Installation Guide for Sun Solaris Versions 2.6, 2.7, and 2.8

iPlanet™ ECXpert

Version 3.6

December 2001

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About this Book

This Guide gives instructions for installing the iPlanet ECXpert System. It includes prerequisites, and gives preinstallation and postinstallation tasks you must perform to ensure a successful installation.

iPlanet ECXpert provides companies with a comprehensive software solution for setting up and operating a cost-effective and easy-to-use electronic commerce system built upon Internet technologies.

The following topics are covered in this section:

- Before You Begin
- Audience
- Organization
- ECXpert and Related Documentation
- Conventions

iPlanet ECXpert is subject to the terms detailed in the license agreement accompanying it.

Before You Begin

It is essential that you retrieve and read the ECXpert 3.6 Release Notes from the iPlanet Documentation web site before you install ECXpert. Release Notes contain documentation errata, software patches, and a list of known bugs.

Downloading ECXpert Documentation

You can download the latest version of the ECXpert documentation from:

http://docs.iplanet.com/docs/manuals/ecxpert.html

Documentation Supplied on the Release CD

The ECXpert release CD includes copies of the ECXpert documentation in Adobe Acrobat (PDF) format. These files are found in the `/docs` directory on the CD:

Table 1 ECXpert documentation files on the release CD

Document Title	Filename
iPlanet ECXpert Installation Guide	instlsol.pdf
iPlanet ECXpert Administrator's Guide	admin.pdf
iPlanet ECXpert Developer's Guide	develop.pdf
iPlanet ECXpert Operations Reference Guide	opsref.pdf

Audience

This Guide is written for the system administrator who installs and administers iPlanet ECXpert.

What You Need to Know

The documentation assumes that you have some familiarity with:

- the Internet and the World Wide Web
- setting up and managing web services
- site administration of iPlanet Web Server, Enterprise Edition (formerly Netscape Enterprise Server)
- UNIX administration as a superuser
- setting up and administering relational databases as an Oracle Database Administrator
- setting up data communications systems
- your company's electronic commerce system architecture, including in-depth knowledge of Electronic Data Interchange (EDI).

Organization

The main body of this Guide is divided into three parts:

Table 2 Book Contents

Chapter	Description
Chapter 1, "Preinstallation Tasks"	Describes system hardware and software requirements and preinstallation planning.
Chapter 2, "Installing iPlanet ECXpert"	Describes the installation process step by step
Chapter 3, "Postinstallation Tasks"	Describes additional configuration and client-side installation tasks.

Table 2 Book Contents *(Continued)*

Chapter	Description
Appendixes provide the following supplementary information:	
Appendix A, "Migrating from ECXpert 3.5 to Current iPlanet ECXpert"	Describes the process of migrating from ECXpert version 3.5
Appendix B, "Reinstalling Current ECXpert"	Describes the special steps required to reinstall Version 3.6 over an existing installation of ECXpert 3.5.

ECXpert and Related Documentation

These files are provided with the ECXpert documentation set:

- *iPlanet ECXpert Installation Guide*
- *iPlanet ECXpert Administrator's Guide*
- *iPlanet ECXpert Developer's Guide*
- *iPlanet ECXpert Operations Reference Guide*
- Any accompanying Release Notes. (Release Notes contain documentation errata, software patches, and a list of known problems.)

Related iPlanet Documentation

Refer to the following related documents for further detailed information about your software:

- *iPlanet TradingXpert Installation Guide*
- *iPlanet TradingXpert Administrator's and Developer's Guide*
- Any accompanying Release Notes. (Release Notes contain documentation errata, software patches, and a known bugs list.)

For Oracle Users

- Oracle Documentation Library on CD ROM

For LDAP Users

- *iPlanet Directory Server 5.0 Installation Guide*
- *iPlanet Directory Server Administrator's Guide*
- *iPlanet Directory Server Deployment Guide*
- *Directory Server 5.0 Configuration, Command, and File Reference*
- *iPlanet Directory Server Gateway Customization Guide*

For Other Third-party Products

- *Mercator Getting Started*
- *Mercator Design Guide*
- *Mercator Execution Commands Reference Guide*
- *Mercator EDI Mapping Guide*
- *Mercator Building and Using an Application Adapter*
- *Mercator Reference Guide*
- *Mercator Type Tree Maker Reference Guide*
- *Mercator Type Editor Reference Guide*
- *Mercator Functions and Expressions Reference Guide*
- *Mercator Map Editor Reference Guide*
- *Mercator Using a Command Execution Engine*

Conventions

Typographic conventions are used throughout this manual to help you recognize special terms and instructions. These conventions are summarized in the following table.

Convention	Meaning	Example
numbered steps	higher level descriptions of tasks you perform (more detailed instructions follow)	1. Enter the group information. Enter the name in the Group Name field, and a short description in the Description field.
italics	key words, such as terms that are defined in the text	"If the transaction is authorized, a *capture* takes place."
	names of books	"For more information, see the *iPlanet ECXpert Administrator's Guide.*"
	emphasis	"Under *no* circumstances reveal your password."
	variables for which you supply a valid value	"Type *hostname password* and press Enter."
`Courier font`	command line input or output	"Change to the iPlanet ECXpert configuration directory." `$ cd $NSBASE/NS-apps/ECXpert/config`
	text file content, such as HTML templates and configuration files	`<HTML>` `<TITLE>iPlanet ECXpert</TITLE>`
	code samples	`ecx = new ECXpert();` `term = new Terminal();`
	file names and URLs	"Refer to the `ecx.ini` file." "See `www.iplanet.com` for information about other iPlanet e-commerce products."

Chapter 1

Preinstallation Tasks

This chapter describes planning and tasks you must perform before you can install iPlanet ECXpert. It includes installation and configuration tasks for the database that stores iPlanet ECXpert information.

The following topics are discussed in this section:

NOTE Page references in this chapter indicate the pdf form of this document.

- "Installation Overview" on page 18
- "Planning Your Configuration" on page 29
- "Preparing the System for Installation" on page 36
- "Creating the ECXpert Administrator Account" on page 36
- "Installing the iPlanet Web Server, Enterprise Edition" on page 38
- "Oracle Installation/Migration" on page 38
- "Creating the Oracle User ECX36" on page 46
- "Setting Up and Testing Database Connectivity" on page 47

Installation Overview

This section provides an overview of the tasks required before you install iPlanet ECXpert.

Hardware and Software Requirements

NOTE **Licensing Note:** All other iPlanet Products and third party components (iPlanet Web Server, Enterprise Edition, iPlanet Directory Server, iPlanet Messaging Server, Oracle Server, and Mercator Authoring System) are licensed for use only in conjunction with the iPlanet ECXpert system. Any use separate from iPlanet ECXpert is not permitted.

Table 1-1 shows the minimum hardware and software requirements for installing and using ECXpert in the Sun Solaris operating environment.

Table 1-1 Hardware and Software Requirements

Hardware Platform:	• Sun workstation • Intel-based workstation running Windows95, 98 or WindowsNT for the Mercator's Mercator Map Authoring System
Operating System:	• Sun Solaris 2.6 (OS version 5.6) plus the patches listed in Table 1-2. -or- Sun Solaris Version 2.7 (OS version 5.7) plus the patch cluster listed in Table 1-3. -or- • Sun Solaris Version 2.8 (OS version 5.8) - plus the patch cluster listed in Table 1-4
Memory:	256 MB RAM (recommended) for the Sun workstation for each ECXpert machine.

Table 1-1 Hardware and Software Requirements *(Continued)*

Software Requirements:	• JDK 1.3 (Only necessary for use with JMS Connector) • iPlanet Application Server Version 6.0 Service Pack 4 or 6.0 Service Pack 3 • iPlanet Web Server, Enterprise Edition, Version 4.1 Service Pack 1 or 6.0 Service Pack 1† • iPlanet Messaging Server Version 4.1.5†^{o} • iPlanet Directory Server Version 4.1.3 or 5.0 Series †^{o} • iPlanet Message Queue 2.0 Service Pack 1† • Netscape Navigator 4.7 † • Mercator's Mercator Version 5.0 Service Pack 3† • Oracle 8.1.6 or 8.1.7 Enterprise Server (and related products, notably SQLNET and Net8) • IBM MQ Series 5.1 or 5.2^{o}
Disk Space:	Approximately 2.5 GB for installed software (500MB each for ECXpert, 1 GB for Oracle), plus disk space for data and incoming documents, calculated according to the formula: 2.5KB * (# of documents received daily) * (# of days retained) (See "Planning Your Configuration" on page 29 for more information on this formula.)
† bundled with iPlanet ECXpert ^{o} optional	

NOTE iPlanet Web Server, Enterprise Edition, Netscape Communicator, and iPlanet Messaging Server are on separate media.

iPlanet Directory Server is included in the iPlanet Messaging Server package.

Solaris Patches Required

Depending on the version of Solaris you are using, you must apply different Solaris patches. Solaris patches are available from Sun Microsystems' SunSolve home page:

http://sunsolve.sun.com/

The following sections contain specific URLs where you can download the particular patches you must apply to the different versions of Solaris.

To find out what operating system patches have been applied to your system, use the following command:

```
# showrev -p
```

If you see the following output, patches have been applied which enable the ECXpert Java user interface to function properly.

```
# showrev -p
Patch: 103663-08  Obsoletes: 103683-01, Requires:,
Incompatibles:, iss_sparc-01  Packages: SUNWcsu, SUNWcsr, SUNWhea
Patch: 103594-10  Obsoletes: , Requires:, 103663-01,
Incompatibles:  Packages: SUNWcsu
Patch: 103680-01  Obsoletes: , Requires:, 103663-01  Packages:
SUNWcsu
Patch: 103686-02  Obsoletes: , Requires:, 103663-01,
Incompatibles:  Packages: SUNWnisu
```

If you see the following output, it means that no patches at all have been applied:

```
# showrev -p
showrev: opendir
```

Solaris 2.6 Patches

If you are using Solaris 2.6, iPlanet recommends you apply the following patches shown in Table 1-2: Refer to the following README file link for more information on the patch cluster that includes these patch IDs.

http://sunsolve.Sun.COM/pub-cgi/retrieve.pl?doctype=patch&doc=2.6_Recommended.README

You may instead choose to apply the latest Solaris recommended patch cluster for Solaris 2.6. The Solaris recommended patch cluster is updated every 15 days, so it will be a later version than the iPlanet-recommended patch cluster and will **not** have been tested with ECXpert.

Download the latest Solaris recommended 2.6 patch cluster from:

`ftp://sunsolve.Sun.COM/pub/patches/2.6_Recommended.tar.Z`

Refer to the following `README` file for instructions on applying this patch cluster:

`ftp://sunsolve.Sun.COM/pub/patches/2.6_Recommended.README`

Table 1-2 Solaris Version 2.6 (OS 5.6) Patches

Patch ID	Note	Description
105490-07	required	Linker Patch
105568-16	required	Libthread Patch
105210-27	required	LibC Patch
106040-13	required	X Input and Output Method Patch
105633-36	required (1)	Open Windows 3.6 Xsun Patch
106409-01	required (2)	Fixes the Chinese True Type Fonts
108091-03	required (3)	SunOS 5.6: ssJDK1.2.1_03 fails with fatal error in ISO8859-01 Locales.
105181-19	recommended	Kernal Update (socket close/hang)
105669-10	recommended	CDE 1.2 libDTSvc Patch (dtmail)
105284-31	recommended	Motif 1.2.7 Runtime Library Patch

Solaris 2.7 Patches

If you are using Solaris 2.7, iPlanet recommends you apply the following patches shown in Table 1-3: Refer to the following file link for each base patch ID on the http://sunsolve.Sun.COM site (e.g., 106980, 107636, and so forth). Alternatively, you can search for the patch ID using the Search SunSolve text entry box.

Table 1-3 Solaris Version 2.7 (OS 5.7) Patches

Patch ID	Note	Description
106980-10	required	Libthread Patch
107636-03	required	X Input and Output Method Patch
107081-11	required	Motif 1.2.7 and 2.1.1: Runtime Library Patch for Solaris 7.
108376-03	required	Open Windows 3.6.1 Xsun Patch

Solaris 2.8 Patches

If you are using Solaris 2.8, iPlanet recommends you apply the patches shown in Table 1-4:

Table 1-4 Solaris Version 2.8 (OS 5.8) Patches

Patch ID	Note	Description
108652-33 or later	required	
108921-12 or later	required	Fixes spurious FOCUS_LOST and FOCUS_GAINED events.
108940-24 or later	required	Fixes problem that in some situations results in core dumps.

Download the latest recommended Solaris 2.8 patch cluster from:

```
http://java.sun.com/j2se/1.3/install-solaris-patches.html#2.8
```

To find out which, if any, patch cluster has been applied to your machine, use either of the following commands:

```
showrev
uname -a
```

If the iPlanet-recommended patch cluster has been applied, the `showrev` command produces output similar to the following:

```
# showrev
Hostname: myhost
Hostid: 80859468
Release: 5.6
Kernel architecture: sun4u
Application architecture: sparc
Hardware provider: Sun_Microsystems
Domain: myserver.com
Kernel version: SunOS 5.6 Generic 105490-07 September 2000
```

If the iPlanet-recommended patch cluster has been applied, the `uname - a` command produces output similar to the following:

```
# uname -a
SunOS myhost 5.6 Generic_105181-05 sun4u sparc SUNW,Ultra-1
```

TCP/IP Connectivity Required

To be sure you have TCP/IP networking properly installed, the following must be in effect:

- a permanent IP address is assigned to your machine (*not* a DHCP IP address)
- TCP/IP is bound to the actual network card
- DNS is configured (your machine's hostname and domain names are valid DNS entries)

NOTE The iPlanet ECXpert Installer uses the domain name in `/etc/resolv.conf`, *not* an NIS domain name.

To verify that your system is properly configured, follow the steps below.

1. Open an xterm window.
2. Determine what your IP address is. Type the command:

   # **`ifconfig -a`**

   You should see something like this:

```
lo0: flags=849<UP,LOOPBACK,RUNNING,MULTICAST> mtu 8232
        inet 127.0.0.1 netmask ff000000
hme0: flags=863<UP,BROADCAST,NOTRAILERS,RUNNING,MULTICAST>
mtu 1500
        inet 192.18.112.147 netmask fffffe00 broadcast
192.18.113.255
        ether 8:0:20:d1:2c:2f
```

   For the example reply above, the internet address for the machine is 192.18.112.147.

3. Determine what your hostname is. Type the command:

   # **`/bin/`***hostname*

   The name for this machine's host is displayed.

4. Determine what your domain name is. Type the command:

   # /bin/*domainname*

   The name for your machine's domain is displayed.

5. Ping your hostname. Type the command:

   # /usr/sbin/ping *hostname*

   where *hostname* is the host of your host computer.

   If your TCP/IP connectivity is working properly, the feedback from the `ping` command is:

   hostname `is alive`

Using Your Own Web Server with ECXpert

Because the ECXpert installer is browser based, in order to function properly it automatically installs a web server—Netscape Enterprise Server, version 3.5.1. This copy of Netscape Enterprise Server is configured to work properly with ECXpert when the installation is complete.

You must use your own copy of Netscape Enterprise Server with ECXpert instead of the temporary copy installed during the ECXpert installation. Follow these instructions:

1. Open the **`obj.conf`** file for editing.

   Using a text editor, such as vi, open your web server's `obj.conf` file.

2. Comment out any unnecessary lines.

   If either of the following lines appear in the `obj.conf` file, comment out each line by typing a pound (#) character as the first character of each line:

```
#NameTrans fn="pfx2dir" from="/help"
dir="/Netscape/SuiteSpot/manual/https/ug"
#NameTrans fn="document-root" root="/Netscape/SuiteSpot/docs"
```

3. Add the required lines to your **`obj.conf`** file.

   Add the following lines to your open `obj.conf` file, in the following order, immediately above the first line that begins with "NameTrans":

```
Init fn="init-cgi" BDGHOME="/netscape/NS-apps/ECXpert" timeout="300"
NameTrans fn="pfx2dir" from="/images"
dir="/netscape/NS-apps/ECXpert/UI/html/images"
NameTrans from="/bin" fn="pfx2dir"
dir="/netscape/NS-apps/ECXpert/cgi-bin" name="cgi"
NameTrans fn="document-root"
root="/netscape/NS-apps/ECXpert/UI/html"
```

   where */netscape* is the directory under which you installed ECXpert.

4. Save your changes and exit your text editor.

5. Stop your web server by navigating to its home directory and issuing the `stop` command.

6. Restart your web server by navigating to its home directory and issuing the `start` command.

7. Start your web browser browser and go to the following URL.

   http://*machine_name:port*#/admin-serv/bin/index

8. Enter the user ID and password.

   Enter a user ID and password for a Netscape Enterprise Server user with administrative privileges.

9. Apply any changes you made to the `obj.conf` file.

   A message window appears telling you that you must apply your changes. Click **OK**.

   In the **Netscape Enterprise Server** bar at the top of the screen, click **Apply**. The **Apply Changes** screen appears.

   Click the **Load Configuration Files** button for the Netscape Enterprise Server.

   If the changes are successfully applied, a "success" message window appears. Click **OK** to continue.

10. Exit your web browser.

11. Remove the web server installed by the ECXpert installer.

    # **`rm $NSBASE/NS-Apps/ns-home`**

    where *$NSBASE* is the directory under which you installed ECXpert.

Installation Checklist

Be sure to perform each task in the order presented on this checklist.

Refer back to this checklist as you complete each stage of your installation.

- ❑ Plan your iPlanet ECXpert site and if necessary coordinate with other sites in the same domain.
- ❑ Arrange a trading partnership agreement with one or more trading partners.
- ❑ Make sure your system meets hardware and software requirements. See "Installation Overview" on page 18 for more information. See "Planning Your Configuration" on page 29 for important sizing and configuration scenarios.
- ❑ Familiarize yourself with the iPlanet ECXpert directory structure. See "Directory tree for the iPlanet ECXpert system" on page 30 for more information.
- ❑ Make sure you have sufficient disk space, and have filled out the information required in the Configuration Worksheet on page 55. See "Disk Space Requirements" on page 34 for more information.
- ❑ If you intend to use the iPlanet Messenging Server, see "What's Next?" on page 103 for more information. Also, iPlanet recommends you use the ECXpert Administrator userid, generally "actraadm," as the sendmail userid.
- ❑ Prepare your system for installation. See "Preparing the System for Installation" on page 36 for more information.
- ❑ Create the iPlanet ECXpert Administrator account. See "Creating the ECXpert Administrator Account" on page 36 for more information.
- ❑ Install Oracle. Refer to the installation and configuration documents included with Oracle for more detailed information.
- ❑ Install the LDAP directory server. Refer to Chapter 5 of *iPlanet ECXpert Administrator's Guide* for information on setting up LDAP.
- ❑ Install iPlanet Web Server, Enterprise Edition. See "Installing the iPlanet Web Server, Enterprise Edition" on page 38.
- ❑ Install iPlanet ECXpert. See "Installing iPlanet ECXpert" on page 51 for more information.
- ❑ Test your installation to verify database connectivity and ECxpert operation. See "Testing Your ECXpert Installation" on page 85 for more information.
- ❑ Install additional software. See "What's Next?" on page 103 for more information.

Data Storage in ECXpert

Two types of data are used in ECXpert: *static data*, which is read frequently but modified infrequently, and *dynamic data*, which is both read and modified frequently. An example of static data is values used to populate GUI dropdown menus: these values are rarely if ever modified, yet they are read frequently. An example of dynamic data is the values users enter into GUI fields: these values change and are read frequently.

This distinction has implications for how data are stored. Dynamic data need to be stored in a manner that allows for fast, easy, and repeated modification. Speed of data access is important, but can be sacrificed to a degree in favor of updatability. With static data there is no such requirement for updatability, and so the primary concern is speed of access.

Relational database management systems (RDBMS) offer extensive functionality for modifying data records, and if configured properly can offer reasonable data access rates. Thus, they are well suited for storage of dynamic data. The RDBMS used in ECXpert is Oracle.

Lightweight Directory Access Protocol (LDAP) defines a directory-based data storage model, and is implemented as an API for constructing such directory systems. The directory-based data storage model provides for very fast and efficient data access, but does not offer much functionality for data modification. Thus, it is well-suited for storage of static data. ECXpert 3.6 supports LDAP directories.

Planning Your Configuration

When planning your iPlanet ECXpert site, carefully consider your resource requirements, based on the type of business you expect to do.

The central functionality of iPlanet ECXpert is supported by Oracle. For ECXpert 3.6, Oracle 8.1.6 and 8.1.7 have been certified for use.

iPlanet assumes you have your own site Database Administrator to handle routine database operations such as the following:

- database full backup
- database incremental (or transaction log) backup
- database tablespace management

  iPlanet recommends the following formula to estimate the **Oracle tablespace size** needed:

  2.5KB x [number of documents received daily] x [number of days retained]

  For example, if you have 5000 documents daily and you retain them for thirty days, the calculation is:

  2.5KB x 5000 x 30= 375,000 KB

  For the **rollback segment size**, estimate 1.5 - 2 times the largest tablespace.

In addition to Oracle, ECXpert supports the use of LDAP directories for storage of membership data. iPlanet assumes you have your own site Directory Administrator to set up and maintain your LDAP directories. Refer to the *iPlanet Directory Server Administrator's Guide* for information on configuring your directory server.

iPlanet ECXpert Directory Structure

Figure 1-1 shows the iPlanet ECXpert installation directory tree.

Refer to this diagram to identify where files and executables are located.

Figure 1-1 Directory tree for the iPlanet ECXpert system

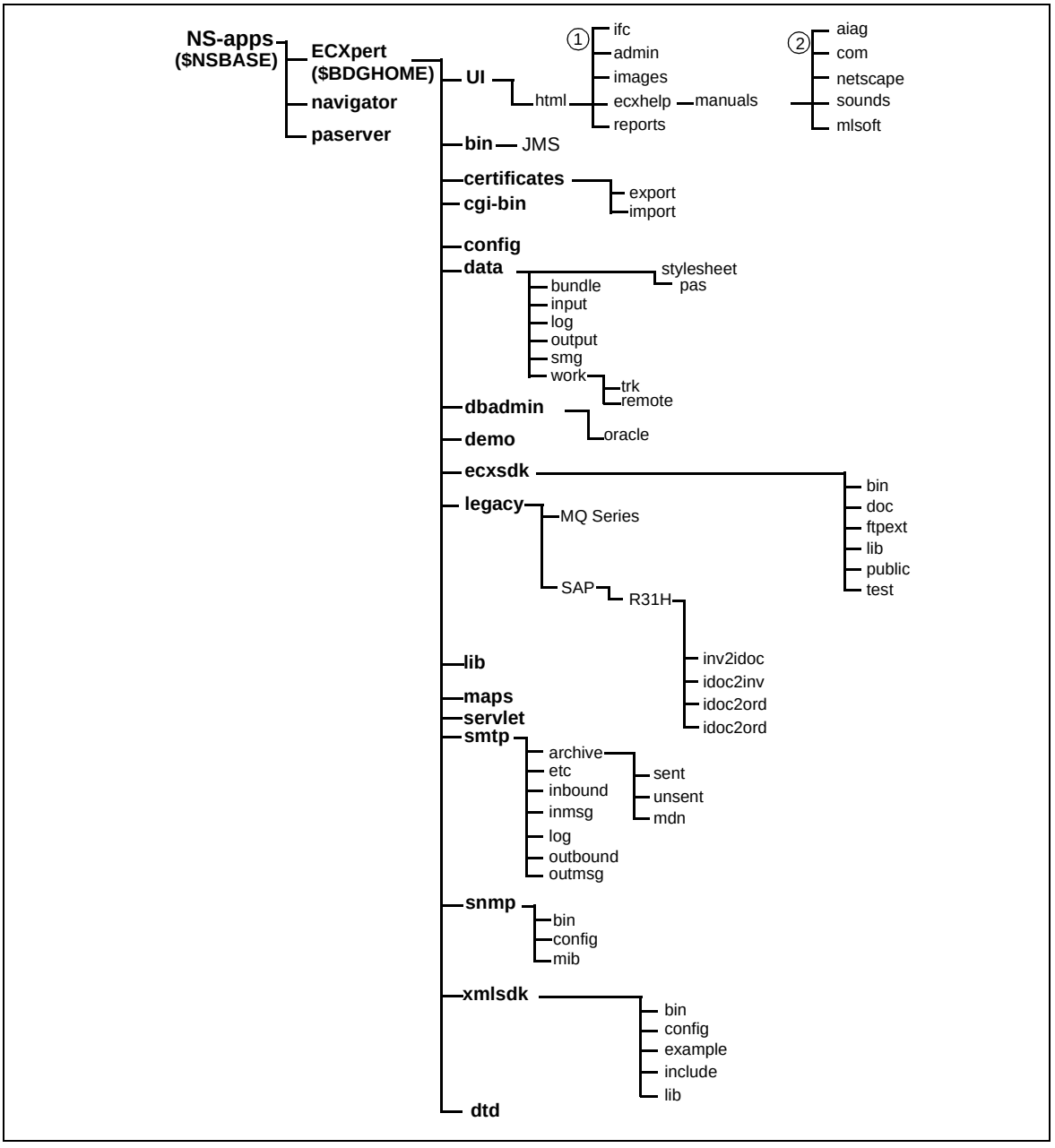


Table 1-5 describes the contents of the `$NSBASE/NS-apps/ECXpert` directory.

Table 1-5 Description of the $NSBASE/NS-apps/ECXpert directory

Subdirectory	Description of Contents
`UI\html`	user interface HTML components
`UI\html\reports`	ECXpert reports
`UI\html\help\manuals`	ECXpert documentation
`UI\html\com`	tools lib classes for com
`UI\html\admin`	admin screen UI files
`UI\html\aiag`	aiag related UI files
`UI\html\netscape`	ifc classes
`UI\html\ifc`	to check that IFC is with Netscape Navigator
`UI\html\mlsoft`	MVE classes
`bin`	ECXpert binaries
`bin\JMS`	JAR files required by the JMS connectors
`data\stylesheet`	example file for xls
`data\pas`	Partner Agent related, member and partner information
`certificates\export`	location of secure transaction authority certificate files. If you do not specify a path when generating or exporting a certificate, the `cert` files are written by default to the directory `/certificates/export/`
`certificates\import`	location of secure transaction authority certificate files. If you do not specify a path when importing a certificate, by default the `cert` file is looked up from `/certificates/import/`
`cgi-bin`	ECXpert CGI binaries
`config`	configuration files, such as the `ecx.ini` file
`data\bundle`	temporary location of files to be transmitted to recipients
`data\input`	auxiliary input files needed for mapping
`data\log`	Administration Server function log files
`data\output`	post translation files, both translation and functional acknowledgment files
`data\paserver`	files for Partner Agent for ECXpert

Table 1-5 Description of the $NSBASE/NS-apps/ECXpert directory *(Continued)*

Subdirectory	Description of Contents
`data\work`	temporary location where work files are created and then deleted
`data\work\trk`	location of files upon being submitted to iPlanet ECXpert
`dbadmin\oracle`	Oracle SQL scripts
`ecxsdk\bin`	software development kit binary files
`ecxsdk\doc`	documentation files
`ecxsdk\ftpext`	FTP extension files
`ecxsdk\lib`	API library files
`ecxsdk\public`	user-accessible files
`ecxsdk\test`	user-accessible test files
`legacy\SAP\R31H`	mapping files for use integrating with SAP
`legacy\SAP\R31H \inv2idoc`	map source files
`legacy\SAP\R31H \inv2idoc`	map source files
`legacy\SAP\R31H \inv2idoc`	map source files
`lib`	ECXpert libraries
`maps`	Mercator's Mercator mapping files. Note that many of the files in this directory have a `.map` extension, as opposed to a `.sun` extension.
`mib`	entity information
`smtp\archive\sent`	storage for information of sent outbound messages including received message disposition notifications
`smtp\archive\unsent`	storage for information of outbound messages that can't be sent or are sent with message disposition notification requested but not received
`smtp\archive\mdn`	storate for mdn information
`smtp\etc`	used as a temporary directory for all the temp files created when processing incoming messages
`smtp\inbound`	temporary storage for inbound messages

Table 1-5 Description of the $NSBASE/NS-apps/ECXpert directory *(Continued)*

Subdirectory	Description of Contents
`smtp\inmsg`	temporary storage of inbound messages' SMTP information, such as sender, recipient, and date-time before messages are submitted to the recipient
`smtp\log`	log files for unrecognized inbound messages
`smtp\outbound`	temporary storage for formatted outbound messages
`smtp\outmsg`	temporary storage for outbound messages' SMTP information: docs, files, MDNs
`ecxsdk\bin`	ECXpert software development kit (SDK) binary files
`ecxsdk\doc`	ECXpert SDK documentation files
`ecxsdk\lib`	ECXpert SDK API library files
`ecxsdk\public`	ECXpert SDK user-accessible files
`ecxsdk\test`	ECXpert SDK user-accessible test files
`snmp\bin`	user-accessible binaries and location of servers
`snmp\config`	configuration files
`snmp\mib`	management information base files
`xmlsdk\bin`	XML software development kit (SDK) binary files
`xmlsdk\config`	XML SDK documentation files
`xmlsdk\example`	XML SDK sample programs
`xmlsdk\include`	XML SDK header files
`xmlsdk\lib`	XML SDK API library files
`dtd`	dtd and xml files related to aiag functionality

Disk Space Requirements

Verify that you have sufficient disk space available.

Use the following command to see the available volumes and their disk usage:

```
# df -k
```

The resulting output is similar to the following:

Filesystem	kbytes	used	avail	capacity	Mounted on
/dev/dsk/c0t3d0s0	401389	12499	348760	4%	/
/dev/dsk/c0t3d0s6	105486	87205	7741	92%	/usr
/proc	0	0	0	0%	/proc
fd	0	0	0	0%	/dev/fd
/dev/dsk/c0t3d0s4	106012	21457	73955	23%	/var
/dev/dsk/c0t3d0s7	419319	9	377380	1%	/export/home
/dev/dsk/c0t3d0s5	1253167	72516	1155341	92%	/opt
/dev/dsk/c0t3d0s3	236816	106458	106678	50%	/usr/openwin
/dev/dsk/c0t0d0s2	1952573	1137822	619501	65%	/disk00
/dev/dsk/c0t1d0s2	14631	10595	2576	81%	/disk01
/dev/dsk/c0t2d0s2	1952573	1625123	132200	93%	/disk02
swap	414240	248	413992	1%	/tmp

Make a note of the volumes you plan to use in the installation process.

The ECXpert directory structure requires that the directories be created on a local device (hard drive) or an NFS-mounted device (hard drive).

The initial installation of ECXpert creates all of the subdirectories below the installation location you specify (referred to as `$NSBASE`).

After installing ECXpert, you may change the configuration to move certain directories to other device locations, for performance reasons and to provide better fault tolerance.

NOTE Remember that you need a minimum of:

- 500 MB for the ECXpert software.
- Sufficient space on the same system as the ECXpert software to store transaction data. Calculate the space required for your anticipated transaction volume according to the formula in "Planning Your Configuration" on page 29.
- 1GB for the Oracle database installation. This does *not* have to be on the same system as the ECXpert software.

Firewall Considerations

ECXpert uses the following protocols during file processing:

- SMTP (port 25)
- FTP (port 21)
- HTTP (port 80, or user-defined port #)

ECXpert also uses SQL*Net/Net8 connections (or local IPC connections based on configuration) and OCI client connections to the Oracle8i database where its tables are located.

If you want to install ECXpert through a firewall, you will need to check first with the Firewall Administrator to determine if these protocols are allowed to pass through your firewall.

Preparing the System for Installation

Prepare your system for installing iPlanet ECXpert by doing the following:

- Creating the ECXpert Administrator Account
- Installing the iPlanet Web Server, Enterprise Edition
- Oracle Installation/Migration
- Creating the Oracle User ECX36
- Setting Up and Testing Database Connectivity

The following sections of this Guide describe these tasks.

Creating the ECXpert Administrator Account

NOTE If you are upgrading an earlier installation of ECXpert, skip this section.

Create the ECXpert Administrator user and directory. (This user's home directory must be on the installation volume *only* if you are running the database on the same machine as iPlanet ECXpert.)

1. If you are confused about which user you are at any time during the installation (*database_user*, `actraadm`, `root`), use the `id` command to identify yourself before proceeding. Set up the ECXpert Administrator account. For example:

```
# /usr/sbin/groupadd -g 500 actraadm
# /usr/sbin/useradd -d /export/home/actraadm -g actra \
-s /bin/csh actraadm -u 1120
# passwd actraadm
```

   Then enter `actraadm` twice as the password.

CAUTION You can use any username you want for the ECXpert administrator user; however, for simplicity, iPlanet recommends the userid `actraadm` with a group of `actra`. iPlanet recommends a user ID of 1120 for the `actraadm` user and a group ID of = 500 for the `actra` group. These are the default values the Installer expects.

If you choose to use an ECXpert Administrator user with a different user ID or group ID, *you must enter the correct values during Installer* (see Step 2 on page 65). Otherwise you cannot log into the ECXpert user interface.

NOTE Write down the ECXpert Administrator user's User ID and Group ID values in Configuration Worksheet items "User ID:" on page 57 and "Group ID:" on page 57.

Enabling Sendmail

If you plan to use Sendmail, use the `touch` command and specify the user `actraadm`) to make sure the mail file can be read/written to by user actraadm. For example:

```
# touch /var/mail actraadm
```

NOTE Using the `touch` command is also indicated in Step 4 on page 69 of the Installation.

Installing the iPlanet Web Server, Enterprise Edition

Install the iPlanet Web Server, Enterprise Edition and Netscape Communicator by following the instructions enclosed with the software.

NOTE After ECXpert installation, you must make changes in the iPlanet Web Server's `obj.conf` file so that the document root and `cgi-bin` point to the `html` and `cgi-bin` directories of ECXpert.

NOTE When you install the iPlanet Web Server, Enterprise Edition, be sure to create an Enterprise Server instance with Server User set to the same user ID as the one you are using to install ECXpert—for example, `actraadm`.

Oracle Installation/Migration

iPlanet ECXpert 3.6 is certified to run with Oracle 8.1.6 or 8.1.7 Enterprise Server edition (also known as Oracle 8i). If you have an earlier installed version of Oracle, refer to the Oracle 8.1.6 or 8.1.7 Installation documentation or contact Oracle for instructions on upgrading to version 8.1.6 or 8.1.7. Once upgraded to 8.1.6 or 8.1.7, continue with the section "Creating the Oracle User ECX36" on page 46. If you do not have any version of Oracle installed, proceed to the section below, "Preinstallation Tasks for Oracle 8.1.6 or 8.1.7 Enterprise Server" on page 38.

NOTE The instructions and guidelines that follow and the previous information on sizing your tablespace and rollback segment might not fit your production environment. Consult your Oracle dba or equivalent Database Administrator to verify that the suggested settings apply to your environment.

Preinstallation Tasks for Oracle 8.1.6 or 8.1.7 Enterprise Server

Before you install Oracle 8.1.6 or 8.1.7, you must first:

- Configure shared memory. See "Configuring Shared Memory and Semaphores" on page 39.

- Create the `oracle` user. See "Creating the Oracle User" on page 40.
- Prepare the environment for installation. See "Preparing the Environment" on page 41.

Configuring Shared Memory and Semaphores

For a new installation of Oracle 8.1.6, you must edit the `/etc/system` file to properly configure shared memory and semaphores. Following this, your machine must be rebooted. Perform the following steps:

1. Log in as, or become, the **`root`** user:

   # **`su - root`**

2. Change to the `/etc` directory

   # **`cd /etc`**

3. Create a backup copy of your system file:

   # **`cp system system.backup`**

4. Carefully edit the `system` file as needed to include the following lines.

   These lines should appear at the end of the file, immediately the comments regarding "set."

NOTE The values for shared memory and semaphores below are the recommended minimum values from Oracle. *They are intentionally low*. If you set your shared memory parameters too high for your operating system, you might not be able to reboot your machine. Refer to your operating system documentation for parameter limits.

```
set shmsys: shminfo_shmmax = 134217728
set shmsys: shminfo_shmmin = 1
set shmsys: shminfo_shmmni = 100
set shmsys: shminfo_shmseg = 50
set semsys: seminfo_semmns = 1750
set semsys: seminfo_semmni = 70
set semsys:  seminfo_semmsl  = 200
set semsys:  seminfo_semmap  = 100
set semsys:  seminfo_semmnu  = 300
set semsys:  seminfo_semume  = 100
set semsys:  seminfo_semopm  = 100
```

5. Reboot your machine.

   For the changes to take effect, you must reboot your machine using the following two commands:

   # **sync**

   # **init 6**

Creating the Oracle User

NOTE If you want to set up Oracle in a remote client configuration you must create an `oracle` user ID on each machine.

1. Log on as or become the `root` user:

   # **su - root**

2. Create the dba group.

   If the machine you are using does not already have a dba group, you must create one:

   # **groupadd dba**

3. Create a home directory for the Oracle user. For example:

   # **mkdir** */disk1/oracle*

   where */disk1/oracle* is the `oracle` user's UNIX home directory.

4. Add the `oracle` user. For example:

   # **useradd -g dba -d /disk1/oracle -s /bin/csh oracle**

5. Transfer ownership of the `oracle` user's home directory. For example:

   # **chown oracle** */disk1/oracle*

6. Change the group association of the `oracle` user's home directory:

   # **chgrp dba** */disk1/oracle*

7. Set the `oracle` user's password

NOTE The `oracle` user's password is typically set to `oracle`.

```
# passwd oracle
New password: password
Re-enter new password: password
```

where *password* is the new password for the `oracle` user.

Preparing the Environment

1. Log on as or become user Oracle:

   ```
   # su - oracle
   ```

2. Set up the environment for the installation.

   Set the appropriate environment variables in the Oracle user's `.profile` or `.login` file before starting the Installer.

- Use the following syntax to set the environment variables:

  For the C shell:

  `setenv` *variable_name value*

  For the Bourne shell:

  `set` *variable_name value*

  `export` *variable_name*

- Use the information in Table 1-6 to determine how to set up each environment variable.

NOTE Refer to your Oracle documentation for more details about these and other potentially important environment variables.

Table 1-6 Environment Variables

Environment Variable	Configuration Details
DISPLAY	Set to the name and monitor of the machine from which you are installing the Oracle software. **Example:** `myhost:0.0`
LD_LIBRARY_PATH	Set to include `$ORACLE_HOME/lib` and the directory containing your Motif libraries. **Important**: When you set up your environment prior to installing or upgrading, make sure that the `$ORACLE_HOME/lib` directory appears as the first value in the `$LD_LIBRARY_PATH` environment variable. If you do not do this, you will get errors when you later use SQL*Plus. **Note**: The default location for Motif libraries on Solaris 2.x is `/usr/openwin/lib` or `/usr/dt/lib`.
ORACLE_BASE	Set to the directory at the top of the Oracle software. **Example**: `/export2/oracle8i/app/oracle`
ORACLE_HOME	Set to the directory containing the Oracle software for a given Oracle Server release. The OFA-recommended value is: `$ORACLE_BASE`*/product/release* **Example**: `/export2/oracle8i/app/oracle/product/8i` **Important**: Write this value in item 9 of the Configuration Worksheet on page 55.
ORACLE_SID	Set to the Oracle *SID*, which is the name of the Oracle Server instance. **Note**: If you are installing Oracle as a remote client, set this value to the database on the server machine. **Example**: `ECX36` **Important**: Write this value in item 10 of the Configuration Worksheet on page 55.
ORACLE_TERM	Set to the terminal definition resource file to be used with the Installer. Refer to your Oracle documentation for a complete list of terminal definition resource files. **Example**: `xterm`

Table 1-6 Environment Variables *(Continued)*

Environment Variable	Configuration Details
NLS_LANG	Set to the correct NLS_LANG character set. The character set is named according to the following convention: <language>_<territory>.<number> **Example**: american_america.US7ASCII **Important:** Enter this value in item 11 of the Configuration Worksheet on page 55.
oratab	Create an oratab file as follows: **Example**: *#cd /var* where *$ORACLE_HOME* is the $ORACLE_HOME of the new Oracle 8i, release 8.1.6 or 8.1.7 installation. **Note:** This environment variable *must* be properly set if you plan to use a non-US7ASCII character set.
PATH	Set to include: • *$ORACLE_HOME*/bin • /bin • /usr/bin • /usr/ccs/bin **Example**: /export2/oracle8i/app/oracle/product/8.1.6/bin:/bin:/usr/bin:/usr/ccs/bin:$PATH
TERM	Set this to the same value as the ORACLE_TERM environment variable. **Example**: xterm
USER	Set this to the oracle user. **Example**: oracle

Installing Oracle 8.1.6 or 8.1.7

1. Log on as or become the `oracle` user.

   ```
   # su - oracle
   ```

2. Run the Oracle Universal Installer.

   CAUTION *Do not* run the Installer as `root` user. You must be logged in as user `oracle`.

   Insert your Oracle8i, release 8.1.6 or 8.1.7 CD-Rom in the CD drive

   Change to the CD installation directory:

   ```
   # cd /cdrom/oracle8i/
   ```

   To start the installer, enter the following two commands:

   ```
   # ./setup /
   ```

The Oracle Universal Installer will lead you through the Oracle installation process. The typical installation type option will suffice for most installations. When asked about installing the Multi-threaded Server option (MTS), accept installation using that option. Other custom installation option should be handled by an experienced Oracle DBA.

During installation, you will be prompted for some of the environment variables set according to the guidelines presented in Table 1-6. You will also be instructed to open another terminal window and log in as root to run the root.sh script.

Running the root.sh Script

1. Log on as or become the `root` user.

   ```
   # su root
   ```

2. Change to the $ORACLE_HOME/`orainst` directory:

   ```
   # cd $ORACLE_HOME/orainst
   ```

3. Run the `root.sh` script:

   ```
   # ./root.sh
   ```

   If you run `root.sh` from a directory other than `ORACLE_HOME`, you get the following message:

   ```
   ORACLE_HOME does not match the home directory for oracle.
   Okay to continue? [N]:
   ```

If you indicate *Yes*, the `root.sh` script continues, using the `ORACLE_HOME` environment variable you specified.

Depending on the products you installed, you may be prompted for user names and may be given further instructions. Refer to your Oracle documentation for more information on these messages.

NOTE The message

```
Please raise the ORACLE owner's ulimit per the IUG.
```

is purely informational and does *not* require action.

Recommended Settings for initECX.ora File

iPlanet recommends that you open (and edit, as needed) the `initECX.ora` file to verify the use of the LARGE default values generated during the Oracle Enterprise Server installation process. These default values are indicated by the parameters shown in Table 1-7.

Table 1-7 LARGE Values for Parameters in the initECX.ora File

Parameter	Recommended LARGE Value
`db_file_multiblock_read_count`	32
`db_block_buffers`	3200
`shared_pool_size`	9000000
`processes`	200
`dml_locks`	500
`log_buffer`	163840
`sequence_cache_entries`	100
`sequence_cache_hash_buckets`	89

Creating the Oracle User ECX36

Follow these steps to create the Oracle user ECX36, who will own the ECXpert tables.

1. Log onto Solaris with your Oracle account. For example:

```
login: oracle
password: oracle
```

2. Launch the Oracle Server Manager utility.

```
# svrmgrl
SVRMGR> connect system/manager
```

NOTE The default password is `manager`; yours may differ.

3. Create user `ECX36`.

```
SVRMGR> create user ECX36 identified by ECX36
default tablespace USERS temporary tablespace TEMP;
SVRMGR> grant connect, resource to ECX36;
SVRMGR> grant unlimited tablespace to ECX36;
SVRMGR> exit
Server Manager Complete
#
```

Setting Up and Testing Database Connectivity

Before you install ECXpert, set up and test your database to be sure that user **`root`** has access to the database, so that you can successfully install ECXpert. If user **`root`** does not have database access, you will get error messages during ECXpert installation.

1. Log in as user `root`.

   # **`su - root`**

2. Determine the shell that `root` uses.

   # **`echo $SHELL`**

   The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	`.profile`
`/sbin/csh`	C	`.cshrc`
`/sbin/ksh`	Korn	`.profile` or `.kshrc`

Output	Shell Being Used	Environment File
`/usr/bin/sh`	Bourne	`.profile`
`/usr/bin/csh`	C	`.cshrc`
`/usr/bin/ksh`	Korn	`.profile` or `.kshrc`

3. Determine the shell that `oracle` uses.

   # **`cat /etc/passwd | grep oracle`**

   The output of this command lists the shell at the end, as in the example below:

   `oracle:x:50004:10003::/export/home/oracle:/bin/csh`

   where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   - If you are using the C shell, type the following command:

     # **`source ~oracle/.cshrc`**

   - If you are using the Korn shell or the Bourne shell, type the following command:

     # **`. ~oracle/`***your_environment_file*

5. Check the environment settings.

   # **`env`**

   The following sample output of this command lists the environment variables that must be set:

NOTE Refer to the Configuration Worksheet on page 55 for your `$ORACLE_HOME` (worksheet item 10).

```
$ORACLE_HOME=$ORACLE_HOME from worksheet
$ORACLE_SID=ECX
$LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
$PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
$DISPLAY=hostname:0.0
```

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined:

   - Change to user `oracle` (**`su - oracle`**).
   - Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.
   - Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, enable those changes now by switching to another user and then switching back:

```
# su - root
# su - oracle
```

   Alternatively, you could restart your system and log in as `oracle`.

8. Check your `tnsnames.ora` file.

   Check your `tnsnames.ora` file to make sure it contains the correct information. as follows:

```
SX = ECX36
(DESCRIPTION =
(ADDRESS = PROTOCOL = TCP)(Host=bobo)(Port=1521)
(CONNECT_DATA = (SID = ECX36)
```

9. Connect to the database from the UNIX commandline.

   # **sqlplus ECX36/***ECX36@your_connect_string*

   If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

```
SQL> connect ECX36/ECX36@your_connect_string
SQL> exit
```

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the `tnsnames.ora` and `listener.ora` file to validate the settings, such as hostname and SID.

    After making any necessary changes, go back to Step 9 above.

If you have successfully connected to the database using SQL*Plus, you will be able to connect during the iPlanet ECXpert installation. If you cannot connect to the database using this method, you definitely will not be able to connect during the iPlanet ECXpert installation.

For further Oracle troubleshooting tips, refer to the *iPlanet ECXpert Operations Reference Guide*.

LDAP Installation

iPlanet ECXpert supports the use of LDAP directory servers for storage of static data, such as membership information. Refer to the *iPlanet Directory Server 5.0 Installation Guide* for information on installing the iPlanet Directory Server.

Configuration of an LDAP directory server is done following the installation of iPlanet ECXpert. For instructions on configuring an LDAP directory server, refer to Chapter 5 of the *iPlanet ECXpert Administrator's Guide*, as well as the *iPlanet Directory Server Administrator's Guide*.

Chapter 2

Installing iPlanet ECXpert

This chapter describes how to use the iPlanet ECXpert Installer to install iPlanet ECXpert.

The following topics are discussed in this section:

- "Overview" on page 52
- "Backing up the Previous Installation of ECXpert (upgrade only)" on page 52
- "Setting Up Required Environment Variables" on page 53
- "Restarting the LDAP Server" on page 55
- "Completing the Configuration Worksheet" on page 55
- "Starting the ECXpert Installer" on page 59
- "Running the ECXpert Installer" on page 63
- "Starting the ECXpert Administration Server" on page 79

Overview

After you have installed dependent software, and created the ECXpert Administrator account, as described in "Creating the ECXpert Administrator Account" on page 36, you can install iPlanet ECXpert. This chapter provides detailed instructions on how to install ECXpert.

Refer to the Configuration Worksheet on page 55 as you perform the steps in this chapter.

All the instructions in this manual are written for a new install of ECXpert. It is assumed ECXpert has never been installed on the target system or you have deleted all files and directories from any previous installation.

If you are performing an upgrade or re-install of ECXpert, stop here and read the appropriate appendix indicated below.

- If you are **migrating from ECXpert Version 3.0 to 3.6**, read the Appendix A, "Migrating from ECXpert 3.5 to Current iPlanet ECXpert."
- If you are **re-installing ECXpert Version 3.0,** read the Appendix B, "Reinstalling Current ECXpert."

Backing up the Previous Installation of ECXpert (upgrade only)

NOTE If you are installing a new copy of ECXpert (not upgrading an earlier installation), you may skip this section.

Perform the following steps for a running installation of ECXpert.

1. Shut down all ECXpert services.
2. Move the old ECXpert install directory to a temporary location.

   The `$NSBASE/NS-apps/ECXpert/` directory and all directories below it (see "iPlanet ECXpert Directory Structure" on page 29) should be moved as a unit to the new location.
3. Backup the Oracle database for the user being used by ECXpert.

Refer to your *Oracle7* or *Oracle 8 Server Administrator's Guide*, Chapter 23, "Backing up a Database," for complete instructions on performing a full backup of your existing Oracle7 database.

Setting Up Required Environment Variables

Parts of the installation process, as well as the routine operation of the ECXpert system, require the $NSBASE and $BDGHOME environment variables be properly set.

1. Change to the ECXpert Administrator user. For example:

   ```
   # su - actraadm
   ```

2. Determine the environment file to edit.

   ```
   # echo $SHELL
   ```

   The output of this command determines which environment file you must edit:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	`.profile`
`/sbin/csh`	C	`.cshrc`
`/sbin/ksh`	Korn	`.profile` or `.kshrc`

3. Edit the definition of *$NSBASE* into the shell startup file.

NOTE For further information, refer to the ECXpert Configuration Worksheet item "Install Directory:" on page 56.

Open the appropriate startup file in a text editor (for example., `vi`) and edit it according to the following instructions:

- If you are using the C shell, add the following line:

  ```
  # setenv NSBASE your_NSBASE_path
  ```

  where *your_NSBASE_path* is the path to the target directory for installing the ECXpert software.

- If you are using the Bourne or Korn shell, add the following line:

  # **set NSBASE=** *your_NSBASE_path*

  where *your_NSBASE_path* is the path to the target directory for installing the ECXpert software.

- Edit the definition of *$BDGHOME* into the shell startup file.

  according to the following instructions:

- If you are using the C shell, add the following line:

  # **setenv BDGHOME** *$NSBASE/NS-apps/ECXpert*

  where *$NSBASE* is the path you set in Step 3 as your *$NSBASE* environment variable.

- If you are using the Bourne or Korn shell, add the following line:

  # **set BDGHOME=***$NSBASE/NS-apps/ECXpert*

  where *$NSBASE* is the path you set in Step 3 as your *$NSBASE* environment variable.

4. Save the file and exit the text editor.
5. Enable the *$NSBASE* and *$BDGHOME* environment variables.

   Adding *$NSBASE* and *$BDGHOME* to the environment file for the ECXpert Administrator user ensures that they are enabled every time the ECXpert Administrator user logs in. You can now enable *$NSBASE* and *$BDGHOME* by switching to another user and then switching back. For example:

   ```
   # su - root
   # su - actraadm
   ```

   Alternatively, you could restart your system and log in as the ECXpert Administrator user.

Restarting the LDAP Server

If you already have an LDAP server installed you will need to restart it in order for the server to be properly configured:

1. Shut down the LDAP server (if any).

   ```
   # ./LDAP_INSTALL_DIR/slapd-conf/stop-slapd
   ```

2. Copy the `ECXpert_user_at.confand ECXpert_user_oc.conf` to the `LDAP_INSTALL_DIR/slapd-hostname/config` directory:

```
# cp $NSBASE/NS-apps/ECXpert/bdg/schema/oracle/ECXpert_user_at.conf
LDAP_INSTALL_DIR/slapd-host/config

# cp $NSBASE/NS-apps/ECXpert/bdg/schema/oracle/ECXpert_user_oc.conf
LDAP_INSTALL_DIR/slapd-host/config
```

3. Make the following entries in `LDAP_INSTALL_DIR/ns-schema.conf`:

   ```
   include LDAP_INSTALL_DIR/slapd-host/config/ECXpert_user_at.conf

   include LDAP_INSTALL_DIR/slapd-host/config/ECXpert_user.oc.conf
   ```

   where you replace `LDAP_INSTALL_DIR` with your LDAP server installation directory. For example: `/usr/netscape/server5`

4. Restart the LDAP sever:

   ```
   # LDAP_INSTALL_DIR/slapd-host/restart-slapd
   ```

Completing the Configuration Worksheet

During the ECXpert installation, you will be prompted to supply certain information to the ECXpert installer. Fill out the Configuration Worksheet in order to have the values easily accessible when prompted during the ECXpert installation process.

While in most cases you can use default configuration values provided by the iPlanet iPlanet ECXpert Installer, there are some settings you must provide.

Important Hints for how to find the information you need to fill out this worksheet appear below each numbered item. However, if you have difficulty determining the values for the items listed on the Configuration Worksheet, consult your operating system documentation, your Oracle documentation, or your System Administrator.

Table 2-1 Configuration Worksheet *(1 of 4)*

ECXpert Configuration Information

Use the values in items 1 and 2 below to complete **ECXpert Installation Commandline Tasks**.

1. **Install Directory:**

   Enter the full pathname for *$NSBASE* where *$NSBASE* is the environment variable you set up as the complete path to where you will install ECXpert. See "Setting Up Required Environment Variables" on page 53 for instructions on setting up the *$NSBASE* environment variable.

   Example: /disk1

2. **Temporary installation port #:**

   Enter the temporary installation port number. **Do not use port 80**. This can be any available port except 80, which is the permanent port number.

   To see what port numbers are already in use, enter the following command:

   ```
   # netstat -an | grep -i 'listen'
   ```

   Port numbers currently in use are listed in the first column of output from this command (preceded by "`*.`"), as shown in the following 5-line sample:

   ```
   *.111                *.*                0      0      0      0 LISTEN
   *.32771              *.*                0      0      0      0 LISTEN
   *.21                 *.*                0      0      0      0 LISTEN
   *.23                 *.*                0      0      0      0 LISTEN
   *.514                *.*                0      0      0      0 LISTEN
   ```

   Choose a port number that does not appear on the list that appears when you enter the `netstat` command.

Use the values in items 3 and 4 below to complete **ECXpert Installation STEP TWO**. For a picture of what the screen looks like at this point, see Figure 2-2 on page 65.

Table 2-1 Configuration Worksheet *(2 of 4)*

3. **User ID:**

   If you used `actraadm` as your ECXpert Administrator userid, the User ID might be `1120`. To determine the User ID for the ECXpert administrator user (typically `actraadm`), log in as the ECXpert administrator user and use the `id` command. You may alternately type the command:

   ```
   # cat /etc/passwd
   ```

   to view the contents of the */etc/passwd* file. Look for a line beginning with the ECXpert Administrator userid. Counting the ECXpert Administrator userid as the first value, the User ID is the third colon-separated value from the left.

   Example: *actraadm:x:1120:500::/export/home/actraadm:/bin/csh*

   See "Creating the ECXpert Administrator Account" on page 36 for instructions on setting up the ECXpert Administrator user.

4. **Group ID:**

   If you used `actraadm` as your ECXpert Administrator userid and `actra` as your ECXpert Administrator group, the Group ID might be `500`. To determine the Group ID for the ECXpert administrator group (typically `actra`), log in as the ECXpert administrator user and use the `id` command.

   You can alternately type the command:

   ```
   # cat /etc/group
   ```

   to view the contents of the */etc/group* file. Look for a line beginning with the ECXpert Administrator group name. Counting the ECXpert Administrator group name as the first value, the Group ID is the third colon-separated value from the left.

   Example: *actra::500:actraadm*

   See "Creating the ECXpert Administrator Account" on page 36 for instructions on setting up the ECXpert Administrator user.

Oracle Configuration Information

Use the values in items 5-14 below to complete **ECXpert Installation Step Four**. For a picture of what the screen looks like at this point, see Figure 2-8 on page 70.

5. **ORACLE HOME:**

   Enter the directory that contains the Oracle software. This is the $ORACLE_HOME pathname. The OFA-recommended value is:

   $ORACLE_BASE/product/ release

   Example: */export2/oracle815/app/oracle/product/7.3.4*

Table 2-1 Configuration Worksheet *(3 of 4)*

6. **ORACLE SID:**

   Enter the Oracle *SID*, which is the name of the Oracle Server instance. If you do not know what this value is, see your `$ORACLE_HOME/dbs/init` *SID* `.ora` file.

   Note: If you are installing Oracle as a remote client, set this value to the *SID* on the server machine.

   Example: ECX

7. **NLS Language (NLS_LANG):**

   The NLS_LANG character set is named according to the following convention:

   language _ territory . number

   To query the Oracle7 database character set, you need the privileges to see the table *V$NLS_PARAMETERS*. Typically, only system/manager can see this table.

   - Use the following SQL statement to check the character set language:

     ```
     select * from V$NLS_PARAMETERS where parameter = 'NLS_LANGUAGE';
     ```

   - Use the following SQL statement to check the character set territory:

     ```
     select * from V$NLS_PARAMETERS where parameter = 'NLS_TERRITORY';
     ```

   - Use the following SQL statement to check the character set number:

     ```
     select * from V$NLS_PARAMETERS where parameter = 'NLS_CHARACTERSET';
     ```

   Example: american_america.US7ASCII

   Note: The character set name is case sensitive.

8. **SQL*Net TNS Alias:**

   Enter the SQL*Net TNS Alias. You can find this value in your `tnsnames.ora` file. This value is also known as the "SQL*Net Connect String."

9. **Database User:**

   Enter the name of the user who owns the ECXpert tables in the database—ECX36. This is the user you set up as part of "Creating the Oracle User ECX36" on page 46.

10. **Database Password:**

    Enter the password of the user who owns the ECXpert tables in the database. This is the user you set up as part of "Creating the Oracle User ECX36" on page 46.

    Example: ECX36

Table 2-1 Configuration Worksheet *(4 of 4)*

Mail Configuration Information

11. POP3 User:

Enter the userid for the POP3 user. This value is not required if you are using sendmail.

12. POP3 Password:

Enter password for the POP3 user. This value is not required if you are using sendmail.

13. Mail Host:

Enter your mail host name. If you are using sendmail, this is the name of the machine you are receiving mail on. If you are using POP3, this is the name of the SMTP server.

Example: myhost.myserver.com

14. **Mail Spool File** (sendmail only)**:**

Enter the path to your mail directory. This value is not required if you are using POP3. This value is typically `/var/mail/` *username*, but it does not have to be.

Example: `/var/mail/actraadm`

15. **JDK Installation:**

Enter the path to the directory in which you have installed JDK 1.3 or higher

Example: `/usr/j2se/`

Starting the ECXpert Installer

1. You should already be logged in as `root`.

CAUTION Do *not* perform the command `$ su - root` because this wipes out the database connectivity test settings described in "Setting Up and Testing Database Connectivity" on page 47.

2. If you are installing iPlanet ECXpert remotely, from a C shell window, set your remote host to display on your local host.

   On the local host, enter:

   `# setenv DISPLAY` *hostname*`:0.0`

where *hostname* is the name of the machine on which you are physically located.

On the remote host, enter:

/usr/openwin/bin/xhost +

CAUTION If you have an iPlanet Enterprise server or other HTTP server already running it may interfere with the iPlanet ECXpert installer. To ensure that the iPlanet ECXpert installer can successfully complete its tasks, *shut down all HTTPD server processes*.

3. Make sure you have a valid hostname and domain name.

   To verify this, enter:

   # **/bin/***hostname*

   # **/bin/***domainname*

   Consult your system administrator if either your hostname or domain name does not have a valid value.

4. Change to the `/cdrom` directory.

   # **cd /cdrom/ECXpert**

   If this command does not work, enter the following command:

   # **cd /cdrom/cdrom0**

5. Start the iPlanet ECXpert Installer by running the `setup_exe` executable.

   # **./setup_exe**

NOTE Do **not** run `setup_exe` as a background process. This program requires you to enter information to configure ECXpert.

The program starts up and immediately displays the following licensing agreement:

```
BY INSTALLING THIS SOFTWARE YOU ARE CONSENTING TO BE BOUND BY
AND ARE BECOMING A PARTY TO THE AGREEMENT FOUND IN THE
LICENSE.TXT FILE. IF YOU DO NOT AGREE TO ALL OF THE TERMS
OF THIS AGREEMENT, PLEASE DO NOT INSTALL OR USE THIS SOFTWARE.

Do you agree to the license terms? [no]:
```

Type `y` and press Enter to accept the licensing terms, or type `n` and press Enter, or just press Enter, to reject them.

If you type `n` and press Enter, or just press Enter, the program aborts, returning you to the command prompt.

If you type `y` and press Enter, the program immediately prompts you for a path to the installation directory.

```
*********************************************
*     iPlanet ECXpert 3.6 Installation      *
*********************************************

Please enter the fully qualified path of the directory where
you would like to install ECXpert.

Enter quit to end.

Directory :
```

6. Enter the install directory (*$NSBASE* value).

   Enter the full path of your installation directory from the Configuration Worksheet and, when prompted, type `y` to confirm. If the directory you enter doesn't already exist, the program creates it for you.

After you supply the required information, the Installer:

- builds the `/NS-apps/iPlanet ECXpert` directory structure
- configures *$NSBASE*

NOTE Whatever you entered for the `Directory :` prompt is used to define the *$NSBASE* environment variable.

Keep this definition handy so that you can supply it in later installation steps where the *$NSBASE* environment variable definition is not available.

7. Enter the ECXpert temporary installation port number. This HTTP port number is from item 2 of your Configuration Worksheet on page 55. It will be replaced by the one used by the iPlanet Web Server. An example port number not in use might be: 11111. When prompted, enter **y** to confirm.

```
    Please enter the port that you want the installation http
server to listen on.

    NOTE: It is recommended that you DO NOT USE port 80, it is
generally the default port for most http servers.

    Enter quit to end.

    Port :
```

The files are unpacked into the destination directory you specified, and the Installer runs internal processes that:

- configure a temporary version of the HTTP server (removed automatically by installer upon completion of installation)
- start the temporary HTTP server
- start the Netscape Navigator web browser and display step One of the installation, as shown in Figure 2-1.

NOTE The above processes take several minutes.

NOTE If you have an HTTP server running that uses the same port specified above, the installation fails.

Shutting Down Any Running HTTP Servers

Before proceeding to running the ECXpert Installer, follow these steps to shut down any running HTTP servers:

1. Exit the browser.
2. Shut down all HTTP server processes.
3. Make sure no other processes are using the port you selected:

   ```
   # netstat -an | grep -i 'listen'
   ```

4. Restart the installation by referring to Step 5 on page 60.

Running the ECXpert Installer

The rest of the installation process is browser-driven. Enter the information that you recorded in the Configuration Worksheet on page 55 when you are prompted to do so in the screens that follow.

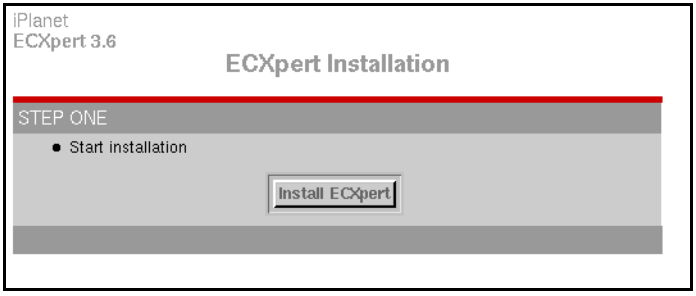
NOTE If you are migrating from ECXpert Version 2.0, stop here and read Appendix A, "Migrating from ECXpert 3.5 to Current iPlanet ECXpert." If you are re-installing ECXpert version 3.0, see Appendix B, "Reinstalling Current ECXpert."

Information in each Installer screen tells you the prerequisites, if any, for that step and what each step in the process is doing.

CAUTION Before proceeding, make sure that you have filled in your Configuration Worksheet *completely* and *accurately*. Refer to "Completing the Configuration Worksheet" on page 55. Then very carefully enter the information from that worksheet into the ECXpert Installer screens.

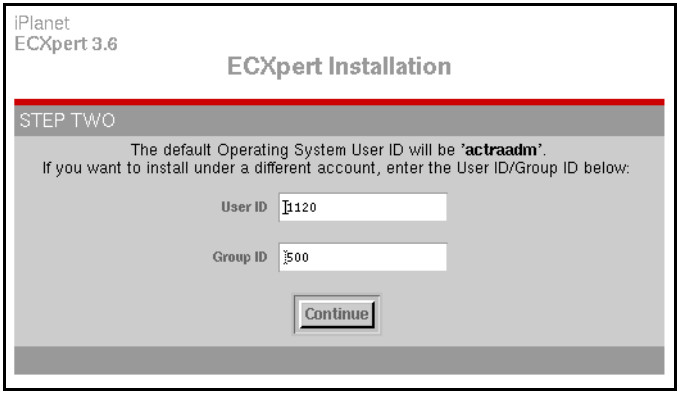
NOTE The ECXpert Installer does not provide Back or Next buttons. To navigate between screens, use your browser's Back and Next buttons. On any ECXpert Installer screen, click the appropriate button at the bottom of the page to continue to the next step.

Figure 2-1 ECXpert Installer Step One



1. Click Install ECXpert to begin the installation. Step Two of the Installation is displayed as shown in Figure 2-2.

Figure 2-2 iPlanet ECXpert Installer Step Two



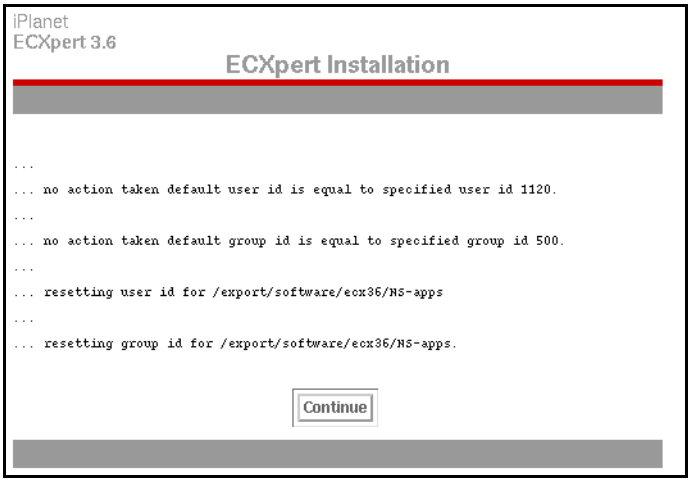
2. Enter the User ID and Group ID for the ECXpert Administrator user (typically `actraadm`). The screen provided shows the use of an alternate User and Group ID with both expressed as numeric values.

   This is the user you created in "Creating the ECXpert Administrator Account" on page 36. The ECXpert administrator User ID and Group ID are the values you recorded in the Configuration Worksheet, items "User ID:" on page 57 and "Group ID:" on page 57

   When you have entered the User ID and Group ID values, click Continue.

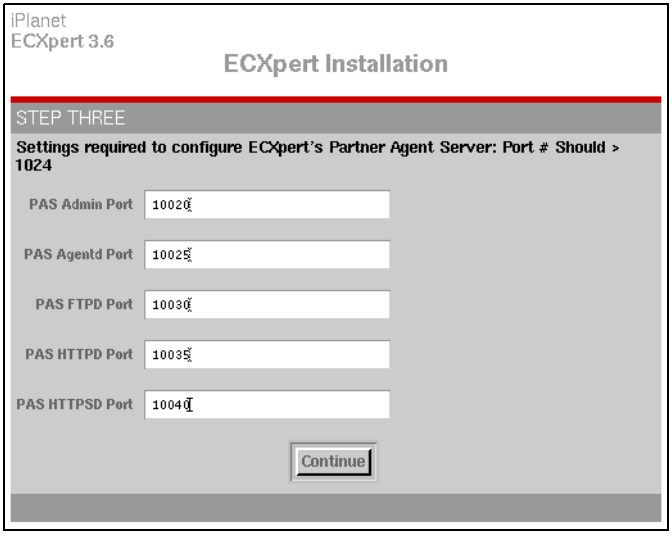
NOTE If the default groupId created was not `actra` and the default userId created was not `actraadm`, verify that the ids used are in the `local /etc/passwd` and `/etc/`group files to avoid using a known NIS userId and groupId.

Figure 2-3 Updating/Resetting Messages for UserId/GroupId



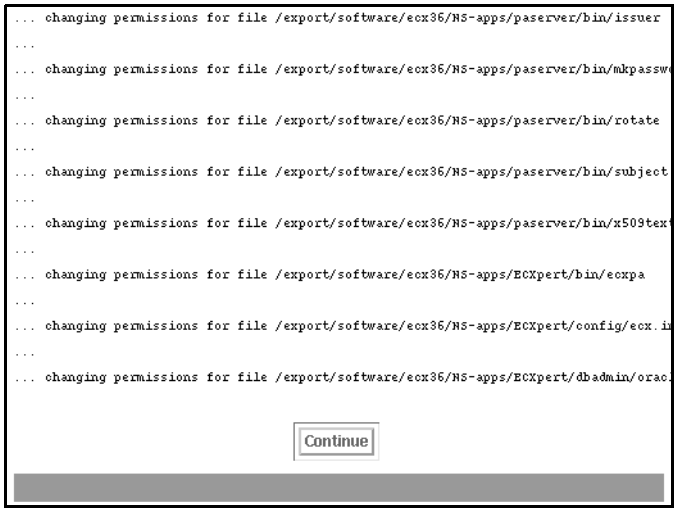
ECXpert will modify the configuration files to update the UserID and GroupID values. As the process proceeds, the Installer displays progress status messages, as shown in Figure 2-3. When the process has completed, click Continue at the bottom of the screen to go to step 3 shown in Figure 2-4.

Figure 2-4 iPlanet ECXpert Installer Step Three



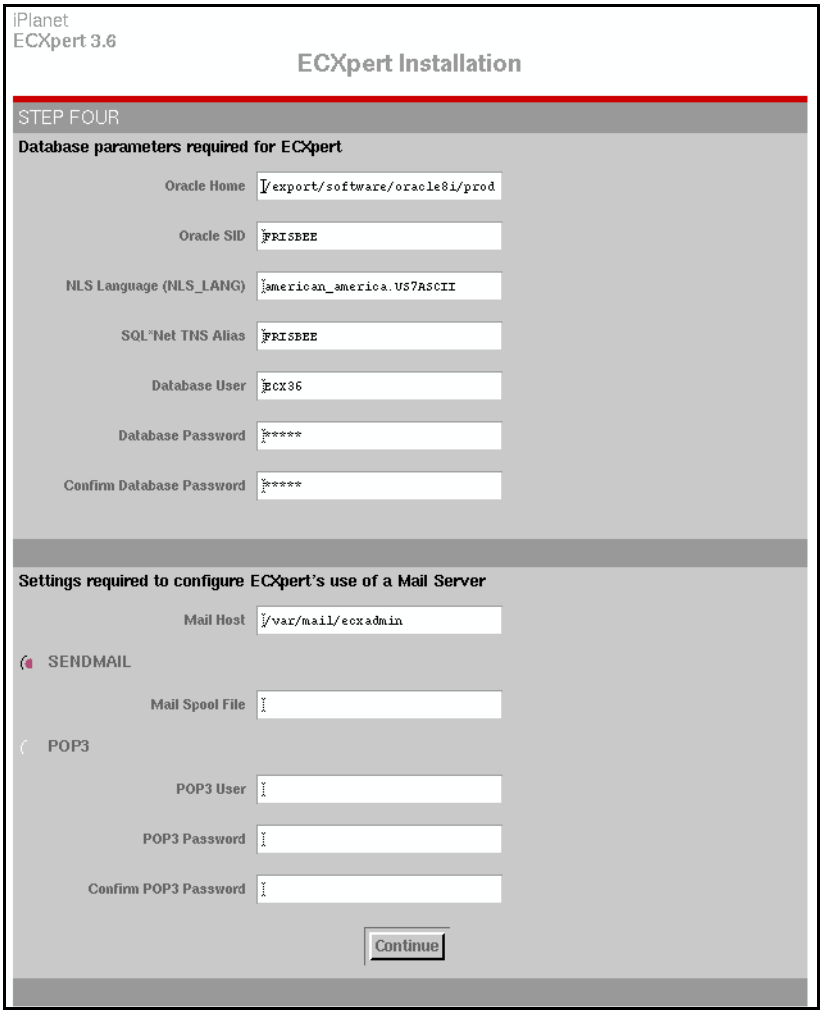
3. Enter the ECXpert Partner Agent Server port information as shown in Figure 2-4. As shown, the port number should be greater than 1024. Press the Continue button when the message postings have finished.

Figure 2-5 Post Step Changing Permissions Messages



A series of messages is displayed. Near the end of the message list will be numerous ‘changing permissions’ messages, as shown in Figure 2-5.

Figure 2-6 ECXpert Installer Step Four: Database and Mail Server



4. As shown in Figure 2-6, Step Four of the ECXpert installation requires entries for your Oracle database and Mail Server parameter settings.

   These are the values you recorded in Configuration Worksheet items "ORACLE HOME:" on page 57 through "POP3 Password:" on page 59. These values may be the same as shown above.

   When using SendMail instead of POP3, the Mail Server entry is required. The Mail Spool file will default to the Mail Server directory if it is not specified. However, make sure that the ECXpert Administrative user (`actraadm`) is part of the "mail" group, so that this user can send and receive mail. See the following note.

   Press Continue when finished.

Figure 2-7 Database and Mail Server Messages

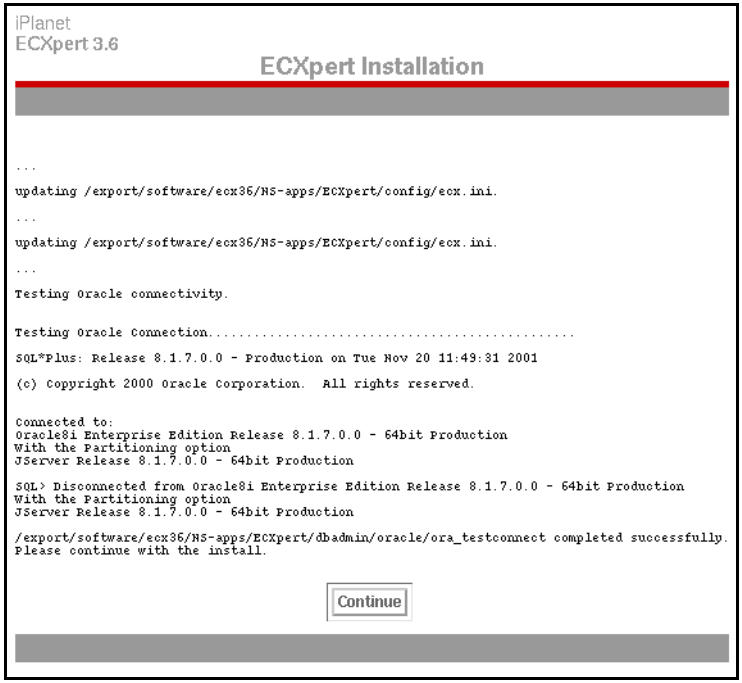
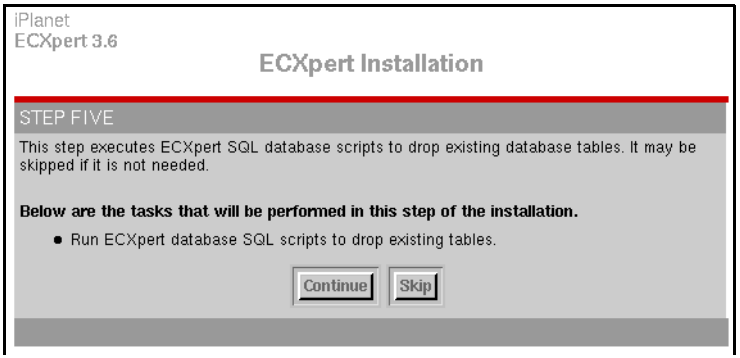


Figure 2-8 iPlanet ECXpert Installer Step Five



5. As shown in Figure 2-8, Step Five automatically runs the SQL scripts that drop the database schema for the iPlanet ECXpert database.

   If this is the first time you are configuring the database, click Skip to skip this step and go on to Step 6 on page 73. If you execute this step before you have configured the database, you get error messages because the SQL script attempts to drop tables that do not exist. These error messages do not impact your installation and may be ignored.

CAUTION If you are performing an upgrade or re-install of ECXpert, stop here and proceed to the appropriate continuation point indicated below. If you Click Continue, your existing database will be overwritten.

- If you are **migrating from ECXpert Version 3.0**, continue at "Preserve Your Files" on page 113 Continue through the rest of the next section, "Upgrade to Current ECXpert" on page 114.
- If you are **re-installing ECXpert Version 3.0**, continue at Step 3 on page 124, in Appendix B, "Reinstalling Current ECXpert."

Figure 2-9 ECXpert Database Tables Dropped and Related Messages

As the process runs, the Installer displays progress status messages, as shown in Figure 2-9. When the process has completed, click Continue to go to the next step.

CAUTION If you are *overwriting* an earlier installation of iPlanet ECXpert (*not* preserving your iPlanet ECXpert database), you may get the following error when dropping the Certificates table:

```
ORA-02266: unique/primary keys in table reference by enabled
foreign key
```

To proceed, complete the following steps either before or after Step Five:

- In an xterm window, log in to `svrmgrl` as system/manager.

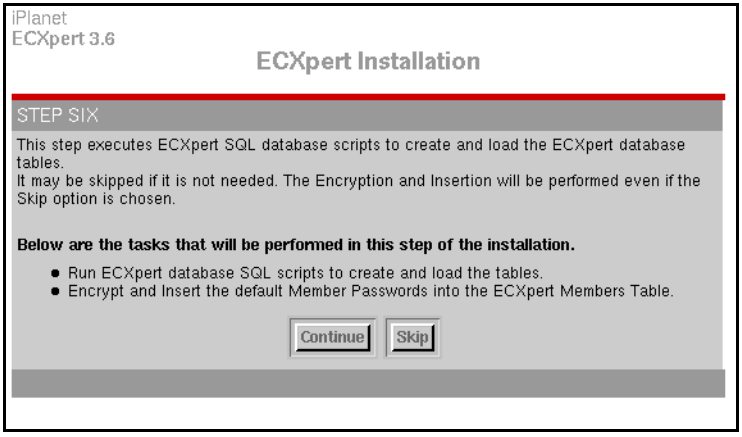
- Enter the following command sequence to drop and re-add user ECX36‘‘:

```
SVRMGRL> drop user ECX36 cascade

SVRMGRL> create user ECX36 identified by ECX36
default tablespace USERS temporary tablespace TEMP;

SVRMGRL> grant connect, resource to ECX36;
```

NOTE The above commands assume you created Oracle user ECX36 exactly as specified in Step 5 on page 60. If you made any modifications to the commands in Step 5 on page 60, you must make the corresponding modifications to the commands above.

- Resume the ECXpert installation where you left off (either Step Five or Step Six).

Figure 2-10 ECXpert Installer Step Six



6. As shown in Figure 2-10, Step Six creates and loads new ECXpert database tables. This step automatically runs the SQL scripts that create the database schema for the iPlanet ECXpert database in the Oracle RDBMS, and encrypts and inserts Member passwords.

CAUTION If you are performing an upgrade or re-install of ECXpert, make sure you have read the instructions at the appropriate continuation point indicated below. You should be clicking **Skip** on this step. **If you Click Continue your existing database will be overwritten.**

- If you are **migrating from ECXpert Version 3.0**, continue at "Back Up Your Database" on page 109, in Appendix A, "Migrating from ECXpert 3.5 to Current iPlanet ECXpert."
- If you are **re-installing ECXpert Version 3.0,** continue at Step 4 on page 124, in Appendix B, "Reinstalling Current ECXpert."

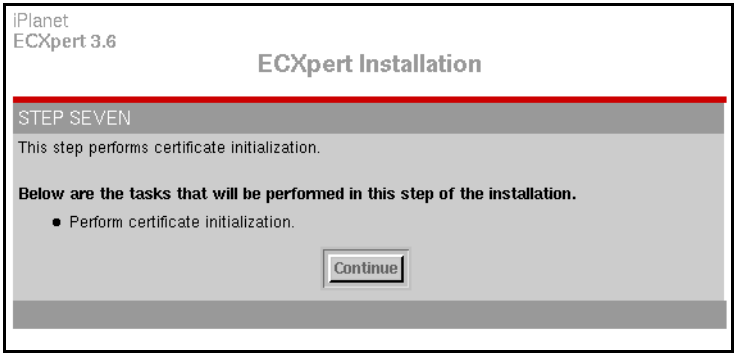
Figure 2-11 ECXpert Installer Step Six Messages

If this is a new install, click Continue for Step Six. As the process runs, the Installer displays a process log screen, as shown in Figure 2-11.

NOTE Be sure to scroll down through the Step Six messages, as there may be more than can be displayed on one screen.

When the process has completed, click Continue to go to the next step.

Figure 2-12 iPlanet ECXpert Installer Step Seven



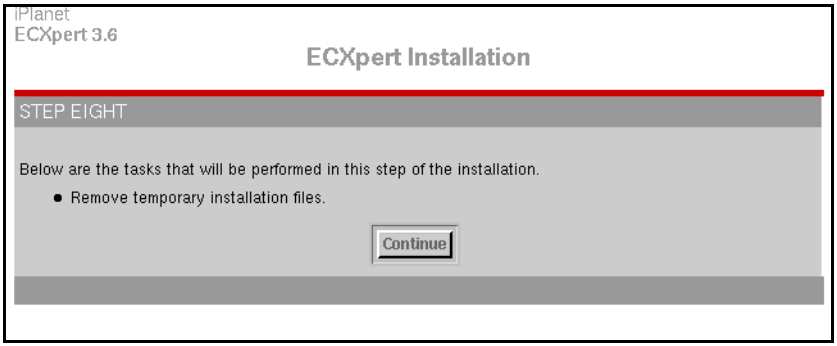
7. As shown in Figure 2-12, Step Seven initializes certificates. Click Continue to perform this process.

   The Installer initializes VeriSign certificate files. If you want to use certificates from other certificate authorities (CAs), add them in manually after installation.

Figure 2-13 ECXpert Installer Step Seven Messages

As the process runs, the Installer displays process status messages, as shown in Figure 2-13. When the process has completed, click Continue to go to the next step.

Figure 2-14 iPlanet ECXpert Installer Step Eight

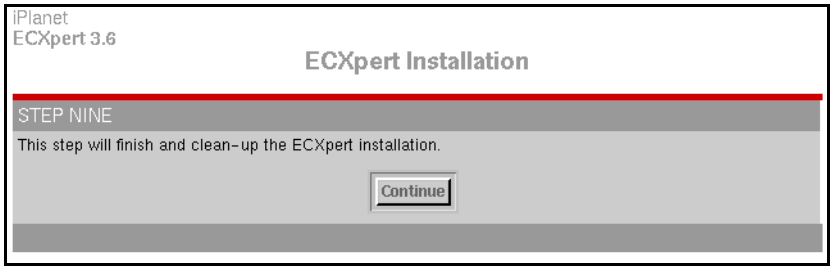


8. As shown in Figure 2-14, Step Eight cleans up the files from the temporary installation directory. Click Continue to perform this process.

Figure 2-15 ECXpert Installer Step Eight Message

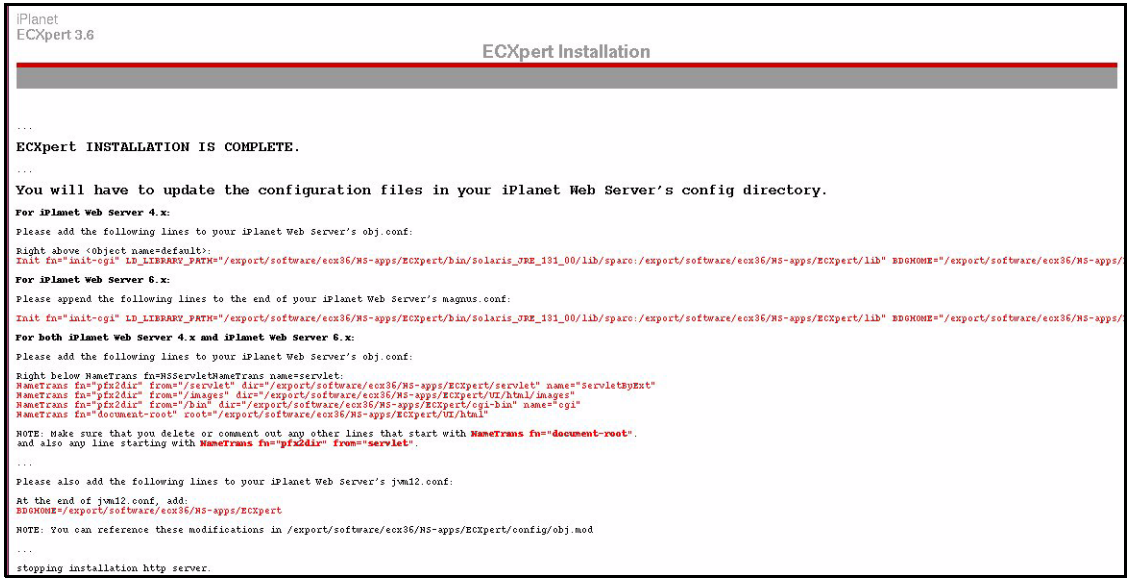
After the Installer completes its cleanup process, a message is displayed regarding the removal of all Template Files, as shown in Figure 2-15. Press Continue to advance to the next step.

Figure 2-16 iPlanet ECXpert Installer Step Nine



9. As shown in Figure 2-16 Step Nine finishes the iPlanet ECXpert installation process, and cleans up the installation.

Figure 2-17 iPlanet ECXpert Installer Step Nine Messages



The ECXpert Installer displays the message INSTALLATION IS COMPLETE, as shown in Figure 2-17. Also displayed are instructions to modify two configuration files: obj.conf, for the iPlanet Web Server (Netscape Enterprise Server) and the jvm12.conf, for the Web Server's version 1.2 of Java Virtual

Machine. In order for these changes to take effect, you will need to shut down and restart the Enterprise Server. See step 12 below to start the Enterprise Server. See the section "Applying obj.conf File Changes" on page 78 to apply the configuration changes to the Enterprise Server.

If you are using WebServer 6.0 SP1, you need to modify the following files:

a. In the `obj.conf` file, immediately below "<Object name=default>", add the following lines:

```
NameTrans fn="NSServletNameTrans" name="servlet"
NameTrans fn="pfx2dir" from="/servlet"
dir="/export/software/ecx36/NS-apps/ECXpert/servlet"
name="ServletByExt"
NameTrans fn="pfx2dir" from="/images"
dir="/export/software/ecx36/NS-apps/ECXpert/UI/html/images"
NameTrans fn="pfx2dir" from="/bin"
dir="/export/software/ecx36/NS-apps/ECXpert/cgi-bin" name="cgi"
NameTrans fn="document-root"
root="/export/software/ecx36/NS-apps/ECXpert/UI/html"
```

b. In the `magnus.conf` file, immediately below the line "Init fn="NSServletLateInit" LateInit=yes" add the following line:

```
Init fn="init-cgi"
LD_LIBRARY_PATH="/export/software/jdk1.3/j2sdk1_3_1_01/jre/lib/s
parc:/export/software/ecx36/NS-apps/ECXpert/lib"
BDGHOME="/export/software/ecx36/NS-apps/ECXpert" timeout="600"
```

c. In the `jvm12.conf` file, immediately below the line "#jvm.option=-Xbootclasspath:<JAVA_HOME>/lib/tools.jar:<JAVA_HOME>/jre/lib/rt.jar" add the following line:

```
BDGHOME=/export/software/ecx36/NS-apps/ECXpert
```

NOTE The `bdghome/config/obj.mod` file has same values as shown in ; you can look at this file as well to modify the obj.conf file. Also, the directory paths shown for the servlets, NameTrans fn.... may not be representative of the path for your installation implementation.

The information on this screen is written to a file for you to use in Step 11 to modify the Netscape Enterprise Server's `obj.conf` file.

10. Exit the browser.

11. Start your HTTP server.

Applying *obj.conf* File Changes

NOTE If you plan to enable support for AIAG E-5 2000 communications protocol, you must include the noted change to the `obj.conf` file for the `NameTransfn =` statement, as shown in on page 76. The need for this statement is also described in the Configuring the Servlets section of Appendix E: AIAG Administration in the *iPlanet ECXpert Administrator's Guide*.

1. Start your web browser and go to the following URL.

   `http://`*machine_name:port*`#/admin-serv/bin/index`

2. Enter the user ID and password.

   Enter a user ID and password for a Netscape Enterprise Server user with administrative privileges.

3. Apply any changes you made to the `obj.conf` file.

   A message window appears telling you that you must apply your changes. Click OK.

   In the Netscape Enterprise Server bar at the top of the screen, click Apply. The Apply Changes screen appears.

   Click Load Configuration Files for the iPlanet Web Server (Netscape Enterprise Server).

   If the changes are successfully applied, a "success" message window appears. Click OK to continue.

4. Exit your web browser.

Starting the ECXpert Administration Server

Follow the steps below to start the ECXpert Administration Server.

1. Start up the browser.

   Make sure you are still user root, then enter the following commands:

   ```
   $ cd $NSBASE/NS-apps/navigator
   $ ./netscape &
   ```

   NOTE The `$DISPLAY` environment variable must be set at this point in order for the browser to run.

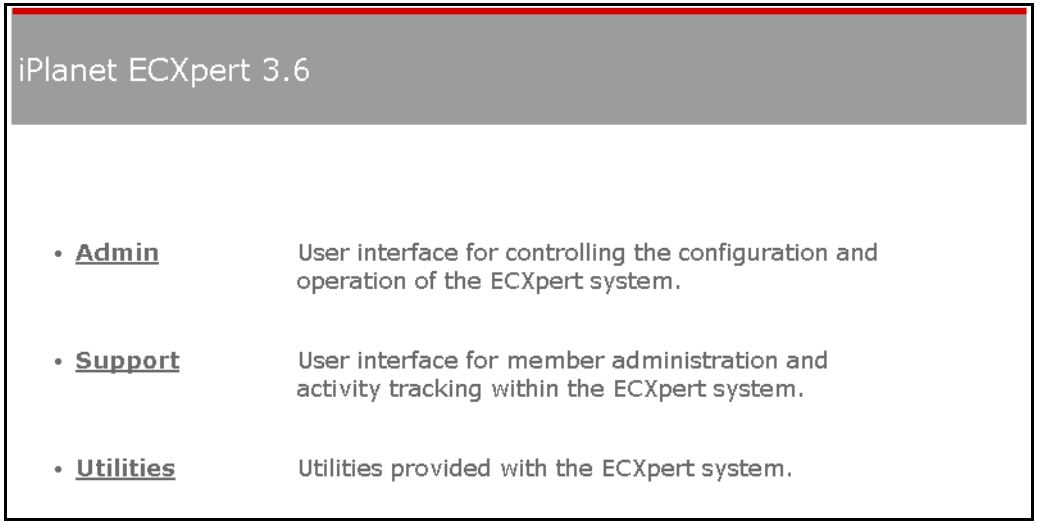
2. Display the ECXpert Administration home page.

   Enter the URL:

   `http://hostname:port#`

   NOTE If you used port 80 when you installed ECXpert, you do not need to enter a port number.

Figure 2-18 iPlanet ECXpert main menu



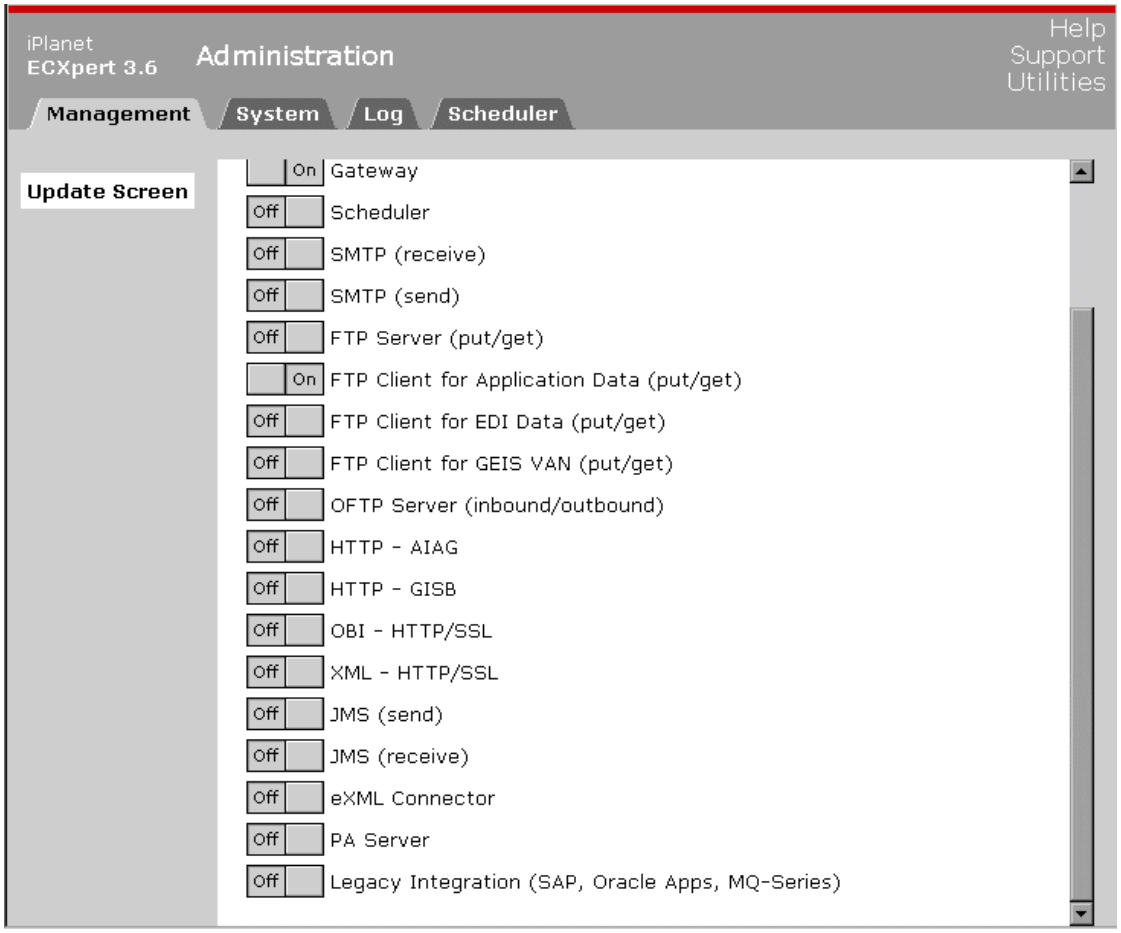
The ECXpert Main Screen appears, as shown in Figure 2-18.

3. Save the URL to the iPlanet ECXpert Main Menu as a bookmark.
4. Start the ECXpert Administration Server.

   Click Admin in the iPlanet ECXpert Main Menu.

NOTE The ECXpert Administration Server is not pre-configured with password protection. Use the NES Administration interface to enable this feature, if desired.

Figure 2-19 iPlanet ECXpert Management screen main menu



The Management screen appears, as shown in Figure 2-19 when the ECXpert Administration Server is On. If your screen shows the ECXpert Administration Server Off, click the On portion of the button's toggle to turn on the server. Then click the '....Updating....' prompt to the left of the On button to refresh the screen.

Click the iPlanet ECXpert Administration Server toggle switch to the `On` position to start the server.

5. Continue to the next chapter, Postinstallation Tasks, to test your installation and additional post-installation tasks.

Additional Steps for the Billing Code and AIAG Features and Expanded Data Fields

These three features require additional steps.

Enabling the Billing Code Feature

To use the Billing Code feature, perform the following three steps:

1. The billing code feature in this release requires customers to update the database stored procedure. To do this, run the `ora_pkgbody.sql` script:

```
cd $ECX3.5_HOME/dbadmin/oracle
```

Start sqlplus:

```
sqlplus <myaccount/mypassword@myserver>
```

where `myaccount/mypassword@myserver` is your configured account.

2. From the sqlplus prompt, run the script:

```
sqlplus> @ora_pkgbody.sql
```

3. Restart ECXpert.

Enabling the AIAG Feature

ECXpert 3.6 supports the AIAG E-5 2000 protocol standard. If your site uses this standard for business document processing, you will need to install support for documents exchanged with this protocol. The `AIAG_setup.sh` script creates or purges the AIAGTransaction Table, based on which option you specify. The syntax for invoking the `AIAG_setup.sh` script from a Bourne shell command line is:

```
% AIAG_setup oracle_userame oracle_password tns_alias {create|purge}
```

Where:

- `oracle_username` is the login name used to login to oracle (e.g. `oracle`)
- `oracle_password` is the password used to log in to the oracle database. (e.g. `oracle.iplanet`)
- `tns_alias` is the TNS alias string used to identify the oracle instance (e.g. `ORAINST.IPLANET`)
- `{create|purge}` where the `create` option creates the AIAGTransaction table if it does not exist, and the `purge` option deletes all records from AIAGTransaction Table

Enabling Expanded Data Fields

ECXpert 3.6 supports larger data entry fields for the following parameters:

- senderid
- receiverid

To use this feature, run the following script as user `actraadm` from the UNIX prompt:

```
$NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/35_to_36/enlarge_e
mail_addr.sql
```

The ECXpert tables that are updated for char128 length are:

Table 2-2 Tables enabled for expanded data fields

Table	Field(s)	New Length
MBADDRESSES	MBAQUALID	128
PARTNERSHIPS	PNSNDRQUALID, PNRCVRQUALID	128
TRKINTCHG	TISNDRQUALID,TIRCVRQUALID	128
TRKDOC	TDSNDRQUALID, TDRCVRQUALID	128

Chapter 3

Postinstallation Tasks

This chapter explains how to test your ECXpert installation to be sure it worked, and helps you decide what your next step should be.

The following topics are discussed in this section:

- "Testing Your ECXpert Installation" on page 85
- "What's Next?" on page 103

Testing Your ECXpert Installation

After you have installed ECXpert, it is a good idea to submit a test document to make sure you have installed and configured Oracle and ECXpert correctly.

Follow the steps below to submit a test document using the 810 document from the ECXpert demo data.

1. Create a backup copy of the test document.

   Enter the following commands:

   ```
   # cd $NSBASE/NS-apps/ECXpert/maps
   # cp Input_810.txt Input810.txt.bak
   ```

2. If you have not already done so, start up your web browser now.

You can be logged on as user `root`, `actraadm`, or your `system user ID`. Then, enter the following commands:

```
$ cd $NSBASE/NS-apps/navigator
$ ./netscape
```

NOTE The `$DISPLAY` environment variable must be set correctly or the browser does not run.

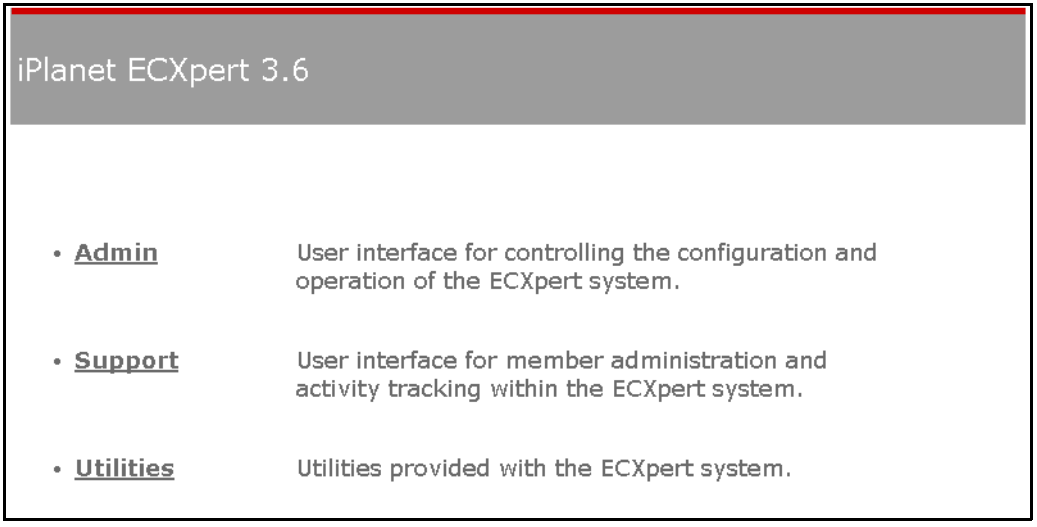
3. If you have not already done so, display the ECXpert Administration home page now.

   Open the bookmark to the ECXpert Administration home page, or enter the URL:

   `http://`*hostname:port#*

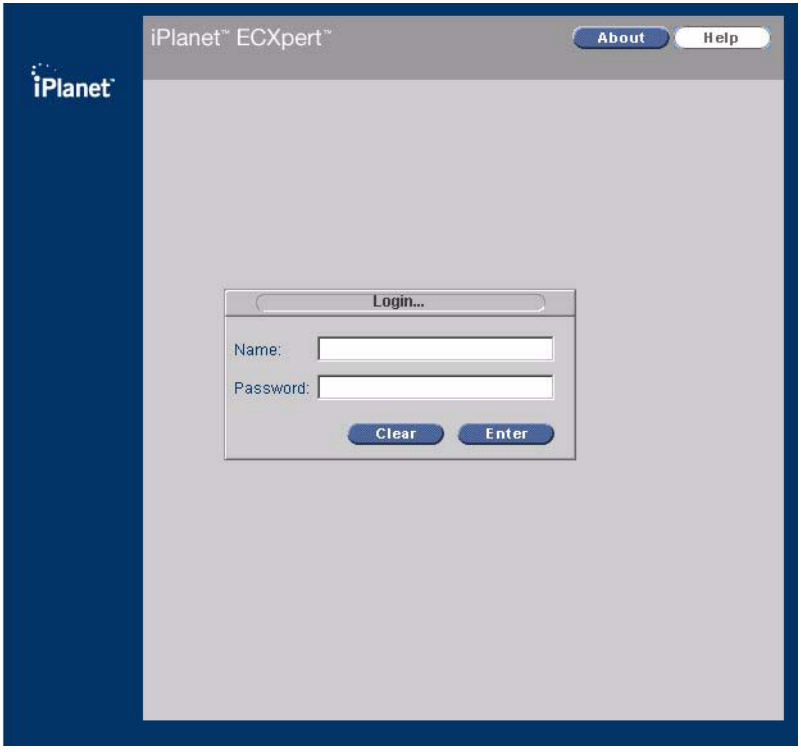
   The ECXpert main menu screen is displayed as shown in Figure 3-1.

Figure 3-1 iPlanet iPlanet ECXpert Main Menu



4. Click the Support link to open the Product Administrative Interface Login window as shown in Figure 3-2.

Figure 3-2 Product Administrative Interface Login Window

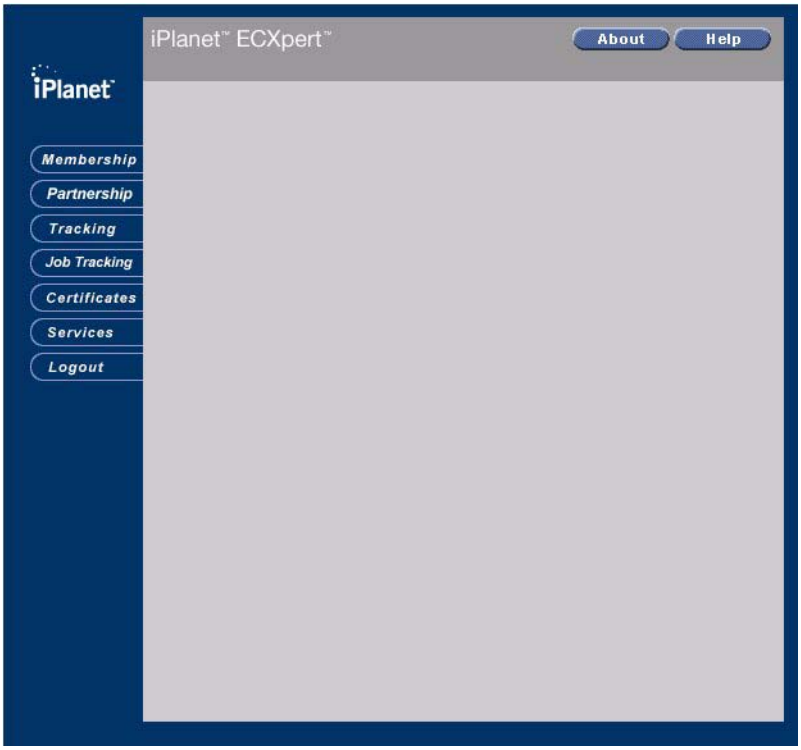


5. Enter the default user name/password: `ECX/ECX`.

NOTE If you are using a browser on Windows NT or Windows 95 to interact with ECXpert, the user interface may not display with the correct colors if your video display settings are at 256 colors.

To correct this problem, set your video display to use more colors (for example, High Color - 16 bit, True Color - 24 bit).I

Figure 3-3 ECXpert Support User Interface Main Screen



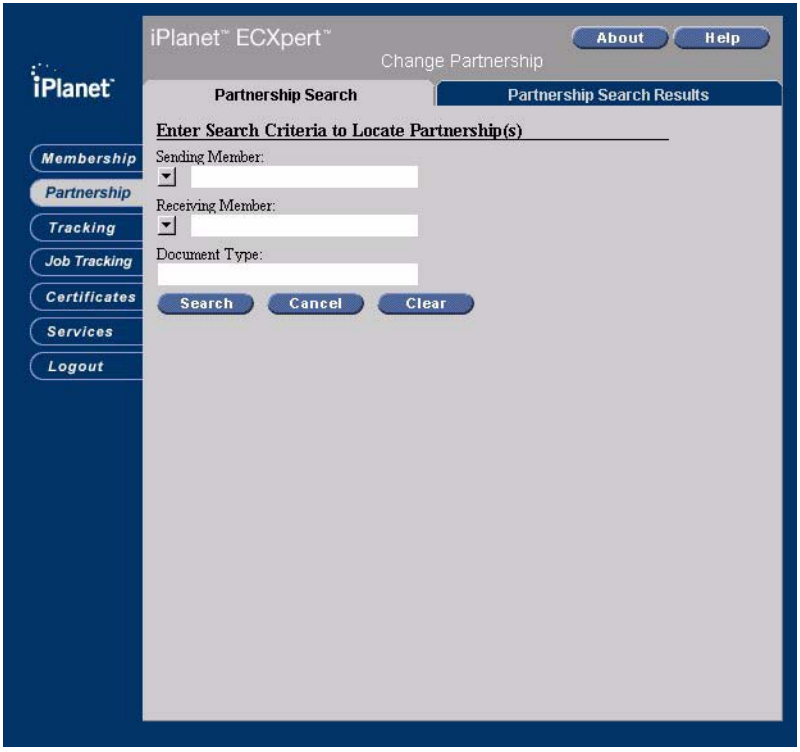
When you have entered your login information, click Enter. The ECXpert Support Administrative screen is displayed as shown in Figure 3-3.

Figure 3-4 ECXpert Partnership Administration Screen

6. Retrieve the demo trading partnership.

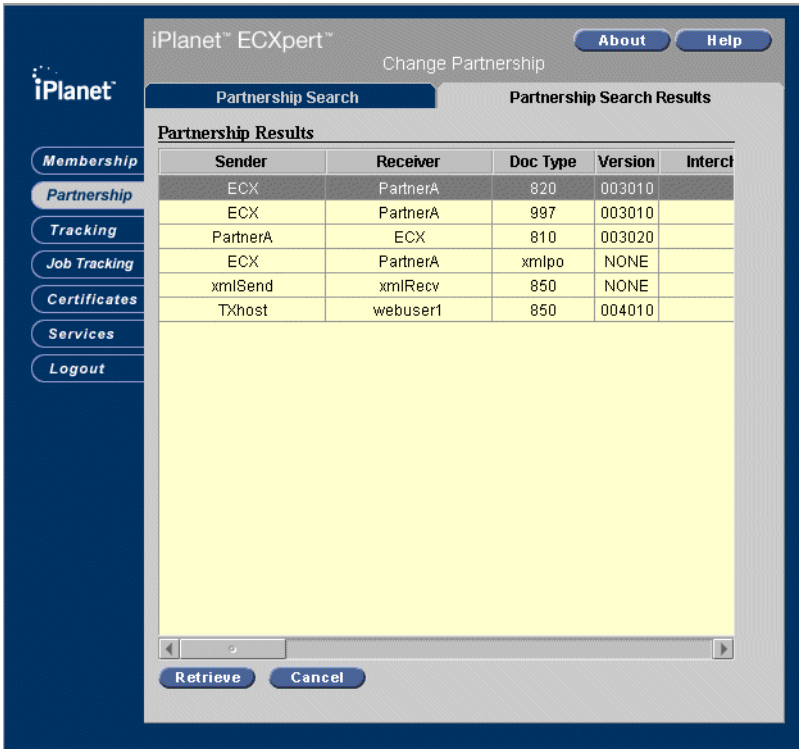
   Click the Partnership tab. The Partnership Administration screen appears, as shown in Figure 3-4.

Figure 3-5 ECXpert Partnership Search Screen



Click Change. The Partnership Search screen appears, as shown in Figure 3-5.

Figure 3-6 Partnership Search Results Screen



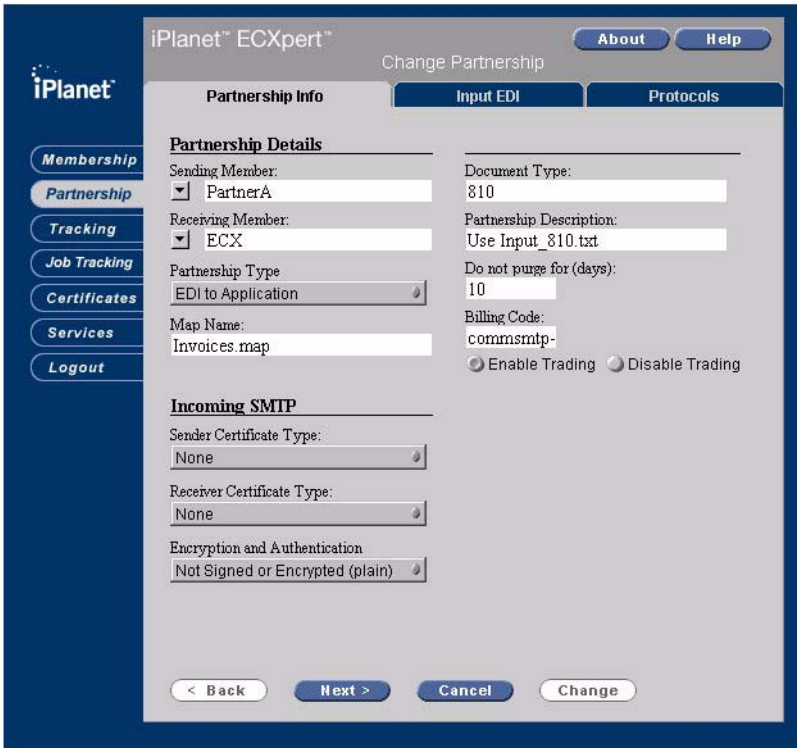
Click Search. The Partnership Results screen appears as shown in Figure 3-6.

All of the available partnerships appear in the Partnership Results screen. Select the following partnership:

- Sender - PartnerA
- Receiver - ECX
- Doc Type - 810
- Version - 003020

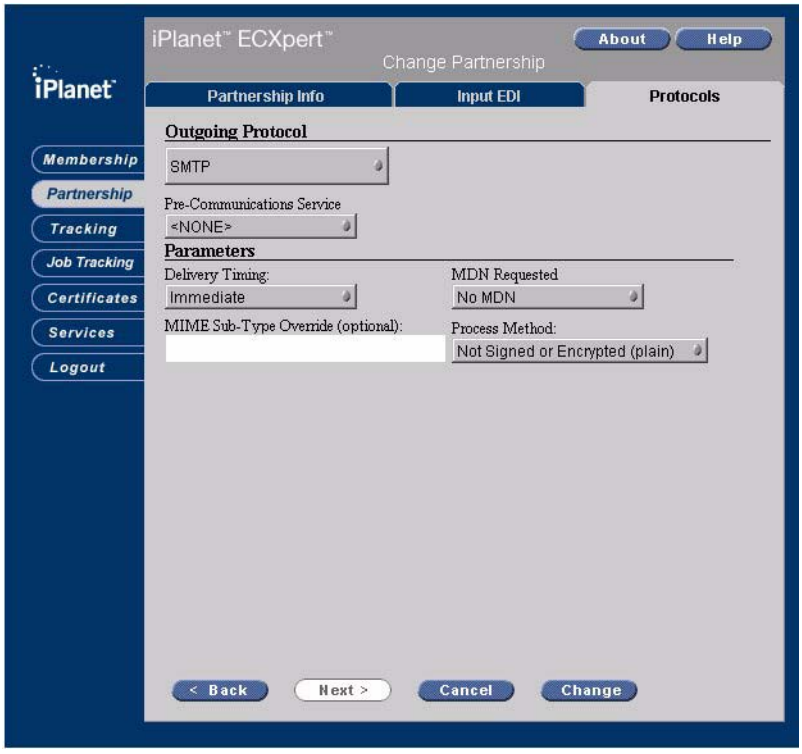
Then click Retrieve (or double-click the highlighted partnership).

Figure 3-7 ECXpert Demo Partnership Info Tab



After a short duration with the message 'Please Wait.....' displayed, the Partnership Info tab is displayed with the partnership details, as shown in Figure 3-7.

Figure 3-8 ECXpert Demo Partnership Outgoing Protocols Page



7. Click the Protocols Tab to display the Outgoing Protocol page, as shown in Figure 3-8. The default protocol you will see is SMTP.

8. Set up the demo trading partnership to use the FTP Protocol. From the Outgoing Protocol drop-down list, change the default value of SMTP and select FTP.

   Enter the following values, shown in Table 3-1, for the other fields on this page:

Table 3-1 Demo Partnership Protocol Values

Field Name	Field Description	Enter This Value
Outgoing Protocol	The protocol used to send the outgoing message	**FTP**
Pre-Communications Service	A custom service to invoke before using this protocol	*No value*

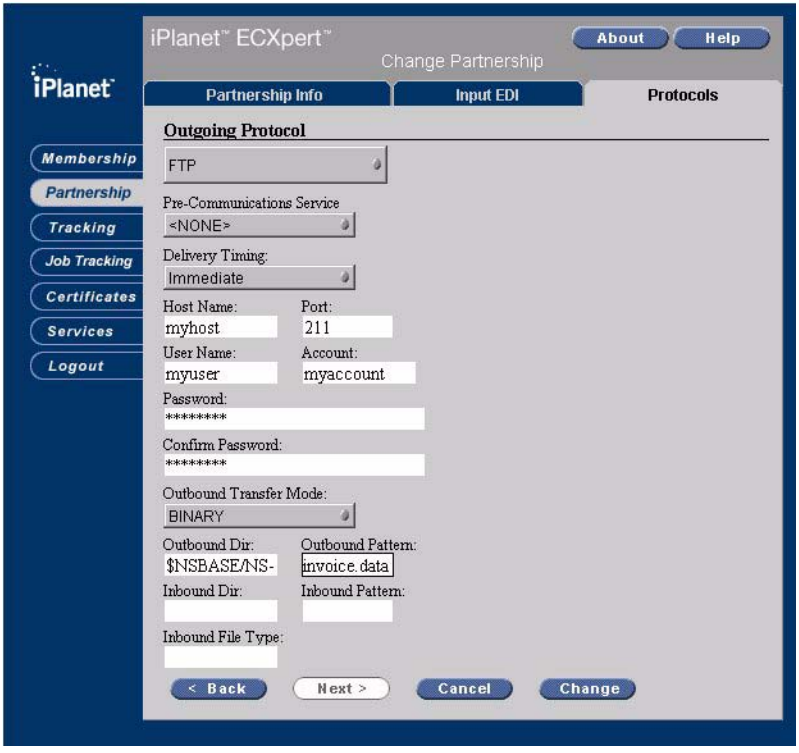
Table 3-1 Demo Partnership Protocol Values *(Continued)*

Field Name	Field Description	Enter This Value
Delivery Timing	Specifies when messages should be delivered. • **Immediate** - all messages are sent as soon as they are ready to be sent. • **Scheduled** - messages are sent at the time(s) specified via the ECXpert Scheduler	**`Immediate`**
Host Name	The name of the FTP server	*The name of your FTP server*
Port	The IR port number for the FTP server—typically 21	*The port number of your FTP server*
User Name	User Name for the member	*Your username*
Account	Account ID for the member	No value
Password	The password for the member's user number or account ID	*Your Password*
Confirm Password	The password for the member's user number or account ID, entered again for verification	*Your Password*
Outbound Transfer Mode	The transfer mode used when sending outgoing files	**`Binary`**
Outbound dir	The directory where ECXpert's ftp-local-application comm agent will ftp the final, bundled file.	**`$NSBASE/NS-apps/ECXpert/data/output`**
Outbound Pattern	The filename that will be used for the final, bundled file, not including the filename extension. This filename will be given an A## extension which will increment each time the Partnership is used to process a file. For example, if you use *invoice.data* as the outbound pattern, ECXpert will create: *invoice.data.A1* *invoice.data.A2* *invoice.data.A3* and so on	**`invoice.data`**

Table 3-1 Demo Partnership Protocol Values *(Continued)*

Field Name	Field Description	Enter This Value
Inbound Dir	A fully qualified pathname for the directory from which ECX will retrieve inbound documents (ftp get)	*No value*
Inbound Pattern	A pattern (any set of characters) to search for in the Inbound directory. Files matching the pattern are retrieved into ECX; other files are left in the directory. If you leave the field blank, no files are retrieved. You can use any wild-card supported by FTP (like *, for example 'PO.*') to pick up multiple files	*No value*
Inbound File Type	The file type of inbound files. This must match the data type specified in the Service List.	*No value*

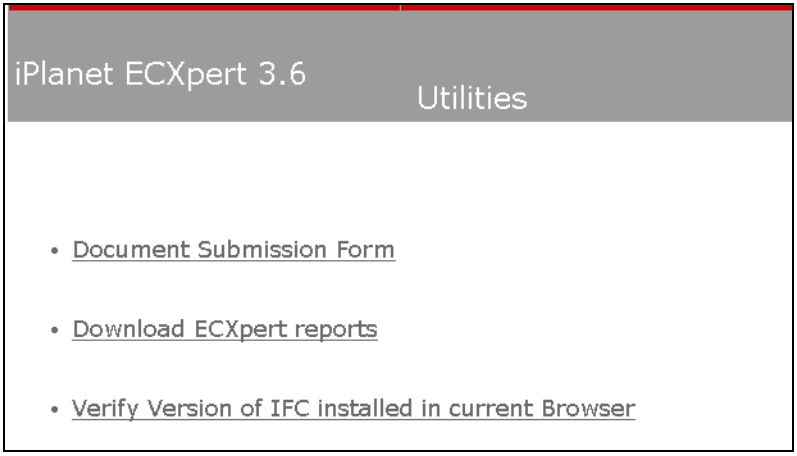
Figure 3-9 Completed Partnership Protocols tab



When you have finished filling in the Protocols tab, it should look similar to Figure 3-9 (with your values for host, port, and user name and account).

9. Click Change. On the verification window that appears, click Yes to verify the change. The change has been made when the Partnership Administration screen is displayed.

Figure 3-10 ECXpert Utilities Window

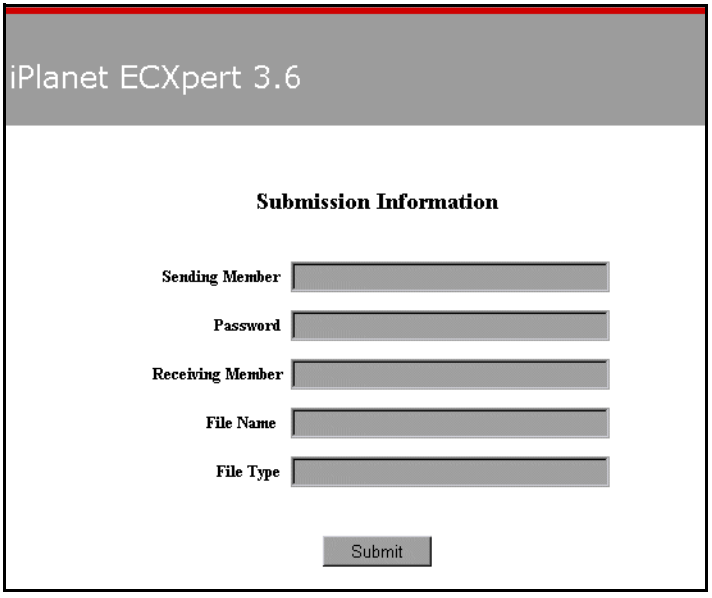


10. Submit the test document.

Go to the ECXpert Main Menu, and click the Utilities link.

The Utilities screen appears, as shown in Figure 3-10.

Figure 3-11 ECXpert Utilities Document Submission Screen



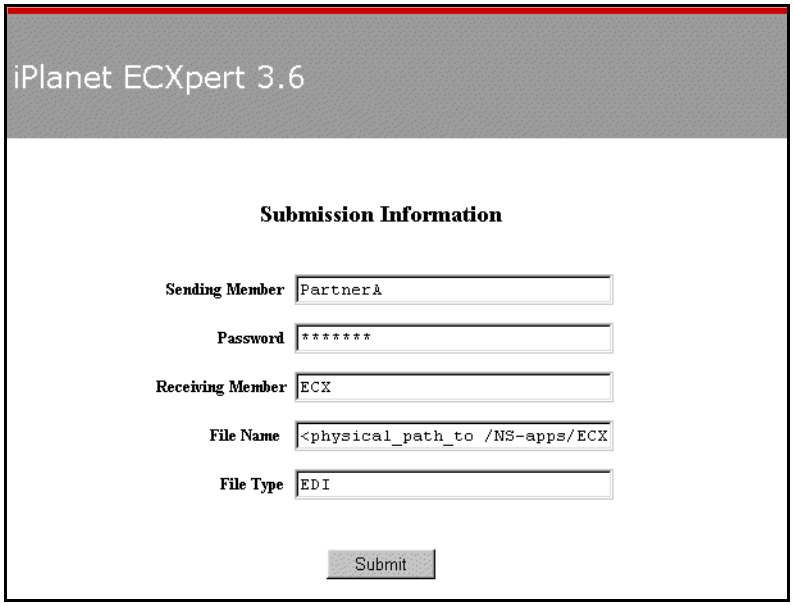
Click the Document Submission Form link. The Submission Information form appear, as shown in Figure 3-11.

Enter the following information in the Submission Information form:

Table 3-2 Submission Information

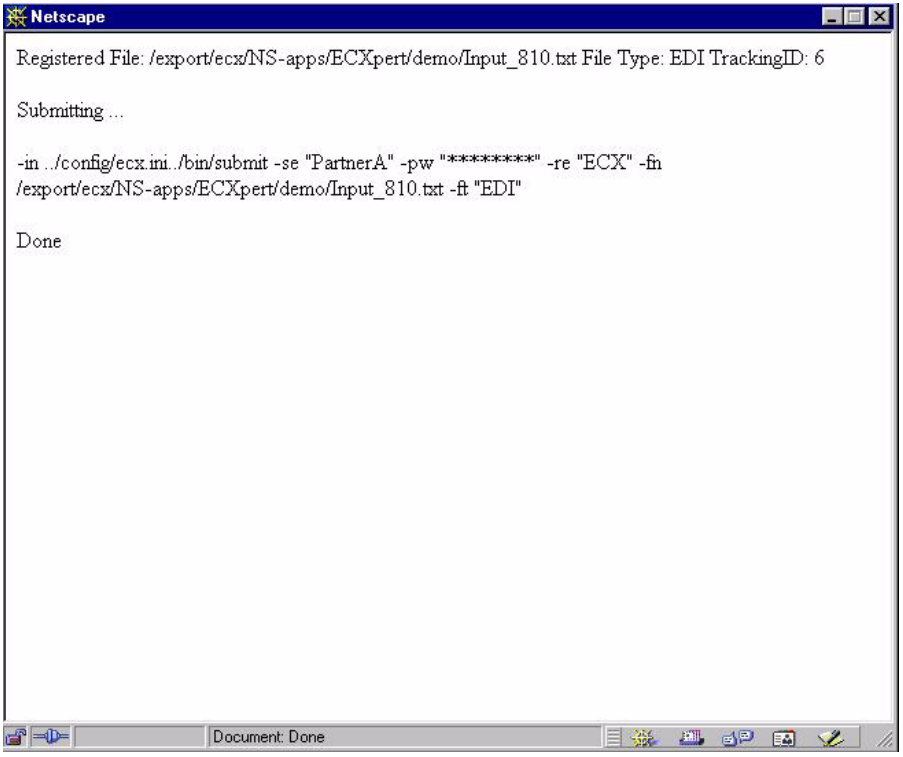
Field Name	Field Description	Enter this Value
Sending Member	The name of the member sending the file.	**PartnerA**
Password	The sending member's password. No value is needed if the sending member is trusted.	*No value*
Receiving Member	The name of the member receiving the file.	**ECX**
File Name	The fully qualified pathname for the file you want to send.	***<fully_qualified_pathname>*/NS-apps/ECXpert/maps/Input_810.txt**
File Type	The file type of the file you want to send.	**EDI**

Figure 3-12 Completed Submission Information screen



When you have finished filling in the Submission Information form, it should look similar to that shown in Figure 3-12.

Figure 3-13 Submitted File Screen



Click **Submit**. When the file has been submitted, a screen appears, shown in Figure 3-13, indicating registration of the file for submission and confirmation that the submission is done. If an error appears, proceed to step 11.

NOTE The screen showing completed submission utilized an internal working data path to the demo data versus the production data path specified in Table 3-2.

11. Resolve any error messages.

For any error messages that appear on the submittal screen, use the error and resolution descriptions provided in Table 3-3 to resolve common error messages Once the document has been successfully submitted, continue with Step 12.

Table 3-3 Common Errors

Error	Resolution
Submission failed. [Error# 6012]	Go to ECXpert Main Menu > Admin > Management and make sure that the ECXpert Administration Server, FTP Server for Application Data, and TCP/IP Connector On/Off switches are in the `On` position.
Size of input file happens to be zero.[Error# 6024]	You have either incorrectly entered the file name in the Submission Information form, or the file does not exist. Check the `$NSBASE/NS-apps/ECXpert/maps` directory to make sure the file `Input_810.txt` file is there. If it is not, copy it from the backup version you created in step 1 and try submitting again.
Invalid trading partnership. [Error #603]	The `Input_810.txt` file contains an invalid trading partner, or the test data and and the partnership do not match. Open the Support UI and verify the Trading Partnership has the correct sender and receiver. For example, "ZZ/PartnerA" and "ZZ/ECXmember".

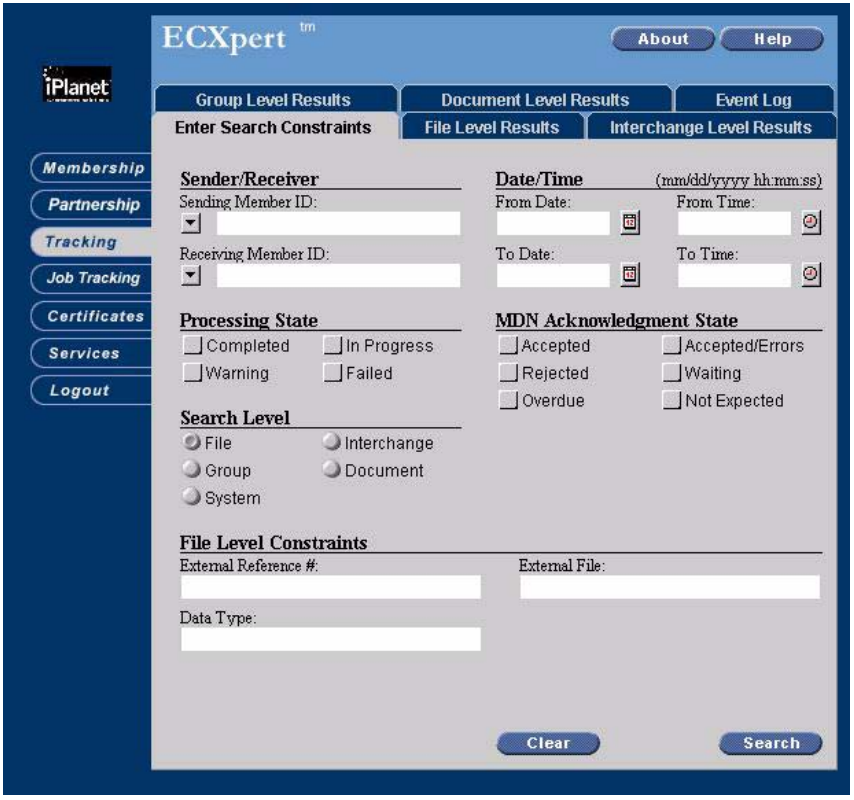
12. Log onto the Product Administrative Interface again.

    Click the Support link. Then enter your login information in the Login window that appears. The default user name/password is `ECX/ECX`.

    When you have entered your login information, click Enter.

13. Verify that the document was submitted without an error.

Figure 3-14 ECXpert Support UI Tracking Tab File Constraints



Click the Tracking tab. The Enter Search Constraints tab appears, as shown in Figure 3-14.

In the Date/Time portion of the screen, click the Calendar icon immediately to the right of the From Date: field. Today's date appears in the From Date: field. Click Search.

The File Level Results tab appears, displaying all of today's submissions. You can identify your submission by looking for the appropriate sender, receiver, and doc type.

If there is a green dot in the far left column of your submission, the test document was submitted correctly. Oracle and ECXpert have been installed and configured correctly.

What's Next?

Now that you have successfully installed Netscape ECXpert 3.0, use the information in the following table to determine what your next step should be:

Table 3-4 Post-installation Steps

If you want to...	Refer to...
Learn more about tuning and scaling your ECXpert System	*iPlanet ECXpert Administrator's Handbook*, "System Settings" appendix
Set up certificates	*iPlanet ECXpert Administrator's Handbook*, Chapter 6, "Working with Certificates"
Enable SNMP support	*iPlanet ECXpert Administrator's Handbook*
Enable Automatic Reboot of your ECXpert system	*iPlanet ECXpert Operations Reference Manual*, "System Monitoring and Recovery Procedures" chapter. Refer specifically to the following section: "Recovery Following System Failure—Configuring for Automatic Startup on Reboot under Solaris."
Install iPlanet Messaging Server	The iPlanet Messaging Server documentation included on separate media in your iPlanet ECXpert package
Install Mercator Authoring System and mapping files	• *iPlanet ECXpert Administrator's Handbook* • *Mercator Getting Started* guide
Use older Mercator maps (version 1.4.2 or earlier)	Recompile all older maps using the Mercator 5.0 SP3 authoring tool, which is now built into ECXpert. This is particularly important if you use XML data.
Configure ECXpert to work with MSOutlook	*iPlanet ECXpert Administrator's Handbook*
Configure Sendmail for use with ECXpert	See Step 4 on page 69 of the "Running the ECXpert Installer" section.

Appendix A

Migrating from ECXpert 3.5 to Current iPlanet ECXpert

This appendix describes the planning and tasks you must perform to upgrade from ECXpert Version 3.5 to current iPlanet ECXpert.

The following topics are covered:

- "Migrating from ECXpert 3.5 to Current ECXpert" on page 106
- "Removing the Previous Installation and Database Backup" on page 115
- "Removing the Previous Installation and Database Backup" on page 115

NOTE With the release of ECXpert 3.6, support is no longer available for ECXpert 1.1.1, 2.0, and 3.0 migrations.

Migrating from ECXpert 3.5 to Current ECXpert

This section describes all of the steps you must perform to migrate from ECXpert 3.5 to the current iPlanet ECXpert version.

Upgrading to Oracle 8.1.6

If you have not already done so, you will need to upgrade to Oracle 8.1.6, Enterprise Edition. See the included Oracle documentation for installing version 8.1.6 or contact your Oracle service provider or dba to assist in this process. Also, the "Oracle Installation/Migration" on page 38 provides preinstallation information for Oracle 8.1.6.

NOTE When you upgrade Oracle, *do not* create a new Oracle user to own the ECXpert tables. You must use the existing Oracle user who owns the ECXpert tables.

Set up and Test Your Database Connectivity

Set up and test your database to be sure that user `root` has access to the database, so you can successfully migrate ECXpert. If user `root` doesn't have access to the database, you will get error messages during the ECXpert migration process.

1. Log in as user `root`.

   ```
   # su - root
   ```

2. Determine the shell that `root` uses.

   ```
   # echo $SHELL
   ```

   The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	`.profile`
`/sbin/csh`	C	`.cshrc`
`/sbin/ksh`	Korn	`.profile` or `.kshrc`

3. Determine the shell that `oracle` uses.

   # **`cat /etc/passwd | grep oracle`**

   The output of this command lists the shell at the end, as in the sample below:

   `oracle:x:50004:10003::/export/home/oracle:/bin/csh`

   where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   a. If you are using the C shell, enter the following command:

      # **`source ~`***`oracle`***`/.cshrc`**

      where *oracle* is your Oracle user, typically `oracle`.

   b. If you are using the Korn shell or the Bourne shell, enter the following command:

      # **`.`** `~`*`oracle`*`/`*`your_environment_file`*

      where *oracle* is your Oracle user, and *your_environment_file* is the name of your environment file.

5. Check the environment settings.

   # **`env`**

   The following sample output of this command lists the environment variables that must be set:

```
$ORACLE_HOME=$ORACLE_HOME from worksheet
$ORACLE_SID=ECX
$NLS_LANG=$NLS_LANG from worksheet
$LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
$PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
$DISPLAY=hostname:0.0
$TNS_ADMIN=$ORACLE_HOME/network/admin
```

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined, do the following:

   a. Log in as or change to your Oracle user, typically `oracle`. For example:

      # **`su - oracle`**.

   b. Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.

   c. Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back to your Oracle user. For example:

   # **`su - root`**

   # **`su - oracle`**

   Alternatively, you could restart your system and log in as your Oracle user.

8. Check your `tnsnames.ora` file.

   Check your `tnsnames.ora` file to make sure it contains the correct information. The following are likely locations of your `tnsnames.ora` file:

   - `$ORACLE_HOME/network/admin`
   - `/var/opt/oracle`
   - The directory specified by the `$TNS_ADMIN` environment variable

9. Connect to the database from the UNIX commandline:

   # **`sqlplus`** *ECX/ECX@your_connect_string*

   where *ECX/ECX* is the username/password of the ECXpert table-owner. If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

    `SQL> connect` *ECX/ECX@your_connect_string*

    `SQL> exit`

    where *ECX/ECX* is the username/password of the ECXpert table-owner.

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the `tnsnames.ora` and `listener.ora` file to validate the settings, such as `hostname` and `SID`.

    After making any necessary changes, go back to Step 9 above.

    If you have successfully connected to the database using SQL*Plus, you will be able to connect during the iPlanet ECXpert migration.

    If you cannot connect to the database using this method, you definitely will not be able to connect during the iPlanet ECXpert migration.

Back Up Your Database

NOTE The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed.

The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the tablespace setting.

The backup process can take 12 hours or more for a large database. Without proper planning, the process may abort part-way through.

Refer to your Oracle documentation for further guidelines and recommendations.

Follow the steps in this section to back up your existing ECXpert database.

1. Change to the `$BDGHOME/dbadmin/oracle` directory.
2. Open the `exp_ecx_tables.sh` file in a text editor.
3. Change the character string `name/password@dbAlias` in the first line to be the *username/password*`@dbAlias` of your ECXpert table-owner user.
4. Enter the following command to run `exp_ecx_tables.sh`.

   ```
   # ./exp_ecx_tables.sh
   ```

   If this command is successful, you should see output similar to the following, depending upon your currently installed version of Oracle with the ECXpert database:

```
Export: Release 8.0.4.0.0 - Production on Thu Mar 4 16:21:34
1999
(c) Copyright 1997 Oracle Corporation.  All rights reserved.

Connected to: Oracle8 Release 8.0.4.0.0 - Production
PL/SQL Release 8.0.4.0.0 - Production
Export done in US7ASCII character set and US7ASCII NCHAR
character set
About to export specified tables via Conventional Path ...
. . exporting table MEMBERS         10 rows exported
. . exporting table MBADDRESSES         15 rows exported
. . exporting table PARTNERSHIPS          3 rows exported
. . exporting table PNSTD          3 rows exported
. . exporting table PNGROUP          3 rows exported
. . exporting table KEYPAIRS          8 rows exported
. . exporting table CERTIFICATES          8 rows exported
. . exporting table TRACKING          1 rows exported
. . exporting table TRKINTCHG          0 rows exported
. . exporting table SERVICES          7 rows exported
. . exporting table MSGFORMATS        678 rows exported
. . exporting table EVENTLOG          0 rows exported
. . exporting table UNIQUEKEYS         19 rows exported
. . exporting table DTSERVICES          7 rows exported
. . exporting table SCHEDULEINFO          0 rows exported
. . exporting table TRKGROUP          0 rows exported
. . exporting table TRKDOC          0 rows exported
. . exporting table PNDOCS          3 rows exported
. . exporting table TRKDOCDETAILS          0 rows exported
. . exporting table CRL          0 rows exported
. . exporting table PNCARD          0 rows exported
. . exporting table MDNINFO          0 rows exported
. . exporting table BLOBINFO          8 rows exported
. . exporting table CERTTYPEINFO          5 rows exported
Export terminated successfully without warnings.
#
```

If instead you get the following error message:

```
./exp_ecx_tables.sh: Permission denied
```

enter the following command to set the proper permissions on the file:

```
# chmod 775 exp_ecx_tables.sh
```

and repeat this step.

Backing Up Your LDAP Data

If your site uses an LDAP directory server to store ECXpert data you will need to back these data up, in addition to backing up your Oracle data.

Refer to the Chapter 4 of the *iPlanet Directory Server Administrator's Guide* for information on backing up and restoring data.

Shut Down All iPlanet ECXpert Services

If you are using a previous installation of the iPlanet ECXpert Product Administrative Interface, you must log out and shut it down. Follow these steps to log out and shut down iPlanet ECXpert.

1. Log out of the ECXpert Product Administrative Interface.

   Click the Logout bar, then choose Applet > Quit if using the Applet Viewer.

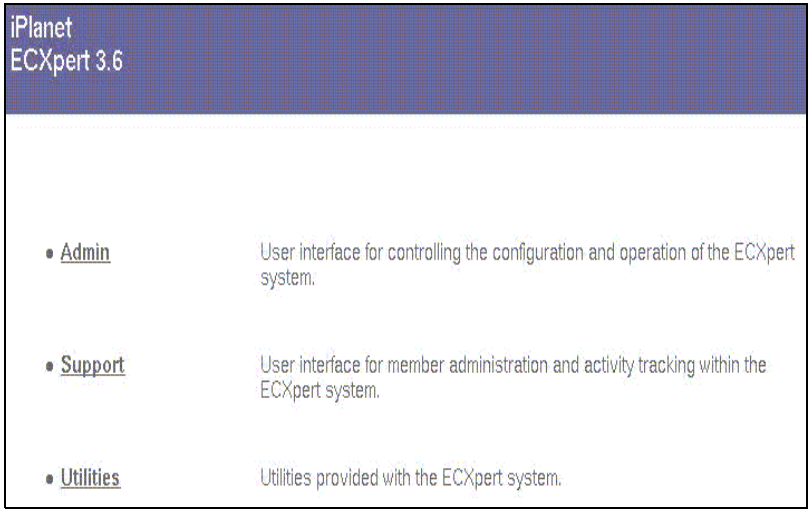
2. Shut down all ECXpert services.

   Display the ECXpert Main Menu in your browser as shown in Figure A-1 by entering the URL:

   `http://`*hostname*`:`*port#*

   where *hostname* is the name of your ECXpert host and *port#* is the port number it uses.

Figure A-1 ECXpert Version 3.6 Main Menu



Click the Admin button to display the ECXpert Server Administration menu shown in Figure A-2.

Figure A-2 ECXpert Version 3.6 Server Administration menu

If any ECXpert services are running, you will see more entries than the ECXpert Administration Server with an ON indication.

Click any service switch icon that is `ON` to toggle the service `OFF` and exit your browser window.

3. Shut down the iPlanet (Netscape) Enterprise Server.

   In an xterm window, enter the following commands, replacing *machine_name* with the name of your ECXpert host machine:

   # **`cd $NSBASE/NS-apps/ns-home/`***`http_prefix`*`-`*`machine_name`*

   # **`./stop`**

NOTE In the above `cd` command, supply a value for *http_prefix* as follows:

- `httpd` for an unsecured Netscape FastTrack Server
- `https` for a secured Netscape FastTrack Server or Netscape Enterprise Server

---

4. Shut down the iPlanet Administration server.

   In an xterm window, enter the following commands:

   # **`cd $NSBASE/NS-apps/ns-home/`**

   # **`./stop-admin`**

5. Verify that no iPlanet ECXpert processes are still running.

   In an xterm window, enter the following command:

   ```
   # ps -ef | grep actra
   ```

   If other processes are running, kill them manually.

6. If running SNMP, make sure the SNMP agent is shut down.

   Manually kill the process ID for `Program.o`.

Preserve Your Files

Follow the steps in this section to back up the important files from your current ECXpert installation (ECXpert 3.5, 3.5SP1EP2, 3.5SP1EP3, and 3.5SP2):

1. Set up a temporary holding directory that is:
   - outside both the current iPlanet ECXpert version and any previous iPlanet ECXpert Version directory trees.
   - outside the `/tmp` directory
2. Copy the following files into your temporary holding directory:
   - In all cases, from `$NSBASE/NS-apps/ECXpert/config`, copy the file `ecx.ini`.
   - If your Netscape Enterprise Server is running secured, from `$NSBASE/NS-apps/ns-home/httpd-`*machine_name*`/config`, copy the files `ServerCert.db, ServerCert.nm, ServerKey.db, magnus.conf, obj.conf, mime.types` and any `*.acl` (access control list) files
   - If using SNMP, copy the `$NSBASE/NS-apps/ECXpert/SNMP/config/CONFIG` file.
   - Copy your maps and extra input card files from:
     - `$NSBASE/NS-apps/ECXpert/maps/`
     - `$NSBASE/NS-apps/ECXpert/data/input/`
   - Copy your live data—the following complete directories:
     - `$NSBASE/NS-apps/ECXpert/data/work/trk`
     - `$NSBASE/NS-apps/ECXpert/data/output`
     - `$NSBASE/NS-apps/ECXpert/data/bundle`
     - `$NSBASE/NS-apps/ECXpert/smtp/inbound`
     - `$NSBASE/NS-apps/ECXpert/smtp/outbound`

Upgrade to Current ECXpert

Perform the steps in this section to upgrade to current ECXpert.

1. Begin to install the current iPlanet ECXpert version, as described in *iPlanet ECXpert Installation Guide*, Chapter 2, "Installing iPlanet ECXpert."

   After the command-line-based installation completes, a browser appears with the browser-based installation steps.

2. Proceed normally through the screens for Installer Step One to Step Four, including Step Four.

   Refer to "Running the ECXpert Installer" on page 63 for detailed instructions. Be sure to stop when you reach Step 5 on page 70.

3. Return to the browser window and resume the browser-based installation at Step Five.

   NOTE You will return to the browser-based installation at step five but *do not execute Step Five or Step Six of the installation* — skip these on-screen installation steps, as instructed in Step 8 and Step 9 which follow on this page.

4. Click Skip on Step Five of the browser-based installation.

5. Click Skip on Step Six of the browser-based installation.

6. Proceed normally through the screens for Installer Step Seven to Step Ten and complete the rest of the tasks in Chapter 2, "Installing iPlanet ECXpert."

7. To update the ECXpert tables, use the SQL scripts `update_services_36.sql` and `update_msgformats_36.sql` (both are in the `$NSBASE/NS-apps/ECXpert/dbadmin/oragle/migration/35_to_36` directory). Connect to your database from the UNIX command line:

   ```
   #us -oracle
   #sqlplus ECX36/ECX36@<your_connect_string>
   ```

   where *your_connect_string* is the string you use to connect to your database. Execute the scripts from the command line:

```
# @$NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/35_to_36/update_services_36.sql
# @$NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/35_to_36/update_msgformats_36.sql
```

8. Restore configuration settings from the temporary holding directory for your previous installation.

a. If using SNMP, copy the entire `CONFIG` file back to the new `$NSBASE/NS-apps/ECXpert/SNMP/config/` directory.

b. Open your previous version of the `ecx.ini` file and the newly installed `ecx.ini` in a text editor and manually update the newly installed file *very carefully* by copying the following items in from the old one:

any `[...]` sections for user-defined comms in their entirety

any other parameters, from any `[...]` sections, where the old settings differ from those in the newly installed file.

NOTE Some parameter names have changed slightly in current ECXpert; the new names are similar enough that you should be able to recognize them easily from the old names; be sure to check for a name change and replace any old names with the new names in any parameters that you copy into your new `ecx.ini` file.

NOTE Two new sections have been added to the *ecx.ini* file:

- commjms-send
- commjms-receive

Refer to Appendix C of the *iPlanet ECXpert Administrator's Guide* for information on these new additions.

Removing the Previous Installation and Database Backup

If you have followed the recommendation to move the earlier ECXpert install directory to a temporary location, leave the archival copy of the previous installation and the Oracle database backup in place until you are certain that the new installation of current ECXpert is working properly.

When the new version of iPlanet ECXpert has been in production mode for a week or more, you may safely delete the previous installation and the Oracle database backup.

Appendix B

Reinstalling Current ECXpert

This appendix provides instructions on reinstalling ECXpert 3.6 over an existing installation of ECXpert 3.5. The following topics are covered:

- "Reinstalling ECXpert 3.6" on page 117
- "Removing the Previous Installation and Database Backup" on page 125

Reinstalling ECXpert 3.6

Reinstalling ECXpert 3.6 is a major operation. We suggest reading this entire section before attempting a re-installation. This process will require that you plan carefully for both the disk space and the time slot in which to carry out the task. Without proper planning, you may be forced to abort partway through.

You need to complete the following tasks to reinstall ECXpert:

9. Shutdown all ECXpert services.
10. Setup and test database connectivity.
11. Backup your Oracle database.
12. Preserve files from current installation.
13. Test database connectivity.
14. Reinstall ECXpert.
15. Remove the previous installation and database backup.

Shut Down All iPlanet ECXpert Services

If you are using a previous installation of iPlanet ECXpert, you must log out of the Product Administrative Interface (Support UI) and shut it down. Follow these steps to log out and shut down iPlanet ECXpert. For figure references, see the screen shots in Appendix A.

1. Log out of the ECXpert Product Administrative Interface.

   Click the Logout link, then choose Applet > Quit if using the Applet Viewer.

2. Shut down all ECXpert services.

   Display the ECXpert Main Menu in your browser by entering the URL:

   `http://`*hostname*`:`*port#*

   where *hostname* is the name of your ECXpert host and *port#* is the port number it uses.

   Click the Admin link to display the ECXpert Server Administration menu.

   Click any service switch icon that is `ON` to toggle the service `OFF` and exit your browser window.

3. Shut down the iPlanet Enterprise Server by navigating to the server's home directory and issuing the `stop` command.

4. Shut down the iPlanet Administration server by navigating to the server's home directory and issuing the `stop` command..

5. If running SNMP, make sure the SNMP agent is shut down.

   Manually kill the process ID for `Program.o`.

Set up and Test Your Database Connectivity

This section tests to make sure that user **`root`** has access to the database, so that you can successfully reinstall ECXpert. If user `root` doesn't have access to the database, you will get error messages during the ECXpert reinstallation process.

1. Log in as user `root`.

   # **`su - root`**

2. Determine the shell that `root` uses.

   # **`echo $SHELL`**

The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	`.profile`
`/sbin/csh`	C	`.cshrc`
`/sbin/ksh`	Korn	`.profile` or `.kshrc`

3. Determine the shell that `oracle` uses.

   # **`cat /etc/passwd | grep oracle`**

   The output of this command lists the shell at the end, as in the sample below:

   `oracle:x:50004:10003::/export/home/oracle:/bin/csh`

   where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   - If you are using the C shell, enter the following command:

     # **`source ~`***`oracle`***`/.cshrc`**

     where *oracle* is your Oracle user, typically `oracle`.

   - If you are using the Korn shell or the Bourne shell, enter the following command:

     # **`.`** **`~`***`oracle`***`/`***`your_environment_file`*

     where *oracle* is your Oracle user, and *your_environment_file* is the name of your environment file.

5. Check the environment settings.

   # **`env`**

The following sample output of this command lists the environment variables that must be set:

```
$ORACLE_HOME=$ORACLE_HOME from worksheet
$ORACLE_SID=ECX
$NLS_LANG=$NLS_LANG from worksheet
$LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
$PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
$DISPLAY=hostname:0.0
$TNS_ADMIN=$ORACLE_HOME/network/admin
```

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined, do the following:

   a. Log in as, or change to, your Oracle user, typically `oracle`. For example:

      # **su - oracle.**

   b. Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.

   c. Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back to your Oracle user. For example:

   # **su - root**

   # **su - oracle**

   Alternatively, you could restart your system and log in as your Oracle user.

8. Check your `tnsnames.ora` file.

   Check your `tnsnames.ora` file to make sure it contains the correct information. The following are likely locations of your `tnsnames.ora` file:

   - `$ORACLE_HOME/network/admin`
   - `/var/opt/oracle`
   - The directory specified by the `$TNS_ADMIN` environment variable

9. Connect to the database from the UNIX command line.

   # **sqlplus** *ECX/ECX@your_connect_string*

   where *ECX/ECX* is the username/password of the ECXpert table-owner. If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

    SQL> connect *ECX/ECX@your_connect_string*

    SQL> exit

    where *ECX/ECX* is the username/password of the ECXpert table-owner.

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the `tnsnames.ora` and `listener.ora` file to validate the settings, such as `hostname` and `SID`.

    After making any necessary changes, go back to Step 9 above.

    If you have successfully connected to the database using SQL*Plus, you will be able to connect during the iPlanet ECXpert reinstallation.

    If you cannot connect to the database using this method, you definitely will not be able to connect during the iPlanet ECXpert reinstallation.

Backing Up Your Existing ECXpert 3.5 Database

NOTE The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed.

The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the tablespace setting.

The backup process can take 12 hours or more for a large database. Without proper planning the process may abort part-way through.

Refer to your Oracle documentation for further guidelines and recommendations.

Follow the steps in this section to back up your existing ECXpert database.

1. Change to the `$NSBASE/NS-apps/ECXpert/dbadmin/oracle` directory.
2. Open the `exp_ecx_tables.sh` file in a text editor.
3. Change the character string `name/password@dbAlias` in the first line to be the *username/password*`@dbAlias` of your ECXpert table-owner user.
4. Enter the following command to run `exp_ecx_tables.sh`.

   # **`./exp_ecx_tables.sh`**

   If this command is successful, you should see output similar to the following:

```
Export: Release 8.1.6.0.0 - Production on Fri Nov 3 16:21:34
2000
(c) Copyright 2000 Oracle Corporation.  All rights reserved.

Connected to: Oracle8i Release 8.1.6.0.0 - Production
PL/SQL Release 8.0.4.0.0 - Production
Export done in US7ASCII character set and US7ASCII NCHAR
character set
About to export specified tables via Conventional Path ...
. . exporting table MEMBERS         10 rows exported
. . exporting table MBADDRESSES         15 rows exported
. . exporting table PARTNERSHIPS          3 rows exported
. . exporting table PNSTD          3 rows exported
. . exporting table PNGROUP          3 rows exported
. . exporting table KEYPAIRS          8 rows exported
. . exporting table CERTIFICATES          8 rows exported
. . exporting table TRACKING          1 rows exported

. . exporting table TRKDOC          0 rows exported
. . exporting table PNDOCS          3 rows exported
. . exporting table TRKDOCDETAILS          0 rows exported
. . exporting table CRL          0 rows exported
. . exporting table PNCARD          0 rows exported
. . exporting table MDNINFO          0 rows exported
. . exporting table BLOBINFO          8 rows exported
. . exporting table CERTTYPEINFO          5 rows exported
Export terminated successfully without warnings.
#
```

If instead you get the following error message:

```
./exp_ecx_tables.sh: Permission denied
```

Enter the following command to set the proper permissions on the file:

```
# chmod 775 exp_ecx_tables.sh
```

and repeat this step.

Preserve Your Files

Follow the steps in this section to back up the important files from your current ECXpert installation:

1. Set up a temporary holding directory that is:
   - outside both the current iPlanet ECXpert version directory tree and any previous iPlanet ECXpert installation's directory tree.
   - outside the `/tmp` directory
2. Copy the following files into your temporary holding directory:
   - In all cases, from `$NSBASE/NS-apps/ECXpert/config`, copy the file `ecx.ini`.
   - If your Netscape Enterprise Server is running secured, from `$NSBASE/NS-apps/ns-home/https-`*machine_name*`/config`, copy the files `ServerCert.db, ServerCert.nm, ServerKey.db, magnus.conf, obj.conf, mime.types` and any `*.acl` (access control list) files
   - If using SNMP, copy the `$NSBASE/NS-apps/ECXpert/SNMP/config/CONFIG` file.
   - Copy your maps and extra input card files from:
     - `$NSBASE/NS-apps/ECXpert/maps/`
     - `$NSBASE/NS-apps/ECXpert/data/input/`
   - Copy your live data—the following complete directories:
     - `$NSBASE/NS-apps/ECXpert/data/work/trk`
     - `$NSBASE/NS-apps/ECXpert/data/output`
     - `$NSBASE/NS-apps/ECXpert/data/bundle`
     - `$NSBASE/NS-apps/ECXpert/smtp/inbound`
     - `$NSBASE/NS-apps/ECXpert/smtp/outbound`

Reinstall ECXpert

1. At this point you are ready to begin reinstalling ECXpert. Begin to install the current iPlanet ECXpert version, as described in Chapter 2, "Installing iPlanet ECXpert"." The current version also includes the server install of Partner Agent.

   After the command-line-based installation completes, a browser appears with the browser-based installation steps.

2. Proceed normally through the screens for Installer Step One to Step Four.

   Refer to "Running the ECXpert Installer" on page 63 for detailed instructions. Be sure to stop when you reach "As shown in Figure 2-8, Step Five automatically runs the SQL scripts that drop the database schema for the iPlanet ECXpert database." on page 70. There is a Note there reminding you to return to this Appendix.

NOTE You will return to the browser-based installation at step five but *do not execute Step Five or Step Six of the installation* — skip these on-screen installation steps, as instructed in Step 3 and Step 4 which follow on this page.

---

3. Click Skip on Step Five of the browser-based installation.
4. Click Skip on Step Six of the browser-based installation.

CAUTION **Important** In case you missed it above, *YOU MUST SKIP ON-SCREEN INSTALLATION STEPS FIVE AND SIX.*

---

5. Proceed normally through the screens for Installer Step Seven to Step Ten and complete the rest of the tasks in Chapter 2, "Installing iPlanet ECXpert"."

   Refer to page 74 though page 77 for detailed instructions.

6. Restore configuration settings from the temporary holding directory for your previous installation.

   a. If using SNMP, copy the entire `CONFIG` file back to the new `$NSBASE/NS-apps/ECXpert/SNMP/config/` directory.

b. Open your old `ecx.ini` file and the newly installed `ecx.ini` in a text editor and manually update the newly installed file very carefully by copying in from the old one:

any `[...]` sections for user-defined comms in their entirety

any other parameters, from any `[...]` sections, where the old settings differ from those in the newly installed file.

CAUTION Always work very carefully when manually editing your `bdg.ini` or `ecx.ini` file. What appear to be relatively small mistakes here can seriously impact system function and eat up valuable time in troubleshooting and correcting. In particular, be aware of the following two restrictions:

- Never duplicate a section heading (`[...]`) within the `ecx.ini` file.
- Never duplicate a parameter assignment within a section.

7. Re-establish Netscape Enterprise Server security.
8. Restore live data from your full database backup.

Removing the Previous Installation and Database Backup

If you have followed the recommendation to move the earlier ECXpert install directory to a temporary location, leave the archival copy of the previous installation and the Oracle database backup in place until you are certain that the new installation of ECXpert is working properly.

When the current version of iPlanet ECXpert has been in production mode for a week or so, you may safely delete the previous installation and the Oracle database backup.

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