Installation Guide

Oracle® Health Sciences InForm 6.1.1.1

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PART 1: PREPARING THE DATABASE SERVERS

C H A P T E R 1
Preparing to install

In this chapter

InForm 6.1.1.1 product image

The InForm product image includes folders that contain:

- Native installers—The native installer folder contains setup files that install the base products necessary for the InForm software to run.

- Customization wizards—The customization wizard folders contain setup files you use to apply customizations needed for an installation of the Reporting and Analysis module. Use the customization wizard folders only if you are installing the Reporting and Analysis module.

Folder	Description
InForm	Contains the InForm core and the InForm Portal installation software.
CRNConfig	Contains files used to run the Cognos Customization for InForm wizard.
CRNGatewayConfig	Contains files used to run the Cognos Gateway Customization for InForm wizard.

InForm software components

Overview of the InForm system architecture

The InForm software is a four-tiered software design. The following illustration is a logical representation of the system architecture.
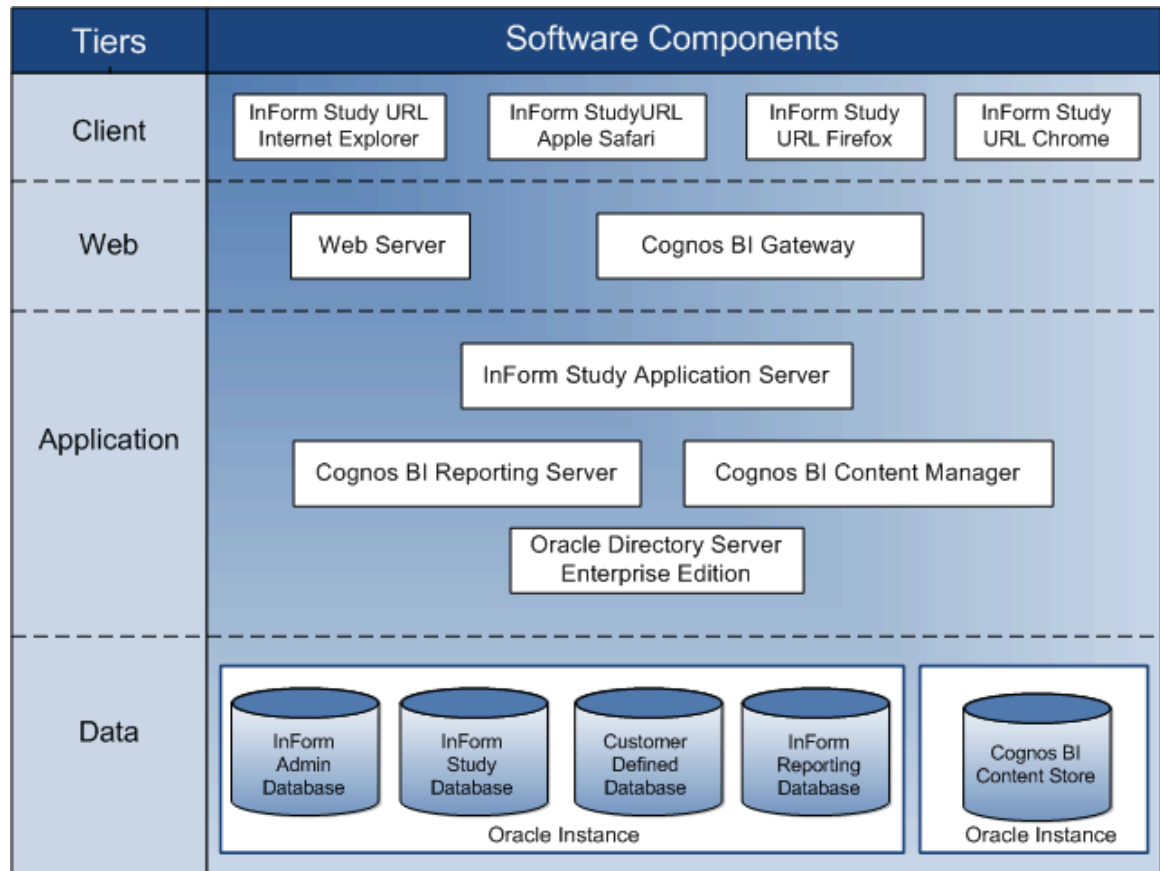
Tier	Software component hosted on the tier	Description
Client	Web browser	Displays the pages of a study and receives user input. **Note:** Cognos 10.2.2 does not support Google Chrome or Apple Safari.
Web	Web server and gateway software (MS-IIS)	Services requests to and from the web browser.
	Cognos 10 BI Gateway	Manages the transfer of information from the Web server to another server. Provides secure access to the Cognos 10 BI Reporting Server.

Tier	Software component hosted on the tier	Description
Application	InForm application server	Logical server that acts as a transaction manager for InForm studies under the InForm Service. The InForm Server handles caching and Microsoft Transaction Server (MTS) packages. Each study is associated with an InForm study application server.
		If the Reporting and Analysis is installed, the InForm Model Updater Service runs on the InForm Server to synchronize the clinical model.
	Cognos 10 BI Report server	Runs reporting-related requests for operating system services. There is one Cognos 10 BI Service per physical server machine.
	Cognos Content Manager	Manages the storage of customer application data, including security, configuration data, models, metrics, report specifications, and report output. Content Manager is needed to publish packages, retrieve or store report specifications, manage scheduling information, and manage the Cognos namespace
	Oracle Directory Server	Provides secure Admin access to InForm Reporting.
Data	Oracle database instances for:	• InForm study database—Stores the study components and the clinical data. Studies typically share an instance of the Oracle database with the InForm Admin schema.
		• InForm Admin database—Used by the InForm Service to manage all the studies on a physical machine. There is one InForm Admin database per InForm Service.
		• InForm Reporting database—Stores views for Cognos Reporting through the Reporting and Analysis module. The InForm Reporting database can share an instance of the Oracle database with the InForm Admin and study databases or can reside in a separate Oracle database instance.
		In an installation in which Reporting is resides in a separate database instance, each InForm study database has a corresponding InForm Reporting database.
		• Cognos 10 BI Content Store—Stores user-created reporting objects such as folders, saved reports, and saved views. The Content Store can share an instance of the Oracle database with the InForm Admin and study databases or can reside in a separate Oracle database instance.

About the Cognos Private Gateway

If you install the Reporting and Analysis module, you must also install a Private Gateway. The Private Gateway provides secure access to certain Cognos 10 BI Reporting software administrative tasks that are not available through the InForm user interface.

The Private Gateway must be located on a secure, dedicated server (the Cognos Private Gateway Server) that is accessible to a limited number of users with administrative privileges for the Cognos 10 BI Reporting software. For more information, see *Prepare the Cognos Gateway Server* (on page 83).

Application server options

You can distribute the software components across multiple application servers to best fit your environment. You can use one of the following deployment options:

- **Minimal server deployment**—Install the InForm software and the Reporting and Analysis module on the fewest possible number of servers.

- **Multiple server deployment**—Install the InForm software and the Reporting and Analysis module on multiple servers.

- **Distributed deployment**—Install the InForm software and the Reporting and Analysis module on separate servers.

Minimal server deployment

A minimal-server deployment requires four servers:

- InForm Application Server

- A server that hosts the Cognos components and the Oracle Directory Server:

    - Report application

    - Content Manager

    - Gateway

    - Oracle Directory Server

- Private Gateway

- A server for all the database instances.

Multiple server deployment

In a multiple server deployment, the InForm Server, the Cognos 10 BI Reporting Server, and the study and reporting databases are on at least six separate server machines that conform to InForm hardware and software requirements.

For example, a multiple server deployment might include eight server machines configured as follows:

- One Cognos Gateway Server machine.

- One Cognos Private Gateway Server machine.

- One Cognos server machine containing the:

  - Cognos Report server.

  - Cognos Content Manager server.

- One InForm Application server machine.

- One Oracle Directory Server machine.

- Three dedicated Oracle database server machines:

  - InForm study.

  - InForm Reporting.

  - Cognos 10 BI Content Store.

> **Note:** The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.

Distributed server deployment

In a distributed server deployment, the InForm Application Server, the Cognos Report Server, the Cognos Content Manager Server, the Cognos Gateway Server, the Oracle Directory Server, and the study and reporting databases are on separate server machines that conform to InForm hardware and software requirements.

For example, a distributed server deployment might include at least nine server machines configured as follows:

- One InForm Application server machine.

- One Cognos Gateway Server.

- One Cognos Private Gateway Server

- One Cognos Report Application Server.

- One Cognos Content Manager Server.

- One Oracle Directory Server machine.

- Three dedicated Oracle database server machines:

  - InForm database instance.

  - InForm reporting database instance.

  - Cognos 10 BI Content Store database instance.

Database configuration options

You can use different configurations for your database instances when you install the InForm software. You can choose:

- **SameDB**—The InForm database and the InForm reporting database are installed on a single database instance.

  > Note: Oracle 12c database is supported only in a SameDB environment.

- **DiffDB**—The InForm database and the InForm reporting database are installed on separate database instances.

  > Note: Automated deployments from the Central Designer application are not supported for environments that have the InForm database and the InForm reporting database installed on separate instances.

- **Distributed deployment**—The database instances are configured to distribute tablespaces across multiple database servers. For more information, see *Multiple study tablespaces* (on page 35).

SameDB—Single database instance for InForm and Cognos reporting software

or the default configuration, Oracle recommends installing the InForm software and the Reporting and Analysis module in the same database instance, and installing in different database instances only in certain cases.

- You can install in the same database instance if your study has up to 70 concurrent users and 8 concurrent reporting connections. The 8 reporting connections can be any combination of running an ad hoc query, a standard or custom report, or a report job.

- If your study requires more than 70 concurrent users and 8 concurrent reporting connections, installing in the same database instance may still be acceptable. However, you may want to consider installing the InForm software and the Reporting and Analysis module in different database instances.

- If your study requires 16 or more concurrent reporting connections, Oracle recommends installing in different database instances.

Observe the following architecture rules when setting up a single database instance for the InForm software and the Reporting and Analysis module:

- A single database can hold multiple reporting schemas.

- The study and reporting schema cannot be installed in the same database as the Content Store database for Cognos 10 BI Reporting. No other Oracle products, such as the CIS software or the Clintrial software, should already reside in or be added to the study and reporting database.

- The InForm study and reporting database is not required to run in archive log mode.

DiffDB—Separate database instances for InForm and Cognos reporting software

If you choose to install the InForm and Cognos reporting software on separate database instances, you could use separate database instances for each of the following:

- Each InForm server, which contains one InForm Admin schema and multiple InForm study schemas.

- InForm Reporting schema.

- Cognos 10 BI Content Store schema.

- PFCap Admin schema

> **Note:** The PFCap Admin schema can reside in a separate instance or the same instance as the Cognos 10 BI Content Store schema.

Observe the following architecture rules:

- You must install the Reporting and Analysis environment (InForm Reporting database) in a different database instance than the instance for the study.

- The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.

- The Oracle user name for the reporting schema in the reporting database instance must be the same as the Oracle user name for the study schema in the study database instance. Because the users are in different database instances, the user names may have different passwords.

- Only one reporting environment is allowed per study schema.

- A single reporting database can hold multiple reporting schemas. The study schemas that are associated with these reporting schemas might exist in one or in multiple study databases.

- The study and reporting schemas cannot be installed in the same database as the Content Store database for Cognos 10 BI Reporting. No other Oracle products, such as the CIS software or the Clintrial software, should already reside in or be added to the study and reporting database.

- The study schema must be created with archive log mode enabled.

  For more information, see *Archive log mode in a multiple database environment* (on page 30).

> **Note:** Automated deployments from the Central Designer application are not supported for environments that have the InForm database and the InForm reporting database installed on separate instances.

Distributed deployment options

You can distribute your study and reporting databases across multiple disk partitions on the same server or multiple database servers. For more information, see *Multiple study tablespaces* (on page 35).

> **Note:** SameDB and DiffDB databases can be deployed in a distributed environment.

Externally hosted studies

Externally hosted studies must conform to the following requirements, or authentication issues will result.

- The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.

- You must use the fully qualified domain name to access the site.

Determining resources for multiple studies

You can install one or more studies on an InForm application server or on a physical server. When deciding the load that you will place on a server, consider:

- The number of InForm application servers on each physical server machine.

- The number of studies on each InForm application server.

- The size of the intended InForm application server (each server requires 40 to 50 megabytes of memory).

- The number of studies you intend to run on the server machine.

- The system availability requirements.

- The geographic proximity of sites to the server.

Guidelines for determining resources

Follow these basic guidelines for determining resources:

- Use separate server machines for production studies and studies that are used for testing and training.

- Consider using one server machine for multiple smaller studies (especially Phase 1 studies) that are on separate InForm application servers.

- Use a separate server machine for each large study (especially Phase 3 studies). Although multiple servers might require additional resources and additional cost, they also provide increased dependability and stability.

  Separate server machines can reduce risk. If you have more than one study on a server machine and make an error in setup or configuration, all the studies on that server are affected.

Sizing the server

When sizing an InForm application server, be aware of the resources that are already being used. Make sure that you monitor the servers during the studies. When sizing your server, consider the average number of:

- Sites.
- Subjects per site.
- CRFs (forms).
- Data items.
- Users.

For each study, consider the following:

- Good Clinical Practice (GCP) status of the study (GCP or non-GCP).
- Study phase.
- Study duration.
- Enrollment rate.
- Geographic proximity of servers to sites.
- System availability requirements.
- Number of sites.
- Number of users.
- Number of subjects.
- Number of unique forms.
- Maximum number of items per form.
- Average number of items per form.
- Maximum number of rules per form.
- Average number of rules per form.
- Total number of forms per subject.

Configuring client computers

Browser settings for Internet Explorer

Configure the following Internet Explorer settings to access the InForm application and the Reporting and Analysis module.

- Specify the preferred browser language.

- To view reports in Microsoft Excel format:

    - Set the InForm website domain and the Reporting and Analysis website domain as trusted sites.

    - Enable automatic prompting for file downloads.

    - Enable notifications when downloads complete.

- Configure pop-up blocking to allow pop-ups for the InForm website domain and the Reporting and Analysis website domain.

- Prevent automatic password completion.

- Specify that you want to save encrypted files to disk.

- Automatically check for newer versions of stored pages.

- Set the amount of disk space to use to 6 MB.

- Set the HTTP and TLS options to use HTTP 1.1 and TLS 1.2.

- Disable the SSL settings.

- Enable printing background colors and images for graphics.

- Modifying security settings:

    - Allow META REFRESH.

    - Enable active scripting.

- Set up tabbed browsing to launch links in a new tab.

For more information, see the Internet Explorer documentation.

Browser settings for Apple Safari

Configure the following Apple Safari settings to access the InForm application.

Apple Safari is not supported for the Reporting and Analysis module.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the InForm application web server.
- Prevent Safari from using automatic password completion.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Apple Safari documentation.

Browser settings for Mozilla Firefox

Configure the following Firefox settings to access the InForm application and the Reporting and Analysis module.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the InForm website domain and the Reporting and Analysis website domain.
- Prevent Firefox from using stored passwords.
- Set the security protocol option to use TLS 1.2 or higher.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Mozilla Firefox documentation.

Browser settings for Google Chrome

Configure the following Google Chrome settings to access the InForm application.

Google Chrome is not supported for the Reporting and Analysis module.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the InForm web site domain and the Reporting and Analysis web site domain.
- Prevent Chrome from using stored passwords.
- Set the TLS option to use TLS 1.2 or higher.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Google Chrome documentation.

Windows Explorer settings

Configure the following Windows Explorer settings to access the InForm application and the Reporting and Analysis module.

- Make sure the files with the XLS and XLSX extensions are not set to Browse in the same window.

- Associate files with the XLS and XLSX extensions with the Microsoft Excel spreadsheet software.

Performance Options setting in System Properties

If the InForm application server is also the database server for the study database instance, you might receive errors that are related to cache initialization time when installing a study if the system setting for **Processor scheduling** is not set to **Adjust for best performance of Programs**.

1 On the InForm application and database server, open the **System Properties** dialog box, and select **Advanced**.

2 In the **Performance** section, click **Settings**.

   The Performance Options dialog box appears.

3 Click **Advanced**.

4 In the **Processor scheduling** section, click **Programs**.

> **Note:** When the InForm application server and database server are different machines, the system setting for **Processor scheduling** in the System Properties > Performance Options dialog box should be the default value, **Background services.**

5 Click **OK** in both dialog boxes.

C H A P T E R 2

Installing the Oracle database software

In this chapter

About installing the Oracle database software

To install the Oracle database software, refer to your Oracle database documentation.

To ensure a successful installation, make sure your environment is set up correctly. For hardware and software requirements, see the *Release Notes*.

Install the Oracle database software—SameDB

If you plan to use a SameDB configuration, you must install the Oracle database software on the:

- InForm database server.
- Cognos Content Store database server.

For more information on the SameDB configuration, see:

- *Steps to create database instances—SameDB* (on page 25).
- *Steps to create database users—SameDB and DiffDB* (on page 31).

Install the Oracle database software—DiffDB

If you plan to use a DiffDB configuration, you must install the Oracle database software on the:

- InForm database server.

- InForm Reporting database server.

- Cognos Content Store database server.

For more information on the DiffDB configuration, see:

- *Steps to create database instances—DiffDB* (on page 25).

- *Steps to create database users—SameDB and DiffDB* (on page 31).

C H A P T E R 3

Configuring the Oracle database software

In this chapter

About configuring the Oracle database software

To configure the Oracle database, you must create the:

- Database instances and tablespaces

  For more information, see *Create Oracle Database instances* (on page 26).

- Database users

  For more information, see *Create database users* (on page 31).

Create database instances

Steps to create database instances—SameDB

If you are using a SameDB configuration, you must:

1 Create instances on the:

- InForm database server.

- Cognos Content Store database server.

For more information, see:

- *Create Oracle Database instances* (on page 26)

- *Creating a database instance for the Cognos 10 BI content store* (on page 27)

2 Set the initialization parameters for the database instances on the InForm database server.

For more information, see **Set the initialization parameters for the database instances** (on page 27).

Steps to create database instances—DiffDB

If you are using a DiffDB configuration, you must:

1 Create instances on the:

- InForm database server.

- InForm Reporting database server.

- Cognos Content Store database server.

For more information, see:

- *Create Oracle Database instances* (on page 26).

- *Creating a database instance for the Cognos 10 BI content store* (on page 27).

2 Set the initialization parameters for the database instances on the InForm, Reporting, and Content Store database servers.

For more information, see:

- *Set the initialization parameters for the database instances* (on page 27).

- *Study database parameters—Different database instances* (on page 29).

- *Archive log mode in a multiple database environment* (on page 30).

Create Oracle Database instances

Use the Oracle tools to create the instances required for your configuration.

Use the following character set specifications for the InForm, Reporting, and Content Store instances:

- Database Character Set—AL32UTF8.

- National Character Set—AL16UTF16.

To verify the character set settings:

1   Log into SQL*Plus and type:

```
sqlplus <system_userid>@<connection_string>
```
When prompted, enter the system user password.

2   Run the following command:

```
select * from nls_database_parameters
where parameter = any('NLS_CHARACTERSET','NLS_NCHAR_CHARACTERSET');
```

Create the InForm database instance

1   Set up an Oracle database instance.

2   Populate the database instance for the InForm database server with the following tablespaces:

- SYSAUX

- SYSTEM

- UNDOTBS1

- USERS

- TEMP

- TEMPBIG

- TRIAL_INDEX_TS

- TRIAL_TABLE_TS

- INFORM

- INFORM_LOB

3   Update the tnsnames.ora file located on the InForm Application Server to contain an alias establishing a connection to the database server.

Create the reporting database instance

1   Set up an Oracle database instance.

- **For a SameDB environment**—The reporting database uses the InForm database instance.

- **For a DiffDB environment**—The reporting database instance on the Reporting database server with the same tablespace names used for the study database.

> **Note:** Automated deployments from the Central Designer application are not supported for environments that have the InForm database and the InForm reporting database installed on separate instances.

2   Update the tnsnames.ora file to contain an alias establishing a connection to the database server.

- **For a SameDB environment**—The tnsnames.ora file is located on the InForm Application Server.

- **For a DiffDB environment**—The tnsnames.ora file is located on the Cognos Report Server.

Creating a database instance for the Cognos 10 BI content store

- Set up an Oracle database instance on the Content Store database server.

Set the initialization parameters for the database instances

Depending on your environment, you might need one, two, or three database instances (the study, the Reporting and Analysis module, and Cognos 10 BI can each use an instance).

When creating each InForm Oracle Instance, use the following initialization parameters in the Init.ora file.

> **Note:** Additional parameter settings are required if your installation includes Cognos 10 BI and the Reporting and Analysis module in a DiffDB environment (your study and reporting databases are in separate database instances). For more information, see *Study database parameters—Different database instances* (on page 29).

Parameter	Production server values	Development server values
memory_target	Average trial: 1500 MB Large trial: 10 GB Mega trial: 25 GB	Up to 80% of memory available to the Oracle database
db_block_size	16384	16384
db_files	Database dependent.	Database dependent.
open_cursors See **Note 1.**	150	150
processes See **Note 1.**	150 (or maximum number of concurrent processes)	50

Parameter	Production server values	Development server values
session_cached_cursors	150	150
streams_pool_size	200M	200M
job_queue_processes	5 minimum: 1 job for each study (the job to update PF_HEARTBEAT table every minute in each study schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)	5 minimum: 1 job for each study (the job to update PF_HEARTBEAT table every minute in each study schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)
sessions	Derived: (1.1 * PROCESSES) + 5	Derived: (1.1 * PROCESSES) + 5
log_archive_dest	Recommended: $ORADATA/ARCHIVE Defaults: $ORACLE_HOME/dbs	Recommended: $ORADATA/ARCHIVE Defaults: $ORACLE_HOME/dbs
_job_queue_interval	1	1
filesystemio_options See **Note 3**	SETALL	SETALL
workarea_size_policy See **Note 2.**	auto	auto
parallel_max_servers	3	3

Note 1: These parameters might need to be adjusted depending on the demands on the database that are created by the InForm application and Streams.

Note 2: Although AUTO is default, parameter is needed to ensure proper AMM functioning.

Note 3: Enables both direct I/O and asynchronous I/O where possible

Study database parameters—Different database instances

In a DiffDB environment, the Reporting and Analysis module requires you to add or modify several study database parameters. The following table shows the adjustments that must be made to these parameters. All settings are necessary for both production and development servers.

Additionally, it is recommended that you review the **processes** and **sessions** parameters, which are not mandatory for the Reporting and Analysis installation.

For more information, see the Oracle database document, *Oracle Streams Recommendations.*

Parameter	Value	Comments
AQ_TM_PROCESS	1	Must be set on both the study database and the reporting database (streams processing might hang if set to 0).
global_names	TRUE	
job_queue_processes	5 minimum	5 minimum: 1 job for each study (the job to update PF_HEARTBEAT table every minute in each study schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)
log_archive_dest	Recommended: $ORADATA/ARCHIVE Defaults: $ORACLE_HOME/dbs	You must enter at least one destination.
log_archive_dest_state_1	ENABLE	This enables the archive log destination (log_archive_dest_1). You must enter a state for every destination.
open_links	Four minimum	Four minimum is recommended by Oracle for Streams.
parallel_max_servers	10	Minimum: 3 dependent on the number of parallel apply and/or capture processes.
timed_statistics	TRUE	Recommended by Oracle for collecting elapsed time information for Streams.
_job_queue_interval	One	Recommended by Oracle for Streams.

Archive log mode in a multiple database environment

If you are using a DiffDB configuration, you must create the study database with archive log mode enabled. You can create the database with scripts or with the Oracle Database Configuration Assistant utility.

- **Scripts**—Specify **archivelog** as part of the **create database** statement.

- **Oracle Database Configuration Assistant**—On the Archive tab, select the **Archive Log Mode** checkbox during the Initialization Parameters step.

> **Note:** For more information about the Oracle Database Configuration Assistance utility, see the Oracle database document, *Oracle Administrators Guide* for your platform.

Create database users

Steps to create database users—SameDB and DiffDB

If you are using a SameDB or DiffDB configuration, you must:

1 Create the InForm database users on the InForm database server.

For more information, see:

- *Required InForm database accounts* (on page 32).

2 Create the Cognos PFCapAdmin and the Content database users on the Cognos Content Store database server.

For more information, see:

- *Create a user for the Cognos 10 BI content store database* (on page 33).

- *Create the PFCapAdmin user on the Content Store database server* (on page 34).

3 If you are using a DiffDB configuration you must also create the rptinstall user on the Reporting database server.

For more information, see *Create the rptinstall user on the InForm database server and the Reporting database server for DiffDB* (on page 33).

Required InForm database accounts

The following database accounts are required for each instance of the InForm Service:

- A DBA user for the InForm software. The default name of this user is pfdbadmin.

- A user that can connect to the InForm Admin database. The default name of this user is informadmin.

The recommended way to create these accounts is to select the options to create them in the InForm installation wizard. If you need to create either account at another time, you can run a script.

Default account name	Installation wizard checkbox	Script and where to get information
pfdbadmin	Prep Oracle For more information, see *Step 2: Install the InForm core software on the InForm Application Server* (on page 49).	*informprepora* (on page 158)
informadmin	Install Admin DB For more information, see *Step 2: Install the InForm core software on the InForm Application Server* (on page 49).	*admindb* (on page 136)

In a multiple server installation of the InForm software, you create the pfdbadmin and informadmin accounts on each server where you install the InForm software.

> **Note:** You need to create the pfadmin user only one time per database instance. Therefore, if you uninstall and reinstall the InForm software in the same database instance, you can leave the **Prep Oracle** checkbox deselected during the second installation.

Create a user for the Cognos 10 BI content store database

1   Verify that the character set for the content store database is Unicode.

2   Create a user and grant the user these roles and privileges:

- Roles
    - CONNECT
    - RESOURCE
- Privileges
    - CREATE ANY VIEW
    - UNLIMITED TABLESPACE

3   Validate the database connection from the Cognos 10 BI server by typing:

sqlplus *<contentuser_userid>@<tnsnames_alias>*

At the prompt, enter the content user password.

If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the content store database user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

Create the rptinstall user on the InForm database server and the Reporting database server for DiffDB

1   Open a Command Prompt window.

2   Log in to the study database with a user that has sysdba privileges. Make sure that the connection is made with the as sysdba clause.

3   Run this command:

```
create user rptinstall identified by <dbauser_study_password> default
tablespace <tablespace_name> temporary tablespace <tablespace_name>
```

<dbauser_study_password>—The password for rptinstall, the database user for the study. This password is case-sensitive.

<tablespace_name>—A valid tablespace name in the database. Oracle recommends that you do not use the SYSTEM tablespace for the default tablespace.

> **Note:** The default tablespace does not require additional room for objects, because the rptinstall user does not own objects.

4   Type the following at the SQL*Plus prompt:

```
@grant_dba_privs rptinstall
```

The grant_dba_privs.sql script is located in the *<Installation_Directory>*\InForm\bin\DBOra folder.

For more information, see ***grant_dba_privs.sql*** (on page 150).

Create the PFCapAdmin user on the Content Store database server

1   Create the user PFCapAdmin on the Content Store database server and grant the user these roles and privileges:

- Roles

    - CONNECT

    - RESOURCE

2   Run the create_cap_table.sql script (located in the <*Installation_Directory*>\InForm\bin\DBOra\Reporting folder) to create a table called TRIAL_URLS within this user/schema.

For more information, see ***create_cap_table.sql*** (on page 138).

> **Note:** The CAP schema can reside in the content store database instance or a separate database instance.

3   Validate the database connection from the Cognos 10 BI server by typing:

```
sqlplus <contentuser_userid>@<connection_string>
```

When prompted, enter the content user password.

If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the PFCapAdmin user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

Multiple study tablespaces

By default, all study objects are created in the INFORM tablespace. In a production environment, you should distribute each study across multiple tablespaces for improved performance and for maintenance and monitoring. Before you install your study on a production server, set up the study-specific tablespaces.

The following table lists the Oracle table and index tablespaces to create, along with the required parameters. All tablespaces should be locally managed.

> **Note:** When creating the study tablespaces, use the names listed in the following table.

Table tablespace	Index tablespace	Size (MB)
%STUDY_NAME%_REF	%STUDY_NAME%_REF_IDX	120
%STUDY_NAME%_HIGH_TXN1	%STUDY_NAME%_HIGH_TXN1_IDX	300
%STUDY_NAME%_HIGH_TXN2	%STUDY_NAME%_HIGH_TXN2_IDX	500
%STUDY_NAME%_HIGH_TXN3	%STUDY_NAME%_HIGH_TXN3_DX	600
%STUDY_NAME%_HIGH_TXN4	%STUDY_NAME%_HIGH_TXN4_IDX	500
%STUDY_NAME%_TXN	%STUDY_NAME%_TXN_IDX	250

The remaining syntax for each of these tablespaces is:

```
AUTOEXTEND ON NEXT 50M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

> **Note:** The STUDY_NAME portion of the tablespace name must conform to Oracle database name standards. It cannot start with a numeric character and cannot contain special characters. Additionally, because the Oracle database has an internal limit of 30 characters for a tablespace name, the study name must be **16 characters or fewer.**

Oracle provides sample configurations for distributing your tablespaces using from one to five disks.

Distributed InForm study tablespaces

In a production environment, Oracle recommends distributing tablespaces across multiple disks. This table presents a suggested model. In each configuration, it is recommended that you use the C: partition for the operating system and distribute the database and application components across the remaining partitions. Monitor your system to determine the optimal configuration.

- C: and D: are partitions on one disk.
- INFORM, SYSTEM, TEMPBIG are tablespaces.

> **Note:** TEMPBIG is a temp tablespace and the default temporary storage location for the InForm application.

Physical disks	0		1	2	3	4
Logical disks	C:	D:	E:	F:	G:	H:
1 disk	Windows 2008	Oracle INFORM SYSTEM Study Tables Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs				
2 disks	Windows 2008	Oracle INFORM SYSTEM Study Tables Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs			
3 disks	Windows 2008	Oracle INFORM SYSTEM Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables		
4 disks	Windows 2008	Oracle INFORM SYSTEM Redo logs	TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables	Study Indexes	
5 disks	Windows 2008	Oracle SYSTEM Redo logs	INFORM Redo logs UNDOTBS	Study Tables	Study Indexes	TEMPBIG Archive logs

Note: For a Linux database server, the disk and partition names would follow the naming conventions for those environments.

Creating the INFORM_LOB tablespace

The INFORM_LOB tablespace is optional for InForm installation. To create the INFORM_LOB tablespace, use the following syntax:

```
CREATE TABLESPACE INFORM_LOB
DATAFILE '<path_to_data_file>' SIZE <initial_size>
AUTOEXTEND ON NEXT <file_increment>
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

Tablespace name	Initial size/ autoextend size needed	File extent size/file maximum size	Comments
INFORM_LOB	200M	Make the initial size 200 megabytes, set AUTOEXTEND on and set MAXSIZE to UNLIMITED.	Use of this tablespace is optional, but, if used, the name INFORM_LOB is required for this tablespace. This tablespace can be used to hold large objects.

Set up Oracle XA Transaction Support

To set up the Oracle database to support MTS transactional components, enable Oracle XA Transaction Support. You must enable Oracle XA Transaction Support for both development and production environments.

1   Select the **Prep Oracle** checkbox during the InForm installation. For more information, see *Step 2: Install the InForm core software on the InForm Application Server* (on page 49).

    or

    Run the **mtsora102** command during or after the Oracle installation.

    You must run the mtsora102 command only if you are manually setting up XA Transaction Support.

    For more information, see *mtsora102* (on page 160).

> **Note:** In a multi-tier environment, select the Prep Oracle checkbox during the InForm installation on each InForm application server, and run the mtsora102 command on each InForm database server. Restart the server if the script changes any of the MSDTC\Security or MSDTC\XADLL registry keys.

2   Run the **oramtsadmin.sql** command from the ...\oramts\admin folder of the Oracle Client home (where Oracle Services for Microsoft Transaction Server was installed).

    You must run it as the SYS user with the SYSDBA role. Run the script against all Oracle instances connected to the InForm Application Server.

    For more information, see *oramtsadmin.sql* (on page 162).

C H A P T E R **4**

Installing and configuring the Oracle database client

In this chapter

Steps to install and configure the Oracle database client

1   Install the Oracle database client on the:

- InForm Application Server

- Cognos Content Manager Server

- Cognos Report Server

For more information, see your Oracle database documentation.

2   Update the registry settings on each server where you installed the Oracle database client.

For more information, see *Update the National Language Support registry settings on the Oracle database client* (on page 41).

3   Configure the database connection.

For more information, see *Configure the database connection* (on page 42).

4   Validate the database connection.

For more information, see *Validate the database connection* (on page 43).

Update the National Language Support registry settings on the Oracle database client

The following registry settings are required for the Oracle client home on the InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server.

The entries are in the following Windows Registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\<Oracle_client_home_key>
```

Option	Value
NLS_LANG	American_America.AL32UTF8
NLS_SORT	JAPANESE_M

Configure the database connection

To configure the Oracle client on the InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server to connect with the database server:

- Update the **tnsnames.ora** file located on the application server so that it contains the alias that is used to establish a connection to the database server.

> **Note:** When installing the InForm software, you enter the alias specified in the tnsnames.ora file as the database connect string.

Validate the database connection

To validate the database connection from the InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server

- Type the following command at the Windows command prompt:

    sqlplus *pfdbadmin_userID*@*tnsnames_alias*
    When prompted, enter the pfdbadmin password.

    The default user name for the pfdbadmin database account is pfdbadmin.

If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the pfdbadmin user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

> **Note:** Problems with connections can sometimes be attributed to the database server that contains a single Ethernet card with two nodes. Disabling one of the ports from the card usually solves the problem. Consult your system administrator for help in resolving errors.

PART 2: PREPARING THE APPLICATION SERVERS

C H A P T E R 5
Preparing the InForm Application Server

In this chapter

Steps to prepare the InForm Application Server

All InForm installations use an InForm Application Server.

To prepare the InForm Application Server:

1   Verify the Oracle database client.

    For more information, see *Steps to install and configure the Oracle database client* (on page 40).

2   Install the InForm core software.

    For more information, see *Step 2: Install the InForm core software on the InForm Application Server* (on page 49).

3   Set up a skeletal study.

    For more information, see *Step 3: Set up a skeletal study* (on page 55).

4   Install the Central Designer certificate.

    For more information, see *Step 4: Install the Central Designer certificate* (on page 57).

5   Update the DomainSuffix entry for the AuthenticationFilter registry key.

    For more information, see *Step 5: Update the DomainSuffix entry for the AuthenticationFilter registry key on the InForm Application Server—Optional* (on page 58).

    If you are using Reporting, you must also update the DomainSuffix entry on the Cognos Gateway Server. For more information, see *Step 4: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Cognos Gateway Server—Public Gateway only* (on page 88).

6   Enable SSL—Optional.

    For more information, see *About enabling Secure Sockets Layer (SSL)* (on page 106).

7   Create a sending address for automated study deployment.

    For more information, see *Step 7: Create a sending address for automated study deployment confirmation messages* (on page 59).

8   Enable network access rights for automated study deployment.

    For more information, see *Step 8: Enable network access rights for automated study deployments* (on page 59).

9   Install the sample study.

    For more information, see *Install the sample study* (on page 60).

10 Qualify the installation.

    For more information, see *Qualify the installation* (on page 62).

Step 1: Verify the Oracle database client on the InForm Application Server

Before you begin, ensure that you have followed the instructions in *Installing and configuring the Oracle database client* (on page 39) to make sure the following requirements are met on the InForm Application Server:

- The Oracle database client is installed.

- The language registry settings are updated.

- The database connection is configured and verified.

Step 2: Install the InForm core software on the InForm Application Server

You install the InForm core software on InForm Application Server only.

1   Download and extract the InForm software from the Oracle Download Center.

2   Navigate to the location of the installation files on the downloaded image, and double-click **setup.exe**.

    The Choose Setup Language page appears.

3   Select either **English** or **Japanese** for the language that you want the wizard to use during the installation.

> **Note:** Configuration of the language used for application pages occurs later in the installation.

4   Click **Next**.

    The Preparing Setup progress page appears. When setup is complete, the Welcome page appears.

5   Click **Next**.

    The Customer Information page appears.

6   Type your **User Name** and **Company Name**.

7   Click **Next.**

    The Choose Destination Location page appears.

8   Accept the default location, or click **Change** and browse to the desired location.

9   Click **Next**.

    The Setup Type page appears.

10 Choose one of the following options, and click **Next**.

- Complete—Installs all the application components (Default).

- Minimal—Installs only the required application components and the MedML Installer utility. The sample study and other utilities are not installed.

- Custom—Allows you to select the components to install.

If you select **Complete** or **Minimal**, the Select Product Locale page appears.

If you select **Custom**, the Select Features page appears. Make your choices and click **Next**. The Select Product Locale page appears.
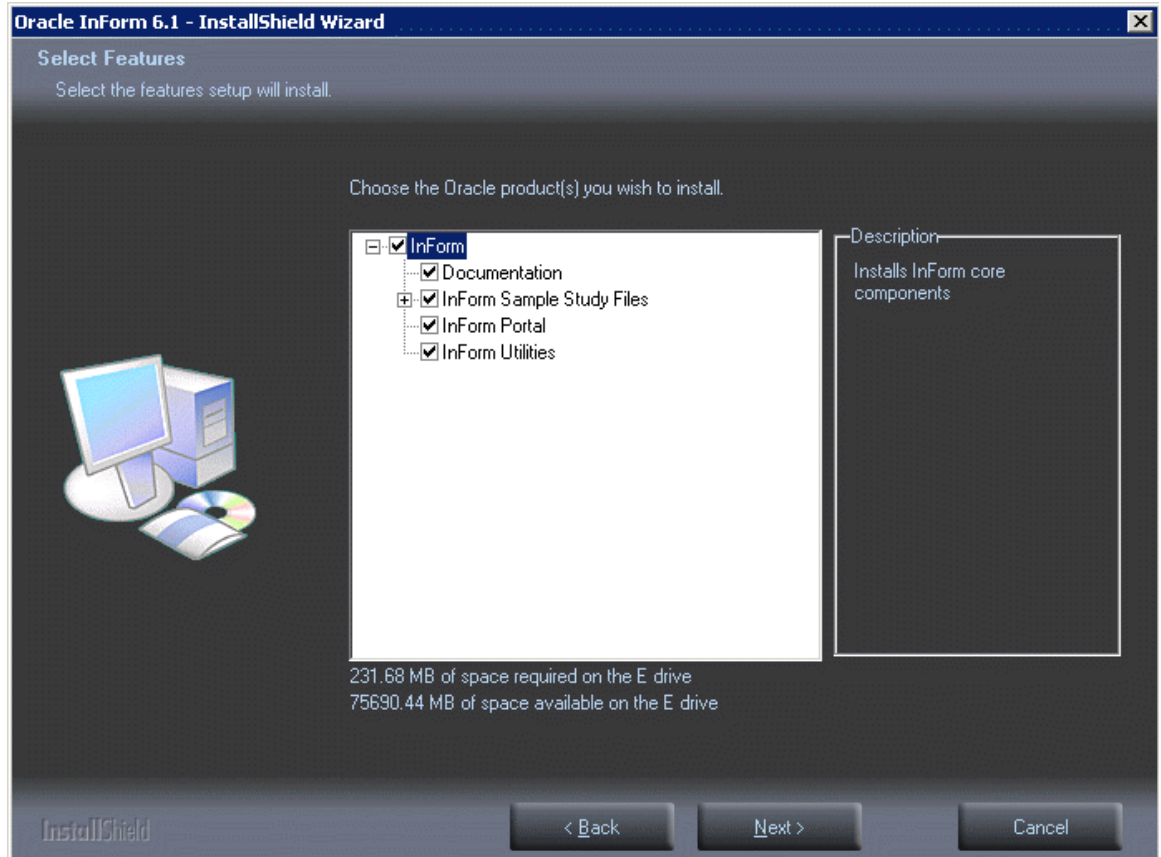
11 Select either **English** or **Japanese** for the Product Locale for the installation.

This determines the language in which the InForm application pages appear after installation.

12 Click **Next**.

The Select the Authentication Scheme page appears.

13 Select **Native Authentication**.

14 Click **Next**.

The Select the Oracle Home for InForm page appears. The Oracle Homes you configured during your Oracle client installation appear on the page with the prefix **KEY_** to indicate the Windows registry key.
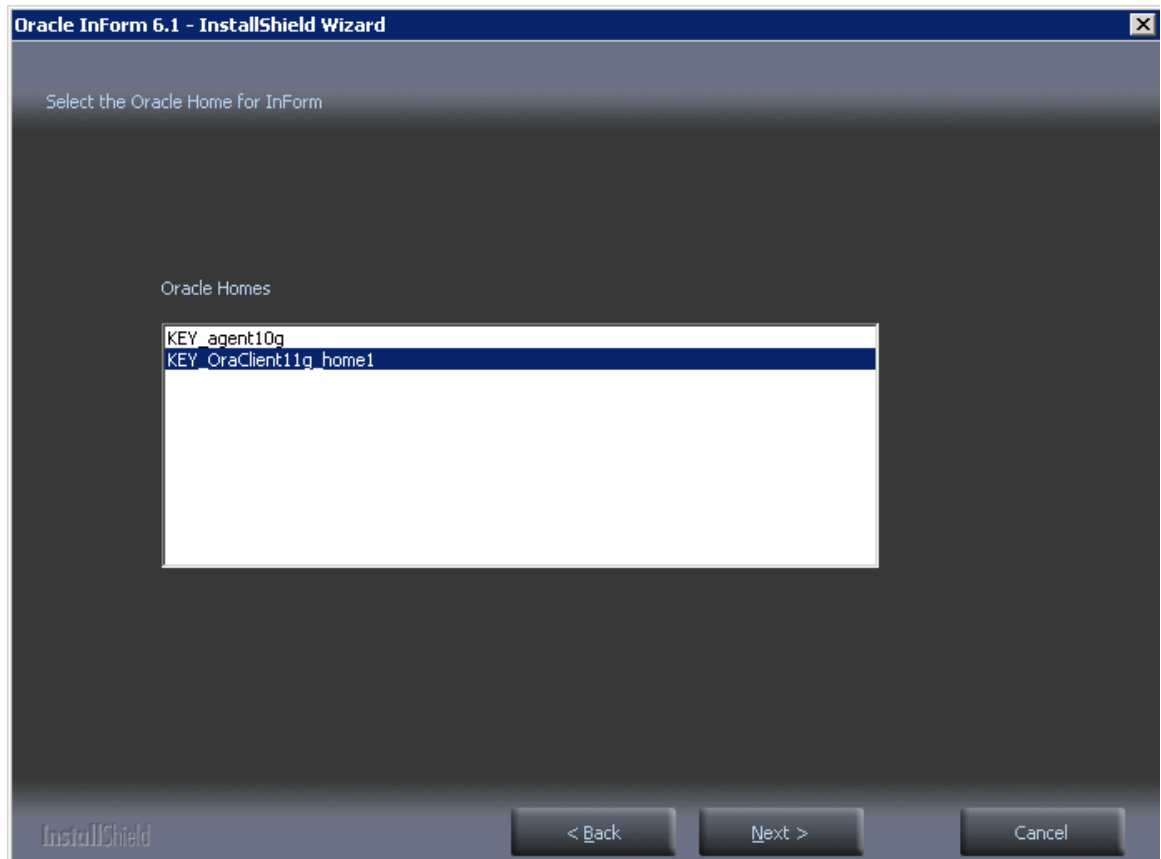
15 Select the entry for the Client Oracle Home registry key.

16 Click **Next**.

The Database Configuration page appears.

17 Enter values or accept the defaults for the configuration fields, and click **Next**.

Field	Description
Local Machine User	The name of the local machine user. The default is pfUSR_<*machinename*>.
Local Machine User Password	The password for the local machine user. **Note:** The password for the local machine user must comply with the password requirements defined in your domain password policy.
Database Connection String	String that the InForm server uses to connect to the Oracle instance for the study.
Oracle SYS DBA User	The name of the Oracle SYS account. This value is only used if you select the **Prep Oracle** checkbox to create the pfdbadmin account.
Oracle SYS DBA Password	Password of the Oracle SYS account. This value is used only if you select the **Prep Oracle** checkbox to create the pfdbadmin account.
Admin Database Username	User name that is required to access the Admin database. The default is **informadmin**.
Admin Database Password	Password that is required to access the Admin database. The password is case-sensitive. Do not include a hyphen (-) character in the password.

Field	Description
InForm System Username	User name for the study database. If this is a new InForm installation or if you change the user name from the default during the installation, select the **Prep Oracle** checkbox. This instructs the InForm software installation to create the InForm account using the user name and password you specify.
InForm System Password	Password for the study database. The password is case-sensitive. Do not include a hyphen (-) character in the password.
Install Admin DB	If selected, creates the: • informadmin user, using the Admin Database Username and Admin Database Password. • InForm Admin database for non-clinical data, such as users, sites, and configuration information. **Note:** You must select this checkbox for both installation and upgrades.
Prep Oracle	If selected: • Runs the **informprepora** command, which creates the study database user, using the InForm System Username and InForm System Password. • Runs the **mtsora102** command, which sets up Oracle XA Transaction Support and sets the MTS Timeout to a minimum of 300 seconds. If not selected: • Verifies the study database user and password. **Note:** You need to select the **Prep Oracle** checkbox only the first time you install the InForm software on an instance.

If any of the information is incorrect (for example, the Database Connection String or InForm Username is wrong), a Database Configuration Error window appears. For more information, see *Oracle MTS configuration is invalid* (on page 184).

18 If the Database Configuration Error window appears, click **Back** to return to the Database Configuration page to fix the incorrect information, and click **Next** when changes are complete.

The Ready to Install the Program page appears.

The installation checks both the .NET framework and ODAC, and if an upgraded version is required, a message appears.

19 If you need to upgrade the .NET framework or ODAC, click **Cancel** to make the necessary corrections, and click **Yes** when the Exit Setup dialog box appears.

If you exited the installation at the previous step, upgrade the .NET framework or ODAC version, and restart the installation wizard.

20 Click **Install**.

The Setup Status page appears. The progress of the installation is indicated on the screen.

21 If your system does not have the required hardware or software components, the Requirements Not Met message appears. Click **Cancel** to make the necessary corrections, and click **Yes** when the Exit Setup dialog box appears.

    If you exited the installation at the previous step, update the server with the required hardware or software components, and restart the installation wizard.

22 When the setup is finished, the Oracle InForm 6.1 Reboot page appears.

23 You must reboot the system if any of the following is true:

    - ODAC was upgraded during the installation process.

    - The PATH environment variable was modified.

    - The installation tried to access a locked file.

24 Select **Yes** or **No** to indicate whether you want to reboot at this time, and click **Finish**.

    After rebooting, the final configuration process continues.

    When the system configuration is finished, the InstallShield Wizard Complete page appears.

25 Click **Finish**.

Step 3: Set up a skeletal study

Before you can deploy a study, you must set up the basic framework to hold your study design and data. This framework is called a skeletal study. All the commands used to create the skeletal study are run from a Windows command prompt.

The following procedure sets up a skeletal study named pfst61 on the server demo.

1   Create the InForm server that will host your studies:

    pfadmin setup server demo

2   Create a study within your server:

    pfadmin setup trial pfst61 demo /db TRIAL1

    When prompted enter the:

    *   Study user ID.

    *   Password to associate with the study user.

    This command creates your study, and associates it with a database instance.

3   Set up the InForm application for your study:

    dbsetup pfst61 base

    This command installs the components of the InForm application for your study.

4   Copy the InForm folder from the Central Designer image to the InForm application server.

5   Run **InstallCentralDesignerFiles.cmd**, located in the Central Designer image InForm folder.

    The InstallCentralDesignerFiles command installs and registers the Central Designer rules engine, as well as other files the InForm application uses for automated deployments.

    > **Note:** You only need to run the InstallCentralDesignerFiles command one time on the InForm application server. After the Central Designer rules engine is installed, it can be used by all the InForm studies on the server.

6   Specify a TrialType for your study:

    pfadmin config trial pfst61 /TrialType QA

    The TrialType options are:

    *   Live—Production environment.

    *   UAT—User acceptance environment.

    *   QA—Product test environment.

    *   TRN—Training environment.

    *   Dev—Product development environment.

7   Specify whether your study requires approvals from the Central Designer application in order to autodeploy a study deployment package.

```
pfadmin config trial pfst61 /TrialApproval FALSE
```

The TrialApproval options are:

- True—Approvals required.

- False—Approvals not required.

> **Note:** In order to deploy a deployment package from within the InForm user interface, the TrialApproval setting must be **False**.

8   Specify a backup folder to be used during the automated deployment process.

```
pfadmin config trial pfst61 /DeployBackupFolder /u01/app/dbbackup
```

The InForm application uses this folder to store a backup of the database during the deployment process. If the deployment fails for any reason, the application uses the data in this folder to roll back to the state it was in prior to the deployment. The deployment backup folder:

- Refers to a folder on the database server.

- The folder must exist on the database server, otherwise the deployment will fail.

9   Specify the port numbers your study will use to communicate with the following web services:

- DeploymentService—The port number to communicate with the Central Designer application for automated deployments.

- AuthService—The port number to communicate Reporting and Analysis module to authorize InForm and reporting users.

- ODMSubmitService—The port number to communicate with requests to the Clinical Data API.

```
pfadmin config webservice pfst61 DeploymentService ADD HTTP:14040
pfadmin config webservice pfst61 AuthService ADD HTTP:14041
pfadmin config webservice pfst61 ODMSubmitService ADD HTTP:14042
```

10   From the *<InstallationDirectory>*\InForm\Bin folder on the InForm application server, run the following command to enable browser compatibility mode for the study:

```
SetCompatMode.cmd pfst61
```

11   Start the InForm server and study using the following commands, in the order listed:

```
pfadmin start server demo
pfadmin start trial pfst61
```

12   Activate the system user for your study:

```
pfadmin setserver systempw pfst61
```

When prompted, enter a password for the system user.

You can now log in to your study, deploy a study, and start loading data. For more information, see **Deploy your study** (on page 128), and the *Study and Reporting Setup Guide*.

Step 4: Install the Central Designer certificate

You must install a certificate on the InForm application server to verify that every deployment package you receive from the Central Designer server comes from a trusted source.

1 Copy the certificate you retrieve from the Central Designer application to a folder on the InForm application server.

2 Select **Start** > **Run**

   The Run dialog box appears.

3 Enter the following command, and click **OK**:

   ```
   mmc
   ```

   The Microsoft Management Console appears.

4 Select **File** > **Add/Remove Snap-in**.

   The Add or Remove Snap-in window appears.

5 Select Certificates and click **Add**.

6 Click **OK**.

7 In the folder pane, expand Certificates, and select Root Certificates.

8 Select **Actions** > **All Tasks** > **Import**.

   The Certificate Import Wizard appears.

9 When prompted:

   • Browse to the location of the Central Designer certificate.

   • Specify the Certificate Store for the certificate.

     You can accept the default (Trusted Root Certificate Authorities), or select a different store for the certificate.

10 Click **Finish**.

Step 5: Update the DomainSuffix entry for the AuthenticationFilter registry key on the InForm Application Server—Optional

If you are installing Cognos Reporting, you must update the DomainSuffix entry for the Oracle AuthenticationFilter registry key if any of the following is true on the InForm Application Server:

- You use proxy servers for the Cognos Gateway Server and the InForm Application Server.

- The fully qualified domain name (FQDN) for either server does not end with a common domain suffix.

  The FQDN is registered in the Oracle AuthenticationFilter DomainSuffix entry during installation of the InForm Application Server and the Cognos Gateway Server. If the FQDN for both installations ends in a common domain suffix such as **.net**, **.com**, **.org**, **.edu,** or **.gov** (with or without a country name like **.uk** or **.au**), you do not need to update the DomainSuffix entry unless you use proxy servers.

- The FQDN has just two levels (for example: <*servername*>.com).

> **Note:** You must also update the DomainSuffix entry on the Cognos Gateway Server. For more information, see *Step 4: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Cognos Gateway Server—Public Gateway only* (on page 88).

Perform the DomainSuffix configuration on both the Cognos Gateway Server and the InForm Application Server. Both machines *must* have identical AuthenticationFilter entries for DomainSuffix.

1 In the **Windows Registry Editor**, navigate to the following Windows Registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\ORACLEHS\AuthenticationFilter

2 Update the entry for **DomainSuffix:**

a Right-click the entry, and select **Modify**.

The Edit String dialog box appears.

b Enter the new value in the **Value Data** field.

- If you use proxy servers, or if the FQDN for either server does not end with a common domain suffix, remove every part of the domain suffix that is not identical on both computers. For example, if the FQDN includes <s*ervername*>.<*companyname*>.co.uk, after the edit, the entry would be <*companyname*>.co.uk.

- If the InForm software and Cognos 10 BI are installed on the same machine, and the FQDN has only two nodes such as <*servername*>.com, you must include the server name and the domain suffix in the entry. In the above example, the entry would read <*servername*>.co.uk.

c Click **OK**.

3 Exit the **Windows Registry Editor**.

4 Restart IIS.

5 On the InForm Application Server, restart the InForm Service.

Step 6: Enable SSL on the InForm Application Server—Optional

Enabling SSL is optional. For more information, see *About enabling Secure Sockets Layer (SSL)* (on page 106).

Step 7: Create a sending address for auto-deployment confirmation messages

The InForm application requires a valid email sender address in order to send automated study deployment messages. This email address is stored in the PFMngrExecutionPlan registry key on the InForm application server.

Use the following command to create the PFMngrExecutionPlan registry key and populate the EmailSender subkey:

pfadmin config service /emailsender <*validemailaddress*>

Where:

- validemailaddress—The address from which emails are sent during auto-deployment.

For example:

```
pfadmin config service /emailsender no-reply@myexamplehost.com
```

Step 8: Enable network access rights for automated study deployments

To enable the network access rights for automated deployments, modify the Local Security Policy on the InForm application server:

1   Click **Start > Administrative Tools > Local Security Policy**.

The Local Security Policy window appears.

2   Select **Local Policies > Security Options**.

3   In the **Policy** pane, right-click **Network Access: Do not allow storage of passwords and credentials for network authentication**, and select **Properties**.

The Network Access: Do not allow storage of passwords and credentials for network authentication Properties window appears.

4   Select **Disabled**.

5   Click **OK**.

Install the sample study

The sample study is created in the Central Designer 2.1 application and made available to the InForm server, along with a public key certificate that you must install on your InForm application server.

Before you can install the sample study, you must:

- Create a skeletal study to deploy the samples study.

  For more information, see *Step 3: Set up a skeletal study* (on page 55).

- Install the Central Designer certificate.

  For more information, see *Step 4: Install the Central Designer certificate* (on page 57).

About the sample study

The sample study contains examples of the types of components you can use when you design your own study. It runs and installs the study and sample administrative data including users, sites, rights, and groups. Before deploying your own study, you might want to run the sample study to familiarize yourself with the InForm application.

Deploying the sample study

> **Note:** Oracle recommends running the sample study only on a development server. Do not run a sample study on a production server.

To deploy the sample study:

1 Copy the **SampleStudy.zip** file from the Central Designer 2.1 server to the InForm application server.

2 Log in to the InForm study as a sponsor user with the Study Deployment right.

3 In the navigation toolbar, click **Deployment**.

   The Deployment page appears.

4 Select a deployment package.

   a Click **Browse** / **Choose File**.

      The **Choose File to Upload** / **Open** dialog box appears.

   b Select the **SampleStudy.zip** file, and click **Open**.

      The name of the deployment package you selected appears in the Deployment Package field.

5   Schedule a time and date to deploy the study package.

     a   Click in the **Scheduled Time** field.

        A calendar control appears.

     b   Do one of the following:

- To run the deployment package immediately, click **Now**, and then click **Done**.

        or

- To run the deployment package at a later date and time, select the appropriate date and time options, and then click **Done**.

        The Upload button becomes active.

6   Click **Upload**.

      The deployment package file name appears on the Deployment page with a status of Scheduled.

Install sample users and sites

1   Open a command prompt and stop the study, using the following command:

     pfadmin stop trial <*studyname*>

2   Run **Start > All Programs > Oracle Health Science > InForm 6.1 > InForm MedML Installer**.

     The MedML Installer utility appears.

3   For the **XML File** field, browse to <*InstallationDirectory*>\InForm\SampleStudy\Admin, and select the **admin.rsp** file.

4   Click **Open**.

5   From the **Trial Name** drop-down list, select the study you set up for the sample study.

6   Click **Process**.

7   Close the MedML Installer utility.

8   Start the study, using the following command:

     pfadmin start trial <*studyname*>

Qualify the installation

Qualifying the installation verifies that the study was installed successfully. The qualification process consists of a set of administrative and clinical activities that perform the basic functionality of the InForm application. The tests are divided into Admin and CRC/CRA tests.

Qualification prerequisites

- InForm software is installed. For more information, see *Step 2: Install the InForm core software on the InForm Application Server* (on page 49).

- Sample study is installed, and the server and study are running. For more information, see *Step 5: Installing the sample study* (on page 60).

- The **pfadmin setserver** command has activated and assigned a password to the **system** user. For more information, see *pfadmin* (on page 163).

- Passwords for **dobrien** and **lhill** users have been changed. For more information, see *Change the passwords of the sample study users* (on page 62).

Change the passwords of the sample study users

1   Open a browser window, using the following URL:

    ```
    http://machine_name/samplestudy
    ```

2   Log in to the sample study as the **system** user.

    User the password you set for the system user in the **pfadmin setserver** command.

3   Click **Admin**.

4   For the **dobrien** and **lhill** users:

    a   Click the user **Account Name**.

    b   On the Users page, deselect the **User Active** checkbox.

    c   Click **Submit**, and click **OK** in the message box.

    d   Click **Change Password**.

    e   On the Change Password page, type a password in the **New password** and **Confirm new password** fields.

    > **Note:** Use the passwords you set for lhill and dobrien when you log in to perform the CRF and CRA qualification tasks.

    f   Click **Submit**, and click **OK** in the message box.

    g   Click **Return**.

    h   On the **User details > Details** page, select the **User Active** checkbox.

    i   Click **Submit**, and click **OK** in the message box.

5   Log out.

Admin—Users test

Pass/Fail	Step	Description
	1	Log in as the **system** user.
	2	Click **Admin**.
	3	Select each of the following: **Users**, **Rights**, **Groups**, **Sites**, **Configuration**, **Events**, **Rules**, and **System**.
	4	Click **Users**, and verify that the following users are active: • lhill • dobrien • mcarlson
	5	On the **Users** page, click **Add User**.
	6	Enter X (a user name) in the **User Name** field. In the **User must change password at next login** field, select **No**. Select values in the **Product Locale** and **Preferred Study Locale** fields. Click **Submit**, and click **OK** in the message box.
	7	Click **Return**. Verify that user X is shown in the list.
	8	Click the **Account Name** and the **Group** tab for user X. Assign a rights group and two user site associations. Click **Submit**, and click **OK** in the message box.
	9	Click **Return**. Click any link for user X.
	10	Click **Change Password**. Give user X a password with eight characters or more. Click **Submit**, and click **OK** in the message box.
	11	Click **Return**. Select **User Active**. Click **Submit**, and click **OK** in the message box. Log out.
	12	Log in as user X, using the password assigned in Step 10. Click **Subjects**. Verify that the **Site** drop-down list contains only the sites selected in Step 8.
	13	Log out.

Admin—Rights test

Pass/Fail	Step	Description
	1	Log in as the **system** user.
	2	Select **Rights**. Click **Add Rights Group**.
	3	Enter new rights group information. Click **Submit**, and click **OK** in the message box.
	4	Click **Return**. Verify that the rights group that you just created is in the list.

Admin—Sites test

Pass/Fail	Step	Description
	1	Select **Sites**. Click **Add Site**. Enter the new site information. **Site Name**, **Site Mnemonic**, and **Study Locale** are required. Click **Submit**, and click **OK** in the message box.
	2	Click **Return**. Verify that the site that you just created is in the list.

Admin—Groups test

Pass/Fail	Step	Description
	1	Select **Groups**. Click **Add Group**. Select **Signature** from the **Group Type** drop-down list, and type the group information. Click **Submit**, and click **OK** in the message box.
	2	Click **Return**. Verify that the signature group you just created is in the list.

Pass/Fail	Step	Description
	3	Click **Add Group**.
		Select **Query** from the **Group Type** drop-down list, and enter group information.
		Click **Submit**, and click **OK** in the message box.
	4	Click **Return**.
		Verify that the query group you just created is in the list.

Admin—Users and Groups test

Pass/Fail	Step	Description
	1	Select **Groups**.
		In the **Members** column for the signature group that was created in the Admin—Groups test section, click **Change**.
		For more information, see *Admin—Groups test* (on page 64).
	2	Select user X in the **Available users** list.
		Click **Add**.
	3	Verify that user X is in the **Users in** (signature group) list.
		Click **Submit**, and click **OK** in the message box.
	4	Click **Return**.
		Verify that the **Member Count** column shows 1 (and not 0) for the signature group.
	5	In the **Members** column for the query group that was created in the Admin—Groups test section, click **Change**.
		For more information, see *Admin—Groups test* (on page 64).
	6	Select user X in the **Available users** list.
		Click **Add**.
	7	Verify that user X is in the **Users in** (query group) list.
		Click **Submit**, and click **OK** in the message box.
	8	Click **Return**.
		Verify that the **Member Count** column shows 1 (not 0) for the query group.
	9	Log out.

CRC / CRA tests

1 Open two browser windows, using the following URL:

    http://*machine_name*/samplestudy

2 Log in to one session as **dobrien** (a CRC) and the other as **lhill** (a CRA).

3 Perform the CRC/CRA tests.

As dobrien (CRC)

Pass/Fail	Step	Description
	1	Click **Enroll**.
		Click **Add Candidate**. A question window appears.
	2	Enter subject information.
		Click **Submit**.
	3	Click the **Screening Number** for the subject who was just entered.
		Edit one of the fields, and provide a reason for change.
		Click **Submit**, and verify that the field you edited is changed.
	4	Click **Return**.
	5	In the **Enrolled** column, click the **Enroll** link.
	6	Enter the subject number (site ID followed by a hyphen and a 3-digit number).
		Click **Submit**.
		The System Enrollment page displays the heading Candidate Meets All Criteria for Enrollment in Study.
	7	At the bottom of the page, click **Enroll**.
		If your study is configured to display the visit calculator, verify that a Visit Calculator (subject schedule) page appears for the subject with a default baseline date of the current date.
	8	Change the **Start Date**.
		Verify that the associated dates are updated correctly.
	9	Click **Go To First Visit**.
	10	Complete the DOV form.
		Click **OK**.
		The list of forms for the first visit appears.
		Navigate to each form in the first visit.

Pass/Fail	Step	Description
	11	Click the Time and Events arrow at the left end of the visit ruler.
		View the Time and Events Schedule to check all visits for the new subject.
	12	Click the status icon for the Base visit.
		Click the status icon for the Demographics form.
		Enter data in the form, and click **Submit**.
	13	Click **Return**.
		Click the status icon for the Vital Signs form.
		Enter a value of 200.5 degrees Fahrenheit in the Temperature item.
		Click **Submit**, and verify that an autoquery is generated. (The background for the question becomes pink and an error message is shown in red.)
	14	Click the comment icon in the right column for an item, and add a comment in the **Comment** field.
		Click **Submit**, and click **OK** in the message box.
	15	Click **Return**.
		Click the query text.
		On the Queries detail page, click **Update Data and Answer**.
		Change the Temperature value to 98.6 and add a reason for change.
		Click **Submit**, and click **OK** in the message box.
	16	Verify that the auto-query is answered. The background for the question changes from pink to gray.
	17	Click the status icon for any form that has data.
		Select **Mark SV Ready** from the **Select Action** list, and click **Apply**.
	18	Click the status icon for the Demographics form.
		Select **Print Preview** from the **Select Action** list, and click **Apply**. Verify that the preview of the form appears.
		Click **Print**.
	19	Verify that the report prints with the correct information.
	20	Click the **Help** icon, and select **InForm User Guide**.
		Verify that the *User Guide* is installed and functioning.

As dobrien (CRC) and lhill (CRA)

> **Note:** Keep both browsers open to make the following steps easier to perform.

Pass/Fail	Step	Description
	1	As **lhill**:
		Click **Subjects**.
		In the **Subject** column, click the link for the subject that was created by dobrien in the CRC test.
		Click the status icon for the Base visit. The list of forms appears.
		Click the status icon for the Demographics form.
		Create an open query on an item entered by dobrien:
		Click the query icon () for the item, click **Create Query**, select **Create Query in Opened State** in the **Action** list, and select a reason.
		Click **Submit**, and verify that the query appears with red text in a pink box under the item.
	2	As **dobrien**:
		Click **Subjects**.
		In the **Subject** column, click the link for the subject who was created by dobrien in the CRC test.
		Click the status icon for the Demographics form.
		Answer the query:
		Click the query icon or the red query text.
		In the Current Value section, click **Answer**. In the Query section, enter a response to the query.
		Click **Submit**, and verify that the query disappears from the form.
	3	As **lhill**:
		Refresh the Demographics form: click the **CRF history** icon (), and select the Demographics form.
		Re-issue the answered query:
		Click the query icon, and in the Current Value section, click **Reissue as Open**.
		In the Query section, select a reason.
		Click **Submit**, and verify that the query reappears.

Pass/Fail	Step	Description
	4	As **dobrien**:
		Refresh the Demographics form: click the **CRF history** icon (), and select the Demographics form.
		Re-answer the query.
		Click **Submit**, and verify that the query disappears from the form.
	5	As **lhill**:
		Refresh the Demographics form: click the **CRF history** icon (), and select the Demographics form.
		Close the query:
		Click the query icon, and in the Current Value section, click **Close Query**.
		In the Query section, select a reason.
		Click **Submit**, and verify that the query disappears from the form.
	6	Log out of both browser sessions.

C H A P T E R 6
Preparing the Reporting application servers

In this chapter

About preparing the Reporting application servers

You must perform a specific series of steps on the reporting servers to prepare them for use with the InForm application. Some of the same steps are required on each server, and some steps are unique to the server type.

- Oracle Directory Server

  For more information, see *Steps to prepare the Oracle Directory Server* (on page 73).

- Cognos Content Manager Server

  For more information, see *Steps to prepare the Cognos Content Manager Server* (on page 75).

- Cognos Report Server

  For more information, see *Steps to prepare the Cognos Report Server* (on page 80).

- Cognos Gateway Server

  For more information, see *Steps to prepare the Cognos Gateway Server* (on page 83).

Prepare the Oracle Directory Server

Steps to prepare the Oracle Directory Server

The Oracle Directory Server is required only if you are using Reporting.

To prepare the Oracle Directory Server:

1   Install the Oracle Directory Server.

For more information, see *Step 1: Install the Oracle Directory Server* (on page 73).

2   Create the ORACLEHS namespace and crnsysadmin user on the Oracle Directory Server.

For more information, see *Step 2: Create the ORACLEHS organizational unit (OU) and crnsysadmin user on the Oracle Directory Server* (on page 73).

> **Note:** You must also create an ORACLEHS namespace and a crnsysadmin user on the Cognos Content Manager Server. For more information, see *Create the ORACLEHS LDAP namespace* (on page 103).

Step 1: Install the Oracle Directory Server

1   Download and install the Oracle Directory Server.

2   Configure and deploy the Oracle Directory Server to a supported web server.

For more information, see the Oracle website, the Oracle Directory Server Enterprise Edition documentation, or your Oracle database documentation.

Step 2: Create the ORACLEHS organizational unit (OU) and crnsysadmin user on the Oracle Directory Server

If you are using Reporting, you must create an ORACLEHS namespace and crnsysadmin user on the Cognos Content Manager Server and the Cognos Report Server. For more information, see *Create the ORACLEHS LDAP namespace* (on page 103).

1   On the server where the Oracle Directory Server is installed, use the Cognos Configuration utility to ensure that the Cognos 10 BI Reporting Service is stopped.

2   Launch the URL for the Oracle Directory Server and log in to the Oracle Directory Service Control Center.

3   Select the Directory Server tab

4   In the **Directory Servers** list, click the server name.

The Server Operations tab opens.

5   Select the **Entry Management** tab.

6   From the **Browse Data** list, select the **DN** , and click **New Entry**.

The New Entry wizard page displays the Specify Entry Location page.

7   Make sure that the Entry Parent DN is correct, and click **wizard button next**.

The Choose Object Class page appears.

8   From the **Entry Type** drop-down list, select **Organizational Unit - (organizationalUnit)**, and click **wizard button next**.

The Configure Attributes page appears.

9   In the **Organizational Unit (ou)** field, type **ORACLEHS** (all uppercase), and click **wizard button next**.

The Summary page appears.

10   Review the information, and if it is correct, click **wizard button finish**.

The ORACLEHS node is added to the Browse Data list.

11   On the **Entry Management** tab, in the **Browse Data** list, right-click **ou=ORACLEHS** ,and click **New Entry**.

The New Entry wizard displays the Specify Entry Location page.

12   Make sure that the **Entry Parent DN** is correct, and click **wizard button next**.

The Choose Object Class page appears.

13   From the **Entry Type** drop-down list, select **User - (inetOrgPerson)**, and click **wizard button next**.

The Configure Attributes page appears.

14   Create a new user for the ORACLEHS namespace as follows:

- **Full Name (cn)**—crnsysadmin
- **Last Name (sn)**—crnsysadmin
- **User ID (uid)**—crnsysadmin
- **Password (userPassword)**—*<crnsysadmin password>*
- **Confirm Password**—*<crnsysadmin password>*

15   Click **wizard button next**.

The Summary page appears.

16   Review the information, and if it is correct, click **wizard button finish**.

The uid=crnsysadmin node appears in the Browse Data list on the Entry Management tab.

Prepare the Cognos Content Manager Server

Steps to prepare the Cognos Content Manager Server

All InForm installations with Reporting use a Cognos Content Manager Server.

To prepare the Cognos Content Manager Server:

1   Verify the Oracle database client.

This step is performed on multiple servers.

For more information, see *Step 1: Verify the Oracle database client on the Cognos Content Manager Server* (on page 76).

2   Install the Cognos software and updates.

This step is performed on multiple servers.

For more information, see *Step 2: Install the Cognos software and updates on the Cognos Content Manager Server* (on page 76).

3   Set up JRE.

This step is performed on multiple servers.

For more information, see *Step 3: Set up JRE on the Cognos Content Manager Server* (on page 76).

4   Set up the Oracle JDBC driver.

This step is performed on multiple servers.

For more information, see *Step 4: Set up the Oracle JDBC driver* (on page 77).

5   Run the CRNConfig installer.

This step is performed on multiple servers.

For more information, see *Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Content Manager Server* (on page 77).

6   Create the ORACLEHS LDAP namespaces on the Cognos Content Manager Server.

This step is performed on multiple servers.

For more information, see *Step 6: Create the ORACLEHS LDAP namespace on the Cognos Content Manager Server* (on page 77).

7   Update the domain settings for Cognos-generated cookies.

This step is performed on multiple servers.

For more information, see *Step 7: Update the domain settings for Cognos-generated cookies on the Cognos Content Manager* (on page 77).

8   Configure MotioCAP—Optional.

This step is performed only on the Cognos Content Manager Server.

For more information, see *Step 8: Change or create a new MotioCAP_informcap.properties file—Optional* (on page 78).

9   Customize the Cognos email settings.

This step is performed on multiple servers.

For more information, see *Step 9: Customize the Cognos 10 BI email settings on the Cognos Content Manager Server* (on page 79).

10   Enable SSL—Optional.

This step is performed on multiple servers.

For more information, see *Step 10: Enable SSL on the Cognos Content Manager Server— Optional* (on page 79).

Step 1: Verify the Oracle database client on the Cognos Content Manager Server

Before you begin, ensure that you have followed the instructions in *Steps to install and configure the Oracle database client* (on page 40) so that the following requirements are met on the Cognos Content Manager Server:

- The Oracle database client is installed.

- The language registry settings are updated.

- The database connection is configured and verified.

This step is also performed on the Cognos Report Server.

Step 2: Install the Cognos software and updates on the Cognos Content Manager Server

To install the Cognos software and updates on the Cognos Content Manager Server, you must:

- Install the Cognos core software.

- Upgrade the Fix Pack.

- Install the hotsite updates.

This step is also performed on the Cognos Report Server and the Cognos Gateway Server.

For more information, see *Install the Cognos software and updates—Cognos Content Manager / Cognos Report Server / Cognos Gateway Server* (on page 90).

Step 3: Set up JRE on the Cognos Content Manager Server

To enable the Cognos software to find the necessary Java components when it runs, you must set the JAVA_HOME environment variable on the Cognos Content Manager Server.

This step is also performed on the Cognos Report Server and the Cognos Gateway server.

For more information, see *Add the JRE to the JAVA_HOME environment variable* (on page 97).

Step 4: Set up the Oracle JDBC driver

Before running the Cognos Customization for InForm wizard, you must set up the Oracle JDBC driver on the Content Manager Server.

1   Download the ojdbc6.jar file from the Oracle support website.

2   Copy the **ojdbc6.jar** file to the <Cognos_Installation_Directory>\webapps\p2pd\WEB-INF\lib folder.

Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Content Manager Server

The Cognos customization wizard copies customization files and modifies files needed to customize the Cognos 10 BI software for the InForm application.

This step is also performed on the Cognos Report Server.

For more information, see *Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe)—Cognos Content Manager / Cognos Report Server* (on page 97).

Step 6: Create the ORACLEHS LDAP namespace on the Cognos Content Manager Server

This procedure sets up the following namespaces on the Cognos Content Manager Server:

* ORACLEHS

For more information, see *Create the ORACLEHS LDAP namespace* (on page 103).

Step 7: Update the domain settings for Cognos-generated cookies on the Cognos Content Manager

This procedure ensures that the domain suffix value in the AuthenticationFilter registry setting is used for Cognos-generated cookies.

For more information, see *Update the domain settings for Cognos-generated cookies* (on page 104).

Step 8: Change or create a new MotioCAP_informcap.properties file—Optional

The Cognos Customization for InForm wizard creates the **MotioCAP_informcap.properties** file. The information in the file is used to configure the custom authentication provider's connection to the Oracle Directory Server (LDAP).

In most cases you do not need to change the MotioCAP_informcap.properties file. However, the following table lists some examples of when you need to make changes to the file.

Circumstances that require changes to file	Required action
LDAP configuration changes after installation.	Change the LDAP properties used for authenticating the admin OU: • ldap.url—Enter the URL of the server where LDAP is installed. Change the number of the LDAP port if necessary. **Example: ldap.url=ldap://ldap.example.com:389** • ldap.base.dn—Enter the **Parent Node Distinguished Name**. **Example: ldap.base.dn=dc=example,dc=com** • ldap.bind.username—Enter the **Administrator Distinguished Name**. This is used by the Custom Security Provider (CSP) to log on to LDAP. **Example: ldap.bind.username=uid=admin,ou=Administrators, ou=TopologyManagement,o=NetscapeRoot** • ldap.bind.password—Change **encrypted** to **unencrypted** and set the password in plain text. The password is encrypted when Cognos Reporting starts up. **Example: ldap.bind.password=unencrypted:password**
New namespace is added after the Cognos 10 BI Reporting configuration.	Duplicate and edit the file for each namespace as follows: Copy the **MotioCAP_informcap.properties** file and save it to the same directory as the original. Name the new copy **MotioCAP_<**_new_namespace_name_**>.properties** and edit the following properties as necessary: • ldap.url • ldap.base.dn • ldap.bind.username • ldap.bind.password

Circumstances that require changes to file	Required action
The database user and/or database user password changes after installation.	Change the properties as follows: • db.user **Example: db.user=encrypted:**<*db_username*> • db.password **Example: db.password=encrypted:**<*db_user_password*> Change **encrypted** to **unencrypted** and set the password in plain text. The password is encrypted when Cognos Reporting starts up.

Step 9: Customize the Cognos 10 BI email settings on the Cognos Content Manager Server

The Cognos 10 BI Reporting installation includes a feature that you can use to send links to report output notifications using email. Normally, you configure email to point to the Cognos Gateway server. However, if your environment uses an F5 switch that requires a generic URL to access the switch, you must configure the SMTP server to use the correct address.

1   Using the Cognos Configuration utility, configure the SMTP mail server.

For more information, see the *Cognos 10 BI Reporting Quick Start Installation and Configuration Guide.*

2   Select **File > Save**.

The Cognos Configuration utility validates the settings and saves the configuration.

3   When the validation checks are complete (all items are marked with a green check mark), click **Close**.

4   Click **Close**, and close the Cognos Configuration utility window.

Step 10: Enable SSL on the Cognos Content Manager Server—Optional

Enabling SSL is optional. For more information, see *About enabling Secure Sockets Layer (SSL)* (on page 106).

Prepare the Cognos Report Server

Steps to prepare the Cognos Report Server

All InForm installations with Reporting use a Cognos Report Server.

To prepare the Cognos Report Server:

1 Verify the Oracle database client.

   This step is performed on multiple servers.

   For more information, see *Step 1: Verify the Oracle database client on the Cognos Report Server* (on page 81).

2 Install the Cognos software and updates.

   This step is performed on multiple servers.

   For more information, see *Step 2: Install the Cognos software and updates on the Cognos Report Server* (on page 81).

3 Set up JRE.

   This step is performed on multiple servers.

   For more information, see *Step 3: Set up JRE on the Cognos Report Server* (on page 81).

4 Set up the JDBC driver.

   This step is performed on multiple servers.

   For more information, see *Step 4: Set up the Oracle JDBC driver* (on page 81).

5 Run the CRNConfig Installer.

   This step is performed on multiple servers.

   For more information, see *Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Report Server* (on page 82).

6 Enable SSL—Optional.

   This step is performed on multiple servers.

   For more information, see *Step 6: Enable SSL on the Cognos Report Server—Optional* (on page 82).

7 Update the domain settings for Cognos-generated cookies.

   This step is performed on multiple servers.

   For more information, see *Step 7: Update the domain settings for Cognos-generated cookies on the Cognos Report Server* (on page 82).

Step 1: Verify the Oracle database client on the Cognos Report Server

Before you begin, ensure that you have followed the instructions in *Steps to install and configure the Oracle database client* (on page 40) so that the following requirements are met on the Cognos Report Server:

- The Oracle database client is installed.
- The language registry settings are updated.
- The database connection is configured and verified.

This step is also performed on the Cognos Content Manager Server and the Cognos Gateway Server.

Step 2: Install the Cognos software and updates on the Cognos Report Server

To install the Cognos software and updates on the Cognos Report Server, you must:

- Install the Cognos core software.
- Install the interim fixes.
- Upgrade the Fix Pack.
- Install the hotsite updates.

This step is also performed on the Cognos Content Manager Server and the Cognos Gateway Server.

For more information, see *Install the Cognos software and updates—Cognos Content Manager / Cognos Report Server / Cognos Gateway Server* (on page 90).

Step 3: Set up JRE on the Cognos Report Server

To enable the Cognos software to find the necessary Java components when it runs, you must set the JAVA_HOME environment variable on the Cognos Report Server.

This step is also performed on the Cognos Content Manager Server and the Cognos Gateway Server.

For more information, see *Add the JRE to the JAVA_HOME environment variable* (on page 97).

Step 4: Set up the Oracle JDBC driver

Before running the Cognos Customization for InForm wizard, you must set up the Oracle JDBC driver on the Report Content Server.

1 Download the ojdbc6.jar file from the Oracle support website.

2 Copy the ojdbc6.jar file to the <Cognos_Installation_Directory>\webapps\p2pd\WEB-INF\lib folder.

Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Report Server

The Cognos customization wizard copies customization files and modifies files needed to customize the Cognos 10 BI software for the InForm application.

This step is also performed on the Cognos Content Manager Server.

For more information, see *Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe)—Cognos Content Manager / Cognos Report Server* (on page 97).

Step 6: Enable SSL on the Cognos Report Server—Optional

Enabling SSL is optional. For more information, see *About enabling Secure Sockets Layer (SSL)* (on page 106).

Step 7: Update the domain settings for Cognos-generated cookies on the Cognos Report Server

This procedure ensures that the domain suffix value in the AuthenticationFilter registry setting is used for Cognos-generated cookies.

For more information, see *Update the domain settings for Cognos-generated cookies* (on page 104).

Prepare the Cognos Gateway Server

Steps to prepare the Cognos Gateway Server

All InForm installations with Reporting use a Cognos Gateway Server. The required steps are the same whether you are using a private or public gateway, except where noted.

To prepare the Cognos Gateway Server:

1   Install the Cognos software and updates.

     This step is performed on multiple servers.

     For more information, see *Step 1: Install the Cognos software and updates on the Cognos Gateway Server* (on page 84).

2   Set up the JRE on the Cognos Gateway Server.

     This step is performed on multiple servers.

     For more information, see *Step 2: Set up JRE on the Cognos Gateway Server* (on page 84).

3   Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe).

     This step is performed only on the Cognos Gateway Server.

     For more information, see *Step 3: Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) on the Cognos Gateway Server* (on page 84).

4   Update the DomainSuffix entry for the AuthenticationFilter registry key on the Cognos Gateway Server—Public Gateway only.

     This step is performed on multiple servers.

     For more information, see *Step 4: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Cognos Gateway Server—Public Gateway only* (on page 88).

> **Note:** You must also update the DomainSuffix entry on the InForm Application Server. For more information, see *Step 3: Update the DomainSuffix entry for the AuthenticationFilter registry key on the InForm Application Server—Optional* (on page 58).

5   Enable SSL—Optional.

     This step is performed on multiple servers.

     For more information, see *Step 5: Enable SSL on the Cognos Gateway Server—Optional—Public Gateway only* (on page 89).

Step 1: Install the Cognos software and updates on the Cognos Gateway Server

To install the Cognos software and updates on the Cognos Gateway Server, you must:

- Install the Cognos core software.

- Upgrade the Fix Pack.

- Install the hotsite updates.

This step is also performed on the Cognos Content Manager Server and the Cognos Report Server.

For more information, see *Install the Cognos software and updates—Cognos Content Manager / Cognos Report Server / Cognos Gateway Server* (on page 90).

Step 2: Set up JRE on the Cognos Gateway Server

To enable the Cognos software to find the necessary Java components when it runs, you must set the JAVA_HOME environment variable on the Cognos Gateway Server.

This step is also performed on the Cognos Content Manager Server and the Cognos Report Server.

For more information, see *Add the JRE to the JAVA_HOME environment variable* (on page 97).

Step 3: Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) on the Cognos Gateway Server

The Cognos Gateway Customization for InForm wizard configures the Cognos 10 BI Gateway services component to work with the InForm application.

> **Note:** You run this wizard to configure a public gateway to be used with the Reporting and Analysis module, or to configure a private gateway with restricted access to the Cognos 10 BI Reporting software.

1 Copy the CRNGatewayConfig folder from the InForm installation image to a location that you can access from the Cognos Gateway Server.

2 On the Cognos Gateway Server, run the CRNGatewayConfig\setup.exe program file.

The Choose Setup Language page appears.

3 Select the language you want the wizard to use during setup. Select either English or Japanese. English is the default. Click **Next**.

The Cognos 10 BI Welcome Screen appears.

4 Click **Next**.

The Cognos 10 BI Installation Location page appears.

5 Specify the path to the location of the Cognos 10 BI software, and click **Next**.

The Java Runtime Environment Information page appears.
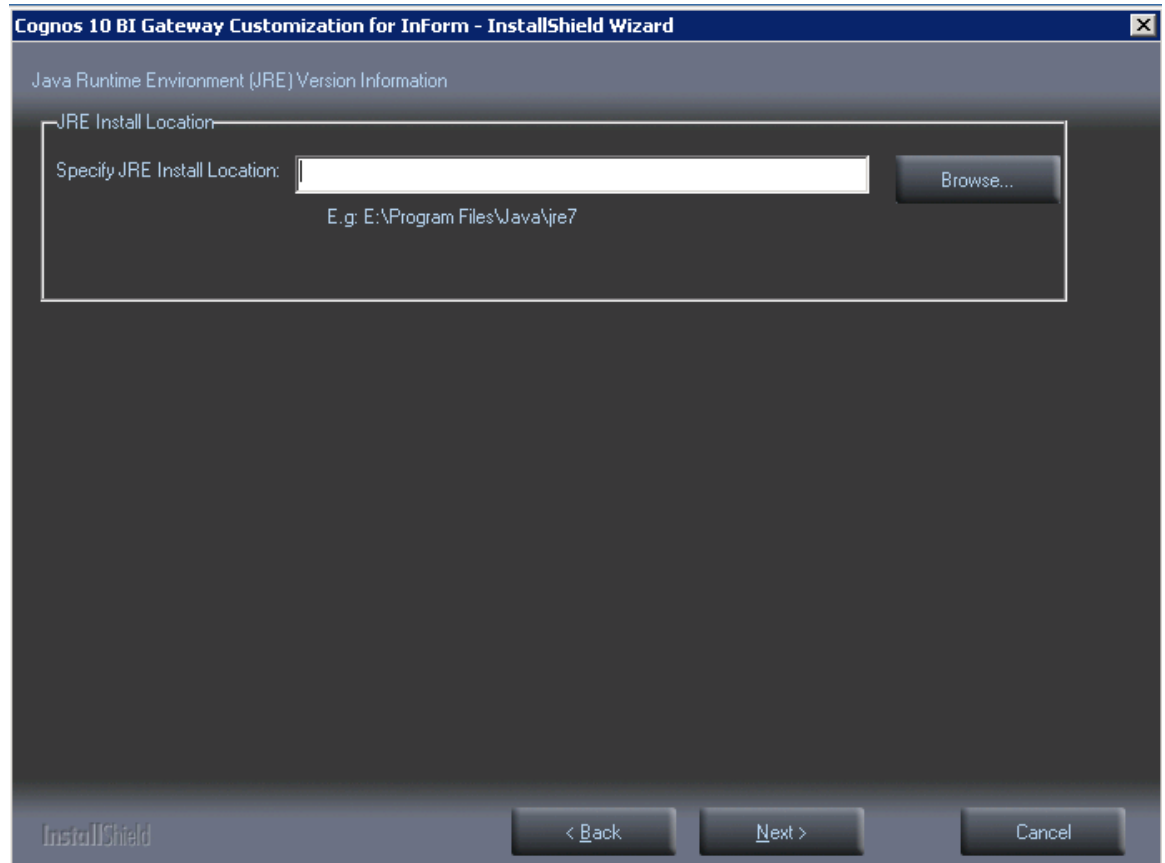
6   Browse to the location where the JRE is installed, and click **Next**.

The Setup Type page appears.
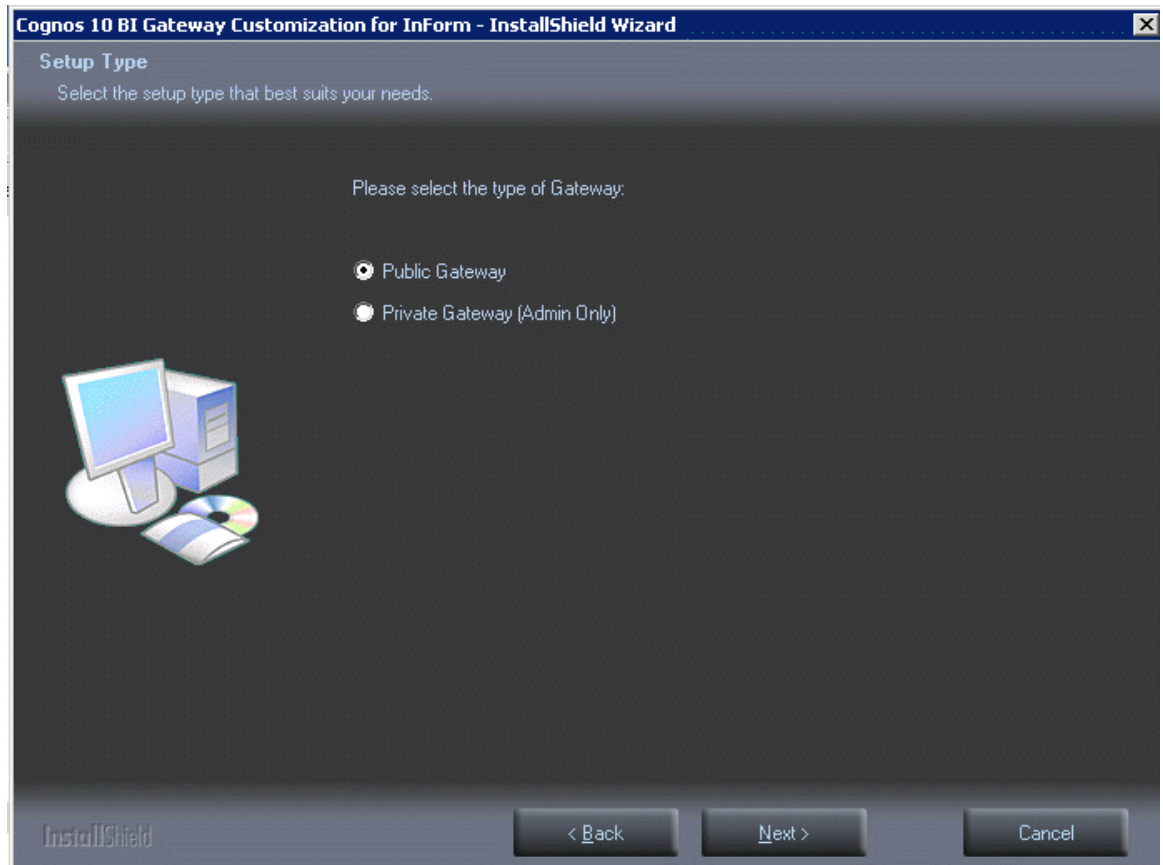
7   Do one of the following, and click **Next**.

- Select Public Gateway to set up a gateway to manage communication between the InForm application and the Reporting and Analysis module.

- Select Private Gateway (Admin Only) to perform administrative functions on the Cognos 10 BI Reporting software.

> **Note:** Access to a Private Gateway server should be restricted to a limited group of users who need to administer the Cognos 10 BI Reporting software.

The Cognos 10 BI Setup File Locations page appears.
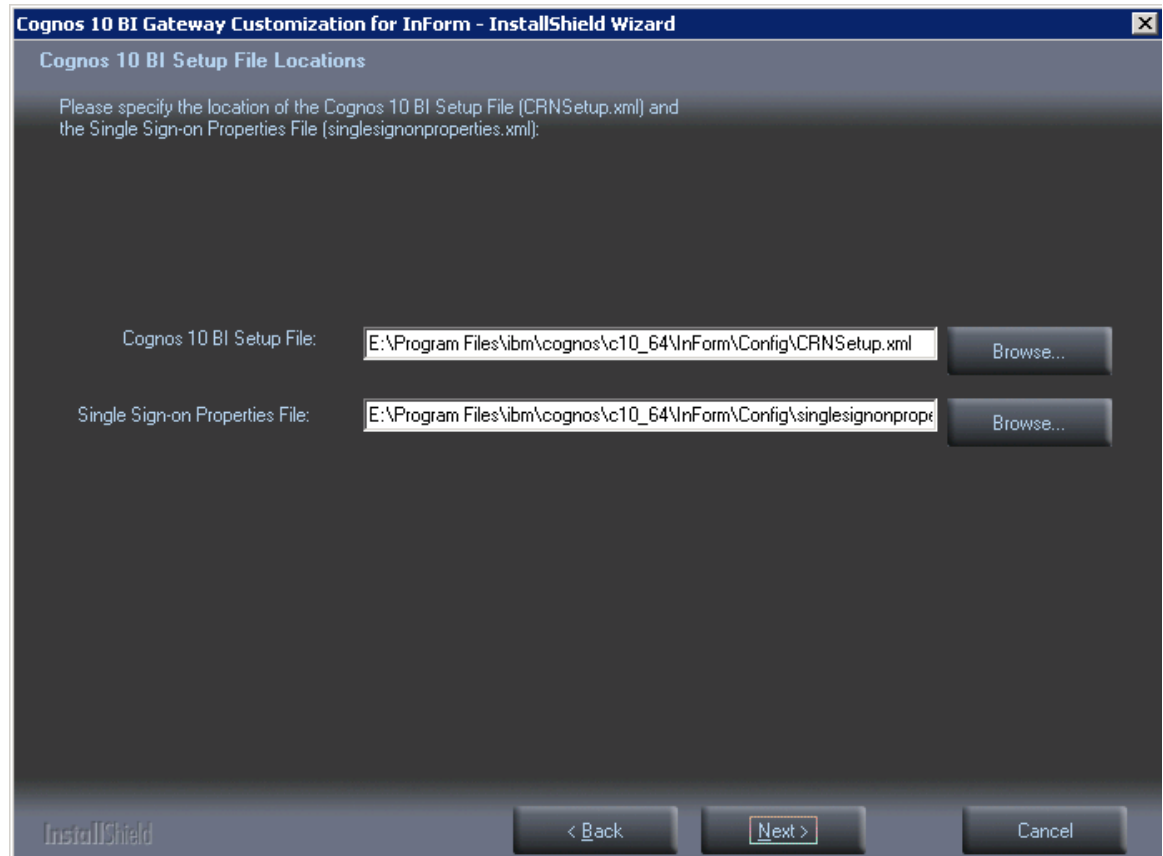
8   Browse to the **CRNSetup.xml** and the **singledesignonproperties.xml** files that were created by the Cognos 10 BI Customization for InForm wizard, and click **Next**.

The Ready to Install the Program page appears.

9   Click **Install**.

The Setup Status page appears.

The program installs, and the World Wide Web Publishing Service restarts.

The Wizard Complete page appears.

10   Click **Finish**.

Step 4: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Cognos Gateway Server—Public Gateway only

If you are installing Cognos Reporting, you must update the DomainSuffix entry for the Oracle AuthenticationFilter registry key if any of the following is true on the Cognos Gateway Server:

- You use proxy servers for the Cognos Gateway Server and the InForm Application Server.

- The fully qualified domain name (FQDN) for either server does not end with a common domain suffix.

  The FQDN is registered in the Oracle AuthenticationFilter DomainSuffix entry during installation of the InForm Application Server and the Cognos Gateway Server. If the FQDN for both installations ends in a common domain suffix such as **.net**, **.com**, **.org**, **.edu,** or **.gov** (with or without a country name like **.uk** or **.au**), you do not need to update the DomainSuffix entry unless you use proxy servers.

- The FQDN has just two levels (for example: <*servername*>.com).

> **Note:** You must also update the DomainSuffix entry on the InForm Application Server. For more information, see *Step 3: Update the DomainSuffix entry for the AuthenticationFilter registry key on the InForm Application Server—Optional* (on page 58).

Perform the DomainSuffix configuration on both the Cognos Gateway Server and the InForm Application Server. Both machines *must* have identical AuthenticationFilter entries for DomainSuffix.

1 In the **Windows Registry Editor**, navigate to the following Windows Registry key:

   HKEY_LOCAL_MACHINE\SOFTWARE\ORACLEHS\AuthenticationFilter

2 Update the entry for **DomainSuffix:**

   a Right-click the entry, and select **Modify**.

      The Edit String dialog box appears.

   b Enter the new value in the **Value Data** field.

      - If you use proxy servers, or if the FQDN for either server does not end with a common domain suffix, remove every part of the domain suffix that is not identical on both computers. For example, if the FQDN includes <s*ervername*>.<*companyname*>.co.uk, after the edit, the entry would be <*companyname*>.co.uk.

      - If the InForm software and Cognos 10 BI are installed on the same machine, and the FQDN has only two nodes such as <*servername*>.com, you must include the server name and the domain suffix in the entry. In the above example, the entry would read <*servername*>.co.uk.

   c Click **OK**.

3 Exit the **Windows Registry Editor**.

4 Restart IIS.

5 On the InForm Application Server, restart the InForm Service.

Step 5: Enable SSL on the Cognos Gateway Server—Optional—Public Gateway only

Enabling SSL is optional. For more information, see *About enabling Secure Sockets Layer (SSL)* (on page 106).

Common steps for Reporting application servers

Install the Cognos software and updates—Cognos Content Manager / Cognos Report Server / Cognos Gateway Server

The Cognos 10 BI software installation process installs:

- Cognos 10 BI Application Tier Components
- Cognos 10 BI Gateway services
- Cognos 10 BI Content Manager

You install the Cognos software and updates on the following Reporting servers:

- Cognos Content Manager Server

  For more information, see *Step 2: Install the Cognos software and updates on the Cognos Content Manager Server* (on page 76).

- Cognos Report Server

  For more information, see *Step 2: Install the Cognos software and updates on the Cognos Report Server* (on page 81).

- Cognos Gateway Server

  For more information, see *Step 1: Install the Cognos software and updates on the Cognos Gateway Server* (on page 84).

Install the Cognos 10.2.2 software

You install the Cognos software on the following reporting servers:

- Cognos Content Manager Server
- Cognos Report Server
- Cognos Gateway Server

1   Download the **bi_svr_64b_10.2.2_win_ml.tar.gz** file from the Oracle Download Center, extract the archive file, and navigate to the issetup.exe file in the \Win64 folder.

2   Double-click **issetup.exe**.

The Welcome page of the installation wizard appears.

3   Select the language to use for the installation, and click **Next**.

The License Agreement page appears.

4   Read the license agreement, select **I accept**, and click **Next**.

The Installation Location page appears.

5   In the **Installation Directory** field, browse to or type the drive and destination folder for Cognos 10 BI Reporting (for example E:\cognos\c10), and click **Next**.

If the **Folder does not exist** message appears, click **Yes** to create the folder.

The Component Selection page appears.
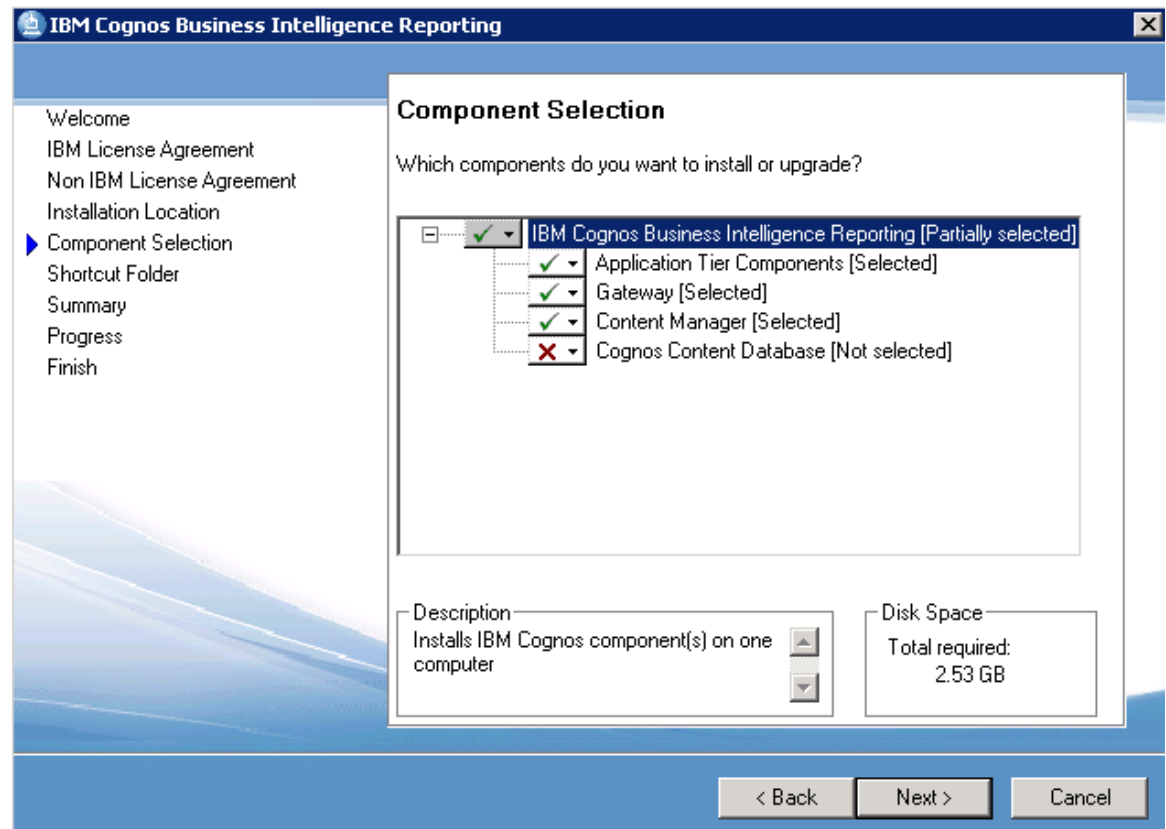
6   Select the appropriate component or components depending on your server configuration.

For example, in a distributed environment you would:

- Select Application Tier Components for the Cognos Report Server.

- Select Gateway for the Cognos Gateway Server.

- Select Content Manager for the Cognos Content Manager Server.

7   Make sure that the Cognos Content Database is *not* selected, and click **Next**.

The Shortcut Folder page appears.

8   Accept the default Program folder, and click **Next**.

The Installation Summary page appears.

9   Review the installation summary, and click **Next**.

The installation program installs the components that you selected. This takes several minutes. When the component installation is complete, the Finish page appears.
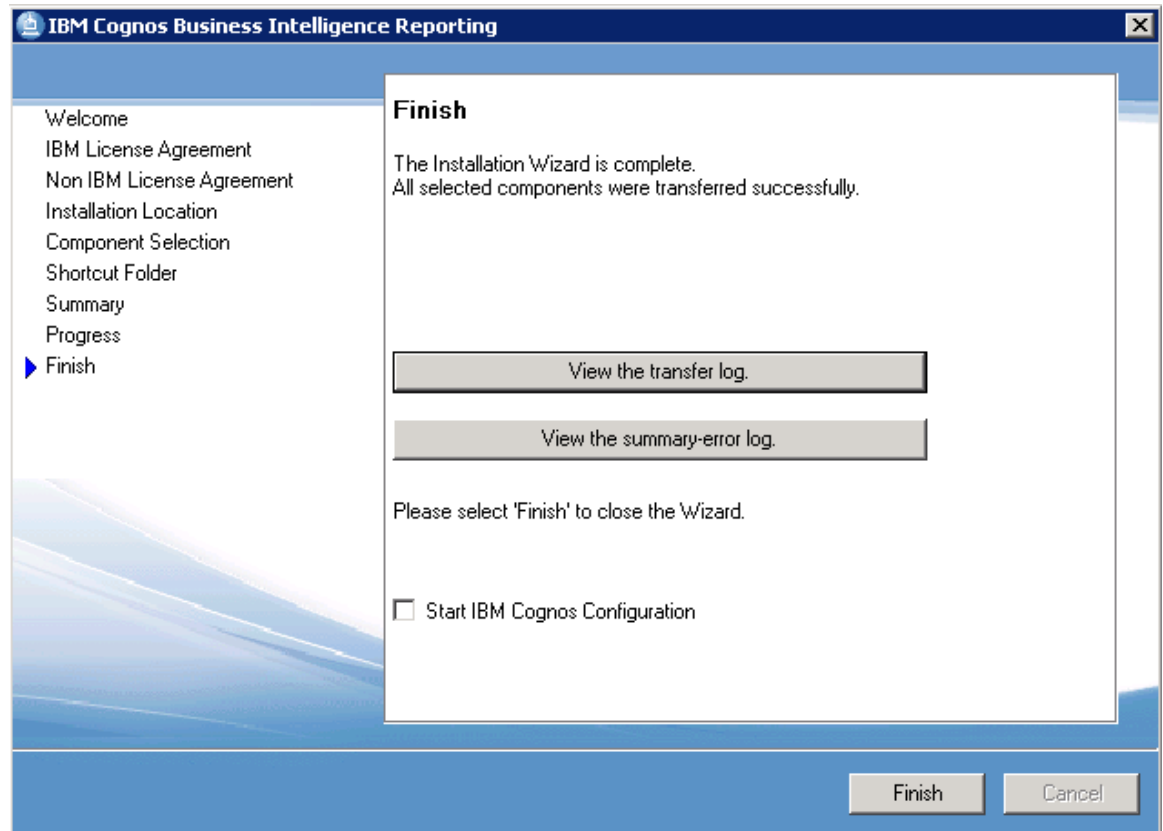
10 On the Finish page:

- To view the transfer log or the summary-error log, click the appropriate **View** button.

- To view the readme file, select **View Cognos Readme**.

- Verify that **Start IBM Cognos Configuration** is *not* selected.

11 Click **Finish**.

Install the 10.2.2 hotsite updates

In addition to the Cognos 10 BI software, you must install the following hotsite updates:

- up_bisrvr_winx64h_10.2.6100.1032_ml.tar.gz

- up_bisrvr_winx64h_10.2.6100.1037_ml.tar.gz

- up_bisrvr_winx64h_10.2.6104.1072_ml.tar.gz

> **Note:** The 10.2.6104.1072 hotsite must be installed after you have installed Fix Pack 1 and Interim Fix 6. For more information, see *Install hotsite 10.2.6104.1072* (on page 96).

You install the Cognos software hotsite updates on the following reporting servers:

- Cognos Content Manager Server

- Cognos Report Server

- Cognos Gateway Server

1   Download each hotsite TAR file from the Oracle Download Center, extracting each archive file into a different folder from the folder where you originally downloaded the Cognos 10.2.2 software and the other hotsites.

   You must perform this procedure for each hotsite update. The following hotsites are required for this Cognos installation, and must be installed in the following order:

   a   10.2.6100.1032

   b   10.2.6100.1037

2   Navigate to the ...\win64 folder for each hotsite, and double-click **issetup.exe**.

   The Welcome page of the upgrade wizard appears.

3   Select the language to use for the installation, and click **Next**. English is the default language.

   The License Agreement page appears.

4   Read the license agreement, select **I agree**, and click **Next**.

   The Installation Location page appears.

5   In the **Installation Directory** field, browse to or type the same drive and destination folder that you specified for the initial installation of the Cognos 10 BI Reporting software (for example C:\cognos\c10), and click **Next**.

   The Shortcut Folder page appears.

6   Accept the default Program folder, and click **Next**.

   The Installation Summary page appears.

7   Review the installation summary, and click **Next**.

   When the installation is complete, the Finish page appears.

8   To review the transfer log or summary-error log, click the appropriate **View** button.

9   Click **Finish**.

10 Repeat this procedure for each of the hotsites listed in Step 1.

Upgrade Cognos 10.2.2 software to Fix Pack 1

You install the Cognos software fix packs on the following reporting servers:

- Cognos Content Manager Server

- Cognos Report Server

- Cognos Gateway Server

1   Download the **up_bisrvr_winx64h_10.2.6101.79_ml.tar.gz** file from the Oracle Download Center, extract the archive file into a different folder from the folder where you originally downloaded the Cognos 10.2.2 software, and navigate to the issetup.exe file in the \Win64 folder.

2   Double-click **issetup.exe**.

    The Welcome page of the upgrade wizard appears.

3   Select the language to use for the installation. English is the default. Click **Next**.

    The License Agreement page appears.

4   Read the license agreement, select **I agree**, and click **Next**.

    The Installation Location page appears.

5   In the **Installation Directory** field, browse to or type the same drive and destination folder that you specified for the initial installation of Cognos 10 BI Reporting (for example C:\cognos\c10), and click **Next**.

    The Shortcut Folder page appears.

6   Accept the default Program folder, and click **Next**.

    The Installation Summary page appears.

7   Review the installation summary, and click **Next**.

    When the installation is complete, the Finish page appears.

8   To review the transfer log or summary-error log, click the appropriate **View** button.

9   Click **Finish**.

Install the 10.2.2 Interim Fix

In addition to the installation of the Cognos 10 BI software, you must install the following interim fix updates:

- up_bisrvr_winx64h_10.2.6102.502_ml.tar.gz

You install the Cognos software interim fix updates on the following reporting servers:

- Cognos Content Manager Server
- Cognos Report Server
- Cognos Gateway Server

1 Download each interim fix TAR file from the Oracle Download Center, extracting each archive file into a different folder from the folder where you originally downloaded the Cognos 10.2.1 software and the other interim fixes and hotsites.

 You must perform this procedure for each interim fix update. The following interim fixes are required for this Cognos installation, and must be installed in the following order:

 a 10.2.6102.502

2 Navigate to the ...\win64 folder for each interim fix, and double-click **issetup.exe**.

 The Welcome page of the upgrade wizard appears.

3 Select the language to use for the installation, and click **Next**. English is the default language.

 The License Agreement page appears.

4 Read the license agreement, select **I agree**, and click **Next**.

 The Installation Location page appears.

5 In the **Installation Directory** field, browse to or type the same drive and destination folder that you specified for the initial installation of the Cognos 10 BI Reporting software (for example C:\cognos\c10), and click **Next**.

 The Shortcut Folder page appears.

6 Accept the default Program folder, and click **Next**.

 The Installation Summary page appears.

7 Review the installation summary, and click **Next**.

 When the installation is complete, the Finish page appears.

8 To review the transfer log or summary-error log, click the appropriate **View** button.

9 Click **Finish**.

Install hotsite 10.2.6104.1072

> **Note:** Install Cognos hotsite update **10.2.6104.1072** after you have installed Fix Pack 1 and Interim Fix 6.

Install the Cognos hotsite update 10.2.6104.1072 on the following reporting servers:

- Cognos Content Manager Server
- Cognos Report Server
- Cognos Gateway Server

1 Download up_bisrvr_winx64h_10.2.6104.1072_ml.tar.gz file from the Oracle Download Center, extracting the archive file into a different folder from the folder where you originally downloaded the Cognos 10.2.2 software and the other hotsites.

2 Navigate to the ...\win64 folder for each hotsite, and double-click **issetup.exe**.

   The Welcome page of the upgrade wizard appears.

3 Select the language to use for the installation, and click **Next**. English is the default language.

   The License Agreement page appears.

4 Read the license agreement, select **I agree**, and click **Next**.

   The Installation Location page appears.

5 In the **Installation Directory** field, browse to or type the same drive and destination folder that you specified for the initial installation of the Cognos 10 BI Reporting software (for example C:\cognos\c10), and click **Next**.

   The Shortcut Folder page appears.

6 Accept the default Program folder, and click **Next**.

   The Installation Summary page appears.

7 Review the installation summary, and click **Next**.

   When the installation is complete, the Finish page appears.

8 To review the transfer log or summary-error log, click the appropriate **View** button.

9 Click **Finish**.

Add the JRE to the JAVA_HOME environment variable

Set the JAVA_HOME environment variable to the path for the Java Runtime Environment 1.7 (for example, C:\Program Files\Java\jre7) on the following reporting servers:

- Cognos Content Manager Server

  For more information, see *Step 3: Set up JRE on the Cognos Content Manager Server* (on page 76).

- Cognos Report Server

  For more information, see *Step 3: Set up JRE on the Cognos Report Server* (on page 81).

- Cognos Gateway Server

  For more information, see *Step 2: Set up JRE on the Cognos Gateway Server* (on page 84).

Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe)— Cognos Content Manager / Cognos Report Server

To customize the Cognos 10 BI software for the InForm environment, you run installation and configuration wizards.

You run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the following reporting servers:

- Cognos Content Manager Server

  For more information, see *Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Content Manager Server* (on page 77).

- Cognos Report Server

  For more information, see *Step 5: Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) on the Cognos Report Server* (on page 82).

1 Copy the CRNConfig folder from the InForm installation image to a location that you can access from the Cognos Content Manager Server and the Cognos Report Server.

2 On the Cognos Content Manager Server and the Cognos Report Server, run the **CRNConfig\setup.exe** program file.

   The Choose Setup Language window appears.

3 Select the language you want the wizard to use during setup. Select either English or Japanese. English is the default. Click **Next**.

   The Welcome page appears.

4 Click **Next**.

   The Cognos 10 BI Installation Location page appears.

5 Specify the folder in which the Cognos 10 BI Content Manager is installed, and click **Next**.

The Java Runtime Environment (JRE) Version Information page appears.
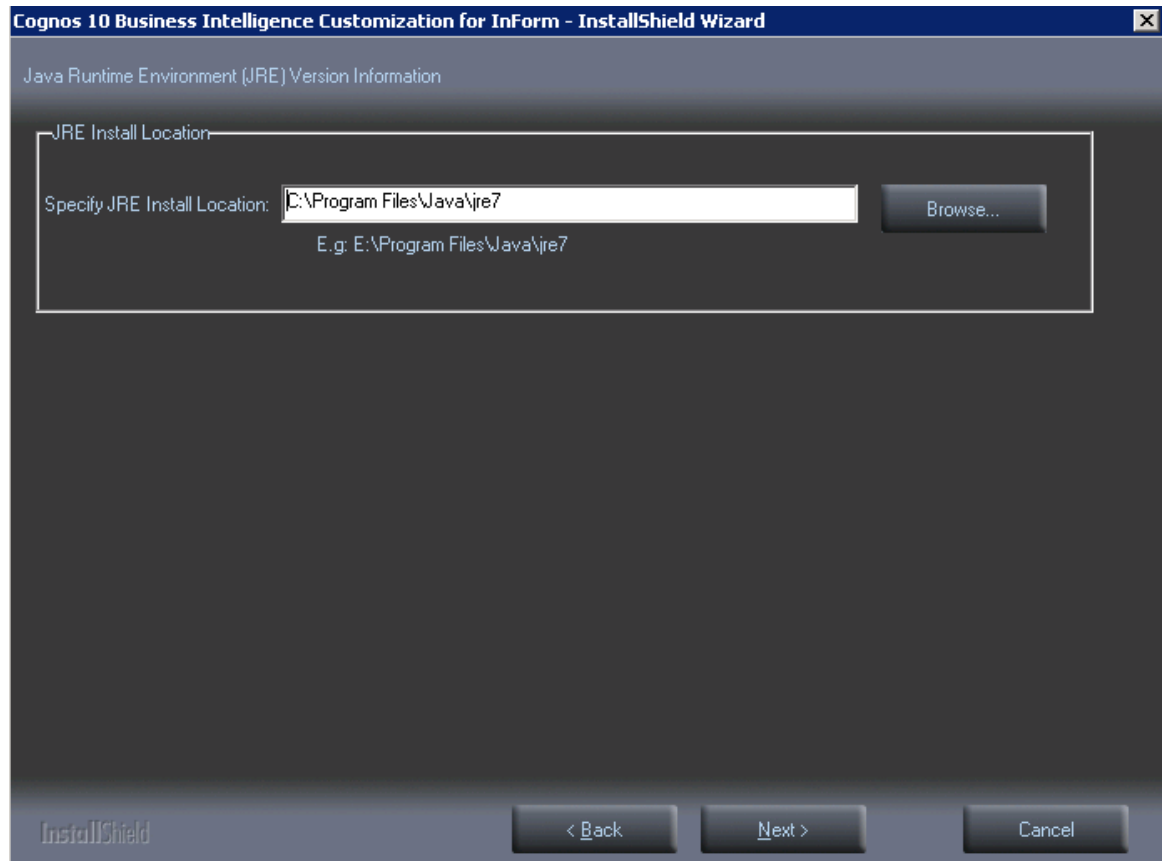
6   Browse to the location where the JRE is installed, and click **Next**.

The Setup Type page appears.

7   Select the memory model (Small, Medium, or Large) that is most appropriate for your business, and click **Next**.

> **Note:** You can change this later if you select the wrong size.

The Cognos Content Store and Application Firewall page appears.

8   Enter the following values.

Field	Description
Database server	Fully qualified domain name of the database server where the Cognos 10 BI Content Store schema is installed.
Port	Port number for communicating with the database server.
SID	SID for communicating with the database server.
User Name	User name of the Oracle user in the Cognos 10 BI content store database. You created this user when you configured the Cognos 10 BI content store database.
Password, Confirm Password	Cognos 10 BI user in the Cognos content store database.
Valid Domain or Host	Comma-separated list of domain or host names, for example *.company.com,*.companycorp.com.

9   Click **Next**.

The Custom Authentication Provider Configuration and Single Sign-On Information page appears.

10 Enter the following values.

Field	Description
Database server	Fully qualified domain name of the user that contains the TRIAL_URLS table.
Port	Port number for communicating with the database server.
SID	SID for communicating with the database server.
User Name	The name of the PFCapAdmin user.
Password, Confirm Password	Password of the PFCapAdmin user.
Trust the user for InForm Model Generation Service (No Authentication Required)	Select to allow the pfreportinguser to have access to the InForm Model Generation Service.
Integrated with Single Sign-on	Select to enable Single Sign-on. **Note:** This selection, and the following two options should be selected only if your application is running in an Oracle-hosted, single sign-on environment.

Cognos Content Manager Component is installed on the computer	Select if you are enabling SSO, and you are installing the CRNConfig wizard on the Content Manager Server.
OAM ASDK Install Location	If you are using SSO, enter the path to the Oracle Access Management Access SDK location.

11 Select **Trust the user for InForm Model Generation Service (No Authentication Required)**.

12 Click **Next**.

The Specify the Cognos Web Server (Gateway or IIS server) page appears.
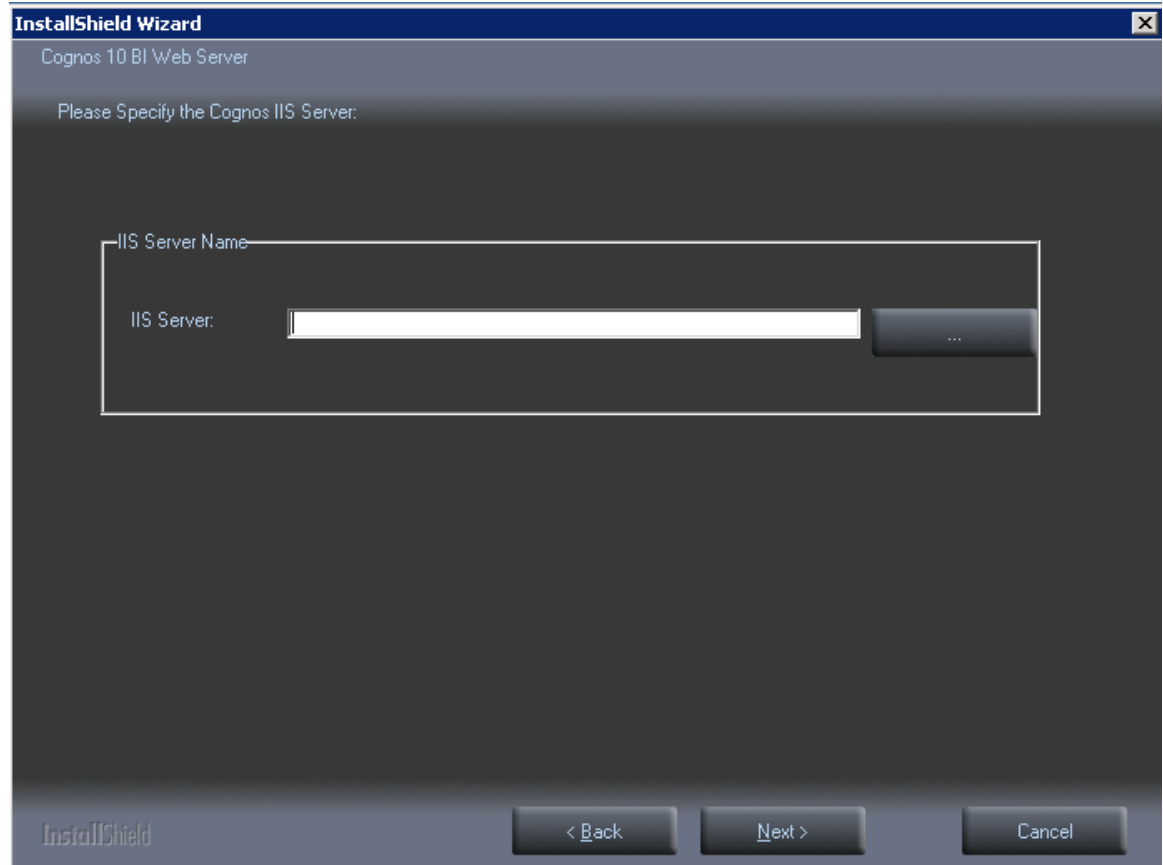
13 Type the fully qualified domain name of the Cognos 10 BI Gateway server, or click **Browse** to select it from the dialog box.

14 Click **Next**.

The LDAP Configuration Information page appears.

15 Enter the following values.

Field	Description
LDAP Server	Fully qualified domain name of the server where the Oracle Directory Server is installed.
LDAP Port	Port number used to communicate with the LDAP server.
Administrator DN	Distinguished Name of the administrator of the server. Use the format and values shown beneath the field.
	Note: The Administrator DN value corresponds to an LDAP user who has READ and SEARCH access to the Base Distinguished Name (BDN). The BDN specifies the top level or root of the directory structure, which is the starting place for searches.
Password, Confirm Password	Password of the administrator.

Field	Description
Parent Node DN	Distinguished name of the Parent Node. Use the format shown beneath the field. (Do not enter spaces after the commas between the parts of the domain.)
	Note: The Parent Node DN is also known as the Base Distinguished Name (BDN). The BDN specifies the top level or root of the directory structure, which is the starting place for searches.
Cognos Admin OU	The Cognos Admin organizational unit.

16 Click **Next**.

The Ready to Install the Program page appears.

17 Click **Install**.

The Setup Status page appears.

The program copies the necessary files and creates the CRNSetup.xml and singlesignonproperties.xml files in an InForm subfolder under the Cognos installation (...\InForm\Config). The name and location of the files appears in a message window. You need to supply the location of these files when you install the Cognos 10 BI Gateway Customization for InForm.

18 The Wizard Complete page appears.

19 Click **Finish**.

Create the ORACLEHS LDAP namespace

You create the ORACLEHS LDAP namespace on the Cognos Content Manager Server. For more information, see *Step 6: Create the ORACLEHS LDAP namespace on the Content Manager Server* (on page 77).

Run this procedure each time you run the InForm CRNConfig wizard.

1 On the server where Cognos 10 BI is installed, select **Start > All Programs > IBM Cognos 10 - 64 > Cognos Configuration**.

The Cognos Configuration window appears.

2 In the Security tree, right-click **Authentication**, and select **New resource > Namespace**.

The New Resource - Namespace dialog box appears.

3 Enter the following values:

• **Name**—ORACLEHS (all uppercase)

• **Type**—Select **LDAP - General default values** from the drop-down list.

4 Click **OK**.

5   Complete the parameters as follows:

- **Namespace ID**—ORACLEHS

- **Host and Port**—*<fullyqualifiedmachinename>*: *<LDAPServerPort>*

  (For example, port number: 389)

- **Base distinguished name**—Domain name for your environment. For example, if the
  network domain is hof.com, ou=ORACLEHS,dc=hof,dc=com

  > **Note:** Do not enter spaces after the commas between the parts of the domain.

- **User lookup**—(uid=${userID})

6   Select **File > Save**.

The Cognos Configuration utility validates the settings and saves the configuration.

7   When the validation checks are complete (all items are marked with a green check mark), click
Close.

8   Click **Close**, and close the Cognos Configuration utility window.

Update the domain settings for Cognos-generated cookies

1   On the server where Cognos 10 BI is installed, select **Start > All Programs > IBM Cognos 10 >
Cognos Configuration**.

The Cognos Configuration window appears.

2   Select Actions > Edit Global Configuration.

The Global Configuration window appears.

3   Select the General Tab.

4   Edit the **Cookie Settings > Domain** value to match the value in the **DomainSuffix** value in the
HHKEY_LOCAL_MACHINE\Software\OracleHS\AuthenticationFilter DomainSuffix
registry key.

For example, if the DomainSuffix value is **mycompany.com,** enter **.mycompany.com** for the
Domain value.

> **Note:** You must change the Domain settings in the Cognos Configuration utility whenever the
> AuthenticationFilter DomainSuffix registry setting is changed.

C H A P T E R 7
Enable Secure Sockets Layer (SSL)

In this chapter

About enabling Secure Sockets Layer (SSL)

Secure Sockets Layer (SSL) enables secure communications between servers.

Enabling SSL is optional. However, Oracle recommends that you enable SSL for all InForm installations.

If you choose to use SSL, you must set up your environment to support SSL on all servers, and then you must enable SSL to be active in each study.

If you are using Cognos Reporting:

- You can enable SSL on the InForm servers when you install the InForm core software.

- You can enable SSL on the Reporting servers after you install them, or wait until after the Cognos installations are complete, and then enable SSL on all of the servers.

Set up your environment to support SSL

To enable your InForm installation to use SSL, perform the following steps on all servers.

1   Create and set up a key certificate.

2   Install key certificates.

3   Import key certificates.

4   Verify the key certificate installation.

If you are using Reporting and are using a SameDB configuration, perform the following additional steps on the InForm Application Server and the Cognos Gateway Server:

1   Configure Cognos Report Server and Cognos Content Manager to use SSL.

2   Configure the Cognos Gateway Server to use SSL.

> Note: This step is required only if you are using Reporting and using a public gateway.

Steps to perform on all servers

If you choose to use SSL, you must set up key certificates on all servers, regardless of your configuration.

Create and set up a key certificate for SSL in IIS

1   Open **Internet Information Services (IIS) Manager**.

2   Open the **<*machine_name*>** node.

3   Go to the **IIS Group > Feature View** and select **Server Certificate**.

4   From the **Actions** view, click **Open Features**.

5   From the resulting **Actions** view, select **Create Certificate Request**.

6   The Request Certificate Wizard opens.

7   Complete the **Request Certificate** page. Specify the name of the study server in the **Common name** field, including the FQDN (for example: <*machine_name*>.example.com).

8   Click **Next**.

9   Leave all default values in **Cryptographic Service Provider Properties** and click **Next**.

10 Click **Browse**.

11 Specify the certificate request name and folder details.

12 Click **Save**.

13 Click **Open**. The file name appears in the text box.

14 Click **Finish**.

Install a key certificate on the server machine in IIS

1   Open your browser and go to the security certificate server URL:
    http://<*Windows_2008_security_certificate_server*>/<*certificate _request_page*>.

2   Click **Request a certificate**.

3   Click **Advanced certificate request**.

4   Click **Submit a certificate request by using a base-64-encoded**.

5   Copy all the text in certreq.txt file in the first text field of the saved request.

6   Click **Submit**.

7   Select **Base 64 encoded**.

8   Click **Download certificate**.

9   Save to c:\certnew.cer.

10 Click **Download certificate chain**.

11 Save to c:\certnew.p7b.

12 Go to Internet Information Services Manager to complete the certificate request.

13 Select the <*machine_name*> node.

14 From the **Feature View**, select **Server Certificate** under IIS group.

15 From the **Actions** view, select **Open Feature**.

16 From the **Actions** view, select **Complete Certificate Request**.

17 Browse to c:\certnew.cer and give the **Friendly name** as machine name, and click **Next**.

18 Set the SSL port to the port number for the study server. The default is 443.

19 Click **OK**.

20   Go to C:\ directory. Right click on c:\certnew.p7b.

21 Select **Install Certificate,** and click **Next**.

22 Click **Next** again, and click **Finish**.

23 Click **Yes** in the **Security Warning** dialog box.

24 Click **OK** on the confirmation dialog box.

25 Set the **Binding for Default Websites**.

26 Go to IIS Manager.

27 Select the <machine_name> node.

28 Open the **Web Sites** node.

29 Click **Edit Site > Bindings**, and click **Add**.

30 Select the certificate type as **Https** and **SSL**.

31 Click **View**. Verify that there is no red exclamation mark for the Certificate.

Import the new key certificate to the local computer and the current user

1   Go to **Start > Run**, and type **mmc**.

2   From the Console screen, go to **file > Add/Remove Snap-in**.

3   Click **Available snap-ins > Certificates > Add**.

4   Select **My user account**, and select **Finish**.

5   Click **Available snap-ins > Certificates > Add**.

6   Select **Computer account**, select **Next > Finish**, and click **OK**.

7   Go to **Certificates > Current User**.

8   Expand **Trusted Root Certificate Authorities**.

9   Right-click **Certificates** and select **Import**.

10 Browse to the certificate you created, select it, and complete the wizard, using all defaults.

11 Repeat steps 8 through 10 for **Certificates > Local Computer**.

> **Note:** Make sure **<Windows_2008_security_certificate_server>** is listed in the trusted roots of the certificate store for both the **current user** and the **local computer.** If it is not there, export it from the **current user,** save it to the disk, and import it to the **local computer.**

Verify the key certificate installation

1   Open a browser window.

2   Type:

    https://<*machine_name*>.<*domain_name*>.com

    The Security Alert window appears.

3   Verify that the date and name for the certificate are valid.

Additional steps to perform if you are using Reporting with a SameDB configuration

If you are using Reporting, and the InForm study database and the Reporting database share the same instance, you must configure the Cognos software and reporting servers to use SSL.

Configure Cognos 10 BI to use SSL—Reporting only

> **Note:** This step is required only if you are using Reporting.

Use this procedure to update the Web Content URL and Gateway URI entries for SSL. Perform this procedure on the Cognos Gateway Server where the Cognos 10 BI Gateway services are installed.

1   On the Cognos Gateway server, click **Start > All Programs > Cognos10 > Cognos Configuration**.

2   After the Cognos Configuration utility is completely loaded, select **Portal Services** and update the **Web Content URI** entry:

   `https://<servername>.<domainname>:<portnumber>/COGNOS10`

   > **Note:** Be sure to change the port number to the port for HTTPS.

   For example:

   https://www.example.com:443/cognos10

3   Select **Environment** and update the **Gateway URI** entry:

   `https://<servername>.<domainname>:<portnumber>/cognos10/cgi-bin/cognosisapi.dll`

   > **Note:** Be sure to change the port number to the port for HTTPS.

   For example:

   https://www.example.com:443/cognos10/cgi-bin/cognosisapi.dll

4   Select **File > Save**.

   The Cognos Configuration utility validates the settings and saves the configuration.

5   When the checks are complete (all items are marked with a green check mark), click **Close**.

6   Click **Close**, and close the Cognos Configuration utility window.

Configure the Cognos Gateway Server to use SSL—Reporting only

> **Note:** This step is required only if you are using Reporting and a public gateway.

If you install Cognos 10 BI on its own dedicated server, you must configure IIS to work with Windows 2008.

On the server where the Cognos 10 BI Reporting Gateway services are installed:

1   Navigate to **Control Panel > Administrative Tools > Internet Information Services (IIS) Manager**, and expand the node for the local computer.

2   Select **ISAPI and CGI Restrictions**.

3   Make sure that the following options are set to **Allowed**:

- All unspecified CGI modules.

- All unspecified ISAPI modules.

- ASP.NET v2.0.50727.

- WebDAV.

- Active Server Pages.

Enable SSL for each study

If you choose to use SLL, you must enable SSL to be active for each study.

After you complete the InForm installation and set up your environment to support SSL, you must

- Enable the SSL System Configuration option for each study.

  You can set this option in the InForm Admin user interface or with the MedML Installer utility.

- Configure InForm web services to enable SSL.

Enable SSL through the InForm Admin user interface

1 Log in to the InForm application as a user with system administration rights.

2 Click **Admin > Configuration**.

3 Set the **Enable SSL** option to **on**.

4 If you are setting up the Reporting and Analysis module, change the **Reporting service full url** option to start with **https://** and to include a port number.

5 Click **Update**.

6 Stop and restart the study with the following commands

```
pfadmin stop trial <studyname>
pfadmin start trial <studyname>
```

Enable SSL with the MedML Installer utility

1 Create an XML file with the following entry:

```
<MEDMLDATA>
<SYSCONFIG CONFIGNAME="SSLFLAG" TYPE="0" VALUE="1" />
<MEDMLDATA/>
```

2 If you are setting up the Reporting and Analysis module, include the following definition in the XML file, and change the value of the URL for the reporting server to start with https://.

```
<SYSCONFIG CONFIGNAME="REPORTINGSERVER" TYPE="0" VALUE="https://<url>" />
```

3 Stop the study with the following command:

```
pfadmin stop trial <studyname>
```

4 Install the configuration options with the MedML Installer utility.

For more information, see the *Utilities Guide.*

5 Restart the study with the following command:

```
pfadmin start trial <studyname>
```

Configure the InForm study web services to use SSL

Use the pfadmin command to configure the active web services for each study:

pfadmin config webservice *<studyname>* *<webservicename>* **ADD HTTPS:***<port>*
cert:*<thumbprint>*

For example to configure the DeploymentService, AuthService, and ODMSubmitService web services for pfst61:

pfadmin config webservice pfst61 DeploymentService ADD HTTPS:14040
cert:73616d706c657468756d627072696e74
pfadmin config webservice pfst61 AuthService ADD HTTPS:14041
cert:73616d706c657468756d627072696e74
pfadmin config webservice pfst61 ODMSubmitService ADD HTTPS:14042
cert:73616d706c657468756d627072696e74

For more information, see *Step 3: Set up a skeletal study* (on page 55) and *pfadmin* (on page 163).

Set up your environment to use Transport Layer Security (TLS)

To enable Transport Layer Security (TLS):

1   Create the following Windows registry keys:

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2\Client

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2\Server

2   For the Client and Server entries, enter the following DWord and Value entries:

- DisabledByDefault=00000000

- Enabled=00000001

PART 3: POST-INSTALLATION TASKS

C H A P T E R 8
Post-installation tasks

In this chapter

Enable communication among distributed Cognos 10 BI software components

If you install one or more Application Tier Components on a separate server, to ensure that they can communicate with other Cognos 10 BI reporting components:

- Configure cryptographic properties.

- Specify all Content Manager URIs.

- Specify the Dispatcher URIs.

- Specify the Dispatcher URI for external applications.

- Configure the Cognos Report Server Notification Store property to point to the Content Store database. This is described in the online Help notes in the Cognos Configuration utility.

> **Note:** This is only necessary if you are using a multiple server environment where the **Cognos Report Server** and the **Cognos Content Manager** are on separate servers.

For more information, see the Cognos 10 BI documentation.

Enable clinical model generation in a multi-server environment

If your Cognos environment contains multiple Cognos servers, set the following on all the dispatchers:

1   Log in to the Cognos server using a Private Gateway.

    For more information about Private Gateways, see *About the Cognos Private Gateway* (on page 7) and *Prepare the Cognos Gateway Server* (on page 83).

2   Select **Launch** > **Reporting Administration**.

    The Administration page appears.

3   Click the **Configuration** tab.

4   Click **Dispatchers and Services**.

    A list of the dispatchers that are registered with the Content Manager appears.

5   For each dispatcher, perform these steps:

    a   In the **Actions** column, click the **Set Properties** icon ( ).

    b   Click the **Settings** tab.

    c   In the **Category** drop-down list, select **Tuning**.

    d   Set the **Load balancing mode** property to **Cluster Compatible**.

    e   Click **OK**.

Start the Cognos 10 BI servers

After completing the Cognos 10 BI installation and configuration steps, you can start the Cognos 10 BI servers. If you have distributed Cognos 10 BI application tier components across multiple servers, see the *Cognos Installation & Configuration Guide* for the specific order for starting the servers.

1   On the server where the Cognos 10 BI service is installed, select **Start > All Programs > Cognos10 > Cognos Configuration**.

The Cognos Configuration utility starts.

2   Select **Actions > Start**.

3   When the server is started, close the Cognos Configuration utility.

Disable the indexed search option on the Reporting server

Because the indexed search functionality is not available in the Reporting and Analysis module, you should make the following adjustment to the user interface to hide the option:

> **Note:** If you have distributed Cognos 10 BI application tier components across multiple servers, perform this procedure on each presentation server.

1   Select **Launch** > **Reporting Administration**.

    The Administration page appears.

2   Click the **Configuration** tab.

3   Click Dispatchers and Services.

    A list of the dispatchers that are registered with the Content Manager appears.

4   Select the **PresentationService** entry.

5   In the **Actions** column, click the **Set Properties** icon ( ).

6   Click the **Settings** tab

7   Select the **Environment entry (Advanced settings),** and click **Edit**.

8   Select **Override the settings acquired from the parent entry**, and do the following:

    •   Enter **portal.disableindexsearch** in the Parameter column**.**

    •   Enter **true** in the Value column.

9   Click **OK**.

10 Restart the Cognos service.

Enabling Authors group permissions

By default, the Authors group is restricted from including HTML items and user-defined SQL in reports. If you are licensed to develop Report Studio reports in a self-hosted environment, you can modify these restrictions in the Cognos Administration module:

- Enable the **Execute** and **Traverse** permissions for the Authors group for the following Report Studio capabilities:

  - User Defined SQL

  - HTML Items in Report

Allowing support for restricted report elements

You may need to give a support user the ability to troubleshoot Report Studio reports that contain either restricted element.

For a user to troubleshoot reports containing custom HTML or SQL, the user must:

- Be a Support user type.

- Be a member of the following Reporting Groups:

  - Directory Administrators

  - Ad Hoc Users

  - Sponsor Users

- Not be a member of the Authors Reporting group.

Configure settings for Comma Separated Values (CSV) report output

The Reporting and Analysis module provides settings that allow you to easily use CSV report output files with applications such as the Excel spreadsheet application. Oracle applies these settings for hosted environments, and recommends that you apply them to your environments as well.

> **Note:** You must have server administration rights to modify these settings.

- **Delimiter**—Comma-delimited files are widely accepted for use with several applications.

- **Encoding**—Using UTF-8 character encoding allows you to use your CSV output with a wide range of applications.

- **Terminator**—Using carriage return and line feed (CRLF) terminators ensures that the report output is properly organized into columns and rows.

Configure the CSV settings for reports

1 Go to the Reporting and Analysis home page.

2 Click **Launch > Reporting Administration**.

The Administration page appears.

By default, the **Status** tab is selected.

3 In the pane on the left, click **System**.

4 In the **Scorecard** section, click the server name.

The full URL for the server appears below the server name.

5 Click the full URL for the server.

The available services for the server appear.

6 Select **Report Service > Set Properties**.

The Set properties - ReportService dialog box appears.

7 Select the **Settings** tab.

8 In the **Category** drop-down list, select **Environment**.

9 In the **Environment** category, in the **Advanced settings** row, click **Edit**.

The Set advanced settings dialog box appears.

10 Select **Override the settings acquired from the parent entry** checkbox.

11 Type the following parameters and values:

Parameter	Value	Description
RSVP.CSV.DELIMITER	,	Separates each data item in the report output with a comma.
RSVP.CSV.ENCODING	UTF-8	Specifies UTF-8 character encoding for report data.
RSVP.CSV.TERMINATOR	CRLF	Separates each row of data with a carriage return and line feed, so that the rows appear in ordered columns.

12 Select the checkbox next to each parameter.

13 Click **OK**.

The Set properties - ReportService page appears.

14 Click **OK**.

Deploying SQL profiles

SQL profiles can be used to improve performance.

To create a SQL Profile, a user must have the following privileges:

- ADVISOR role

- CREATE ANY SQL PROFILE PRIVILEGE

- ALTER ANY SQL PROFILE PRIVILEGE

- DROP ANY SQL PROFILE PRIVILEGE

- EXECUTE PRIVILEGE ON DBMS_SQLTUNE

To deploy SQL profiles:

1 Unzip **InForm_SQLProfiles.zip**.(located in the
   <Installation_Directory>\InForm\Bin\DBOra\ReviewSchema folder).

2 Connect to SQLPlus as a user with the proper privileges.

3 Create a staging table in the destination database.

   ```
   EXEC DBMS_SQLTUNE.CREATE_STGTAB_SQLPROF (table_name =>
   'STGTAB_SQLPROF_DB006');
   ```

4 Import the data to the destination database.

   ```
   imp <user>/<pwd>@<instance> tables=('STGTAB_SQLPROF_DB006') file=
   InForm_SQLProfiles.dmp log=imp.log ignore=y
   ```

5 Create SQL Profiles in the destination database using the data stored in the staging table.

   ```
   EXEC DBMS_SQLTUNE.UNPACK_STGTAB_SQLPROF(replace => TRUE,
   staging_table_name => 'STGTAB_SQLPROF_DB006');
   ```

6 Verify that the profiles imported correctly.

   ```
   Select name, created from dba_sql_profiles;
   ```

C H A P T E R 9
Deploy your study

In this chapter

Deploy your study

After you have installed and configured the InForm software and the Reporting and Analysis module, you can schedule an automated study deployment from the Central Designer application.

There are two ways to schedule an automated study deployment:

- In the Central Designer user interface, a Central Designer user can schedule and monitor the progress of a study deployment. This is the preferred deployment method.

  For more information, see the Central Designer *InForm Design Guide*.

- In the InForm user interface, a sponsor user with the Deployment right can log in to a study, select a deployment package, and schedule a time to run the deployment.

  For more information, see the *User Guide*.

To complete the configuration process, see the *Study and Reporting Setup Guide*. The *Study and Reporting Setup Guide* describes how to perform the tasks that are required to set up an InForm study and configure the Reporting and Analysis module for the study.

C H A P T E R   1 0
Uninstalling software components

In this chapter

About uninstalling software components

This section describes how to uninstall the core InForm software, the Cognos 10 BI software, and the customizations for Cognos Reporting. For information about removing the reporting elements and an InForm study, see the *Study and Reporting Setup Guide*.

Uninstall the InForm and Cognos 10 BI software in the following order:

1   The Cognos Customization for InForm wizard, the Cognos Gateway Customization for InForm wizard, and the InForm Reporting Database scripts.

2   The Cognos software.

3   The Oracle Directory Server.

4   The InForm software.

Uninstalling the Cognos Customization for InForm and the Cognos Gateway Customization for InForm wizards

To uninstall the files loaded with the Cognos Customization for InForm wizard, you uninstall the Cognos Gateway Customization for InForm wizard.

1   On the server where the Cognos Gateway Customization software is installed, select **Start > Control Panel > Programs and Features**.

2   Select the **Cognos Gateway Customization for InForm** entry, and click **Uninstall**.

    The Cognos Gateway Customization for InForm installation wizard starts.

3   When the confirmation message appears, click **Yes**.

4   When the wizard is complete, click **Finish**.

Uninstalling the Cognos 10 BI software

The Cognos Uninstall Wizard enables you to uninstall the Cognos 10 BI core software and the Cognos 10 BI SDK software. You can uninstall both components together if they are on the same server or uninstall each component separately.

1   On the server that hosts the Cognos 10 BI software, select **Start > All Programs > IBM Cognos 10 - 64 > Uninstall IBM Cognos 10 > Uninstall IBM Cognos 10**.

The Uninstall Wizard starts.

2   On the Uninstall Language Selection page, select the language you want to use to run the uninstall, and click **Next**.

3   On the next page, select the component packages to uninstall, and click **Next**.

The uninstall process starts.

4   When the wizard is complete, click **Finish**.

> **Note:** The uninstall may leave some folders and files on the computer. You can delete these with the Windows Explorer application.

Uninstalling the Oracle Directory Server

See the Oracle Directory Server Enterprise Edition documentation, or your Oracle database documentation for instructions on uninstalling the Oracle Directory Server.

Uninstalling the InForm software

1   Stop all InForm servers and studies.

2   Stop the InForm Service and the InForm Sync Service.

3   Select **Start > Control Panel > Programs and Features**.

4   Select **Oracle InForm 6.1**, and click **Uninstall**.

    A confirmation dialog box appears.

5   Click **Yes**.

6   If a message appears and asks if you want to remove shared files, click **No to All**.

    A message reminds you to back up customized files before continuing.

7   To stop uninstalling the software so that you can back up the customized files, click **No**.

    or

    To continue, click **Yes**.

    When the uninstall is complete, the Reboot page appears.

8   Click **Finish**.

    The computer reboots.

Command and script reference

In this appendix

admindb

Purpose

Creates the InForm Admin database if you did not set it up during the InForm core software installation by selecting the **Install Admin DB** checkbox.

Location

<Installation_Directory>\InForm\bin\DBOra folder.

Usage

admindb [*connection string*]

Command line prompts

You are prompted for the following parameters:

- **pfdbauid**—*pfdbadmin user*

- **pfdbapid**—*pfdbadmin password*

- **admindbuid**—*informadmin user*

- **admindbpid**—*informadmin password*

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

admindb trial1

configandcheckdiffdb

Purpose

Checks the variable settings in an environment where the study and reporting databases are in different database instances.

Location

Folder where the reporting software is located, for example, *<Installation_Directory>*\InForm Reporting\DBOra.

Usage

configandcheckdiffdb

Command line prompts

You are prompted for the following parameters:

- **trial_schema_owner_password**—Password for the study schema owner.

- **dbauser_trial_password**—Password for the study DBA user.

- **dbauser_rep_password**—Password for the reporting DBA user.

- **streams_admin_user_rep_passwd**—Password for the reporting streams admin user.

- **streams_admin_user_trial_pwd**—Password for the study streams admin user.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

If the script passes with no errors, the variables are correct. If there is an error, make corrections and then rerun the script. Do not proceed with the installation until errors have been resolved.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

create_cap_table.sql

Purpose

Creates the TRIAL_URLS table for the PFCAPAdmin user.

Location

Folder where the reporting software is located, for example,
<*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@create_cap_table.sql

Notes

Run from SQL*Plus with /nolog.

Errors are recorded in the create_cap_table.log file.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

DecomTrial

Purpose

Securely removes InForm study components (study folders, clinical package, operational package, DSN entries, and InForm study user accounts) from the Reporting and Analysis module.

Location

The InForm application server folder on the InForm application server. For example, *<Installation_Directory>*\InForm\bin.

Usage

DecomTrial [*SysAdminNamespace SysAdminUsername TrialNamespace TrialUsername CognosDispatcherURI TrialName* [*<company_code>*]]

Option	Parameter
SysAdminNamespace	Oracle Directory Server admin namespace.
SysAdminUsername	User name for the Cognos system administrator.
TrialNamespace	Custom Authentication Provider (CAP) namespace.
TrialUsername	InForm study user who is a member of the following Reporting groups: • Publishers. • Either Sponsor Users or Site Users.
CognosDispatcherURI	Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.
TrialName	Name of the InForm study.
company_code	The organization ID. Optional. This parameter is required only for Oracle-hosted studies in a single sign-on environment.

Command line prompts

Depending on the syntax used with the DecomTrial command, you are prompted for the following parameters:

- **System Administrator namespace**—Oracle Directory Server admin namespace.

- **System Administrator username**—User name for the Cognos system administrator.

- **Trial namespace name**—Custom Authentication Provider (CAP) namespace.

- **Trial user username**—InForm study user who is a member of the following Reporting groups:

  - Publishers.

  - Either Sponsor Users or Site Users.

- **Cognos dispatcher URL**—Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- **Trial name**—Study name.

- **Company Code**—The organization ID.

  Optional. Reserved for Oracle-hosted studies in a single sign-on environment.

- **System Administrator password**—Password for the Cognos system administrator.

- **Trial user password**—Password for the InForm study user.

> **Note:** You are always prompted for the System Administration password and Trial user passwords when you run DecomTrial.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Parameter file contents

You can pass the following parameters in a parameter file:

- sysadmin_namespace=Oracle Directory Server admin namespace.

- sysadmin_uid=User name for the Cognos system administrator.

- trial_namespace=Custom Authentication Provider (CAP) namespace.

- trial_user=Study user.

- dispatcher_url=Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- trial_name=Study name.

- company_code=OrgID assigned for an single sign-on study.

Example

DecomTrial OHSI crnsysadmin informcap mmartin
http://server.example.com:9300/p2pd/servlet/dispatch pfstcardio blank

DeleteObject

Purpose

Deletes obsolete reports from a Reporting and Analysis module that has been migrated to Cognos 10.2.2:

- CRF Reports/CRF Cycle Time Detail by User

- CRF Reports/CRF Site Performance Summary by User

- CRF Reports/CRF Aging by User

- Subject Reports/Case Book Completion and Query Summary by User

- Subject Reports/Subject Enrollment Status by User

- Query Reports/Query Volume by Month by User

Location

The InForm application server folder on the InForm application server. For example, *<Installation_Directory>*\InForm\bin.

Usage

DeleteObject [sysadmin_namespace=*SysAdminNamespace* sysadmin_uid=*SysAdminUsername* dispatcher_url=*CognosDispatcherURI* trial_name=pfst [cognos_version=[8.2 | 8.4 | 10.2.1 | 10.2.2]] ["path_to_parameter_file"]

Option	Parameter
sysadmin_namespace	Oracle Directory Server admin namespace.
sysadmin_uid	User name for the Cognos system administrator.
dispatcher_url	Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.
trial_name	Name of the InForm study.
cognos_version	The Cognos version you are migrating from. Options are: - 8.2 - 8.4 - 10.2.1 - 10.2.2

Option	Parameter
path_to_parameter_file	• When specified, includes the path to a text file that contains the parameters required to run the command.
	• You will always be prompted to enter required passwords on the command line.
	• If the parameter file is not specified, the command prompts for the required parameters.
	• The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Command line prompts

Depending on the syntax used with the DeleteObject command, you are prompted for the following parameters:

- **sysadmin_namespace**—Oracle Directory Server admin namespace.

- **sysadmin_uid**—User name for the Cognos system administrator.crnsysadmin

- **sysadmin_pid**—Password for the Cognos system administrator.crnsysadmin

- **dispatcher_url**—Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- **cognos_version**—The Cognos version you are migrating from.

With the exception of the System Administration password and Trial user password parameters, you can pass parameters by using the *"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Parameter file contents

You can pass the following parameters in a parameter file:

- sysadmin_namespace=Oracle Directory Server admin namespace.

- sysadmin_uid=User name for the Cognos system administrator.

- sysadmin_pid=Password for the Cognos system administrator.

- dispatcher_url=Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- cognos_version=The Cognos version you are migrating from.

Example

DispatchAPI sysadmin_namespace=OHSI sysadmin_uid=crnsysadmin
dispatcher_url=http://host:9300/p2pd/servlet/dispatch cognos_version=10.2.1

deinstall_reporting_diffdb

Purpose

Removes a single reporting schema when the study and reporting schemas are located in different database instances. This script:

- Removes all components associated with the Reporting and Analysis module for a single study and reporting schema combination.

- Uninstalls only one reporting schema at a time. To uninstall multiple reporting schemas, you can run the script as many times as necessary.

- Does not remove the underlying reporting infrastructure, including reporting tablespaces.

Location

Folder where the reporting software is located, for example, *<Installation_Directory>*\InForm\bin\DBOra\Reporting.

Usage

deinstall_reporting_diffdb

Command line prompts

You are prompted for the following parameters:

- **trial_schema_owner_password**—Password for the study schema owner.

- **dbauser_trial_password**—Password for the study DBA user.

- **dbauser_rep_password**—Password for the reporting DBA user.

- **streams_admin_user_rep_passwd**—Password for the reporting streams admin user.

- **streams_admin_user_trial_pwd**—Password for the study streams admin user.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Notes

Before running the deinstall_reporting_diffdb.sql script:

- Review the parameters in the configdiffdb.sql file to make sure that they contain the same values that you used to install the reporting schema.

- Stop the study.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

DeployBackup.cmd

Purpose

Backs up a study under a custom archive file name and path. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployBackup *<Study_Name> <Archive_File_Name> <TNS_Service_Name> <Archive_Path> <Parameters_File_Name>*

Option	Parameter
Study_Name	Name of the study to be backed up.
Archive_File_Name	Name of the backup file.
TNS_Service_Name	Local Net Service Name for the remote database service.
Archive_Path	Path on the database server where the backup file is saved.
Parameters_File_Name	Name of the parameters file that contains database credentials.
	The parameters file must contain the following values:
|  | ```
trial_user=<study_schema_user_name>
trial_user_pass=<study_schema_user_password>
orasystem_user=<admin_user_name>
orasystem_user_pass=<admin_user_password>
``` |

DeployEnd.cmd

Purpose

Applies custom system tasks after a successful or failed study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployEnd *<Study_Name> <Deployment_Status>*

Option	Parameter
Study_Name	Name of the deployed study.
Deployment_Status	• 0 for successful study deployment
	• 1 for failed study deployment

DeployRestore.cmd

Purpose

Restores a backed up study from a specified archive file. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployRestore *<Study_Name> <Archive_File_Name> <TNS_Service_Name> <Archive_Path> <Parameters_File_Name>*

Option	Parameter
Study_Name	Name of the study to be restored.
Archive_File_Name	Name of the backup file.
TNS_Service_Name	Local Net Service Name for the remote database service.
Archive_Path	Path on the database server where the backup file is saved.
Parameters_File_Name	Name of the parameters file that contains database credentials.
	The parameters file must contain the following values:
	`trial_user=`*`<study_schema_user_name>`* `trial_user_pass=`*`<study_schema_user_password>`* `orasystem_user=`*`<admin_user_name>`* `orasystem_user_pass=`*`<admin_user_password>`*

ExportMigrationFiles

Purpose

Modifies the InForm study database for migration, creates a dump file of the modified database, backs up the InForm registry, and records the InForm server information in a text file that you can use to migrate an InForm study to a new environment.

Location

The InForm\InstallSupport folder on the product image.

Usage

ExportMigrationFiles.cmd <*TNS_Service_Name*>

Command line prompts

You are prompted for the following parameters:

- **Trial user ID**—Owner of the study database schema.

- **Trial user password**—Password for the owner of the study database schema.

- **Oracle system uid**—Oracle database system user.

- **Oracle system user password**—Password for the Oracle database system user.

- **Oracle sys uid**—Oracle database sys user.

- **Oracle sys password**—Password for the Oracle database sys user.

- **Dump file directory path**—Directory on the InForm database server to store the dump file.

- **Dump file name**—Name of the DMP file to export.

> **Note:** Do not include spaces in the dump file name or the directory path to the dump file.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Parameter file contents

You can pass the following parameters in a parameter file:

- trial_user=Owner of the study database schema. **Note:** This name should not change.

- trial_user_pass=Password for the owner of the study database schema.

- orasystem_user=Oracle database system user.

- orasystem_user_pass=Password for the Oracle database system user.

- orasys_user=Oracle database sys user.

- orasys_user_pass=Password for the Oracle database sys user.

- dump_file_dir_path=Directory on the InForm database server where the database dump file will be created.

- dump_file_name=Database dump file name.

Notes

The ExportMigrationFiles command creates the following files:

- *<dump_file_name>***.dmp**—The dump file name specified on the command line. The dump file is located in the specified directory on the InForm database server.

- **pfadmin_view_service.txt**—Text file containing the information for the servers and studies running on the InForm application server.

- **InForm.reg**—A registry file that contains the contents of the exported from:

  - HHKEY_LOCAL_MACHINE\SOFTWARE\PhaseForward (InForm 4.6, 5.0 , or 5.5 studies)

  - HHKEY_LOCAL_MACHINE\SOFTWARE\OracleHS (InForm 6.0 studies)

> **Note:** If error messages indicating that the system cannot find the paths specified for the System Product Locale and the System Study Locale appear, disregard the messages and continue with the migration.

Example

ExportMigrationFiles.cmd trial1

grant_dba_privs.sql

Purpose

Grants DBA privileges to the rptinstall user, which is used for install and uninstall operations.

Location

Folder where the reporting software is located, for example,
<*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@grant_dba_privs.sql rptinstall

Notes

Log on to the study database as SYSDBA.

The name of the DBA user must be **rptinstall**.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

grant_user_privs.sql

Purpose

Grants database user privileges to the user that owns the study schema.

Location

Folder where the reporting software is located, for example,
<*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@grant_user_privs.sql <*study schema owner*>

<*study schema owner*>—Database user name that holds the study schema.

Example

@grant_user_privs.sql pfst60uid

Notes

Run from SQL*Plus with /nolog.

Connect to the study database as a user with the privilege to grant user database privileges.

The script produces a log called grant_user_privs.log.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

ImportMigrationFiles

Purpose

Imports an InForm study database dump file that was created by the ExportMigrationFiles command into a new database instance, and creates and configures the InForm study based on command parameters supplied when the command runs.

Location

\<InstallationDirectory\>\InForm\Bin\DBOra

Usage

ImportMigrationFiles.cmd <*TNS_Service_Name*>

Command line prompts

You are prompted for the following parameters:

- **InForm study name**—Enter the name of the InForm study you will create to import the dmp file.

- **InForm server name**—Enter the name of the InForm server to run the study.

- **Trial user ID**—Owner of the study database schema.

- **Trial user password**—Password for the owner of the study database schema.

- **Study locale ISO name**—For InForm 4.6 studies, enter en-US; for other InForm versions, enter an available study locale.

- **Oracle system uid**—Oracle database system user.

- **Oracle system user password**—Password for the Oracle database system user.

- **Oracle sys uid**—Oracle database sys user.

- **Oracle sys password**—Password for the Oracle database sys user.

- **InForm database administrator name**—The name for the InForm database administrator.

- **InForm database administrator password**—The password for the InForm database administrator.

- **Dump file directory path**—Location of the directory that you created on the InForm database server.

- **Dump file name**—Name of the DMP file to export.

- **Was dump file created with Oracle 9 or 10?**—Enter **Y** or **N**.

- **Upgrade from InForm version?**—Enter the version of the study you are migrating Options are 4.6, 5.0, 5.5, 6.0, or 6.1.

- **Study type**—Enter a trial type for your study. Options are LIVE, UAT, TRN, DEV, or QA.

- **Study approval**—Enter TRUE if you require approval for any deployment package, FALSE if your study does not require deployment package approval.

> **Note:** By default, Live and UAT studies require study approval.

- **Deployment backup folder**—Enter a path on the InForm database server that will be used for database recovery during study deployment. For example /u01/app/deploybackup.

> **Note:** The physical must exist before you run the **ImportMigrationFiles** command.

- **Deployment service port**—Enter a port number for the Central Designer application to communicate with the InForm application server to transmit deployment packages.

- **Authentication service port**—Enter a port number for the InForm application server to authenticate users for the Reporting and Analysis module.

- **ODMSubmit service port**—Enter a port number for the Clinical Data API to exchange SOAP requests.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Parameter file contents

You can pass the following parameters in a parameter file:

- InForm_trial_name=InForm studyname.

- InForm_server_name=InForm server name.

- trial_user=Owner of the study database schema.

- trial_user_pass=Password for the owner of the study database schema.

- study_locale_ISO_name=Study locale.

  - For InForm 4.6 studies, enter **en-US**.

  - For InForm 5.0, 5.5, 6.0, and 6.1 studies, enter one of the available study locales.

- orasystem_user=Oracle database system user.

- orasystem_user_pass=Password for the Oracle database system user.

- orasys_user=Oracle database sys user.

- orasys_user_pass=Password for the Oracle database sys user.

- pfdbauid=InForm Database Administrator Username (pfdbadmin).

- pfdbapid=InForm database administrator password.

- dump_file_dir_path=Database dump file directory.

- dump_file_name=Database dump file name.

- dump_created_with_exp=(Y or N) Was the dump file created with exp.exe (Oracle 9 or 10) or with expdp.exe (Oracle 11)?

- UpgradeFromInFormVersion=4.6, 5.0, 5.5, 6.0, or 6.1.

- trial_type=UAT, LIVE, TRN, DEV, or QA.

- trial_approval=TRUE or FALSE.

- deployment_backup_folder=The path on the InForm database server that will be used for database recovery during study deployment.

- deployment_service_port=The port number for the Central Designer application to communicate with the InForm application server to transmit deployment packages.

  Recommended port is 14040, however any port other than 80 or 443 can be used.

- auth_service_port=The port number for the InForm application to authenticate users for the Reporting and Analysis module.

  Recommended port is 14041, however any port other than 80 or 443 can be used.

- odm_service_port=The port number for the Clinical Data API to exchange SOAP requests.

  Recommended port is 14042, however any port other than 80 or 443 can be used.

Notes

Based on the parameters submitted when the command runs, the ImportMigrationFiles command imports the InForm study database dump file, and performs study configuration tasks, including:

- Creates the InForm server and study.

- Upgrades the study schema.

- Updates study statistics.

- Sets the MedML Installer server.

- Upgrades resources.

- Terminate obsolete users.

- Sets the deployment web service port.

Example

ImportMigrationFiles.cmd TRIAL1

ImportUtility

Purpose

Securely import reporting content you export using Cognos commands to a new instance of the InForm Reporting server.

Location

The InForm application server folder on the InForm application server. For example, *<Installation_Directory>*\InForm\bin.

Usage

ImportUtility [-all | -import | -nopwd | -pfmtr]

Option	Parameter
-all	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_*<timestamp>*. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content from a password-protected deployment package to the SecureImport_*<timestamp>* folder and makes it accessible only to system administrators. • Copies the imported content to the Public folders on the Reporting server. • Deletes the SecureImport_*<timestamp>* folder, all its content, and the import specification object.
-import	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_*<timestamp>*. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content from a password-protected deployment package to the SecureImport_*<timestamp>*. • Deletes the import specification object.

Option	Parameter
-nopwd	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_*<timestamp>*. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the deployment package content to the SecureImport_*<timestamp>* folder and makes it accessible only to system administrators. • Copies the imported content to the Public folders on the Reporting server. • Deletes the SecureImport_*<timestamp>* folder, all its content, and the import specification object.
-pfmtr	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_*<timestamp>*. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content to the SecureImport_*<timestamp>* folder. • Deletes the import specification object.

Command line prompts

Depending on the option you specify with the ImportUtility, you are prompted for the following parameters:

- **sysadmin_namespace**—Cognos system administrator user namespace.

- **sysadmin_uid**—User name for the Cognos system administrator.

- **sysadmin_pass**—Cognos system administrator password.

- **dispatcher_url**—Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

  This Cognos 10 BI parameter is set in the InForm CRN wizard. The parameter setting is stored in the cogstartup.xml file and corresponds to the Reporting internal URI value on the Admin > System Configuration page of the InForm application. For example, http://example.com:9300/p2pd/servlet/dispatch.

- **archive_name**—Name of the deployment package containing the reporting content you want to import into the Reporting server.

- **archive_pass**—Password for the deployment package.

  > Note: The archive_pass parameter is not required for the -nopwd or the -pfmtr option.

- **company_code**—The organization ID. Optional.

  This parameter is required only for Oracle-hosted studies in a single sign-on environment.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Notes

- The **-import** and **-pfmtr** command options should be used to stage custom reports before distributing them to multiple studies.

  To move the content from the staging folder to the study folders and set study-specific permissions, use the **pfmtrsetuputil** command.

- The **-nopwd** and **-pfmtr** command options are used when you are importing a deployment package that is not password protected.

  These options should be used only when there is no clinical data present in the deployment package.

Example

ImportUtility -all "E\scripts\import.txt"

informprepora

Purpose

Creates the pfdbadmin user if you did not set it up during the InForm core software installation by selecting the **Prep Oracle** checkbox.

Location

<*Installation_Directory*>\InForm\bin\DBOra folder.

Usage

informprepora <*oracle_connection_string*>

Command line prompts

You are prompted for the following parameters:

- **orasys_user**—Name of the Oracle sys user.

- **orasys_user_pass**—Oracle sys user password.

- **pfdbauid**—Name of the InForm Admin database user.

- **pfdbapid**—InForm Admin database user password.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

informprepora trialdb

install_reporting_diffdb

Purpose

Installs the Reporting and Analysis module in an environment where the study and reporting databases are in different database instances.

Location

Folder where the reporting software is located, for example, *<Installation_Directory>*\InForm\bin\DBOra\Reporting.

Usage

install_reporting_diffdb

Command line prompts

You are prompted for the following parameters:

- **trial_schema_owner_password**—Password for the study schema owner.

- **rep_schema_owner_password**—Password for the reporting schema owner.

- **dbauser_trial_password**—Password for the study DBA user.

- **dbauser_rep_password**—Password for the reporting DBA user.

- **streams_admin_user_rep_passwd**—Password for the reporting streams admin user.

- **streams_admin_user_trial_pwd**—Password for the study streams admin user.

- **rep_proxy_user_password**—The password for the user that exists in the study database who has read-only access to the specified study schema.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Notes

Before running the installation script, make sure that you have updated the study-specific variable settings with the configdiffdb.sql script.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

mtsora102

Purpose

Sets up Oracle XA transaction support. During the InForm core software installation, if you check the Prep Oracle checkbox, the installation process sets up Oracle XA transaction support. If you do not set up Oracle XA transaction support during the installation, the mtsora102 command enables you to set it up manually, during or after the Oracle installation.

The mtsora102 does the following:

1   Runs the XAVIEW.sql script as SYS to create the V$XATRANS$ view:

```
%ORACLE_HOME%\RDBMS\ADMIN\XAVIEW.SQL
```

2   Grants SELECT access to the public on these views:

```
Grant Select on V$XATRANS$ to public
Grant Select on sys.dba_pending_transactions to public
```

> **Note:** This example grants SELECT access to public, however in your environment SELECT access should be granted to the profile associated with your database.

3   Modifies the following Registry keys in
    HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSDTC\Security

```
"NetworkDtcAccess"=dword:00000001
"NetworkDtcAccessAdmin"=dword:00000001
"NetworkDtcAccessTransactions"=dword:00000001
"XaTransactions"=dword:00000001
"NetworkDtcAccessOutbound"=dword:00000001
"NetworkDtcAccessInbound"=dword:00000001
```

4   Modifies the following Registry key in
    HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSDTC\XADLL

```
"mtxoci.dll"="C:\\WINDOWS\\system32\\mtxoci.dll"
```

Location

<Installation_Directory>\InForm\bin\DBOra folder.

Usage

mtsora102 *<oracle_connection_string>* *<oracle_client_home_key>*

Command line prompts

You are prompted for the following parameters:

- **orasys_user**—Name of the Oracle sys user.

- **orasys_user_pass**—Oracle sys user password.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

mtsora102 dev1 KEY_OraClient11g_CLIENT1 /accountparams:"E:\scripts\mtsora.txt"

Notes

When setting up Oracle XA transaction support manually, run both the mtsora102 and the oramtsadmin.sql script. For more information, see *oramtsadmin.sql* (on page 162).

For a more complete description, refer to one of the following articles:

- **Microsoft Knowledge Base**—Q193893 – Info: Using Oracle with Microsoft Transaction Server and COM+.

- **MSDN Online Library**—Setting up MTS to Access Oracle.

- Microsoft KB Article 899191.

- Microsoft KB Article 817066 and 891801.

oramtsadmin.sql

Purpose

Creates the MTS administrative user and schedules automatic transaction recovery. You need to run oramtsadmin.sql only if you do not set up Oracle XA transaction support during installation of the InForm core software by selecting the **Prep Oracle** checkbox. If you set up Oracle XA transaction support manually, run oramtsadmin.sql after you run the mtsora102 command.

Location

%ORACLE_CLIENT_HOME%\oramts\admin folder

Usage

@oramtsadmin.sql

Notes

Run as the SYS user as SYSDBA.

Run the script against all Oracle instances connected to the InForm application server.

> **Note:** The InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

pfadmin

Purpose

Sets up the InForm server environment. The parameters are stored in the registry. Therefore, you need local administrator privileges to run the utility.

Location

<Installation_Directory>\InForm\bin\DBOra folder.

Usage

pfadmin [CHECKREG | CONFIG | CREATEREPORTINGMODEL | HELP | KILLSERVER | PING | PUBLISHREVIEWSCHEMA | RECREATEREVIEWSCHEMA | REMOVE | RECREATEREPORTINGSCHEMA | RULESCANPROCESS | RULESCANVIEW | SETSERVER | SETUP | SETLANGUAGE | START | STOP | UNINSTALL | UPDATEWORKFLOW| VIEW]

Option	Purpose and Syntax
CHECKREG [/Del] [/DelAll]	Displays the current InForm Server COM and MTS components in the NT registry.
	WARNING: Be careful to remove the server(s) or uninstall the service before using either of the delete options:
	• [/Del]—Removes obsolete settings.
	• [/DelAll]—Removes the settings of all servers.

Option	Purpose and Syntax
CONFIG Service [/AdminDB *DBServer*] | [/AdminDSN *DsnName*] | [/*AdminDN*] | [/EmailSender *valid_email_address*] | [/PfUser] | [/SysDBA]	Configures an existing service. • [/AdminDB *DBServer* [SQL]]—Sets the ODBC DSN for the InformAdmin database. Make sure that *DBServer*, *UID*, and *PID* are the same ones that were used to create the InformAdmin database. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/AdminDSN *DsnName*]—Creates the ODBC DSN InForm software with the default database server, using the specified user name and password. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/EmailSender *valid_email_address*]—Creates the PFMngrExecutionPlan registry key and populates the EmailSender subkey with an email address to use during autodeployment notifications. • [/PfUser]—Creates the PfUser_*computername* account during the InForm installation. The account is for Microsoft MTS packages used by InForm servers. In general, you do not need to configure the account. If you change the password through NT User Manager, you must reconfigure the InForm Service with the new password. • [/SysDBA]—Sets the InForm Service DBA user name and password. You can use this command to change the pfdbadmin password as needed. If you want to change the InForm Service DBA name, modify the provided SQL script InFormPrepORA.sql with the new user name and password, then run the script as SYS. After running the script, use this command option to configure the InForm Service to use the new InForm Service DBA. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.
CONFIG Server *ServerName* [Automatic|Manual]	Configures the startup mode for an existing server as either Automatic or Manual.

Option	Purpose and Syntax
CONFIG Trial *TrialName* [Automatic | Manual] | [/TriDSN *DSN* | [/RndDSN *DSN*] | [/RndDSN *DSN*] | [/Rnd [*MDBFilePath*]] | [/Rnd [*MDBFilePath*]] | [/Host *ServerName*] | [/TrialType [UAT | LIVE | TRN | DEV | QA]] | [/TrialApproval [TRUE | FALSE]] | [/TrialMaintenance [ON | OFF]] | [/DeployBackupFolder <"path_to_a_database_server_folder" >]	Configures an existing study. • [Automatic | Manual]—Configures the study startup mode. • [/TriDSN *DSN*]—Configures the study ODBC DSN. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/RndDSN *DSN*]—Configures the study randomization source dataset name. Use when setting up a Microsoft randomization source database. • [/RndDSN *DSN*]—Configures the study randomization source dataset name. Use when setting up an Oracle randomization source database. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/Rnd [*MDBFilePath*]]—Creates a study randomization source dataset name to use the given Microsoft Access database file. • [/Rnd [*MDBFilePath*]]—Creates a study randomization source dataset name to use the given Oracle database file. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/Host *ServerName*]—Moves the study from current host server to another server in the InForm Service. • [/TrialType [UAT | LIVE | TRN | DEV | QA]]— Specify the type of study. Live studies are for production environments, UAT studies are for user acceptance testing, Training, Dev, and QA are for internal use. • [/TrialApproval [TRUE | FALSE]]—Specify whether a deployment package needs approval before it can be deployed to the InForm application. By default, Live and UAT studies are set to TRUE. Training, Dev, and QA studies are set to false. • [/TrialMaintenance [ON | OFF]]—Specify that a study is in Maintenance mode and is unavailable to users. This is set during study deployment. • [/DeployBackupFolder <"path_to_a_database_server_folder">]—Specify the path to an existing folder on the database server. This folder is the location used to store copies of the study database during deployment package processing.

Option	Purpose and Syntax
CONFIG CDD *TrialName* [Enable | Disable] | [*DSN* [Active | Inactive]] | [*DSN StudyLocale*]	Configures an existing CDD: • [Enable | Disable]—Enables or disables the CDD for a particular study. • [*DSN* [Active | Inactive]]—Makes a CDD DSN active or inactive for a particular study. • [*DSN StudyLocale*]—Specifies the study locale used for the unit symbol translation that is stored in the CDD column for the unit symbol. • *path_to_dsn_password_file*—Configures an existing CDD DSN with the User ID and password specified. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.
CONFIG WEBSERVICE *TrialName* [AuthService | DeploymentService | ODMSubmitService] [Add [HTTP:*port* | HTTPS:*port* cert:*thumbprint*] | Remove]	Associates a web service with a study and specifies the port number each service should use. • [AuthService | DeploymentService | ODMSubmitService]—The type of service • [Add [HTTP:*port* | HTTPS:*port* cert:*thumbprint*] | Remove]—Creates or removes an association between a study and a web service
CREATEREPORTINGMODEL *TrialName*	Creates the Reporting model from scratch.
HELP	Lists all the options of the pfdamin command.
KILLSERVER *ServerName*	Stops server MTS packages without stopping studies on the server.
PING *MachineName* 1 | 2 | 3:*ServerName* | 4:*ServerName* | 5:*ServerName* [Port#]	Pings the InForm Service or a particular server. The ping levels are: • 1—Ping the InForm Service. • 2—Ping the InForm Service and all InForm server(s). • 3—Ping the specified server. • 4—Ping and get information about the specified server. • 5—Ping the specified server and dump the user session to a server-side file. • [Port#]—Allows you to specify the port number the echo server is listening on, if you changed it.

Option	Purpose and Syntax
PUBLISHREVIEWSCHEMA *TrialName* [/FORCE]	Applies all study version changes to the review schema clinical tables.
	If you use the /FORCE option, the InForm application does not check to see if there are study version changes that are not applied, and makes sure all study version changes are applied.
	Note: The /FORCE option does not drop and re-create the clinical tables. It makes the clinical tables match the study version. The /FORCE option should only be used if recommended by Oracle.
	This operation is synchronous. The study is unavailable during the operation.
RECREATEREVIEWSCHEMA [*TrialName StudyLocale_ISO_name*]	Recreates the review schema database tables from the InForm schema. Depending on the size of the study, this can take a long time to run.
	The Review schema study locale is chosen automatically when a study is first installed, but can be changed using this command.
REMOVE [Server *ServerName*] | [Trial *TrialName* [/DSN]] | [CDD *TrialName* [/All | *DSN*]	Removes an existing server, study, or CDD.
	• [Server *ServerName*]—Removes an InForm server from the InForm Service. Studies should be either reconfigured to other servers or removed before this command is run.
	• [Trial *TrialName* [/DSN]]—Deletes the named study from the InForm Service. The Web virtual directories and folders for the study are physically removed. Use the /DSN option to remove the study-related DSNs.
	• [CDD *TrialName* [/All | *DSN*]—Removes either all CDD DSNs in the specified study or the given CDD by DSN.
	Note: Before using the PFADMIN REMOVE command, verify that IIS is running.
RULESCANPROCESS *StudyName*	Scans existing rules and execution plans, and outputs a list of rules that violate the allowed rule objects list and marks the rules as valid or invalid.
RULESCANVIEW *StudyName*	Scans existing rules and execution plans, and outputs a list of rules that violate the allowed rule objects list. This is an informational scan only; it does not mark rules as valid or invalid.

Option	Purpose and Syntax
SETSERVER [Site *TrialName MachineName*] | [MedMLInstaller *TrialName MachineName*] | [Reporting *TrialName ReportingUrl*] | [ReportingAN *TrialName AuthenticationNamespace*] | [ReportingUR *TrialName UserRoot*] | [ReportingInt *TrialName ReportingInternalURI]* | [pfreportinguserpw *TrialName*] | [systempw *TrialName*]	Changes the MedML and Site servers and sets the Reporting configuration settings. • [Site *TrialName MachineName*]—Not supported. • [MedMLInstaller *TrialName MachineName*]—Not supported. • [Reporting *TrialName ReportingUrl*]—Set Cognos URL for study. • [ReportingAN *TrialName AuthenticationNamespace*]—Set Cognos AuthenticationNamespace for study. • [ReportingUR *TrialName UserRoot*]—Set Cognos UserRoot for study. • [ReportingInt TrialName ReportingInternalURI]—Set the internal URI that the InForm server uses to communicate with the Cognos server. • [pfreportinguserpw *TrialName*]—Run this pfadmin command after the password for the pfreportinguser is changed in the InForm user interface to set a property used by Reporting when it needs the credentials of the pfreportinguser user for building the model. pfreportinguser is the preferred studyuser to run pfrinit to configure Cognos for each study. • [systempw *TrialName*]—Set the password for the system user for the specified study. The command also activates the system user. **Note:** The SETSERVER command requires that you set the Default Authentication Level property of the InForm server to Connect: To set this property: 1　Select Administrative **Tools** > **Component Services** > **My Computer - Properties**. 2　Set the **Default Properties - Default distributed communication properties - Default Authentication Level** value to Connect.
SETUP Server *ServerName* [Automatic]	Creates a new InForm server in the InForm Service. • [Automatic]—The server is automatically started with the InForm Service. Manual startup is the default.

Option	Purpose and Syntax
SETUP Trial *TrialName ServerName* [/DB *OracleConnStr]* | [/DSN *TriDSN* [Automatic]	Creates a study on the given InForm server with the option to either create a new ODBC DSN or use an existing one. The server has to be created. The study startup mode is Manual by default. Use the Automatic option to automatically start the study when the InForm server that hosts the study is started.
	• [/DB *OracleConnStr UID PID*]—Creates an ODBC DSN *TrialName* with the given *ServerName*, *UID*, and *PID*. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.
	• [/DSN *TriDSN UID PID* [Automatic]]—Configures the created study *TrialName* to use the given study dataset name *TriDSN*, *UID*, and *PID*. The study must be present in the ODBC DSN. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.
	Note: Before using the /DSN command, verify that IIS is running.
SETUP CDD *RefName TrialName* /DB *OracleConnStr DSN* [/TBSP *OraTBSP*] [Active] [NoSchema]	Sets up a new CDD DSN associated with the given CDD refname. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.
	• [/TBSP *OraTBSP*]—Defines the Oracle tablespace for the CDD schema.
	• [Active]—Specifies that the DSN is transactional.
	• [NoSchema]—Indicates that no new CDD schema should be created during setup. The existing database is not touched. By default, the user is dropped and the Oracle database destroyed. Then, a new schema is created and populated based on the RefName that defines the schema.
	Note: To execute this command successfully, the study must be started.

Option	Purpose and Syntax
SETUP CDD *RefName TrialName* /DSN *DSN* [/TBSP *OraTBSP*] [Active] [NoSchema]	Sets up an existing DSN associated with the given CDD RefName. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.[/TBSP *OraTBSP*]—Defines the Oracle tablespace for the CDD schema.
	• [Active]—Makes the DSN transactional.
	• [NoSchema]—Indicates that no new CDD schema should be created during setup. The existing database is not touched. By default, the user is dropped and the Oracle database destroyed. Then, a new schema is created and populated based on the RefName that defines the schema.
	Note: To execute this command successfully, the study must be started.
SETLANGUAGE *[IsoLanguageName]* | en-US | ja-JP |	Sets the InForm product locale language. en-US and ja-JP are currently supported.
START [Server *ServerName*] | [Trial *TrialName*]	Starts an existing InForm server or study.
	• [Server *ServerName*]—Starts an existing InForm server by server name.
	• [Trial *TrialName*]—Starts an existing study by study name.
START [Trial *TrialName* [/Design]]	Starts the study in design mode. This means you can install study components that are not completely designed (strict checking is not in force). By default, the study starts in production mode.
STOP [Server *ServerName* [/Trials]] | [Trial *TrialName* [/Anyway]]	Stops an existing InForm server or study.
	• [Server *ServerName* [/Trials]]—Stops an existing InForm server by server name. By default, a running server can be stopped if there is no study running and no other application connected to it. The Trials keyword stops all running studies, and then stops the server.
	• [Trial *TrialName* [/Anyway]]—Stops the named study. The Anyway keyword stops a study regardless of any connections or HTTP requests.
UNINSTALL	Removes all InForm servers and studies, and then removes the InForm service settings PfUser_*computername* and the MTS library package.
	Note: The InForm service must be running for the command to work.

Option	Purpose and Syntax
UPDATEWORKFLOW *StudyName*	Triggers the update workflow process for the specified study.

VIEW
[Languages] | [Service] |
[Server *ServerName*] |
[Trial *TrialName*] |
[CDD *TrialName*] | [Reporting *TrialName*]
	Displays a monitoring list of all servers in the InForm service, all studies in servers, or all RefNames for CDD DSNs configured for a study.
	
	• [Languages]—Lists installed languages without starting the InForm Service.
	
	• [Service]
	  ▪ Lists all the servers and studies in the InForm service.
	  ▪ Lists installed product languages as well as the actual installed product language.
	
	• [Server *ServerName*]—Lists each server by server name and studies hosted on that server.
	
	• [Trial *TrialName*]—Lists a study by its name.
	
	• [CDD *TrialName*]—Lists the RefNames for each CDD DSN configured for the specified study.
	
	• [Reporting *TrialName*]—Lists the current status of Reporting.
	  ▪ States whether the study is configured for Reporting.
	  ▪ Specifies the type of reporting setup: samedb or diffdb.
	  ▪ Specifies the reporting username.
	  ▪ Gives the date of the last Cognos model update.
	  ▪ Reports if the Reporting database is up-to-date.
	  ▪ States whether Oracle streams are working properly (if applicable).

Command line prompts

Depending on the options you specify, you are prompted for the following parameters:

For **pfadmin setup** or **pfadmin config** commands:

- **uid**—InForm study database user.
- **pid**—InForm study database user password.

For **pfadmin setserver** commands:

- **pid**—InForm study database user password.

Examples

Check the status of InForm Reporting:

```
pfadmin view reporting pfst61
```

Check the status of InForm servers and studies on an InForm Service:

```
pfadmin view service
```

Start the demo InForm server:

```
pfadmin start server demo
```

Start the sample study:

```
pfadmin start study sample
```

Stop all studies running on the demo InForm server, and then stop the demo server:

```
pfadmin stop server demo /Trials
```

Set the password and activate the system user account:

```
pfadmin setserver systempw pfst61
```

Notes

Any arguments containing commas, equal signs, or spaces must be enclosed within double quotes.

pfcognosconfig

Purpose

Configures an InForm study to work with Cognos 10 BI. The PFCognosConfig utility is a command-line alternative to the **InForm Reporting Configuration Wizard**.

PFCognosConfig can be run multiple times to change reporting parameters. If the reporting study user password changes, PFCognosConfig.exe must be run to tell InForm about the new password.

When PFCognosConfig is run multiple times for a study, each run after the first does not need to specify all of the parameters; only the changed parameters need to be specified.

Location

<Installation_Directory>\InForm\bin folder.

Usage

```
pfcognosconfig ["path_to_password_file"]
```

Option	Parameter
path_to_password_file	When specified, includes the path to a text file that contains the user name and passwords required to run the command.
	If the parameter file is not specified, the command prompts for the required user names and passwords.
	The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Command line prompts

You are prompted for the following parameters:

- **trialname**—Name of the InForm study.

- **log_file**—Name of output log.

- **namespace**—Custom Authentication Provider (CAP) namespace.

- **gateway_uri**—External public URI that communicates with the Cognos 10 BI Gateway Services from an end user's browser.

- **dispatcher_uri**—Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- **root_folder**—The top-level reporting folder for the company.

- **reporting_samedb**—True if the study and the Reporting database are on the same server.

- **reporting_diffdb_server**—Reporting database connection string (TNS Name).

- **reporting_diffdb_pass**—Reporting Trial password (reporting database study username must be the same as the InForm database study username, so the username need not be specified).

- **trial_web_service**—InForm authentication web service URL.

- **register_db_server**—Study database user registered with Cognos.

- **register_db_user**—Password for the database user registered with Cognos.

- **remove**—When set to **true**, reporting is turned off for the specified study and clears all reporting settings for the study.

Parameter file contents

The following parameters are required for the pfcognosconfig command password file:

Option	Description
trialname=<*studyname*>	Name of the InForm study. **Note:** Use the same case as when the study was created by the Central Designer deployment package.
log_file=<*outputlog*>	Name of output log. **Example:** nocreatorgcap.log. (Optional).
namespace=<*cap_namespace*>	Custom Authentication Provider (CAP) namespace. The default is informcap. The case of the value you enter here *must* be the same case as the entry in the Cognos Configuration utility. For example, if the entry in the Cognos Configuration utility is in lower case (informcap), the <*namespace*> option *must* also be informcap. Users can create additional namespaces manually in the Cognos Configuration utility. In this case, the name of the newly created namespace should be used in this field.

Option	Description
gateway_uri=*<gateway_uri>*	External public URI that communicates with the Cognos 10 BI Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos 10 BI Gateway Customization for InForm wizard. The parameter setting is stored in the cogstartup.xml file.
	Example: http:www.example.com/cognos10
dispatcher_uri=*<dispatcher_uri>*	Internal URI that the InForm server uses to communicate with the Cognos 10 BI server. This Cognos parameter is set in the InForm CRN wizard. The parameter setting is stored in the cogstartup.xml file and corresponds to the Reporting internal URI value on the Admin > System Configuration page of the InForm application.
	Example: http://www.example.com:9300/p2pd/servlet/dispatch.
root_folder=/*<content>*/*<folder>*[@name='*<studyname>*']	The top-level reporting folder for the company. Default: /content/folder[@name='*<studyname>*']
reporting_samedb=<true | false>	True if the study and the Reporting database are on the same server.
reporting_diffdb_server=*<servername>*	Reporting database connection string (TNS Name). Use if Reporting and the InForm study are in different databases.
reporting_diffdb_pass=*<rptpid>*	Reporting study password (reporting database study username must be the same as the InForm database study username, so the username need not be specified). Use if the study and the Reporting database are in different databases.
trial_web_service=*<URL>*	InForm authentication web service URL. This is a required parameter.
register_db_server=*<ServerName>*	Name of the server in which the study is registered with Cognos.
register_db_user=*<UserName>*	Study database user registered with Cognos.
register_db_pass*<UserPassword>*	Password for the database user registered with Cognos.
remove=*<true>*	When specified, turns off reporting for the study and removes all reporting-related settings for the study. When you use the remove parameter, you must also specify the following: • study_name • register_db_server • register_db_user • register_db_pass

Example

Example command-line with a complete set of parameters to set up reporting DiffDB:

```
pfcognosconfig "E:\scripts\pfconfigparams.txt"
```

pfrinit

Purpose

Performs the following tasks:

- Modifies the default Cognos 10 BI capabilities to fit the InForm reporting environment.

- Creates new Cognos 10 BI groups that match InForm reporting requirements.

- Sets Public folders permissions so that only Publishers can write to this public area.

- Maps study-specific reporting groups to the Cognos 10 BI groups and roles.

- Creates study-specific data connection and set permissions so that it is restricted for the use of study members only.

- Copies the InForm Trial Management package present in the InForm folder and renames it as a study-specific package.

- Creates a study folder that contains all the standard folders and reports that point to the study-specific package. Relative paths within reports will be modified to reflect the new location.

- Validates all copied reports so that all successfully validated reports are syntactically correct and able to run against the study-specific packages.

Location

The InForm Application Server folder of the server where the Cognos Application Tier components are installed. For example, *<Installation_Directory>*\InForm\bin.

Usage

pfrinit

Command line prompts

You are prompted for the following parameters:

- **sysadmin_namespace**—Oracle Directory Server admin namespace.

- **sysadmin_uid**—User name for the Oracle Directory Server admin namespace.

- **sysadmin_pass**—Password you chose when creating the crnsysadmin user.

- **publisher_namespace**—Custom Authentication Provider (CAP) namespace.

- **publisher_uid**—InForm study user who is a member of the following Reporting groups:

  - Publishers.

  - Either Sponsor Users or Site Users.

- **publisher_pass**—Password of the InForm study user.

- **dispatcher_url**—Internal URI that the InForm server uses to communicate with the Cognos 10 BI server.

- **trial_name**—Name of the InForm study.

- **in_place_upgrade**—Y/N. Indicate if the PFRInit command is being run as part of an in-place upgrade (required for an in-place upgrade).

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Note

The recommended InForm study user for running pfrinit is **pfreportinguser**. You can change the password for this user using the InForm user interface as with any other user. After you change the password, however, you must run the PFADMIN command, using this syntax:

PFADMIN SETSERVER PFREPORTINGUSERPW <*studyname***>**

When prompted, enter the pfreportinguser password.

This command sets a property used by Reporting when it needs the credentials of the **pfreportinguser**.

For more information, see *pfadmin* (on page 163).

Example

pfrinit "E:\scripts\init.txt"

PostDeployWorkaround.cmd

Purpose

Applies a workaround after a study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

PostDeployWorkaround *<Study_Name> <TNS_Service_Name> <Deployment_ID>*

Option	Parameter
Study_Name	Name of the study requesting deployment.
TNS_Service_Name	Local Net Service Name for the remote database service.
Deployment_ID	Unique identifier for the deployment request.

Note: Workarounds should be used as a last resort during automated deployments, in order to keep human intervention to a minimum.

PreDeployWorkaround.cmd

Purpose

Applies a workaround before a study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

PreDeployWorkaround *<Study_Name> <TNS_Service_Name> <Deployment_ID>*

Option	Parameter
Study_Name	Name of the study requesting deployment.
TNS_Service_Name	Local Net Service Name for the remote database service.
Deployment_ID	Unique identifier for the deployment request.

Note: Workarounds should be used as a last resort during automated deployments, in order to keep human intervention to a minimum.

remove_streams_setup_info_diffdb

Purpose

Deletes stream information from the study database and reporting database.

Location

Folder where the reporting software is located, for example, *<Installation_Directory>*\InForm Reporting\DBOra.

Usage

remove_streams_setup_info_diffdb

Command line prompts

You are prompted for the following parameters:

- **streams_admin_user_rep_passwd**—Password for the reporting streams admin user.

- **streams_admin_user_trial_pwd**—Password for the study streams admin user.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

remove_streams_setup_info_diffdb

RequestTime.cmd

Purpose

Indicates if a future study deployment time conflicts with any conditions on the production environment. If the system is not available or if resource intensive tasks are scheduled on the production environment during the requested timeframe, the requested time is rejected (the command returns 1). Otherwise, it is accepted (the command returns 0).

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

RequestTime *<Study_Name> <Requested_Time> <Study_Type>*

Option	Parameter
Study_Name	Name of the study to be deployed.
Requested_Time	Local time on the InForm server when the deployment is requested, in the format MM/DD/YYYY HH:MM. For example: 05/18/2016 15:30.
Study_Type	Type of the study to be deployed. Options are: • LIVE • UAT • TRAINING • QA • DEV

Note: The RequestTime command helps planning deployments that do not conflict with scheduled maintenance windows or expected peak system usage periods. However, it cannot prevent conflicts caused by conditions that were unexpected or unscheduled at the time the request was made, such as emergency maintenance operations.

APPENDIX B
Troubleshooting

In this appendix

Install issues

Oracle MTS configuration is invalid

If the Oracle registry settings are not correct, you may get the following InForm core installer errors during the installation process:

- Oracle MTS configuration is invalid.

- Registry Settings: INVALID.

- XA Views: INVALID.

Possible solutions:

- If the installation wizard is still open:

    1   Click **Back** to display the **Database Configuration** window.

    2   Select the **Prep Oracle** checkbox.

    3   Click **Next** to proceed.

    This runs the informprepora and mtsora102 commands.

- If the installation window has been closed, run the following commands, located in the InstallSupport folder of the InForm installation image:

    - *mtsora102.exe* (on page 160)

    - *oramtsadmin.sql* (on page 162)

XA Views: INVALID

If you have tried the solution that is recommended in *Oracle MTS configuration is invalid* and still get this error, or if you run mtsora102 from the command line and get a warning, the xaview.sql file may not be installed.

> **Note:** This can happen for some Oracle client-only installations (multi-tier setup).

Possible solution:

1   Copy the xaview.sql file from another machine (running the same Oracle version) to your Oracle rdbms\admin directory.

2   Log in as SYS on a machine with xaview.sql.

3   Run xaview.sql against your InForm core instance.

4   Run mtsora102 from the command line.

Database connectivity

If you get a warning about database connectivity, make sure that:

- The connect string value is correct.

- The pfdbadmin password is valid.

If you get a message that the pfdbadmin user does not exist, create the user by doing one of the following:

- Select the **Prep Oracle** checkbox in the InForm installation wizard.

- Run the **informprepora** command located in the InstallSupport folder of the InForm installation image.

Password error on InForm service start up

The InForm installation wizard cannot ensure that the password entered on the Account Configuration Window for the Local Machine User (pfUSR) meets the password requirements set for the machine. If you enter a password that does not conform to the Windows password requirements, an error will prevent the InForm service from starting.

1   To change the pfUser password enter the following command at a DOS prompt:

    pfadmin install

2   When prompted for the pfUSR password, enter a password that meets the password requirements.

3   Run the following command to start the InForm service:

    new start pfservice

Use the pfadmin view service command to verify that the InForm service has started.

Uninstall issues

Errors when removing a reporting schema

If you run the **deinstall_reporting_diffdb.sql** script to remove a reporting schema, and you receive the message **Reporting deinstallation aborted**, the uninstall fails and no reporting objects are removed.

The probable cause is a problem with the settings in the **configdiffdb.sql** file.

Check the configdiffdb.sql file to make sure that the settings are correct for the reporting schema that you want to remove. In particular, the uninstall scripts check for the existence of a tablespace. If the configdiffdb.sql file contains variables that refer to nonexistent tablespaces, update the file and rerun the uninstall script.

Running the Cognos Customization wizards in silent mode

In this appendix

Steps for running the Cognos Customization wizards in silent mode

For implementations with multiple machines running the Cognos Content Manager, the Cognos Report Server and the Cognos Gateway Server, you can run the Cognos Customizations in silent mode.

To run the CRNConfig and CRNGatewayConfig setup wizards in silent mode:

1   Copy the **CRNConfig** and **CRNGatewayConfig** folders from the product image to a location that is accessible to the machines where you will run the wizards.

2   Populate the **setup.iss** files in each folder with the options you want to specify for the CRNConfig and CRNGatewayConfig wizards.

    You can edit the setup.iss files manually, or you can run the each customization wizard in record mode.

    For more information, see:

    - *Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) in record mode* (on page 189).

    - *Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) in record mode* (on page 191).

3   Run the configuration wizards in silent mode.

    For more information, see:

    - *Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) in silent mode* (on page 190).

    - *Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) in silent mode* (on page 192).

Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) in record mode

1 Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) to install the customizations for the Cognos Content Manager Server or the Cognos Report Server.

   For more information, see **Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe)—Cognos Content Manager / Cognos Report Server** (on page 97).

2 Open a Command Prompt window, and use the following command to run the Cognos Customization for InForm wizard in record mode.

   This step records the installation options, and creates the setup.iss response file that you can use to run the wizard again in silent mode, on other machines

   ```
   CRNConfig\setup.exe -r
   -f1<path_to_configuration_files>\CRNConfig\setup.iss
   ```

Parameter	Description
-r	Runs the wizard in record mode. The options you select when the wizard runs are saved in the response file (setup.iss) identified by the -f1 parameter.
-f1	Identifies the location of the response file. There is no space between the -f1 flag and the response file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.iss`.

Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) in silent mode

1   Copy the **CRNConfig** folder from the product image to a location that is accessible to the machines where you will run the wizard.

2   Populate the **setup.iss** file in the folder with the options you want to specify for the Cognos Customization for InForm wizard.

   You can edit the setup.iss files manually, or you can run the customization wizard in record mode. For more information, see *Run the Cognos Customization for InForm wizard (CRNConfig\setup.exe) in record mode* (on page 189).

3   Open a Command Prompt window, and run the following command:

```
CRNConfig\setup.exe -s
-f1<path_to_configuration_files>\CRNConfig\setup.iss
-f2<path_to_configuration_files>\CRNConfig\setup.log
```

Parameter	Description
-s	Runs the wizard in silent mode.
-f1	Identifies the location of the response file that contains the options for the wizard. There is no space between the -f1 flag and the response file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.iss`
-f2	Identifies the location of the log file for the wizard. There is no space between the -f1 flag and the log file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.log`

Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) in record mode

1   Run the Cognos Gateway Customization for InForm wizard (CRNGateway Config\setup.exe) to install the customizations for the Cognos Gateway Server.

For more information, see *Step 3: Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) on the Cognos Gateway Server* (on page 84).

2   Open a Command Prompt window, and use the following command to run the Cognos Gateway Customization for InForm wizard in record mode.

This step records the installation options, and creates the setup.iss response file that you can use to run the wizard again in silent mode, on other machines

```
CRNGatewayConfig\setup.exe -r
-f1<path_to_configuration_files>CRNGatewayConfig\setup.iss
```

Parameter	Description
-r	Runs the wizard in record mode. The options you select when the wizard runs are saved in the response file (setup.iss) identified by the -f1 parameter.
-f1	Identifies the location of the response file. There is no space between the -f1 flag and the response file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.iss.`

Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) in silent mode

1   Copy the CRNGatewayConfig folder from the product image to a location that is accessible to the machine where you will run the wizard.

2   Populate the setup.iss file in the folder with the options you want to specify for the Cognos Gateway Customization for InForm wizard.

You can edit the setup.iss file manually, or you can run the customization wizard in record mode. For more information, see *Run the Cognos Gateway Customization for InForm wizard (CRNGatewayConfig\setup.exe) in record mode* (on page 191).

3   Open a Command Prompt window, and run the following command:

```
CRNConfig\setup.exe -s
-f1<path_to_configuration_files>\CRNConfig\setup.iss
-f2<path_to_configuration_files>\CRNConfig\setup.log
```

Parameter	Description
-s	Runs the wizard in silent mode.
-f1	Identifies the location of the response file that contains the options for the wizard. There is no space between the -f1 flag and the response file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.iss`
-f2	Identifies the location of the log file for the wizard. There is no space between the -f1 flag and the log file location. For example: `-f1E:\ReportingInstallFiles\CRNConfig\setup.log`

About the documentation

Where to find the product documentation

The product documentation is available from the following locations:

- **My Oracle Support** (https://support.oracle.com)—*Release Notes* and *Known Issues*.

- **Oracle Technology Network** (http://www.oracle.com/technetwork/documentation/hsgbu-154445.html)—The most current documentation set, excluding the *Release Notes* and *Known Issues*.

If the software is available for download, the complete documentation set is available from the Oracle Software Delivery Cloud (https://edelivery.oracle.com).

All documents may not be updated for every InForm release. Therefore, the version numbers for the documents in a release may differ.

Documentation accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Documentation

Document	Description	Part number	Last updated
Release Notes	The *Release Notes* document describes enhancements and issues fixed in the current release, and other late-breaking information.	E80527-01	6.1.1.1
Known Issues	The *Known Issues* document provides detailed information about the known issues in this release, along with workarounds, if available.	E61318-01	6.1.1

Document	Description	Part number	Last updated
Secure Configuration Guide	The *Secure Configuration Guide* provides an overview of the security features provided with the Oracle® Health Sciences InForm application, including details about the general principles of application security, and how to install, configure, and use the InForm application securely.	E61320-01	6.1.1
Upgrade and Migration Guide	The *Upgrade and Migration Guide* provides instructions for upgrading and migrating the InForm software and InForm Portal software to the current InForm release, and for upgrading the Cognos software for use with the Reporting and Analysis module.	E80528-01	6.1.1.1
Installation Guide	The *Installation Guide* describes how to install the software and configure the environment for the InForm application and Cognos software.	E81427-02	6.1.1.1
Study and Reporting Setup Guide	The *Study and Reporting Setup Guide* describes how to perform the tasks that are required to set up an InForm study and configure the Reporting and Analysis module for the study.	E61323-01	6.1.1
User Guide	The *User Guide* provides an overview of the InForm application including details on multilingual studies, how to navigate through the user interface, how to manage a study-specific Home page with the InForm Portal application, and how to accomplish typical tasks you perform while running a clinical study. This document is also available from the user interface.	E61324-01	6.1.1
Reporting and Analysis Guide	The *Reporting and Analysis Guide* provides an overview of the Reporting and Analysis module. It includes a brief overview of the Reporting and Analysis interface, illustrates how to access the InForm Ad Hoc Reporting workspace, and describes the study management and clinical data packages available for creating reports. It also provides detailed descriptions of each standard report that is included with your installation.	E61326-01	6.1.1
Reporting Database Schema Guide	The *Reporting Database Schema Guide* describes the Reporting and Analysis database schema, and provides information on creating Reporting Database Extracts (RDEs).	E61327-01	6.1.1

Document	Description	Part number	Last updated
Utilities Guide	The *Utilities Guide* provides information about and step-by-step instructions for using the following utilities: • PFConsole utility • MedML Installer utility • InForm Data Import utility • InForm Data Export utility • InForm Performance Monitor utility • InForm Report Folder Maintenance utility This guide also provides reference information for the MedML elements and scripting objects that are used to import and export data to and from the InForm application, as well as sample data import XML.	E61328-01	6.1.1
MedML Installer utility online Help	The MedML Installer utility online Help provides information about, and step-by-step instructions for using, the MedML Installer utility, which is used to load XML that defines study components into the InForm database. This guide also provides reference information for the MedML elements and scripting objects that are used to import and export data to and from the InForm application, as well as sample data import XML. This document is also available from the user interface.	NA	NA
InForm Data Export utility online Help	The InForm Data Export utility online Help provides information about and step-by-step instructions for using the InForm Data Export utility, which is used to export data from the InForm application to the following output formats: • Customer-defined database (CDD) • Name value pairs This document is also available from the user interface.	NA	NA

Document	Description	Part number	Last updated
InForm Data Import utility online Help	The InForm Data Import utility online Help provides information about and step-by-step instructions for using the InForm Data Import utility, which is used to import data into the InForm application. This document is also available from the user interface.	NA	NA
Clinical Data API Guide	The *Clinical Data API Guide* provides information about submitting data to the InForm application in InForm ODM format.	E61329-01	6.1.1
Third Party Licenses and Notices	The *Third Party Licenses and Notices* document includes third party technology that may be included in or distributed with this product.	E61330-01	6.1.1
Secure Development Guide	The *Secure Development Guide* provides an overview of common security risks for developers using Application Programming Interfaces (APIs) with the Oracle® Health Sciences InForm application, and information on how to address those risks.	E72493-01	6.1.1