Installation Verification Procedure (IVP) and the post-installation procedures that you must complete in order to use BASEstar Open Client on OpenVMS Alpha and OpenVMS VAX systems.
- Chapter 5 describes the environment management commands on OpenVMS systems.
- Chapter 6 contains a reference section that provides full details of each environment management command.
- Chapter 7 describes the log system and the log management commands on OpenVMS systems.
- Chapter 8 contains a reference section that provides full details of each log management command.
- Appendix A contains a listing of a sample BASEstar Open Client installation.

BASEstar Open Documentation Set

This manual describes a software component or aspects of the BASEstar Open family of products. The complete set of documents relating to the BASEstar Open family is as follows:

- BASEstar Open:
  - *BASEstar Open Introduction*
  - *BASEstar Open Reference Guide*
  - *BASEstar Open Command Language Interface*
  - *BASEstar Open Application Programming Interface*
  - *BASEstar Open Messages*
  - Platform-specific installation and management guides
  - *BASEstar Open Guide to DCM-Modeled Device Connectivity* (for supported platforms)
- BASEstar CIMfast (for supported platforms):
  - *BASEstar CIMfast User's Guide*
  - *BASEstar CIMfast Programmer's Reference Guide*
  - *BASEstar CIMfast Guide to DECmessageQ Support* (not available on Windows NT platforms)
  - *BASEstar CIMfast Guide to SQL Support*
- DEComni API:
  - *DEComni API and MMS User Guide*
  - *DEComni API Guide to Using Omni Directory Services* (for supported platforms)
  - *DEComni API Guide to Using OmniView* (for supported platforms)
  - *DEComni API Omni Definition Facility User Guide* (for supported platforms)
- Device Access Software documentation
  - Specific manuals for each supported device

Conventions

Table 1 lists the conventions used in the BASEstar Open documentation set.

Table 1 Conventions Used in BASEstar Open

%	The default user prompt is your system name followed by a right angle bracket (>). In the BASEstar Open docset, a percent sign (%) is used to represent this prompt.
Ctrl/x	Indicates that you must hold down the Ctrl key while you press another key.

(continued on next page)

Table 1 (Cont.) Conventions Used in BASEstar Open

Return	In examples, a key name enclosed in a box indicates that you press a key on the keyboard. (In text, a key name is not enclosed in a box.)
. . .	A vertical ellipsis indicates the omission of items from a code example or sample command; the items are omitted because they are not important to the topic being discussed.
. . .	A horizontal ellipsis in format descriptions or in examples indicates one of the following possibilities: • Additional optional arguments in a statement have been omitted. • The preceding item or items can be repeated one or more times. • Additional parameters, values, or other information can be entered.
[ ]	In format descriptions, brackets indicate optional elements; you can select none, one, several, or all of the choices. (Brackets are not optional, however, in the syntax of a directory name in an OpenVMS file specification, or in the syntax of a substring specification in an assignment statement.)
( )	In format descriptions, parentheses indicate that, if you choose more than one option, you must enclose the choices in parentheses.
boldface text	Boldface text represents one of the following cases: • user input • the introduction of a new term • the status values **true** or **false**
italic type	Indicates titles of manuals, variables, arguments, data structures, fields, callable functions, operands, and utilities. Italic text also represents information that can vary in system messages (for example, Internal error *number*), command lines (for example, /PRODUCER=*name*), and command operands in text.
`code type`	Indicates information that is part of the code for a program or application.
numbers	Unless otherwise noted, all numbers in the text are assumed to be decimal. Nondecimal radixes—binary, octal, or hexadecimal—are explicitly indicated.
UPPERCASE TEXT	Uppercase text indicates a command, the name of a file, the name of a file protection code, the abbreviation for a system privilege, the name of a field, or the value of an attribute where attributes are chosen from a list.
"point_a + point_b"	Literal string. Using quotation marks is optional unless there is a space, slash (/), or parenthesis in the string.
BASEstar Open names	Valid characters for the names of BASEstar Open objects are the alphanumeric characters (A–Z) and (0–9), the underscore (_), the dollar sign ($), and the following multinational characters: ÅÀÁÂÃÄÇÈÉÊËÌÍÎÏÒÓÔÕÖÙÚÛÜÆÑ@Øß.

1

BASEstar Open's Client-Server Architecture

1.1 BASEstar Open Servers and Clients

BASEstar Open provides a range of services that are typically required by industrial automation applications and not normally available from the underlying operating systems. These services include the possibility of responding to or generating asynchronous plant occurrences (Events), connecting to industrial automation devices, and distributing device data and information plantwide. In BASEstar Open, these services are provided by specific processes (BASEstar Open servers) such as the following:

- Event Services server
- Data & Device Services server
- Application Management Services server
- Packet Services server

There are several ways in which user applications can access these services:

- C language programs, which use the BASEstar Open Application Program Interface (API)
- BASEstar Open's Command Line Interface (CLI)
- BASEstar Open's high level language, CIMFAST

From a purely BASEstar Open architectural point of view, these user applications can be considered clients of the requested BASEstar Open service provider (server). This client/server relationship exists regardless of whether the application resides on the same physical node as the server or on a different BASEstar Open network node. In fact, from a functionality point of view, the location of the requested BASEstar Open server has no impact on the application.

However, the application may be impacted in other ways depending on whether its node is a BASEstar Open Server node or a BASEstar Open Client node, for example in the level of system management support available. This consideration is fundamental to an analysis of the different roles of BASEstar Open Server nodes and Client nodes, as outlined in Section 1.1.1.

1.1.1 Roles of BASEstar Open Servers and Clients

Server nodes represent the robust computing engine for industrial automation applications where plant data is collected, managed and made available throughout the network. On these nodes, which may be dual host to maximise reliability, you can activate and manage mission-critical applications under the control of BASEstar Open's Application Management Services (AMS). (AMS provides system management services for monitoring the status of applications and managing their orderly startup and shutdown). These server nodes also manage the connections to automation devices such as PLCs or Numeric

Controllers. This environment may be part of the controlled computer room environment with all the procedures necessary for starting up applications and their recovery in the event of a failure.

Client nodes, on the other hand, provide a less sophisticated, easier to use, "plug & play" environment for any application anywhere in the network which needs to access the services provided by BASEstar Open. For example, it is common practice to use PC-based and workstation client nodes as visualization stations distributed throughout the enterprise for providing up-to-date graphical or reporting information regarding the state of the plant, production status, etc. This type of node is often the typical desktop environment, with its suite of personal productivity tools and mail system, which, with the incorporation of the BASEstar Open Client software, becomes a viewing/reporting station providing real-time plant information.

From a system management point of view, client nodes also provide several advantages with respect to a server nodes. It is easier to set them up and "plug them in" to a BASEstar Open network.

1.1.2 Configuration Differences

BASEstar Open configuration is the process by which BASEstar Open objects are described and defined. These objects like Data_Points, Devices, BASEstar Open services etc., once defined become part of one or more Realms and are physically located on one or more BASEstar Open Server Nodes. BASEstar Open Client nodes instead do not physically contain any BASEstar Open objects so are not part of a Realm but do provide access to Realms in support of BASEstar Open Client-based applications.

Even though the BASEstar Open Client nodes are not impacted (modified), by the BASEstar Open configuration process the PC-based BASEstar Open Client can have an important role in this process. In fact, the PC-based client is often used as a configuration station on those PCs where the BASEstar Open Graphic Configuration utility is installed.

1.1.3 Product Differences

All BASEstar Open services, including Event management, data Management and device management, are part of the BASEstar Open Server product. This product comes in two flavours: Development and Runtime.

With a development license, you can link compiled C language programs which make calls to the BASEstar Open API against the BASEstar Open Runtime Library. You can then deploy these applications on server or client nodes. The Runtime License does not allow you to develop programs, but permits all developed applications to be deployed on the BASEstar Open Runtime Server product which includes all the BASEstar Open services.

The BASEstar Open Client product does not offer the BASEstar Open services directly, but provides a means for BASEstar Open applications to obtain transparent access to these services, which are located on servers anywhere in the network. BASEstar Open has its own communication system for allowing client applications, regardless of where they are located, to access BASEstar Open services.

As a general indication, it is possible to summarise the differences between the BASEstar Open Server and the BASEstar Open Client product as follows:

- BASEstar Open Server only
  - Device connection
  - Repository for BASEstar Open objects (Data_Points, Events etc.)
  - Application management via Application Management Services (AMS)
  - Trace troubleshooting facility
  - Execution of invoked BASEstar Open services
- Available on both BASEstar Open Server and BASEstar Open Client
  - Ability to access BASEstar Open services

PC-based clients and servers support some features which are specific to the PC environment. These include:

- A graphic configuration tool for configuring BASEstar Open objects
- DDE bridge for communicating with DDE-compliant PC applications.

Note

The discussion in this chapter is of a generic nature; its aim is to clarify the conceptual differences between BASEstar Open Server nodes and BASEstar Open Client nodes. The availability of a given feature on a specific BASEstar Open platform depends on the released version of the product. For information regarding specific functionalities, consult the detailed product documentation (SPD, release notes).

2

Preparing to Install BASEstar Open Client on an OpenVMS System

2.1 Pre-Installation Checklist

Table 2–1 summarizes the tasks you must perform before installing BASEstar Open Client on an OpenVMS system. Make sure that you have performed all these tasks before proceeding with the installation.

Table 2–1 Pre-Installation Checklist

Task	For More Information
Check that you have the complete kit	See Section 2.2
Check that you have the pre-requisite hardware, software, and license	See Section 2.4, Section 2.5, and Section 2.6
Back up your system disk	See Section 2.7
Check that you have the required privileges	See Section 2.8.1
Check that you have enough disk space	See Section 2.8.2
Check account quotas	See Section 2.8.3
Check system parameters	See Section 2.8.4

2.2 Checking the Contents of the Distribution Kit

Your Bill of Materials (BOM) and indented bills report (BIL) specify the number and contents of your media. Be sure to verify the contents of your kit with this information. If your kit is damaged or if you find that parts of it are missing, contact your COMPAQ representative.

COMPAQ provides a BASEstar Open Client cover letter with the kit, and online release notes in the following files:

- SYS$HELP:BSTROCVA032.RELEASE_NOTES (OpenVMS Alpha)
- SYS$HELP:BSTROCVV032.RELEASE_NOTES (OpenVMS VAX)

COMPAQ strongly recommends that you read both the cover letter and the release notes before proceeding with the installation.

2.3 Required Operating System Components

Both the OpenVMS Alpha and the OpenVMS VAX operating systems come with a variety of support options, or classes. Classes include such features as networking and RMS Journaling.

For a complete list of the required classes, refer to the BASEstar Open *Software Product Description* (SPD).

2.4 Pre-requisite Hardware

Table 2–2 lists the hardware items needed to install BASEstar Open Client.

Table 2–2 Hardware Requirements for Installing BASEstar Open Client

Item	Purpose
RRD40 CD Reader[1] RRD40 CD Reader, nine-track magnetic tape drive, TK50 or TK70 as appropriate for distribution kit media[2]	To install from media
ANSI-compatible video display terminal such as the VT300 or VT400 series	To communicate with the operating system and respond to prompts.
Any VAXstation[2] or terminal that supports the X Window System	For graphic screen development.

[1]For OpenVMS Alpha only.

[2]For OpenVMS VAX only.

2.5 Pre-requisite Software

You can install BASEstar Open Client Version 3.2 on:

- OpenVMS Alpha Version 6.1 or higher
- OpenVMS VAX Version 6.1 or higher

The pre-requisite software also includes the following layered products:

- DEC TCP/IP Services for OpenVMS

For further details of these products, including the currently supported version numbers, refer to the BASEstar Open Client *Software Product Description* (SPD 47.87.xx).

To displays the OpenVMS operating system version that you are running, execute the following command:

```
$ WRITE SYS$OUTPUT F$GETSYI("VERSION")
```

2.6 Pre-requisite Licenses

BASEstar Open Client Version 3.2 does not need any kind of registration, so you do NOT have to register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The registration must be performed on BASEstar Open Server Version 3.2. Refer to BASEstar Open Server and Client Release Notes for further details of the licenses available.

If you are installing pre-requisite or optional software along with BASEstar Open Client, review the PAK status and install the PAKs for any pre-requisite or optional software before you install BASEstar Open Client.

2.7 Backing Up Your System Disk

At the beginning of the installation, the procedure asks if you have backed up your system disk. COMPAQ recommends that you do a system disk backup before installing any software. If a system failure occurs at a critical point during the installation, some of the files could be corrupted. For further information about backing up your system disk, refer to the section on the Backup Utility in the *OpenVMS System Manager's Manual*.

In addition, make sure that the VMS Help library is not used during the course of the BASEstar Open Client installation.

2.8 Preparing Your System

This section outlines the necessary disk space, privileges, and parameter values that are required for installing BASEstar Open Client for OpenVMS Alpha and VAX).

VMSINSTAL checks for the required values and reports any errors before deciding if to fail.

2.8.1 Account Privileges

To install BASEstar Open Client, you must be logged in to the system management account SYSTEM, and have ALL privileges set. Note that the installation procedure, VMSINSTAL, disactivates the BYPASS privilege at the start of the installation.

2.8.2 Disk Space Requirements

To install BASEstar Open Client, there must be at least 10,000 blocks of free disk space (peak block count) on the system disk. Once you have installed BASEstar Open Client, the BASEstar Open Client environment requires 9,000 blocks of free disk space.

To determine the number of free disk blocks, enter the following command at the DCL prompt:

```
$ SHOW DEVICE device_name
```

where *device_name* refers to the device on which you intend to install BASEstar Open Client for OpenVMS.

2.8.3 Account Quotas for Installation

The account from which BASEstar Open Client is installed must have certain minimum quotas. Before attempting to install BASEstar Open Client, verify that the account has the correct quotas.

Table 2–3 summarizes the minimum quotas required for the installation of BASEstar Open Client on OpenVMS Alpha and OpenVMS VAX.

Table 2–3 Minimum Quotas for Installing BASEstar Open Client on OpenVMS

User Account Parameter	Minimum Values
ASTLM	20
BIOLM	18
DIOLM	20 (Alpha) 18 (VAX)
ENQLM	20
FILLM	20
JTQUOTA	1024
PGFLQUOTA	10,000
PRCLM	4 (Alpha) 10 (VAX)
TQELM	6 (Alpha) 20 (VAX)
WSDEFAULT	512 (Alpha) 256 (VAX)
WSQUOTA	1024 (Alpha) 512 (VAX)
WSEXTENT	2048

Use the Authorize utility to display the process quotas, as follows:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN AUTHORIZE
UAF> SHOW SYSTEM
```

If no changes are necessary, enter the EXIT command to leave the Authorize utility.

To modify system account quotas (for example, BYTLM), use the following command line:

```
UAF> MODIFY SYSTEM/BYTLM=32768
```

The utility responds with a message confirming the change. You can then enter the EXIT command to exit from the utility. You must log out and then log in again to reset the system account quotas.

The Authorize utility is described in the *OpenVMS System Manager's Manual*.

2.8.4 OpenVMS SYSGEN Parameters and Minimum Values

In order to install BASEstar Open Client successfully, you must set a series of System Generation Utility (SYSGEN) parameters before attempting the installation. Table 2–4 and lists the minimum required values for the system parameters.

To install and run BASEstar Open Client, you must have sufficient free global pages and global sections. You must first determine how many free global pages and sections you have on your system. Then use AUTOGEN if you need to increase the values of the GBLPAGES and GBLSECTIONS system parameters.

Table 2–4 Minimum Required System Parameter Values - OpenVMS Alpha

System Parameter	Minimum Values[1]
Available GBLPAGES	4000 (Alpha) 4000 (VAX)
Available GBLSECTIONS	4 (Alpha) 4 (VAX)

[1]The values listed for these system parameters represent the minimum number of free global pages and global sections required to run BASEstar Open Client in addition to the requirements of your current system and other software. These values are not the total number you need to run your system and other software.

Checking System Parameter Values

To check the values of your system parameters, use either of the following methods:

- For the number of remaining free pages and free sections

  Use the DCL lexical F$GETSYI with a system parameter *item* (for example, FREE_GBLPAGES and FREE_GBLSECTS) as follows:

  ```
  $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
  5680
  $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
  128
  ```

  If the values for the free global pages or global sections displayed by the system are greater than the values in Table 2–4, you do not need to increase them. If the values are lower, you must increase the system parameter settings.

- For the static number of free pages and free sections

  Invoke the System Generation Utility (SYSGEN):

  ```
  $
  RUN SYS$SYSTEM:SYSGEN
  SYSGEN>
  ```

  At the SYSGEN> prompt, enter the SHOW command to display the value of a system parameter. The values displayed should equal or exceed the value of each system parameter listed in Table 2–4. The following example displays the value for the GBLPAGES system parameter:

  ```
  SYSGEN>
  SHOW GBLPAGES
  ```

  After checking the parameters with the SHOW command, enter the EXIT command at the SYSGEN> prompt to return to DCL level.

3

Installing BASEstar Open Client on an OpenVMS System

3.1 Installation Procedure

Before you begin installing BASEstar Open Client, make sure that your system meets the requirements outlined in Chapter 2 and that you have completed all the tasks listed in Table 2–1.

The BASEstar Open Client installation procedure consists of a series of questions and informational messages. To abort the installation procedure at any time, press Ctrl/Y. If you press Ctrl/Y, the installation procedure deletes all files it has created up to that point and exits. You can then start the installation again.

The approximate time required for the full installation of BASEstar Open is as follows:

- 1 to 3 minutes, for OpenVMS Alpha
- 1 to 5 minutes, for OpenVMS VAX

However, the exact time depends largely on the type of media you are using and your system configuration.

3.2 VMSINSTAL Checks

When you invoke VMSINSTAL, it checks whether:

- You have set your default device and directory to SYS$UPDATE
- You are logged in to the system management account SYSTEM
- DECnet is running
- Any users are logged in to the system

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process and correct the situation, enter NO or press Return. Then correct the problem and restart the installation.

3.3 Installation Steps

The following steps describe how to install BASEstar Open on OpenVMS Alpha:

1. **Start the installation**

To start the installation, invoke the SYS$UPDATE:VMSINSTAL.COM procedure from a privileged account (for example, SYSTEM). Use the kit name **BSTROCVA032** (for OpenVMS Alpha) or **BSTROCVV032** (for OpenVMS VAX) as the first parameter to the command VMSINSTAL. Use the device or directory on which the installation kit is located as the second parameter.

For example, if the media containing the BASEstar Open Client software is on device mua0, then you must issue the following command to install BASEstar Open Client:

```
$ @SYS$UPDATE:VMSINSTAL BSTROCVA032 MUA0:

        OpenVMS AXP Software Product Installation Procedure V7.1

It is 13-MAY-1998 at 14:05.

Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later in the installation procedure.

2. **Confirm system backup**

```
  * Are you satisfied with the backup of your system disk [YES]?
```

VMSINSTAL asks if you are satisfied with your system backup. You should always back up your system disk before performing an installation. If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

3. **Installation begins**

At this point VMSINSTAL continues with the installation as follows:

```
The following products will be processed:
  BSTROCVA V3.2

        Beginning installation of BSTROCVA V3.2 at 14:05
%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.
******************************************************************************

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              - BASEstar Open V3.2-0 Installation Procedure -

******************************************************************************
```

```
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
BASEstar Open Client option will be installed
```

For more information on the license requirement for the installation of BASEstar Open, refer to Section 2.6.

4. **Installing on target disk**

   VMSINSTAL asks you where you would like to have BASEstar Open installed. If your system is a VAXcluster and you would like to have BASEstar Open available on all or a set of nodes in the cluster you must install BASEstar Open on a disk that is visible to those nodes in the cluster.

```
    BASEstar Open can be installed on any disk of your system.
    There is no default disk: you must enter a disk name.
    The following disks are available on the system.

VIGGIU$DKA0:            Mounted             0  SWAP          1250586     3   1
VIGGIU$DKA100:          Mounted             0  USER1          219015     3   1
VIGGIU$DKA200:          Mounted             0  GRZ200         215400     2   1
VIGGIU$DKA300:          Mounted             0  VMS020         128664   433   1
VIGGIU$DNFS1:           Mounted             0  BODDS               0     1   0
VIGGIU$DNFS2:           Mounted             0  BINTEGR             0     1   0
VIGGIU$DNFS4:           Mounted             0  BMACCHI             0     1   0
VIGGIU$DNFS5:           Mounted             0  BODDS310            0     1   0

* Target disk:  VIGGIU$DKA100:

* BSTROCVA V3.2 root directory [[BSTROCVA032]]:  [BSTRCLT]


    You are going to install BSTROCVA V3.2 on

    Target disk:    VIGGIU$DKA100:
    Root directory: [BSTRCLT]

* Is this correct [Y]?
```

5. **Running the BASEstar Open IVP following the installation**

   The installation procedure now asks if you wish to run the BASEstar Open Installation Verification Procedure (IVP) after the installation is complete, as follows:

```
* Do you want to run the IVP after the installation [YES]?
```

   For more information on the IVP, refer to Section 4.2.

   There are no further questions concerning the installation of BASEstar Open.

6. **Continue with the installation?**

   You are now asked if you wish to continue with the installation, as follows:

```
******************************************************************************

   All the questions regarding the installation of BASEstar Open Client
   have been answered. The installation will take from 1 to 3 minutes,
   and the IVP about 1 minutes, depending on the CPU type and
   the system workload.

******************************************************************************

* Do you want to continue [Y]?  y
```

7. **Read informational messages.**

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation.

8. **Creating Files**

   If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary.

   The following messages are displayed:

```
%VMSINSTAL-I-MOVEFILES, files will now be moved to their target
                                    directories...
```

9. **Running BASEstar Open IVP**

   At this point, BASEstar Open verifies that:

   – A valid license for BASEstar Open has been installed

   – The installation procedure has been successful

   – You have responded yes during installation of BASEstar Open to the question about running the IVP.

   If all the above requirements are met, it runs the BASEstar Open IVP:

   a. **Running the BASEstar Open IVP**

      The installation procedure:

      • Checks that all the installation files are in the correct locations

      For more information on running the BASEstar Open IVP separately, refer to Section 4.2.1.

For an example of a complete log of an installation, refer to Appendix A .

3.4 Error Recovery

If errors occur during the installation, VMSINSTAL displays failure messages. If the installation itself fails, you see the following message:

```
%VMSINSTAL-E-INSFAIL, The installation of BSTROCVA032 V3.2
has failed.
```

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

- The operating system version is incorrect.
- A prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient.
- System parameter values for successful installation are insufficient.
- The OpenVMS Help library is currently in use.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages, recovery procedures, and OpenVMS software installation. If you are notified that any of these conditions exist, you should take the appropriate action as described in the message. For information on installation requirements, see Chapter 2.

If GBLPAGES and GBLSECTIONS are insufficient, the installation continues but displays warning messages that BASEstar Open may fail during the IVP or during runtime.

4

Completing the Installation of BASEstar Open Client on an OpenVMS System

4.1 Post-Installation Checklist

Table 4–1 summarizes the tasks you must perform after installing BASEstar Open Client on a OpenVMS system. Make sure that you have performed all these tasks before using BASEstar Open Client.

Table 4–1 Post-Installation Checklist

Task	Notes
Run the Installation Verification Procedure (IVP)	See Section 4.2
Setting up and start the BASEstar Open Client environment	See Section 4.3

4.2 Running the Installation Verification Procedure Separately

After BASEstar Open Client is installed, COMPAQ recommends that you run the Installation Verification Procedure (IVP) to verify that the software on your system is accessible. You might also want to run the IVP after a system failure to make sure that users can access BASEstar Open Client. The approximate duration of the IVP is as follows:

- 1 minute (OpenVMS Alpha)
- 1 minute (OpenVMS VAX)

4.2.1 Running the BASEstar Open Client Installation Verification Procedure

To run the BASEstar Open Client IVP, you must issue the following command from an account that has all privileges set:

```
$ @BSTR$KITCLT:[ETC]BSTR_IVP BSTR$KITCLT CLIENT
```

You are not asked any questions during the IVP. If the IVP has completed successfully, a message similar to the following is displayed:

```
BASEstar Open Client V3.2 IVP completed successfully
```

4.3 Setting and Starting up the BASEstar Open Client Environment

After the BASEstar Open Client installation, you must perform procedures which set up and start up the node.

4.4 Determining and Reporting Problems

If you encounter a problem while using BASEstar Open Client, report it to COMPAQ. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call COMPAQ if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).
- Fill out and submit a Reader's Comments form if the problem has to do with the BASEstar Open Client documentation. There are Reader's Comments forms at the back of each manual. Use the form from the manual in which you found the error. Include the section and page number.

Review the BASEstar Open Client *Software Product Description* (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as indicated above or follow alternate instructions provided by COMPAQ for reporting SPD non-conformance problems.

5

Configuring and Managing BASEstar Open Client on a OpenVMS System

This chapter describes the operations that you have to perform after installing BASEstar Open Client on a OpenVMS system, in order to ensure that it is ready for use.

5.1 Setting Up and Starting the BASEstar Open Client Environment

After installing BASEstar Open Client, you must execute a series of procedures to configure and start/stop the product:

- bstr_node_setup

  When you execute this procedure, BASEstar Open Client creates the file directories and data files that store in a permanent way the configuration attributes; among the permanent data, there are the node names to be contacted to set up a connection with the BASEstar Open realms to be accessed.

- bstr_node_start

  When you execute this procedure, BASEstar Open Client starts the watchdog process and the log process.

  The watchdog process manages the connections between the BASEstar Open Client applications and the server sides. The log process records the basic operations and the failures reported by the watchdog process and BASEstar Open applications.

- bstr_node_shut

  When you execute this procedure, BASEstar Open Client stops the watchdog and log processes.

- bstr_node_unset

  When you execute this procedure, BASEstar Open Client deletes the data files and directories created by bstr_node_setup.

5.1.1 Configuring the BASEstar Open Client Environment

The DCL procedure BSTR_NODE_SETUP is stored in the ETC directory of the directory where BASEstar Open Client was installed. It must be run with at least the specification of the installation directory.

It prompts the user by requesting the location of the work directory where it will create the file directories and data files for the configuration), and the name(s) of the nodes to be contacted for BASEstar Open Servers.

- Run the procedure by specifying the location of the installation kit.

```
$  @DKA200:[BSTRCLT.ETC]BSTR_NODE_SETUP -L DKA200:[BSTRCLT] [-V]
```

- The procedure prompts for the name of the work directory it is going to create.

```
Name of the work directory. You must introduce the path name (according to
 the rules of VAX/VMS - .e.g. "DISK:[SUBD1.SUBD2]" )
 of an UNEXISTING directory :

 BSTR.Spool_Work_Dir:  []
```

- At the above request, you must enter the name of the BASEstar Open work root. Type the pathname of the directory where you want BASEstar Open Client to keep its run-time work tree:

```
BSTR.Spool_Work_Dir:  []   DKA200:[BSTRCLT.WORK]
```

- You may decide to abort the set-up procedure; the procedures creates the configuration directories.

```
If you are not satisfied with the settings of installation parameters
you can terminate the procedure and run it again:
Do you want to continue ? [Y] :  y
@@@ Working on configuration parameters, please wait

@@@ creating BSTR_ETC:bstrusers_MYNODE.com file

@@@ creating BSTR_ETC:bstrcom_MYNODE.cfg file
```

- To configure BASEstar Open Client you must specify at least one name of a host where BASEstar Open Server is (or will be) installed. The LNS server(s) of the host(s) you specify will be contacted sequentially to locate the Communication Server to connect to for a given realm. You can specify up to eight LNS servers. WARNING: you will be able to access only the realms that are (or will be) served by one of the LNS servers you specify.

```
This file will contain a list of one of more LNS nodes.
BASEstar Open Client will attempt the connection to the
Server environment by scanning this list.
Please provide at least one host name; you will be prompted
for additional names until an empty line is entered.

The BSTR_ETC:bstrcom_MYNODE.cfg file can be modified by means
of a common text editor.
```

- The system prompts you for the name of at least one host on which BASEstar Open Server is installed; When finished entering LNS server(s), press the RETURN key only.

```
Host name of a BASEstar Open LNS Server node:  ninfea
Host name of a BASEstar Open LNS Server node:
```

- The procedures creates the work directories and files.

```
@@@ creating SYS$STARTUP:BSTR$STARTUPCLT.COM;1 file

@@@ Creating dka200:[bstrclt.work] ...
@@@ Creating dka200:[bstrclt.work.node] ...
@@@ Creating dka200:[bstrclt.work.node.com] ...
@@@ Creating dka200:[bstrclt.work.node.fdb] ...
@@@ Creating dka200:[bstrclt.work.node.trc] ...
@@@ Creating dka200:[bstrclt.work.node.tmp] ...
@@@ Creating dka200:[bstrclt.work.node.log] ...
@@@ Creating dka200:[bstrclt.work.realm] ...
Going to create trace db...
$
```

5.1.2 Starting Up BASEstar Open Client

You cannot start up BASEstar Open Client unless you have the necessary authorization (see Section 5.1.1).

To perform the startup procedure, execute the following commands:

```
$  bstr$kitclt:[etc]bstrusers
$  bstr_node_start
```

After executing the *bstr_node_start* command, you can run BASEstar Open Client applications. To do so, follow these steps:

1. Include the following statement in your `login.com` file:

   ```
   $  @bstr$kitclt:[etc]bstrusers
   ```

2. Set the environment variable BSTR_REALM to the name of the Realm that you wish to use on the system(s) running BASEstar Open servers. You cannot perform any BASEstar Open Client operations on these systems until you have configured and started the Realm.

Example:

```
$  DEFINE BSTR_RLM R2
$  cli_bstr
```

5.1.3 Shutting Down BASEstar Open Client

Shutting down the BASEstar Open Client means to stop the processes that manage the connections between the client and the server sides.

You cannot shut down BASEstar Open Client unless you have the necessary authorization (see Section 5.1.1).

To perform the shutdown procedure, execute the following commands:

```
$  @bstr$kitclt:[etc]bstrusers
#  bstr_node_shut [-v]
```

The *bstr_node_shut* procedure shuts down BASEstar Open Client without checking to see whether any client applications are running. Therefore, it is the responsibility of the user to ensure that no client applications are running before executing *bstr_node_shut*.

5.1.4 Unsetting BASEstar Open Client

Unsetting BASEstar Open means to delete the files and directories created by bstr_node_setup.

You must shut down BASEstar Open Client before you perform the unset procedure. Execute the following commands:

```
$ @bstr$kitclt:[etc]bstrusers
$ bstr_node_unset [-v]
```

5.2 Getting Help and Reporting Problems

If an error occurs while you are using BASEstar Open Client, and you believe the error is the result of a problem associated with the product, take one of the following actions:

- If you have a basic or COMPAQ support Software Agreement, call your Customer Support Center (CSC). The CSC provides telephone support for high-level advisory and remedial assistance.
- If you have a Self-Maintenance Software Agreement, you can submit a Software Performance Report (SPR).
- If you purchased BASEstar Open Client within the last 90 days and you think the problem is caused by a software error, you can submit an SPR.

If you submit an SPR, please take the following steps:

1. Describe as accurately as possible the circumstances and state of the system when the problem occurred. Include the description and version number of BASEstar Open Client that you were using. Demonstrate the problem with specific examples.
2. Reduce the problem to as small a size as possible.
3. Remember to include listings of any command files, include files, relevant data files, and so forth.
4. Provide a listing of the program.
5. If the program is longer than 50 lines, submit a copy of it on machine-readable media (floppy diskette or magnetic tape). If necessary, also submit a copy of the program library used to build the application.
6. Report only one problem per SPR. This will facilitate a faster response.
7. Mail the SPR package to COMPAQ.

Experience shows that many SPRs do not contain enough information to duplicate or identify the problem. Concise, complete information helps COMPAQ give accurate and timely service to software problems.

If you find an error in the BASEstar Open Client documentation, send an electronic mail message to *manufacturing@compaq.com*.

6

Environment Management Command Reference

6.1 Executing Environment Commands

This section outlines the general requirements for executing environment commands successfully. The description of each individual command includes specific command requirements.

If you execute a command successfully, BASEstar Open returns the following exit status:

```
1 (one)
```

If a command fails, it returns a different value in the command exit status. It also displays one or more messages that provide information about the error(s) that occurred during execution of the command. The log file often contains additional information about the components used to execute the command (see Chapter 7).

6.1.1 Requirements and Constraints

This section explains which users can execute specific environment management commands, and specifies the rules that you must follow when executing a command.

6.1.1.1 Users and Commands

Not all OpenVMS users can execute all the environment management commands. Table 6–1 identifies which user can execute a given command, where

- *Root* indicates the SYSTEM user or any user with all privileges.
- *Spool user* indicates the user responsible for managing a given Node. For a given Node, the *spool user* is the SYSTEM user (default) or the user whose name was specified when the *bstr_node_setup* command was executed for that Node.

  The *spool user* must have all the privileges.

Note

If *root* or *spool user* is specified for a command, it means that only that particular user can execute the command.

Table 6–1 OpenVMS Relationship Between Environment Management Commands and Users

Command	Type of User
	Managing Nodes
bstr_node_setup	Root
bstr_node_start	Spool user
bstr_node_shut	Spool user
bstr_node_unset	Root
	Invoking the CLI
cli_bstr	Any user

6.1.1.2 Executing a Command

You must follow the rules listed below when executing an environment command (except for *bstr_node_setup*, for which refer to the instructions given in the command description):

- Log in as the appropriate user, as specified in Table 6–1.
- Ensure that the installation-dependent global variables have been correctly set by executing the *bstrusers.com* command procedure.

For specific information on command requirements and constraints, refer to the description of each individual command.

6.2 Privileges for Running Environment Management Procedures

Table 6–2 lists the privileges required to run the various BASEstar Open Server environment management commands.

Table 6–2 Environment Management Privileges

Phase	Procedure	Privileges Required for Execution
Set up BASEstar Open	*bstr_node_setup*	All
Start up BASEstar Open	*bstr_node_start*	All
Shut down BASEstar Open	*bstr_node_shut*	CHKRNL
Unset BASEstar Open	*bstr_node_unset*	All
Invoke the CLI	*cli_bstr*	None

cli_bstr

Invokes the BASEstar Open CLI.

Syntax

cli_bstr [-c] [-e *"command1" "command2"..."command10"***] [-f** *command_file***] [-i** *startup_file***] [-v]**

Description

The *cli_bstr* command allows you to invoke the BASEstar Open CLI. You can execute CLI commands either interactively, or in batch mode by specifying the name of a command file from the command interpreter prompt.

Options

-c

This option allows you to check the syntax and semantics of a CLI command file without executing the file.

-e "*command1*" "*command2*"..."*command10*"

This option allows you to execute up to ten CLI commands without leaving the platform-dependent command interpreter. After executing the specified commands, the command interpreter redisplays the CLI prompt. Enclose each CLI command between double quotes, and make sure that the commands are separated by at least one blank.

-f *command_file*

Pathname of a CLI command file that BASEstar Open executes at the shell prompt.

-i *startup_file*

An optional startup command file that you can request the CLI to execute. If you fail to specify the -i option, BASEstar Open does not execute a startup command file unless the following CLI command file exists in your home directory:

```
cli_init.ini
```

-v

This option displays additional information on execution of the command.

Examples

1. `$ cli_bstr` Return

   ```
   BSTR>
   ```

   This command invokes the CLI so that you can execute commands in interactive mode.

2. `$ cli_bstr -e "SET SCOPE VOLATILE" "SHOW DATA_POINT /DOM1/DP3"` Return
   ```
   $
   ```

   This command sequence sets the VODB scope and displays the /DOM1/DP3 Data_Point.

3. $ **cli_bstr -f exec2.com** Return
   $

   This command executes the exec2.com CLI command file at the shell prompt.

See Also

None

bstr_node_setup

This command creates a series of directories and configuration files on the Node on which you execute it. It allows you to define configuration parameters relative to the Name Services and BASEstar Open working directories.

Syntax

bstr_node_setup -l *location* **[-adv] [-v]**

Description

You must execute the *bstr_node_setup* command for the Node on which you installed BASEstar Open Client and you want to tun it.

Before running the *bstr_node_setup* command, you must log in as SYSTEM. The *bstr_node_setup* command is in the `ETC` directory, under the BASEstar Open Client installation directory.

You cannot execute the *bstr_node_setup* command if there are BASEstar Open processes currently active (all environment and application components must be shut down first).

The *bstr_node_setup* command performs the following operations:

- Creates the configuration files for the Node-specific environment components.
- Creates the command procedures that can be used to set the values of the installation-dependent BASEstar Open global variables .
- Creates the subtree that stores the BASEstar Open temporary files created at run-time.

Options

-l *location*
The pathname of the directory where the BASEstar Open Client kit is installed. It must be an absolute OpenVMS file specification.

-adv
Advanced Node setup. You can change the name and characteristics of the subtree under which the BASEstar Open temporary files are stored at run-time.

-v
This option displays additional information on execution of the command.

Usage Notes

While executing the *bstr_node_setup* command, press Return to accept the default value displayed between square brackets. Press Ctrl/C at any time to abort the *bstr_node_setup* command.

The lines displayed by the *bstr_node_setup* command start with different character strings, depending on the operation being performed. The following character strings can be displayed:

- The `@@@` string identifies a message that describes the operation in progress.
- The `&&&` string identifies an error message (error or fatal error).

Lines that are displayed without any of the above character strings are input requests.

Note

The name of the less extensive option that displays a given parameter is specified within brackets.

Changing Configuration Parameters

The *bstr_node_setup* command allows you to display and change the values of some configuration parameters. All the *bstr_node_setup* command prompts and displays are listed below.

```
BSTR.Spool_Work_Dir []:
```

Enter a file specification for the Node-specific BASEstar Open Client working directory (for example `disk3:[work_naxos]`). The directory in question must not already exist. You must specify a dedicated working directory for each Node. You cannot specify a snapshot directory (see next prompt) or a descendant directory of a snapshot directory.

This parameter is mandatory.

```
BSTR.Spool_Owner [current_user]:
```

Available with the **-adv** option. Name of the user who owns the working and snapshot directory trees. The specified user must exist.

```
BSTR.Spool_Protection_Mode "(S:rwed,O:rwed,G:rwed,O:rwed)
```

Available with the **-adv** option. Protection mask applied to the working and snapshot directory trees. The default value restricts directories access to the owner (BSTR.Spool_Owner) and the group (BSTR.Spool_Group).

```
Host name of a BASEstar Open LNS Server node:
```

Name of the Node on which BASEstar Open Client is to contact the LNS name server. This question will be repeated until the user types an empty line. When a realm is to be accessed, BASEstar Open Client will contact the LNS name servers in the specified order until it reaches one that manages the realm.

Complete or Abort Command Execution

The following prompt allows you to interrupt execution of the command:

```
Do you want to continue ? [Y]:
```

Enter **y** to terminate command execution by leaving the system unaltered, enter **n** to continue.

Creating Configuration and Command Procedures

After displaying the values of the configuration parameters (and allowing you to modify them if necessary), the *bstr_node_setup* command displays a series of messages informing you that configuration and script files are being created or edited. The files created by *bstr_node_setup* are:

- The `bstrusers_<`*node_name*`>.com` command procedure, which allows users to set installation-dependent global variables.
- The `bstrcom_<`*node_name*`>.cfg` text file that stores the names of the host names where the LNS name servers are to be contacted. This text file can be modified directly by the user.

- The SYS$STARTUP:BSTR$STARTUPCLT.COM command procedure, which performs the following operations:
  - Defines the BSTR$KITCLT logical name with the file specification of the installation directory.
  - Executes the bstrusers.com command file.
  - Executes the *bstr_node_start* command.

Creating BASEstar Open Work Directories

Finally, the *bstr_node_setup* command creates the basic BASEstar Open work directories using the specified values.

On completion, the *bstr_node_setup* command returns you to the DCL prompt.

Examples

1.
```
$ @DKA200:[BSTRCLT.ETC]bstr_node_setup -L DKA200:[BSTRCLT] Return
Name of the work directory. You must introduce the path name
    (according to  the rules of VAX/VMS - .e.g. "DISK:[SUBD1.SUBD2]" )
    of an UNEXISTING directory :

If you are not satisfied with the settings of installation
parameters you can terminate the procedure and run it again:

Do you want to continue ? [Y] :Return


@@@ creating BSTR_ETC:bstrusers_VIGGIU.com file

@@@ creating BSTR_ETC:bstrcom_VIGGIU.cfg file

    This file will contain a list of one of more LNS nodes.
    BASEstar Open Client will attempt the connection to the
    Server environment by scanning this list.
    Please provide at least one host name; you will be prompted
    for additional names until an empty line is entered.

    The BSTR_ETC:bstrcom_VIGGIU.cfg file can be modified by means
    of a common text editor.


Host name of a BASEstar Open LNS Server node:  ninfea(Return)
Host name of a BASEstar Open LNS Server node:  Return
$)

@@@ creating SYS$STARTUP:BSTR$STARTUPCLT.COM;1 file
```

bstr_node_shut

Shuts down the Node-specific environment components.

Syntax

bstr_node_shut [-v]

Description

The *bstr_node_shut* command shuts down the Node-specific components.

To issue the *bstr_node_shut* command:

- Log in as SYSTEM or priviledged user on the selected Node.
- Ensure that the installation-dependent global variables have been correctly set by executing the `bstrusers.com` command file.

Options

-v

This option displays additional information on the execution of the command.

Examples

1. $ **bstr_node_shut** Return

See Also

bstr_node_start

bstr_node_start

Starts up the Node-specific environment components.

Syntax

bstr_node_start [-v] [-c]

Description

The *bstr_node_start* command starts up the Node-specific environment components and checks for license and environment integrity on the Node.

Execute the *bstr_node_start* command for each Node on which you want to start up BASEstar Open Client. Before running the *bstr_node_start* command, execute the *bstr_node_setup* command to set up the Node.

Starting up a Node does not affect operations on other Nodes.

On completion, the *bstr_node_start* command outputs messages notifying you of its successful completion (all the Node-specific components have been started up), or unsuccessful completion (no components have been started up).

Options

-v

This option displays additional information on execution of the command.

-c

If you specify this option, the *bstr_node_start* command performs a cleanup of all the temporary files for the current Node and all the Realms that have been set up on it. For example, it deletes working files and purges the Log Services files.

Examples

1. $ **bstr_node_start** Return

   If you are logged in to NODE1, the *bstr_node_start* command starts up the Node-specific components on that Node.

See Also

bstr_node_setup

bstr_node_shut

bstr_node_unset

Deletes the directories and configuration files previously created using the *bstr_node_setup* command.

Syntax

bstr_node_unset [-l *location* **] [-v]**

Description

You cannot issue the *bstr_node_unset* command if there are BASEstar Open processes active (all environment and application components must be shut down first).

Before issuing the *bstr_node_unset* command, shut down the Node itself. The *bstr_node_unset* command performs the following actions:

- Deletes the Node-specific BASEstar Open working directory.

Options

-l *location*
Pathname of the directory where the BASEstar Open kit is installed. It must be the same pathname as that specified while setting up BASEstar Open.

-v

This option displays additional information on the execution of the command.

Examples

1. $ **bstr_node_unset** Return

See Also

bstr_node_setup

7
Log Services Features

The Log Services collect and record information regarding general events and error conditions detected by the Node components. BASEstar Open Client activates a Log Services server process on the Node. The Log Services server process:

- Collects log records sent from the other Node-specific components and writes them to the Node log file
- Creates a log file for each Realm that has been accessed
- Collects log records from the components operating with the Realms that are accessed from the Node and writes them to the Realm log file.

The information collected in the log files is intended primarily to help COMPAQ support personnel. However, you can also use it to monitor the behavior of actions performed by your environment components.

7.1 Saving Copies of Log Files

The Log Services operator interface consists of the CLI commands shown in Table 7–1 (see Chapter 8 for a complete description).

Table 7–1 Log Services CLI Commands

Command Name	Description
OPEN LOG	Swaps the contents of a log file working copy into a save copy.
DISPLAY LOG	Displays the contents of a log file working copy.

You can swap the contents of a working copy log file into a save copy by using the OPEN LOG command which also empties up the log file working copy. The OPEN LOG command appends a user-specified string at the end of the just created save copy, and inserts the same string at the top of the emptied log file working copy.

Working and save copies of the log files are assigned the following names, where *N* is a number that is assigned sequentially:

- The name of the log file working copy for the current Node is BASESTARNODE.log, whereas the name of the save copies is BASESTARNODE_*N*.log.
- The name of the working copy log file for a Realm log file is *realm_name*.log, whereas the name of the save copies is *realm_name_N*.log.

BASEstar Open stores the log files in the following directory:

```
BSTR_WORK_ROOT:[node.log]
```

7.1.1 Purging Log Files

With the exception of the working copies, you can delete all the log files that have been created on a Node. To do so, specify the -c option when executing the *bstr_node_start* command for the Node.

7.2 Log File Record Format

Log files are ASCII files containing log records whose format is defined by BASEstar Open and consists of:

- The sequence number associated with a log message generated by the Log Services server. This number is reset to 0 when the Log Services server is started up (that is, when you execute the *bstr_node_start* command), and is incremented by 1 for each message generated.

  The Log Services server writes each log message to a log file. Each message therefore has a sequence number that does not depend on the log file to which it is written. The message number is unique for each message logged on the Node.
- The date and time when the log record was written to the log file
- The process identifier of the component that generated the log record
- An identifier (see Table 7–2) that indicates the environment component responsible for generating the log message.
- The text of the log record message.

Table 7–2 Log File Component Identifier

BASEstar Open Component	Identifier
Node-Specific Environment Components (Started by Environment Commands)	
Watchdog	WATCHDOG
Log Server	LOG_CONTROL
Miscellaneous Components	
CLI instances	CLI_BSTR

Example 7–1 illustrates a sample Node log file.

Example 7–1 Node Log File Example

(continued on next page)

Example 7–1 (Cont.) Node Log File Example

```
0000000 98/05/12 17:18:39        5507 WATCHDOG    : Watchdog (BASEstar Open Clie
nt V3.2, Apr 28 1998, 19:31:42) started; lns_retry=3; lns_timeout=2; lns_name=co
m_srv_table-4.0; poll_timeout=5
0000001 98/05/12 17:18:39        5507 WATCHDOG    : Watchdog (BASEstar Open Clie
nt V3.2, Apr 28 1998, 19:31:42) started; lns_retry=3; lns_timeout=2; lns_name=co
m_srv_table-4.0; poll_timeout=5
0000002 98/05/12 17:20:48        52a3 LOG_CONTROL : message n. 0 for basestar
0000000 98/05/13 10:37:04        582c WATCHDOG    : Watchdog (BASEstar Open Clie
nt V3.2, Apr 28 1998, 19:31:42) started; lns_retry=3; lns_timeout=2; lns_name=co
m_srv_table-4.0; poll_timeout=5
0000003 98/05/13 11:08:48        582c WATCHDOG    : Sending request for Com serv
ers table to LNS server ninfea.mln.dec.com(16.192.64.91) at UDP port 6101 ...
0000004 98/05/13 11:08:48        582c WATCHDOG    : Received answer from LNS ser
ver ninfea.mln.dec.com(16.192.64.91) at UDP port 6101
0000005 98/05/13 11:08:48        582c WATCHDOG    : Received answer from LNS ser
ver ninfea.mln.dec.com(16.192.64.91) at UDP port 6101
0000006 98/05/13 11:08:48        582c WATCHDOG    : The connection was successfu
l: continuing
```

Example 7–2 shows an example of a Realm log file:

Example 7–2 Realm Log File Example

```
0000001 98/05/13 11:08:48        52a3 BSTR_CLI    : Initialize BASEstar environm
ent for DKA200:[BSTRCLT.][BIN]CLI_BSTR.EXE;2
0000002 98/05/13 11:08:48        52a3 BSTR_CLI    : Initialize BASEstar environm
ent for DKA200:[BSTRCLT.][BIN]CLI_BSTR.EXE;2
```

7.2.1 Displaying Log Files

The log files are ASCII files that can be displayed by using any platform-dependent tool or editor. You must perform different operations depending on whether you want to display a working copy or save copy of a log file.

See Section 7.1 to know about where log files are stored and about log file naming conventions.

7.2.1.1 Displaying a Save Copy

To display a save copy of a log file, use any command or utility that can display an ASCII file.

7.2.1.2 Displaying a Working Copy

The working copy log files are opened by the Log Services server and thus they cannot be displayed by using the standard tools when the Node is started up. Thus, the DISPLAY LOG command has been provided to allow the display of log file working copies. This command also can display the last lines of a log file automatically refreshing them as soon as a new record is inserted in the displayed log file. This allows you to monitor record insertion in the selected log file.

7.3 Log Services Server Activities

The Log Services server process is a Node-specific component which is started up when you execute the *bstr_node_start* command.

In turn, the Log Services server logs some record information regarding general events and unrecoverable errors detected during execution in the platform-dependent system log.

8

Log Services Command Reference

A

Sample Installation Log Files for BASEstar Open Client on OpenVMS

This appendix contains a complete sample log relative to the installation of BASEstar Open Client for OpenVMS on Alpha platform.

A.1 Installation of BASEstar Open Client for OpenVMS Alpha

```
$ @sys$update:vmsinstal

        OpenVMS AXP Software Product Installation Procedure V7.1

It is 13-MAY-1998 at 16:36.

Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]?  y
* Where will the distribution volumes be mounted:  DKA100:[KITS.BSTR]

Enter the products to be processed from the first distribution volume set.
* Products:  BSTROCVA032

* Enter installation options you wish to use (none):

The following products will be processed:

  BSTROCVA V3.2

        Beginning installation of BSTROCVA V3.2 at 16:36

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.
******************************************************************************

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             - BASEstar Open V3.2-0 Installation Procedure -
******************************************************************************

%VMSINSTAL-I-RESTORE, Restoring product save set B ...
BASEstar Open Client option will be installed
```

Sample Installation Log Files for BASEstar Open Client on OpenVMS
A.1 Installation of BASEstar Open Client for OpenVMS Alpha

```
    BASEstar Open can be installed on any disk of your system.
    There is no default disk: you must enter a disk name.
    The following disks are available on the system.

VIGGIU$DKA0:            Mounted             0  SWAP          1250586     3   1
VIGGIU$DKA100:          Mounted             0  USER1          210780     3   1
VIGGIU$DKA200:          Mounted             0  GRZ200         215175     2   1
VIGGIU$DKA300:          Mounted             0  VMS020         128652   433   1
VIGGIU$DNFS1:           Mounted             0  BODDS               0     1   0
VIGGIU$DNFS2:           Mounted             0  BINTEGR             0     1   0
VIGGIU$DNFS4:           Mounted             0  BMACCHI             0     1   0
VIGGIU$DNFS5:           Mounted             0  BODDS310            0     1   0

* Target disk:  VIGGIU$DKA200:

* BSTROCVA V3.2 root directory [[BSTROCVA032]]: [BSTRCLT]

    You are going to install BSTROCVA V3.2 on

    Target disk:    VIGGIU$DKA200:
    Root directory: [BSTRCLT]

* Is this correct [Y]?
* Do you want to purge files replaced by this installation [YES]?
* Do you want to run the IVP after the installation [YES]?
******************************************************************************

   All the questions regarding the installation of BASEstar Open Client
   have been answered. The installation will take from 1 to 3 minutes,
   and the IVP about 1 minutes, depending on the CPU type and
   the system workload.
******************************************************************************

* Do you want to continue [Y]?
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...


           +-------------------------------------------------+
           |                                                 |
           |              Starting the IVP for               |
           |               BASEstar Open V3.2                |
           |                                                 |
           +-------------------------------------------------+


BASEstar Open Client V3.2

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valid written license from Digital or an authorized sublicensor.


IVP TERMINATED SUCCESSFULLY

        Installation of BSTROCVA V3.2 completed at 16:38

    Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY

    Creating installation data file: VMI$ROOT:[SYSUPD]BSTROCVA032.VMI_DATA

$
```

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