

IBM Cognos Controller  
Version 10.4.2

*Installation and Configuration*



**Note**

Before using this information and the product it supports, read the information in [“Notices” on page 125.](#)

**Product Information**

This document applies to IBM® Cognos Controller version 10.4.2 and may also apply to subsequent releases.

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# Chapter 1. Introduction

This document is intended for use with IBM Cognos® Controller. This guide contains instructions for installing, configuring, and testing IBM Cognos Controller.

IBM Cognos Controller is a Web-based financial consolidation tool that provides standard reports to support both statutory and management reporting.

## Audience

To use this guide, you should be familiar with

- database and data warehouse concepts
- security issues
- basic Windows administration
- the existing server environment and security infrastructure in your organization

## Finding information

To find product documentation on the web, including all translated documentation, access [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter) (<http://www.ibm.com/support/knowledgecenter>).

## Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.

## Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products. This product has accessibility features. For information on these features, see the accessibility section in this document.





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## Chapter 2. What's new?

This section contains a list of new, changed, and deprecated installation and configuration features for this release.

It also contains a cumulative list of similar information for previous releases. It will help you plan your upgrade and application deployment strategies and the training requirements for your users.

For information about upgrading, see the installation and configuration guide for your product.

For an overview of new IBM Cognos Controller functionality for this release, see the *Controller New Features*.

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the [Software Product Compatibility Reports](http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5) (<http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

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### New features in version 10.4.2

The new features in installation simplify the IBM Cognos Controller architecture.

The following features are new in the installation of Cognos Controller:

#### **Active Directory authentication**

You can now use Active Directory authentication instead of IBM Cognos Analytics. For more information, see [“Configure Active Directory authentication”](#) on page 75.

#### **Cognos Controller Embedded Report Library**

The installation wizard now gives you the option of installing the Cognos Controller Embedded Report Library. For more information, see [“Configuring Cognos Controller Embedded Report Library”](#) on page 88.

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### New features in version 10.3.1

The following features are new in the 10.3.1 version of IBM Cognos Controller.

#### **Cognos Business Intelligence components removed**

The IBM Cognos Controller installation kit no longer includes IBM Cognos Business Intelligence components.

You must install your own version of IBM Cognos Business Intelligence or IBM Cognos Analytics, including the components that are required for Cognos Controller. For more information, see [“System requirements”](#) on page 19.

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### New features in version 10.3.0

The following features are new in the 10.3.0 version of IBM Cognos Controller.

#### **Controller Web**

As of IBM Cognos Controller version 10.3, you can use Controller Web.

Controller Web is a web application designed for a reporting site user who needs to report for one or more subsidiaries into the group's financial consolidation. Controller Web is installed together with the IBM Cognos Controller client. All configuration and maintenance will be done in the Cognos Controller rich client. Cognos Controller is integrated with various IBM Cognos products to provide a complete solution for analysis and reporting.

## 32-bit and 64-bit version of Cognos Controller client

As of IBM Cognos Controller 10.3.0, you can use a 32-bit or 64-bit version of the Controller client.

Use one of the following versions:

- `ccrlocalclient64.msi` for installation on Microsoft Windows 64-bit
- `ccrlocalclient32.msi` for installation on Microsoft Windows 32-bit

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## Chapter 3. Components Used by IBM Cognos Controller

IBM Cognos Controller is a Web-based solution designed to address financial consolidation needs and to support statutory and management reporting requirements.

IBM Cognos Controller integrates easily into your existing infrastructure by using resources that are in your environment. Some of these existing resources are required, such as a Java™ Virtual Machine or other databases for the content store. Other resources are optional, such as using other security providers for authentication.

You must also have IBM Cognos Business Analytics or IBM Cognos Business Intelligence installed.

By default, the IBM Cognos Controller reporting components use the IBM Websphere application server.

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### Server Components

Server components provide the user interfaces for reporting and product configuration, as well as the server functionality for routing and processing user requests. Server components are organized into five functional groups: interfaces, gateway components, application tier components, content manager components, and Controller Web.

#### Interfaces

The following user interfaces are available for using and configuring IBM Cognos Controller.

##### **Cognos Controller**

Cognos Controller provides the user interface for financial consolidation. It is accessible through Cognos Connection, and by using a URL.

To access Cognos Controller, click the Controller link that appears in the welcome page. You can also click the Controller link that appears on your home page, if one is defined.

Within Cognos Controller the IBM Cognos Controller Link for Microsoft Excel extends the functionality of Microsoft Excel for creating individual forms and provides templates for manual data entry.

For information about using Cognos Controller, see *Using Controller*.

##### **Cognos Controller Configuration**

You use Cognos Controller to configure Cognos Controller data sources, set security, and administer system-wide Cognos Controller settings.

##### **Cognos Controller Financial Analytic Publisher client**

With Financial Analytic Publisher, you can connect the Cognos Controller database to the Financial Analytic Publisher client so that you can publish data in a TM1® cube and access Cognos Controller values from TM1®.

#### Gateway components

The IBM Cognos Controller gateway components provide web communication and access for client computers and connect the Cognos Controller installation to an existing IBM Cognos Business Intelligence or IBM Cognos Analytics server.

## **Controller Client Distribution Server**

Controller Client Distribution Server provides access to Cognos Controller for client computers. The client components are downloaded from the Controller Client Distribution Server when Cognos Controller is launched through a web browser on a client machine.

## **Gateway Integration Enabler**

The Gateway Integration Enabler updates the gateway to make it aware of both Cognos Controller and reporting components.

## **Application Tier Components**

Application tier components provide the server functionality for processing and routing requests to an IBM Cognos Business Intelligence or IBM Cognos Analytics reporting server.

### **Controller Web Services Server**

Controller Web Services Server handles requests for activities within IBM Cognos Controller, such as working with accounts, consolidations, companies, and dimensions. Controller Web Services Server also manages data source connections and security information, as well as preparing data in the IBM Cognos Controller database for reports.

Depending on how you have configured security, the Web Services Server may access other components before processing requests, such as authenticating users.

A COM+ application is created when the Web Services Server is installed. This application runs within the Microsoft component services and provides most of the IBM Cognos Controller business logic, such as retrieving report templates and preparing data in the Controller database for reports.

### **IBM Cognos Connection Integration Enabler**

The IBM Cognos Connection Integration Enabler activates the links in IBM Cognos Connection that users click to access IBM Cognos Controller. These links are available from the IBM Cognos Connection Welcome page and the home page.

## **Content Manager Components**

The IBM Cognos Controller Content Manager components support the data functionality for the IBM Cognos Business Intelligence or IBM Cognos Analytics Content Store and the Controller database.

### **Controller Standard Reports Package**

Report Server uses information in the Controller standard reports package, a Framework Manager package provided with IBM Cognos Controller, to determine the structure of data in the Controller database. The package contains preformatted templates that are used to obtain the data necessary for rendering the standard reports that are available with IBM Cognos Controller. You do not need to install IBM Cognos Framework Manager to use the standard reports package.

### **Controller Framework Manager Model**

You can use the Framework Manager model provided with Controller to author custom reports. This Publish to Data Mart Framework Manager model is provided as a template for reporting against a Controller data mart database. You can also customize the model in IBM Cognos Framework Manager before creating the reports in IBM Cognos Report Studio.

To use this model, you must use Framework Manager from your IBM Cognos Business Intelligence or IBM Cognos Analytics installation.

## Controller Web

IBM Controller Web is a web application specifically designed for users who support the financial consolidation process of the group by entering reconciled data on subsidiary level.

## Cognos Controller Embedded Report Library

The IBM Cognos Controller Embedded Report Library supports viewing of the Cognos Controller predefined reports without the requirement for Cognos Analytics to be installed.

If you want to use it, select the **Controller Reports** component in the installation wizard. After the installation wizard is complete, you must configure the Cognos Controller Embedded Report Library. For more information, see [“Configuring Cognos Controller Embedded Report Library”](#) on page 88.

## Other components

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In addition to the tools provided with IBM Cognos Controller, the following components use other resources.

### Controller Database

Data sources, such as relational databases or other physical data stores, are used as the Controller database, which contains the data that the clients work with in IBM Cognos Controller.

Application Tier Components use data source connections to access the Controller database.

At least one database and its data source connection must be available before users can use IBM Cognos Controller. If more than one Controller database is available, each database must be the same Controller database version. For more information about database versions, see *Installing and Configuring Controller*.

If more than one Controller database is available, the administrator determines whether users can select the database they want to use or whether one is provided by default. Administrators can choose to let users select a database from a list that appears when IBM Cognos Controller starts. If no selection is allowed, users can access only the default database.

To enable the Web Services Server to connect to the Controller database, ensure that you install the database API software on each Web Services Server computer.

### Controller Data Mart Database

A Controller data mart database is required if you use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller. By using the Publish to Data Mart functionality in Controller, you can publish data and structures from a Controller database to the data mart database. After it is populated, you can use the Controller data mart database for custom reporting using the Controller Publish to Data Mart Framework Manager model.



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## Chapter 4. Installation Options

Before implementing IBM Cognos Controller, decide how you will install and configure it to provide the best possible performance. The installation and configuration choices that produce the best performance depend on your requirements, resources, and preferences.

When you assess your installation options for Cognos, you must consider whether you are installing the product for the first time or upgrading. For information, see [Chapter 7, “Upgrading IBM Cognos Controller,”](#) on page 29.

If your environment includes other IBM Cognos products, you must consider how Cognos Controller fits into that environment.

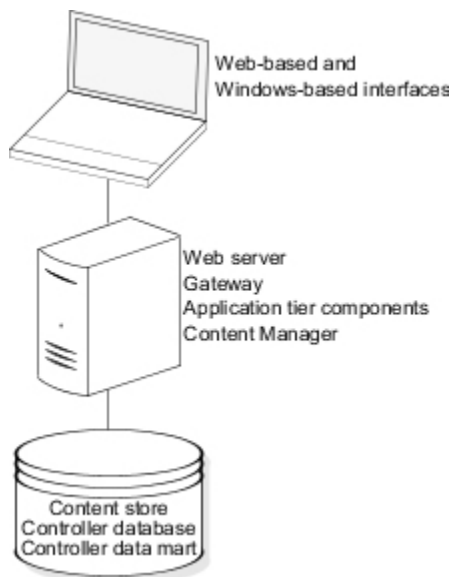
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### All Components on One Computer

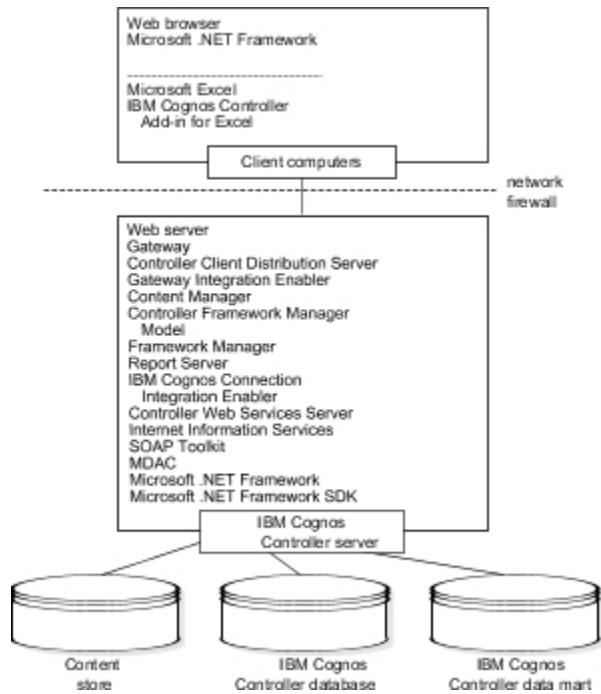
Install all server components on one computer only for proof of concept or in demonstration environments where the user load is small. Because the gateway must be located with the Web server, the single computer must also be running a Web server.

This section refers to the gateway, application tier components, Content Manager, and Content store. These components are all part of IBM Cognos Business Intelligence or IBM Cognos Analytics and must be installed as part of those products.

In the following diagram, all Controller server components are installed on one computer, and the client applications are installed on another.



The following diagram provides a more detailed view of a IBM Cognos Controller installation in which all server components are installed on a single computer. The client components, content store, IBM Cognos Controller databases, and Controller data mart database are located on separate computers.



## Components Distributed on Multiple Computers

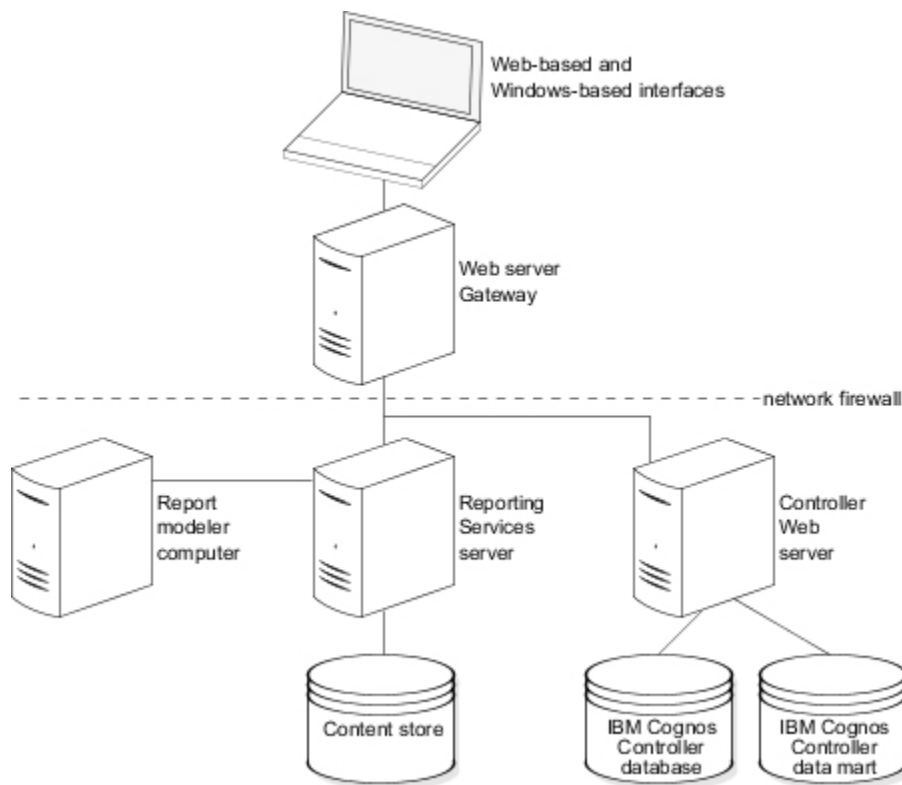
You can distribute components on multiple computers to improve performance, availability, capacity, and security. You can use two or more computers and start the distribution by first distributing the gateway, then the Content Manager components, then the Application Tier components, and finally adding multiple Controller Web Services servers until you achieve optimal performance.

This section refers to the gateway, application tier components, Content Manager, and Content store. These components are all part of IBM Cognos Business Intelligence or IBM Cognos Analytics and must be installed as part of those products.

## Distributing Components in a Role-based Configuration

As shown in the following diagram, you can distribute the gateway, the reporting components, and the IBM Cognos Controller data calculation and consolidation components on separate computers.

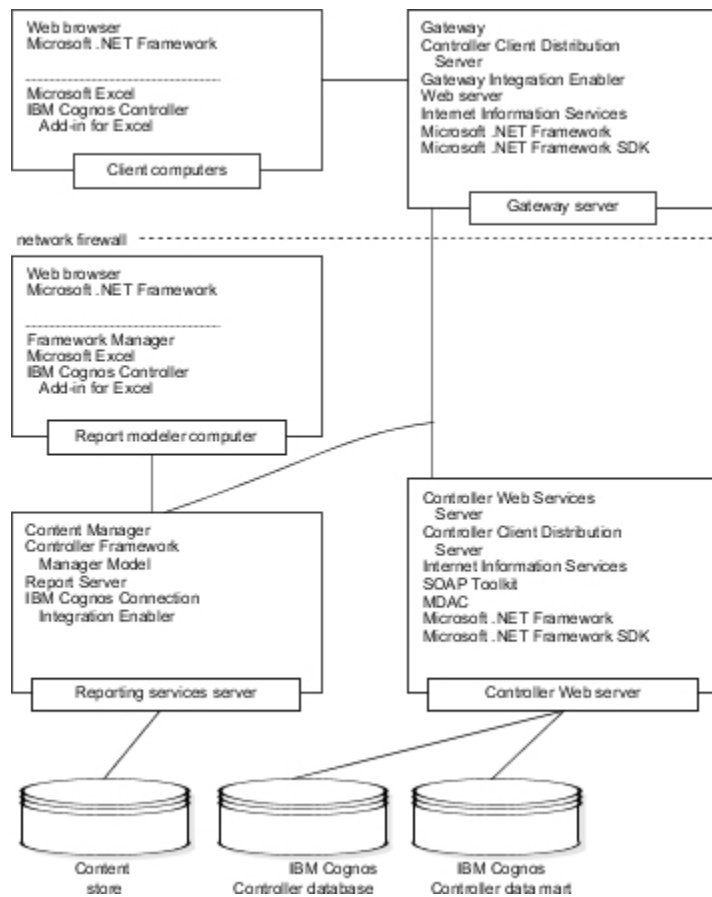




The gateway is on a separate Web server computer. If the gateway is located outside the firewall, as in this configuration, you must also install the Controller Client Distribution Server on the gateway computer so it can communicate with the external clients. A separate computer serves as the reporting services server with Content Manager, Report Server, and related IBM Cognos components installed. Another computer serves as the Controller Web server with the Controller Web Services Server installed to do the data consolidations, and the Controller Client Distribution Server installed to communicate with the internal clients.

The report modeler computer has IBM Cognos Framework Manager installed for using or customizing the Publish to Data Mart model provided with Controller.

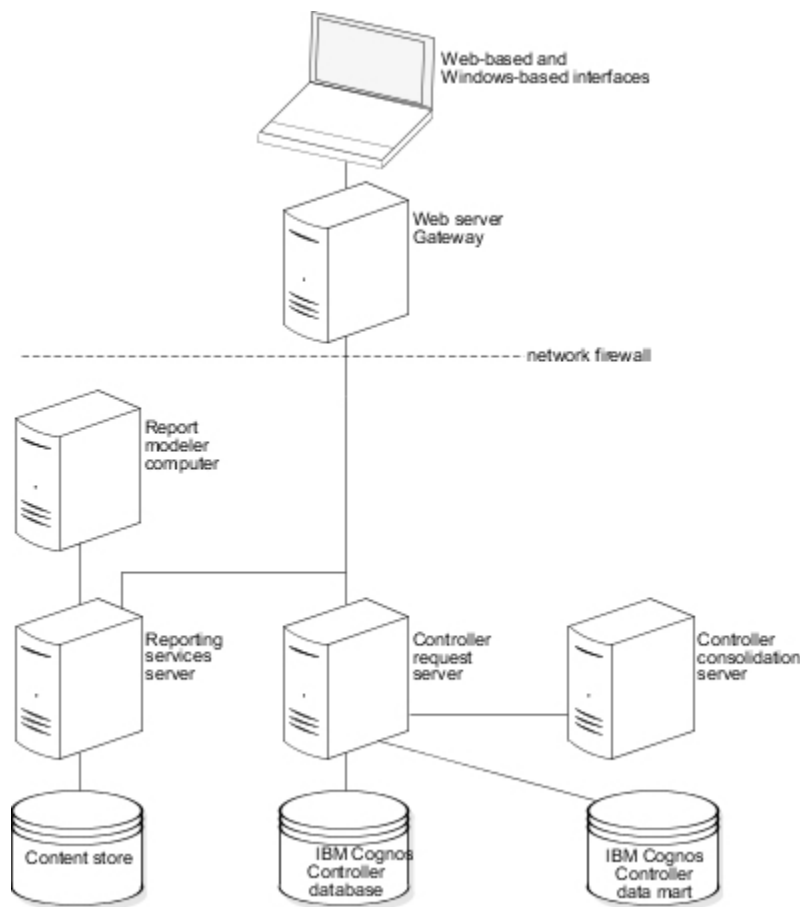
The following diagram provides a more detailed view of this configuration.



## Distributing Components for Load Balancing of the Consolidation Functions

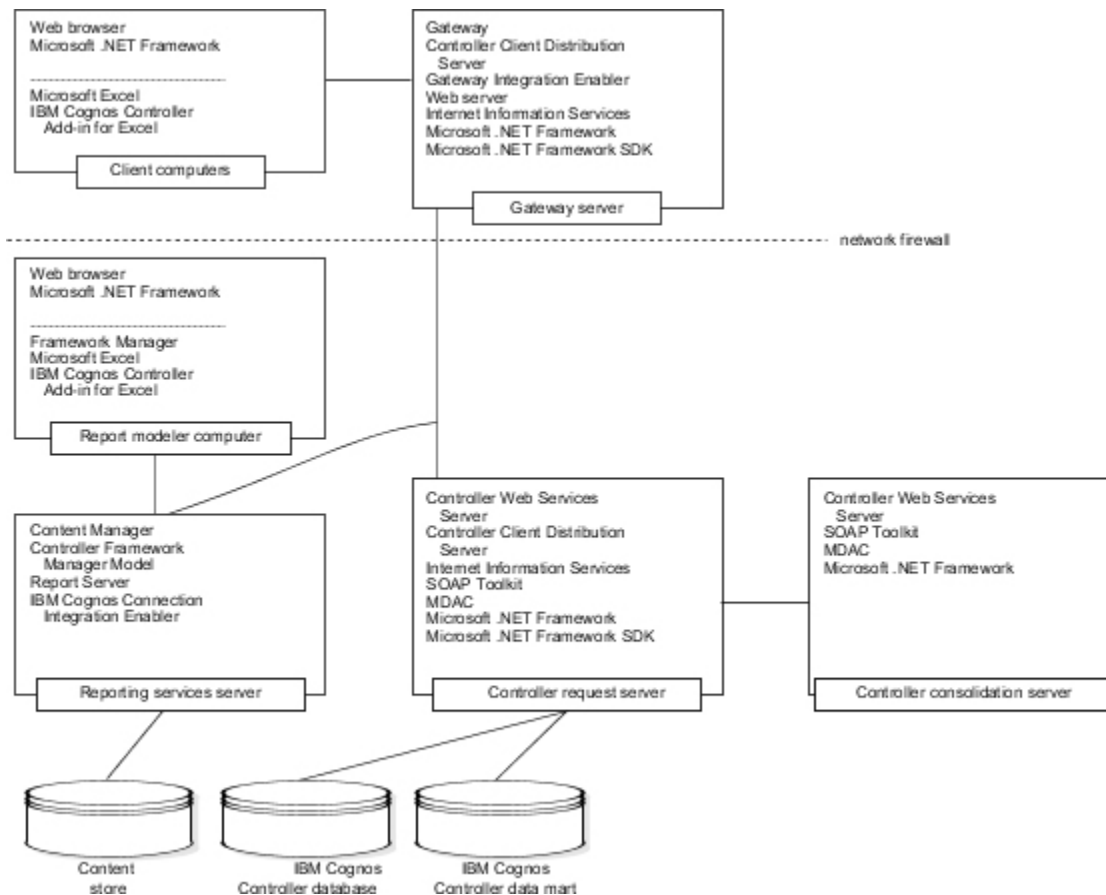
You can build on the previous distribution example and further balance the load for the calculation and consolidation functions of IBM Cognos Controller.

In the following diagram, the components are distributed across several computers, and two computers are set up for consolidation load balancing.



In this example, you install Controller Web Services Server on two computers and then move the COM+ components that are used for consolidation to the second computer. The first computer serves as a request server and accepts user requests, but it does not perform consolidation tasks. You also install the Controller Client Distribution Server on this computer to communicate with the internal clients. The second computer serves as the consolidation server and does all the data calculations.

The following diagram provides a more detailed view of this configuration.



## Integrating Cognos Controller with other IBM Cognos products

You can install IBM Cognos Controller in an environment with other IBM Cognos products by configuring a specific installation of IBM Cognos Business Intelligence or IBM Cognos Analytics or integrating it with an existing installation of IBM Cognos Business Intelligence or IBM Cognos Analytics. This allows the environments to share security settings and tools such as Report Studio.

IBM Cognos Business Intelligence users can access published Controller data and structures for analysis and reporting using Framework Manager and Report Studio. The Publish to Data Mart feature in IBM Cognos Controller publishes Controller data to the Controller data mart for access by a Framework Manager model.

IBM Cognos Controller users can import published data from IBM Cognos BI applications by using the Import from Framework Manager function in IBM Cognos Controller.

With the IBM Cognos Controller OLAP extension, you can create an OLAP cube of Controller data that can be used by IBM Cognos Business Intelligence users.

IBM Cognos Controller users can prepare actual values for export to IBM Cognos Planning – Contributor so that the data can be used in the planning process. The Send to Application function in IBM Cognos Controller creates a Microsoft Excel spreadsheet for import to external applications.

IBM Cognos Controller users can also import plans from Contributor so that the data can be consolidated. The necessary stored procedures and staging tables to do this import are in the Controller database and are delivered with IBM Cognos Controller. The Import from Flat Files feature in IBM Cognos Controller imports data from spreadsheets and text files.

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## Chapter 5. Workflow for Installing and Configuring Cognos Controller

You can use this workflow for installing and configuring IBM Cognos Controller.

### Procedure

1. Prepare for implementation.

This task is typically carried out by a team assembled and led by the business intelligence and solutions architect.

2. If necessary, install a supported version of IBM Cognos Business Intelligence or IBM Cognos Analytics. If you are using Active Directory authentication for single sign-on and Cognos Controller Embedded Report Library for viewing standard reports, then installation of IBM Cognos Business Intelligence or IBM Cognos Analytics is optional.

3. Install and configure IBM Cognos Controller components.

Technical personnel install and configure IBM Cognos Controller, typically under the direction of the business intelligence solutions architect.

4. Test IBM Cognos Controller installation and configuration.

5. Administer IBM Cognos Controller.

Administrators establish and maintain security, and perform ongoing administration tasks.

---

### Prepare for Implementation

Implementing IBM Cognos Controller means installing and configuring it to integrate effectively with your existing infrastructure.

To ensure that IBM Cognos Controller is implemented effectively, it is important to carefully outline your implementation using an implementation checklist.

**Note:** We recommend that you contact your IBM Cognos consultant before finalizing any server deployment. You can also visit [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome) (<http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome>).

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### Set up the Environment

You must set up resources in your environment so that the components can operate.

For more information, see [Chapter 6, “Setting Up the Environment,”](#) on page 19.

---

### Install IBM Cognos Controller

Installing IBM Cognos Controller is typically done by information technology personnel under the direction of the business intelligence solutions architect.

When you install IBM Cognos Controller using the **Installation** wizard, you specify where to install these components:

- Gateway components, which includes Controller Client Distribution Server and Gateway Integration Enabler
- Application tier components, which includes Controller Web Services Server and IBM Cognos Connection Integration Enabler

- Content Manager components, which includes Controller Standard Reports Package and Controller Framework Manager Model

To deploy the Publish to Data Mart Framework Manager model that is provided with IBM Cognos Controller, you must also install Framework Manager.

You can install the components on one computer, or distribute them across a network. Before installing IBM Cognos Controller, choose the appropriate installation and configuration option [Chapter 4, “Installation Options,”](#) on page 9.

## Configure IBM Cognos Controller

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You use IBM Cognos Controller Configuration to do the initial configuration of Cognos Controller.

If you are using a computer with Microsoft Windows installed and the User Account Control (UAC) is turned on, IBM Cognos Controller Configuration is identified as an administrative application. You must run it with elevated administrative privileges. To properly save the configuration settings, the UAC prompts for credentials if you are using a standard account.

You configure the following items using IBM Cognos Controller Configuration:

### Security

By default, native security is configured for the Controller database. If you want to set up security, configure security settings immediately after installing IBM Cognos Controller. For more information, see [Chapter 10, “Configuring Authenticated Access,”](#) on page 71.

### Data access

Specify database connection information for at least one Controller database.

### Cognos Business Intelligence or Cognos Analytics integration

Specify URIs for connecting to the gateway and dispatcher in Cognos Business Intelligence or Cognos Analytics.

## Configure Security

IBM Cognos Controller can provide security by using native security, by integrating with an existing security infrastructure to provide user authentication, or by using Windows authentication. IBM Cognos Controller can secure content by using the user and group definitions from your security system, without any changes required. A Cognos namespace is included to provide the optional ability to define additional groups for securing content. These groups can simplify security administration by including users and groups from one or more authentication providers.

IBM Cognos Controller also provides an authorization facility for assigning permissions to users defined in the authentication provider. It also provides a standard certificate authority (CA) for setting up encryption. Enhanced capabilities are available separately from Cognos, an IBM company.

If you intend to set up security for IBM Cognos Controller, it should be the first thing you do after installation [Chapter 10, “Configuring Authenticated Access,”](#) on page 71. For information about setting up and maintaining security, see the *IBM Cognos Business Intelligence Administration and Security Guide*.

## Test IBM Cognos Controller

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You can test your IBM Cognos Controller installation and configuration on a client computer by starting IBM Cognos Controller from IBM Cognos Connection or from a URL, and by running the IBM Cognos Controller Link for Microsoft Excel, and by running a standard system report. You can test from IBM Cognos Connection only if you are using IBM Cognos Controller native authentication.

## Administer IBM Cognos Controller

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After IBM Cognos Controller is installed and configured, you can use the IBM Cognos Business Intelligence or IBM Cognos Analytics software portal to do the following things:

- Back up data
- Maintain security
- Deploy IBM Cognos Business Intelligence or IBM Cognos Analytics from one environment to another

For information about administration, see the *IBM Cognos Business Intelligence Administration and Security Guide*.





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## Chapter 6. Setting Up the Environment

You must set up resources in your environment so that the components can operate. You must ensure that a web browser and a web server are set up to provide access to IBM Cognos components. If you use a router, you must configure it to support IBM Cognos features.

Use the following checklist to guide you through the set up process:

- \_\_\_ • [Review the Release Notes.](#)
- \_\_\_ • [Review the supported environments.](#)
- \_\_\_ • [Verify system requirements.](#)
- \_\_\_ • [Create an IBM Cognos Controller database.](#)
- \_\_\_ • [Configure the Web browser.](#)
- \_\_\_ • [Install and configure Microsoft .NET Framework.](#)

You must complete these tasks before you install and configure the IBM Cognos components [Chapter 11, “Additional Configuration Options,”](#) on page 87 to work in your environment.

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### Review the release notes before you install

Before you install your IBM Cognos product, it is important to be aware of all issues that may affect your installation strategy.

There may be late-breaking issues that were not known when this installation guide was created.

Review the release notes before you install your product. The release notes contain late-breaking information about known issues as well as documentation updates and deprecation notices. For more information, see [Cognos Controller 10.4.2 release notes](#).

---

### Review Supported Environments

To ensure your product works properly, apply all required operating system patches and use only the versions of other software that are supported for an IBM Cognos product.

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the Software Product Compatibility Reports (<http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

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### System requirements

Use this information to ensure that your computer meets the minimum hardware and software requirements to run IBM Cognos Controller. The hardware requirements depend on your IBM Cognos environment. You may require additional resources, such as disk space.

Table 1. Client installation requirements	
Requirement	Specification
RAM	Recommended: 4 GB  <b>Note:</b> Although it is possible to run Controller using the minimum specifications, unless there are exceptional circumstances it is best to use at least the recommended specifications.

*Table 2. Server installation requirements*

<b>Requirement</b>	<b>Specification</b>
Operating system	Microsoft Windows 2008 R2 Enterprise Edition
RAM	Minimum: 8 GB
Disk space	Minimum: 4 GB
CPU Cores	4
Web server	Microsoft Internet Information Services (IIS)
Database for IBM Cognos Business Intelligence Content Store	<p>Must be one of the following types:</p> <ul style="list-style-type: none"> <li>• Oracle</li> <li>• DB2®</li> <li>• Microsoft SQL Server</li> <li>• TCP/IP connectivity to Microsoft SQL Server</li> <li>• Sybase</li> </ul>
Database for IBM Cognos Controller data	<p>Must be one of the following types:</p> <ul style="list-style-type: none"> <li>• DB2</li> <li>• Oracle</li> <li>• Microsoft SQL Server</li> </ul>
Database for IBM Cognos Controller datamart	<p>Must be one of the following types:</p> <ul style="list-style-type: none"> <li>• DB2</li> <li>• Oracle</li> <li>• Microsoft SQL Server</li> </ul>
Oracle Client Database	<p>If you are using Oracle Client as a database, the following components are the minimum requirements:</p> <ul style="list-style-type: none"> <li>• Oracle Network Utilities</li> <li>• Oracle Database Utilities</li> <li>• SQL* Plus</li> <li>• Oracle JDBC/OCI Interface</li> <li>• Oracle Windows Interface</li> </ul> <p><b>Note:</b> You must install both the 32-bit and 64-bit client on the server.</p>
Database for Financial Analytics Publisher	<p>If you use Financial Analytics Publisher, then one of the following databases is required:</p> <ul style="list-style-type: none"> <li>• DB2</li> <li>• Oracle</li> <li>• Microsoft SQL Server</li> </ul>

<i>Table 2. Server installation requirements (continued)</i>	
<b>Requirement</b>	<b>Specification</b>
Web browser	<p>Microsoft Internet Explorer</p> <p>The following settings must be enabled:</p> <ul style="list-style-type: none"> <li>• cookies</li> <li>• JavaScript</li> <li>• Active scripting</li> <li>• Allow META REFRESH</li> </ul> <p>Apple Safari requires JavaScript to be enabled</p>
Reporting tool for Financial Analytics Publisher	<ul style="list-style-type: none"> <li>• IBM Cognos BI Studios</li> <li>• Other TM1<sup>®</sup> supported viewers</li> </ul>
OLAP Engine	IBM Cognos TM1
Other	<p>Microsoft .NET Framework 4.5 or higher must be installed on the following computers:</p> <ul style="list-style-type: none"> <li>• Controller Client Distribution Server computer</li> <li>• Client computer</li> </ul> <p>Microsoft .NET Framework 4.7.2 must be installed on the Controller Web Services Server computer.</p> <p>Microsoft Excel must be installed on IBM Cognos Controller client computers.</p> <p>Microsoft Excel is required only to use the IBM Cognos Controller Link for Microsoft Excel.</p> <p>An SMTP server must be set up if Controller users want to use the automatic e-mail feature.</p> <p>Adobe Acrobat Reader must be installed on IBM Cognos Controller client computers.</p>

If necessary, install one of IBM Cognos Business Intelligence or IBM Cognos Analytics. The version must be as specified in the [Software Product Compatibility Reports](http://www.ibm.com/software/reports/compatibility/clarify-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5) (<http://www.ibm.com/software/reports/compatibility/clarify-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

**Note:** If you are using Active Directory authentication for single sign-on and Cognos Controller Embedded Report Library for viewing standard reports, then installation of IBM Cognos Business Intelligence or IBM Cognos Analytics is optional.

The specific required components are listed in the following two tables:

<i>Table 3. Cognos Business Intelligence server requirements</i>	
<b>Requirement</b>	<b>Description</b>
Content Manager	Contains content manager services that connect to the content store database
Application Tier components	Contains report services

Table 3. Cognos Business Intelligence server requirements (continued)	
Requirement	Description
Gateway tier	Used for web communication and reporting functionality

Table 4. Cognos Analytics server requirements	
Requirement	Description
Content repository	Contains content manager services that connect to the content store database
Application services	Contains report services and batch report services

## Prerequisites

Before you begin configuration, ensure the following:

- Microsoft .NET Framework 4.5 is installed on all client computers that run IBM Cognos Controller.
- SQL 2010 client components are installed for the data mart functionality on all computers where Controller Web Services Server is installed.
- Appropriate jdbc drivers are installed for both the content store and the Cognos Controller database.

## Verifying supported software versions and hardware requirements

To ensure that the correct supported software versions are available for the IBM Cognos Business Intelligence server components, test the space allocations for IBM Cognos Controller, and test the versions of the installed software.

### About this task

Some of the server components are installed automatically with the installation of IBM Cognos Controller. For example, the Java Runtime Environment (JRE) is automatically installed with IBM Cognos Controller Financial Analytics Publisher and IBM Cognos Controller Web Services Server. This means that you no longer need to define the JAVA\_HOME or CCR\_JAVA\_HOME environment variables.

**Tip:** In most cases, you should not set any JAVA\_HOME variable. It is only when the JRE does not exist in the default location that IBM Cognos Configuration and other IBM Cognos BI components require that the JRE is referenced by the JAVA\_HOME environment variable. On Microsoft Windows operating system, if JAVA\_HOME is not set, the JRE that is packaged with IBM Cognos Controller is used by default.

You can use the Windows Add or Remove Programs utility to verify the version for software, such as Microsoft .NET Framework. Other vendor software, such as Microsoft Data Access Component (MDAC), are not listed in the Windows Add or Remove Programs utility. You must verify the installation and version through other methods.

## Create an IBM Cognos Controller Database

If you are installing IBM Cognos Controller for the first time, you must create an empty Controller database. This is because IBM Cognos Controller requires a configured Controller database to run.

If you installed previous versions of IBM Cognos Controller and have established Controller databases, you do not need to create an empty database for IBM Cognos Controller to run. You can configure the Controller database connections using an existing Controller database.

**Important:** Before you configure existing Controller databases for use with IBM Cognos Controller, contact your IBM Cognos consultant. Your IBM Cognos consultant will discuss the IBM Cognos Controller consolidation models and possible database upgrade procedures.

## Before you begin

IBM Cognos Controller databases must be created using DB2, Oracle or Microsoft SQL Server.

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the Software Product Compatibility Reports (<http://www.ibm.com/software/reports/compatibility/clarify-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

## Create an IBM Cognos Controller Database for DB2

If you are installing IBM Cognos Controller for the first time, you must create an empty Controller database. This is because IBM Cognos Controller requires a configured Controller database to run.

### Procedure

1. Determine whether the database is Unicode.

To check if the database is Unicode, type the following at the command prompt:

```
Db2 get db cfg for <databasename here> | find "code set"
```

2. If the result set returns a code set that is not Unicode, create a new database that uses a Unicode code set.
3. Set the territory identifier to the correct language.
4. In Windows, add the user account to both the DB2ADMNS and DB2USERS groups.
5. The user account that accesses the data should be the same that owns the database objects (tables, indexes).
6. Grant the following privileges to the user account that owns and accesses the database:
  - dbadm
  - createtab
  - bindadd
  - connect
  - create\_not\_fenced\_routine
  - implicit\_schema
  - load
  - create\_external\_routine
  - quisce\_connect
7. From the application server where the DB2 client is installed, the database server has to be cataloged.

Type the following at the command prompt:

- catalog the server;  
catalog tcpip node <Node name> remote <hostname> server <port>;
- catalog the database;  
catalog database <databasename> as <alias> at node <node name>  
authentication server

To list nodes and databases, type the following at the command prompt:

- Db2 list node directory
- Db2 list database directory

For more information about cataloging the database, see the *DB2 Database Administration Concepts and Configuration Reference*.

## Results

Performance in a DB2 database will often change over time, and it is crucial to keep track of this. For database maintenance, contact your database administrator.

## Create an IBM Cognos Controller Database for Microsoft SQL Server

If you are installing IBM Cognos Controller for the first time, you must create an empty Controller database. This is because IBM Cognos Controller requires a configured Controller database to run.

### Procedure

1. If you performed a typical installation of Microsoft SQL Server, after you install you must change the authentication mode to **SQL Server and Windows**.

For more information, see the related knowledge base article on the Microsoft Web site.

2. Create the database.

Ensure that the database collation sequence is case insensitive, and is the same for both the server and the Controller database.

3. Determine which user account Controller Web Services Server will use to access the database.
4. Grant create table privileges for the database to the user account.

Ensure that the user account is a member of the db\_owner role.

## Results

**Note:** In Microsoft SQL 2005, if you do not specifically make another selection, dbo will be the default table owner. Controller tables owned by dbo are not supported. If you have dbo as the default table owner you must change it.

## Create an IBM Cognos Controller Database for Oracle

If you are installing IBM Cognos Controller for the first time, you must create an empty Controller database. This is because IBM Cognos Controller requires a configured Controller database to run.

### Procedure

1. Determine whether the database is Unicode.

**Tip:** One method is to type the following select statement:

```
select * from NLS_DATABASE_PARAMETERS
```

2. If the result set returns an NLS\_CHARACTERSET that is not Unicode, create a new database that uses a Windows 1252 character set such as WE8MSWIN1252.
3. Determine which user account Controller Web Services Server will use to access the database.
4. Grant the following privileges to the user account that accesses the database:

- create session
- alter session
- create table
- create database link
- create sequence
- create trigger
- create view
- create procedure

- create materialized view
  - create synonym
  - create job
  - select\_catalog\_role
  - unlimited tablespace
5. Connect as **sys** and grant execute privileges to the user account for the DBMS\_LOCK procedure.
  6. Create a single tablespace and set it as the default tablespace for exclusive use by the user account that accesses the Controller database.

## Results

**Tip:** You can increase the performance of your Oracle database by changing the default setting of the optimizer\_index\_cost\_adj parameter in the init.ora file. We recommend that you change the default setting of 100 to a much smaller number, for example: set optimizer\_index\_cost\_adj = 5

**Note:** When using Oracle, the location of the TNSNAMES.ORA file must be specified in the ccr-system-properties.properties file in the C:\Program Files\IBM\Cognos\c10\Server\integration directory. For Oracle, the location is usually the directory C:\\oracle\\product\\<Oracle\_version>\\client\_1\\NETWORK\\ADMIN. In this case you need to modify the file accordingly.

For example, # Oracle Network admin directory path, the location of the TNSNAMES.ORA file oracle.net.tns\_admin=C:\\oracle\\product\\10.3.0\\client\_1\\NETWORK\\ADMIN.

You need to perform database maintenance on the Oracle database. For information on how to optimize your Oracle database, contact your database administrator.

## Database connection encryption

---

IBM Cognos Controller IF5 supports database connection encryption.

Cognos Controller 10.4.2 IF5 supports cloud deployments. Cloud deployments require database connection encryption.

### Background

The Cognos Controller servers connect to databases and require connection information such as ports, server names, and credentials such as database usernames and passwords.

This connection information is saved in several files.

If you installed Cognos Controller in the default location C:\Program Files\IBM\cognos\ccr\_64, the main Cognos Controller server looks in the C:\Program Files\IBM\cognos\ccr\_64\Data directory for files with a udl extension.

Universal Data Link (udl) files are stored as text and contain the database connection information that includes credentials.

An udl file exists for each database that Cognos Controller has been configured to use.

If you also installed the Controller Web, then an extra file exists that holds the same information as the udl files.

The Controller Web server looks in the C:\Program Files\IBM\cognos\ccr\_64\fcweb\wlp\usr\shared\config\datasources directory for a file datasources.xml.

The datasources.xml file has entries for every database Cognos Controller is configured to use. Similar to the udl files, the xml file is in text format and contains the database connection information that includes credentials.

## Database connection encryption

If you require that files that contain credentials must be encrypted, Cognos Controller has a feature to support that. Enabling the encryption feature in Cognos Controller ensures that newly created database definitions are stored in an encrypted formation in the udl files and the datasources.xml file. Only the Cognos Controller servers can decrypt them.

### Enabling database connection encryption

To enable encryption, edit the configuration file.

1. Open the file C:\Program Files\IBM\cognos\ccr\_64\webcontent\ccr\ControllerConf.exe.config.
2. Add the line `<add key="UseUDLEncryption" value="true"/>` to ControllerConf.exe.config.

```
<configuration>
  <appSettings>
    <add key="ShowDetailedError" value="true"/>
    <add key="DEVMODE" value="false"/>
    <add key="UseUDLEncryption" value="true"/>
  </appSettings>
</configuration>
```

If you add the UseUDLEncryption entry to the ControllerConf.exe.config file, you can save new database connections to in an encrypted format.

**Note:** Existing database connections are not encrypted. Delete the old database connection udl files and re-create them using the Cognos Controller Configuration tool.

### Controller Web

If Controller Web is installed and you want encrypted credentials, then re-create the datasources.xml file.

1. Delete the datasources.xml in the C:\Program Files\IBM\cognos\ccr\_64\fcweb\wlp\usr\shared\config\datasources folder.
2. Run the SyncDBConf.bat file as you normally would but with the addition of a encrypt argument.

For more information, see *Configuring Controller Web*.

For example, from the C:\Program Files\IBM\cognos\ccr\_64\fcweb folder, run the command `.. \SyncDBConf.bat --encrypt ..\Data wlp\usr\shared\config\datasources`. The datasources.xml file is created and the credentials are encrypted.

## Configure your web browser

IBM Cognos Controller uses the default browser configurations provided by Microsoft. Additional required settings are specific to the browser.

### Before you begin

Ensure that the following settings are enabled in your web browser.



<i>Table 5. Web browser required settings</i>		
<b>Browser</b>	<b>Setting</b>	<b>IBM Cognos component</b>
Microsoft Internet Explorer	Allow Cookies Active Scripting Allow META REFRESH Enable JavaScript	IBM Cognos Connection Cognos Viewer
Apple Safari	Enable JavaScript	Controller Web

## Cookie settings

IBM Cognos Controller uses the following cookies to store user information.

<i>Table 6. Cookie settings Controller uses to store user information</i>		
<b>Cookie</b>	<b>Type</b>	<b>Purpose</b>
AS_TICKET	Session temporary	Created if IBM Cognos is configured to use an IBM Cognos Series 7 namespace
Cam_passport	Session temporary	Stores a reference to a user session stored on the Content Manager server
cc_session	Session temporary	Holds session information that is specific to IBM Cognos Connection
cea-ssa	Session temporary	Stores the setting that specifies whether the user session information is shared with other IBM Cognos products
qs	Persistent	Stores the settings that the user makes for user interface elements such as menus and toolbars

After upgrading or installing new software, restart the Web browser and advise users to clear their browser cache.

## Install and Configure Microsoft .NET Framework

Microsoft .NET Framework supports smart client technology that allows applications to be started using a URL and downloaded from a server.

Microsoft .NET Framework must be installed on the Controller Client Distribution Server computers, the Controller Web Services Server computers, and on all IBM Cognos Controller client computers.

**Important:** Microsoft .NET Framework must be installed and configured on all client computers that will be running IBM Cognos Controller.

## Procedure

If you do not already have Microsoft .NET Framework installed, you must enable it on your Microsoft Windows operating system.

## Install server roles and features

You must enable specific server roles and features on all computers where Controller Web Services Server and Controller Client Distribution Server are installed.

### About this task

## Procedure

1. Enable the roles for Web Server (IIS) and Application Server on Microsoft Windows Server versions prior to 2016.
2. Install the following features:
  - .NET Framework 4.5 and 3.5
  - ASP
  - ASP.NET,
  - CGI
  - ISAPI Extensions
  - ISAPI Filters
  - .NET Extensibility
  - IIS Management Console
  - IIS Management Scripts and Tools
  - HTTP Activation
  - HTTP Redirection
  - Directory Browsing

**Note:** Some features will be switched on by default or installed when installing some of the server features.

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## Chapter 7. Upgrading IBM Cognos Controller

You can upgrade from any previous version of IBM Cognos Controller to the current version.

If you have earlier versions of IBM Cognos Business Intelligence products installed with your existing version of IBM Cognos Controller, you must upgrade IBM Cognos Business Intelligence or IBM Cognos Analytics to a version supported by the version of IBM Cognos Controller you are upgrading to, before you can use IBM Cognos Controller and IBM Cognos Business Intelligence or IBM Cognos Analytics together.

If you installed IBM Cognos Controller with other IBM Cognos products such as IBM Cognos Planning, upgrading is supported when all products are the same version. For information about upgrading IBM Cognos Business Intelligence, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

You can upgrade by replacing components in the same directory or by installing the new version of IBM Cognos Controller in a separate directory on the same computer or on a separate computer.

When you upgrade to the same directory as an older version or when you upgrade to a new directory on the same computer, you back up your data, uninstall the older version, install the new version and configure it to use the same databases as the older version, and then upgrade the databases.

When you upgrade to a new computer, you back up your data, install the new version, configure it to use copies of the databases from the older version, and then upgrade the databases. After the new version is operating, you can uninstall the old version. For more information, see [“Upgrading to a New Computer” on page 43](#).

### Procedure

1. Planning an Upgrade
2. [Install or upgrade other products](#)
3. [Back up your application data](#)
4. [Uninstall the older version of IBM Cognos Controller](#)
5. [Install the new version of IBM Cognos Controller](#)
6. [Apply the configuration](#)
7. [Upgrade your application databases](#)

### Results

After upgrading, there may be additional installation and configuration required to use new features. For example, if you want to use the Publish to Data Mart Framework Manager model, you must also install and configure IBM Cognos Framework Manager, set up a database [“Create a Controller Data Mart Database” on page 89](#) and define a data source [“Define a Data Source for the Controller Data Mart” on page 93](#) for the Controller data mart, and then extract and publish the Framework Manager model to IBM Cognos Connection [“Extract the Publish to Data Mart Model and Publish It to IBM Cognos Connection” on page 93](#).

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## Planning the Upgrade

We recommend that you plan your upgrade so that you know what to expect at each stage of the process. In the planning stage, you can review the upgrade documentation for information about expected behavior, new features, deprecated features, compatibility between versions, and requirements for preparing your production environment. When you finish the review, you can then conduct a site survey to identify the BI infrastructure, applications, reports, and custom configuration settings. Finally, you can test the upgrade on a subset of your data so that you can fine tune your reports and data before committing to the full upgrade.

The following diagram shows a high level view of the phases in an upgrade project.



When planning your upgrade, ensure that you

- gather the necessary information, such as the required inputs and expected outputs for each phase
- assess the applications in your reporting environment and group similar reports together
- install the new software in a test environment and deploy the content to the test environment
- test the upgraded applications to ensure reports run as expected

Deployment and testing is usually an iterative process. Assess any differences between the source and target environments to determine actionable activities. Move to your production environment when you are satisfied that the deployed applications meet your business requirements.

We recommend that you do not change security providers, such as changing from an IBM Cognos Series 7 namespace to Active Directory as part of the upgrade process. You should treat that as a separate project.

## Before you begin

Ensure that you have the skills available, either internal or using external resources. Also consider the hardware that you will need before you begin.

## Procedure

1. Review the documentation.
2. Assess applications in the source environment.
3. Perform a trial upgrade, which includes the following tasks:
  - Create the test environment.
  - Plan the deployment of content from the source environment to the test environment.
  - Create an export deployment specification.
  - Copy the deployment specification to the test environment.
  - Include configuration objects for import, if required.
  - Import the deployment specification to Cognos in the test environment.
  - Test the upgraded content.
4. Move to the production environment.

## Review the Documentation

Documentation is provided from a variety of sources to help you achieve a successful upgrade.

To review IBM Cognos Controller product documentation on the web, including all translated documentation, visit [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome) (<http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome>).

## Procedure

1. Read the "What's new" section in this guide [Chapter 2, "What's new?," on page 3](#).  
It contains a list of new, changed, deprecated, and removed features for this release.
2. Read the rest of the upgrade information in this document.
3. Read the topic about IBM Cognos with other IBM Cognos products ["Configuring IBM Cognos Controller to Work with Other IBM Cognos Products" on page 99](#).

It contains information about other IBM Cognos products that you may have in your environment and that you must consider in the upgrade.

## Consolidation Model

IBM® Cognos® Controller 10.3.0 uses the IBM Cognos Controller 8.1 consolidation model (new consolidation model) to consolidate your financial data.

If you used this model in your previous version of IBM Cognos Controller, no changes are required.

If you used the IBM Cognos Controller 2.3 consolidation model (old consolidation model) in your previous version of IBM Cognos Controller, be aware of the fact that Controller 10.3.0 does not support this consolidation model. Plan for an upgrade to the new consolidation model. The CONS\_BY\_LEVEL server preference is no longer supported. Cognos Controller 10.1.1.x is the last release to support the old consolidation model.

It is not possible to consolidate data that uses the old consolidation model. It is still possible to view consolidated values on periods that are run with the old consolidation model by using the OLKOREP\_AC and CONS\_BY\_LEVELSTART server preferences.

Even though you can upgrade to the new consolidation model in Cognos Controller 10.3, we recommend that you upgrade to the new consolidation model before upgrading to Controller 10.3. Use the latest version of Controller version 10.3.0 to perform the upgrade. For more information, see your IBM Cognos consultant.

## Recommendation - Assess Applications in the Source Environment

Preparing to upgrade provides an opportunity to review your current BI investment, and clean up your source environment. Inventory your BI applications to understand the strengths, weaknesses, and areas for improvement in your environment.

For example, you may have a hundreds of reports, packages, public folders and applications in your environment. However, it is not uncommon to find that a number of applications are not used, or no longer meet the company's requirements, or do not work in the source environments.

We recommend that you conduct an audit of your applications to determine which applications you should upgrade. Assessing and reducing the number of reports is a useful exercise. Do not rely only on user feedback to determine which content is used.

An audit of your existing applications may include the following:

\_\_ • Do a site survey.

A survey will help you to assess the current production environment and identify areas that require attention during an upgrade. The site survey should include information about the infrastructure, applications, users, and configuration settings for your IBM Cognos products.

\_\_ • Assess the software that you use in your reporting application.

List software, such as operating systems, Web servers, security, databases, and so on. Compare the list to the supported versions for your target upgrade version, available from the Production Information, Software Environments links at the IBM Cognos Customer Service Center ([http://www.ibm.com/software/data/support/cognos\\_crc.html](http://www.ibm.com/software/data/support/cognos_crc.html)). Determine whether any components require updating.

\_\_ • List your BI applications, including the following:

- Framework Manager models
- published packages
- reports
- Transformer models
- Software Development Kit applications and their dependencies

\_\_ • Complete a detailed assessment of your applications.

The usage, age, size, and complexity of your applications are important factors to consider when planning the upgrade. The total size of the applications may have an impact on the time required to complete the upgrade.

\_\_\_ • List all the reports contained in your application and do the following:

- Interview the team members to see which cubes, views, or reports are needed and used, which ones can be consolidated, and which ones can be eliminated. Use audit report data to determine report usage.

Upgrade only the reports that work and that users need and use. This reduces the number of applications that you must upgrade.

For more information about audit reports, see the *IBM Cognos Business Intelligence Administration and Security Guide*.

- Look at the purpose of each report and assign a priority.

This identifies business-critical applications and the functionality that is required in the new environment.

- Flag reports that fail to run or validate in the current environment.

They are unlikely to upgrade successfully. Repair these reports so that they upgrade.

- Consider retiring unused or little-used reports.
- Group the reports into categories, such as upgrade, eliminate, no longer used, and do not upgrade,

\_\_\_ • List the following information about your configuration:

- configuration settings that you enabled using IBM Cognos Configuration

These settings are preserved through the upgrade. They are stored in two files. For ReportNet v1.1, the files are crnstartup.xml and crnlocale.xml. For IBM Cognos, the files are cogstartup.xml and coglocale.xml.

- changes to other configuration files

You must make changes to other files manually during the upgrade. If you changed other configuration files, you must assess the changes that you want to preserve in the upgraded environment. This may include .xml, .txt, and .css files in the configuration, templates, webapps, and webcontent directories of the installation location.

**Important:** Changes to .ini files are not supported. If you changed .ini files, please contact Customer Support.

\_\_\_ • Back up all reports, models, and configuration data and files.

\_\_\_ • Create an upgrade plan.

## Recommendation - Perform a Trial Upgrade

Pilot upgrade projects are valuable and practical exercises because they ensure that the upgrade produce the expected and required outcome. In addition, an evaluation of the pilot project ensures that the upgrade is successful. If unexpected results occur, you can determine whether the differences are enhancements for your situation or whether you should take action to mitigate the differences.

When you upgrade, applications usually work in the new environment, with little or no intervention. By running an pilot upgrade you can validate selected reports to see if the expected results are produced.

We recommend that you perform a trial upgrade several weeks before upgrading your production system. The trial upgrade identifies components that will upgrade with minimal effort, and components that may require additional actions before or after the upgrade.

Commonly, you upgrade a sample set of reports in an isolated environment, and you compare the appearance and behavior of the reports before and after the upgrade.

Ensure skilled resources are available to perform migration work, especially for mission-critical applications. Also, test and debug all applications prior to deployment.

If you are upgrading from ReportNet 1.1 MR3 or MR4, you can use Upgrade Manager to automate some tasks in the trial upgrade stage.

## Create the Test Environment

Create a test environment for the new software in preparation for your trial upgrades.

Initially, the new environment does not need to be large, or be the same as your production environment. For example, if it is acceptable, you may use hardware from existing environments, such as development servers.

The environment can be scaled up and out in a phased way after the basic new environment is up and running.

Alternatively, existing environments can remain untouched. If you want the test environment to become the new production environment, configure the test system to match your production environment.

### Procedure

1. Ensure the infrastructure is in place.
2. Review the supported environments.
3. Install the new software in the test environment.

Having the new version of software in a different location than the earlier version ensures that you run both versions at the same time and confirm that your applications work properly in both environments.

For more information about installing a basic installation, see [Chapter 8, “Installing and Configuring IBM Cognos Controller on One Computer,” on page 45.](#)

### Results

After you have installed the software, use the deployment process to upgrade the content. For more information, see the online help in the IBM Cognos Administration console.

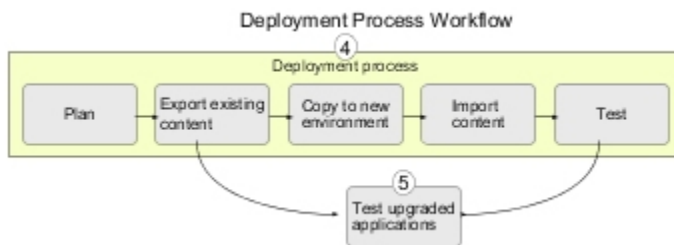
## Plan Your Deployment

Deployment involves moving applications from one installation to another. In IBM Cognos, you deploy packages, top-level folders, or the entire content store from a source environment to a target environment.

When you deploy, you must consider how to handle security and whether to deploy the entire content store or to deploy selected packages, folders, and directory content. Other considerations relate to the database you use for the content store, bursting reports, and ownership of entries.

For more information about planning the deployment of content to a new environment, see the online help for the Administration console.

The following diagram summarizes the deployment process.



### Security

Before you deploy, you must consider access permissions and security of deployment archives.

To deploy IBM Cognos Connection entries, you must have the following permissions:

- Execute permissions for the **Administration tasks** secured feature.
- Traverse permissions for the **Administration** secured function.

We also recommend that you belong to the System Administrators group, and have read and write access to the Cognos namespace, so that you can deploy the System Administrators group.

For information about deploying IBM Cognos groups and roles, see the online help in the IBM Cognos Administration console.

## References to Namespaces

Some entries, such as groups, roles, distribution lists, contacts, data source signons, and some report properties, such as email recipients and report contacts, can refer to entities in namespaces, or authentication providers. When you deploy public folders and directory content, you can deploy these entries with or without the third-party references.

## Deploying the Entire Content Store

Deploying the entire content store ensures that all packages, folders, and directory content are copied to a new location. For example, if you are changing the computer where IBM Cognos is installed, you can move the entire content store from the old environment to the new environment and keep all the reports and other entries created by administrators and users.

When you import an entire content store, configuration data is included in the export, but excluded from the import by default. We recommend that you do not change this setting. However, if you must import configuration settings [“Include Configuration Objects in Import of Entire Content Store”](#) on page 37, you can change the default in the Advanced Settings.

## Deploying Selected Public Folders and Directory Content

You can choose to do a partial deployment, deploying only selected public folders and directory content.

You can choose the packages and folders that you want to deploy by browsing the Public Folders hierarchy and select a package or folder. Once you select a package or folder, its contents are deployed. You cannot select specific entries in the packages or folders. During export, the parent packages and folders are not exported and Content Manager does not create placeholder locations for them in the target environment. During both export and import, you can specify a new target location in the Content Manager hierarchy for each deployed package and folder.

When you do a partial export of public folders and directory content, you must have the following permissions:

- Read and traverse permissions for the entries that you export.
- Write permissions because you create a deployment specification and deployment history when you export.
- Write and set policy permissions for the entries that you import.

## Deploying Packages

A package is an entry that contains published reports and metadata. Packages are stored in the content store and appear as entries in IBM Cognos Connection.

During a partial deployment, you can deploy one or more packages at a time. A package can reference objects that are outside the package, such as security objects, data sources, and distribution lists. However, referenced objects are not deployed with the package.



## Create an Export Deployment Specification

After planning your deployment, the first step in moving content from the one installation to another is to export the content store or the entries that you want to keep in your new environment. To do this, you create an export deployment specification in your source environment.

The entries are exported to an export deployment archive in the source environment. Later, you import the archive entries into the target environment. You can update the entries in the target environment using the entries from the deployment archive.

### Before you begin

We recommend that you stop the IBM Cognos service in IBM Cognos Administration before you export and import. For more information, see the *IBM Cognos Business Intelligence Administration and Security Guide*.

## Create a New Export Deployment Specification for the Content Store

After planning your deployment, the first step in moving content from the one installation to another is to export the content store or the entries that you want to keep in your new environment. To do this, you create an export deployment specification in your source environment.

### Procedure

1. In **IBM Cognos Administration**, on the **Configuration** tab, click **Content Administration**.
2. On the toolbar, click the new export button and follow the instructions in the **New Export** wizard.
3. To export the entire content store, click **Select the entire content store** and select whether to include user account information.
4. Click **Next**.
5. If you want to secure the archive, under **Encryption**, click **Set the encryption password**, type a password, and then click **OK**, and then click **Next**.

The summary information appears.

6. Review the summary information and click **Next**.

**Tip:** If you want to change information, click **Back** and follow the instructions.

7. Determine how you want to run the export by selecting the action you want.

### Results

After you run the export, you can [move the deployment archive](#). You can also see the export run history.

## Create a New Export Deployment Specification for Partial Deployments

The entries are exported to an export deployment archive in the source environment. Later, you import the archive entries into the target environment. You can update the entries in the target environment using the entries from the deployment archive.

### Procedure

1. In **IBM Cognos Administration**, on the **Configuration** tab, click **Content Administration**.
2. On the toolbar, click the new export button and follow the instructions in the **New Export** wizard.
3. To export specific folders and directory content, click **Select public folders and directory content**, and then click **Next**.
4. In the **Select the Public folders content** page, click **Add**.
5. In the **Select entries** page, in the **Available Entries** box, select the packages or folders that you want to export.

You can browse the Public Folders hierarchy and choose the packages and folders you want. Click the right arrow button to move the selected items to the **Selected entries** box, and click **OK**.

6. For each package and folder that you export, do one of the following:

- If you want to make any changes to the package or folder in the target environment, click the edit icon make your changes, and click **OK**.
- To restrict access to the package or folder and its entries, select the check box in the **Disable after import** column. This is useful when you want to test the reports before you make them available in the target environment.

7. Under **Options**, select whether you want to include the report output versions, run history, and schedules and what to do with entries in case of a conflict, and then click **Next**.

8. In the **Select the directory content** page, select whether you want to export IBM Cognos groups and roles, distribution lists and contacts, and data sources and connections and what to do with the entries in case of a conflict, and then click **Next**.

9. In the **Specify the general options** page, select whether to include access permissions and who should own the entries after they are imported in the target environment.

10. Specify the **Recording Level** for the deployment history, and then click **Next**.

11. In the **Specify a deployment archive** page, under **Deployment archive**, select an existing deployment archive from the list, or type a new name to create one.

If you are typing a new name for the deployment archive, we recommend that you do not use spaces in the name. If the name of the new deployment specification matches the name of an existing deployment archive, the existing deployment archive is overwritten.

12. If you want to secure the archive, under **Encryption**, click **Set the encryption password**, type a password, and then click **OK**.

13. Click **Next**.

The summary information appears.

14. Review the summary information and click **Next**.

**Tip:** If you want to change information, click **Back** and follow the instructions.

15. Determine how you want to run the export by selecting the action you want.

## Results

After you run the export, you can [move the deployment archive](#). You can also see the export run history.

## Run an Export

The entries are exported to an export deployment archive in the source environment. Later, you import the archive entries into the target environment. You can update the entries in the target environment using the entries from the deployment archive.

## Procedure

1. In the **Actions** column, click the run with options button.

2. Click **Now** to run the export immediately, or click **Later**, and enter the time that you want the export to run.

You can also schedule a task to run on a recurring basis, and view a list of scheduled tasks using the Schedule Management tool.

## Results

You can now [move the deployment archive](#).

## Copy the Deployment Specification to the Test Environment

Move the deployment archive that you created in the source environment to the test environment. You will use the deployment archive to import entries into the target environment.

If the source and test environments use the same content store, you can import without moving the deployment archive.

The default location is `ccr_location\deployment`.

### Before you begin

If you plan to move the deployment archive to a location on a LAN, ensure that there is enough disk space. If you did not encrypt the deployment archive, we recommend that you copy it to a secure location.

### Procedure

1. Copy the deployment specification from the source environment to a LAN location or to a CD.
2. Copy the deployment specification from the LAN or CD to the test environment location specified in the configuration tool.

### Results

You can now include configuration objects if you are importing an entire content store or import to the target environment.

## Include Configuration Objects in Import of Entire Content Store

You can include configuration objects when importing an entire content store. For example, you may want to import the configuration because you have a series of advanced settings for your services that you want from the source environment.

By default, configuration objects are excluded when you import an entire content store, even though they are included in the export. Configuration objects include dispatchers and configuration folders used to group dispatchers.

### Procedure

1. In **IBM Cognos Administration**, on the **Configuration** tab, click **Dispatchers and Services**.
2. Click the dispatcher you want.
3. Next to **ContentManagerService**, click the set properties button.
4. Click the **Settings** tab.
5. In the **Value** column, click **Edit**.
6. Select the **Override the settings acquired from the parent entry** check box.
7. In the **Parameter** column that appears, type the following in uppercase:  
`CM.DEPLOYMENTINCLUDECONFIGURATION`
8. In the **Value** column, type `true`
9. Click **OK** to finish.

## Import to the Test Environment

You import entries from the deployment archive into the target environment. To import the entries, create an import deployment specification.

When you import, you select from entries that were exported. You can either accept the default options set during the export, or change them. You can only select options that were included in the deployment archive during the export.

If you do a partial deployment of specific public folders and directory content, the import wizard shows whether packages and folders already exist in the target environment and the date and time they were last modified. You can use this information to help you decide how to resolve conflicts. When you redeploy, the wizard also shows whether the packages and folders were in the original deployment.

## Procedure

1. In the target environment, in **IBM Cognos Administration**, on the **Configuration** tab, click **Content Administration**.

2. On the toolbar, click the new import button.

The **New Import** wizard appears.

3. In the **Deployment archive** box, click the deployment archive that you want to import.
4. If the deployment archive is encrypted, type the password, and then click **OK**.
5. Click **Next**.
6. Type a unique name and an optional description and screen tip for the deployment specification, select the folder where you want to save it, and then click **Next**.
7. Select the content that you want to include in the import.

**Tip:** To ensure that the required target package or folder exists in the target content store, click the edit button next to the package, and check the location. If you want, you can change the target location now.

8. Select the options you want, along with your conflict resolution choice for the options that you select.
9. In the **Specify the general options** page, select whether to include access permissions and who should own the entries after they are imported in the target environment.
10. Specify the **Recording Level** for the deployment history.
11. Click **Next**.

The summary information appears.

12. Review the summary information, and click **Next**.
13. Determine how you want to run the import by selecting the action you want.
14. In the **Actions** column, click the run with options button.
15. Click **Now** to run the import immediately, or click **Later**, and enter the time that you want the import to run.
16. If you want to upgrade the report specifications, click **Upgrade all report specifications to the latest version**.

You can also use the Schedule Management tool to schedule a task to run on a recurring basis, and view a list of scheduled tasks.

## Results

You can now [test the deployment](#).

## Test the Deployed Content

After you import the packages from the deployment archive, you can check that all the entries were deployed successfully in the target environment.

You can test your deployment by doing the following:

- \_\_\_ • Review the run history for a deployment.
- \_\_\_ • Ensure that the correct packages and folders were imported, along with their contents.
- \_\_\_ • Run imported reports and report views.

For more information, see the online help in the IBM Cognos Administration console.

## Recommendation - Test the Upgraded Content

After you import the packages from the deployment archive, you can check that all the entries were deployed successfully in the target environment.

We recommend that you test your upgraded content by doing the following:

- \_\_\_ • Test your reports, as follows:
  - In Report Studio, validate each report and note whether the validation was successful.
  - In Report Studio, Query Studio, and Analysis Studio, run the applicable reports and note whether each report ran successfully.
- \_\_\_ • Test models and PowerCubes in IBM Cognos Transformer, if required:
  - Open models with the appropriate security options and save them.
  - Test PowerCubes.
- \_\_\_ • Test models in Framework Manager.

You can use the same models and projects in Framework Manager for IBM Cognos that you used with the earlier version. When upgrading models, the validation process produces errors for every model. To upgrade a project, open and save it in the new version of Framework Manager. For more information, see the *Framework Manager User Guide*.
- \_\_\_ • Repair or exclude reports and models that do not operate correctly.
- \_\_\_ • Test the repaired reports and models by running them again on the test system.

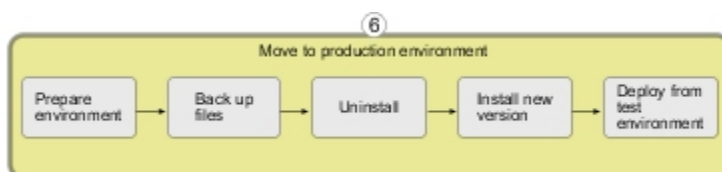
Troubleshoot any issues, and contact Cognos Software Services about unresolved upgrade issues.
- \_\_\_ • Revise the upgrade plan to include adaptations that you made during the trial upgrade.

For more information, see the online help in the IBM Cognos Administration console.

## Moving to the Production Environment

When all issues that you discovered during the trial upgrade are resolved, you are ready to begin the full upgrade in your production environment. Your upgrade plan will provide the details for each step of the full upgrade.

The following diagram shows the high level steps in the process of moving upgraded applications to a production environment. After preparing the production environment and backing up data and configuration files, you can uninstall the older version of the software, and install the new version in the same location. Then, you can deploy the content from your test environment.



If you want to leverage your existing resources and upgrade in the same directory, you must first back up your configuration data, ensure that Framework Manager models are backed up and checked into a source control system (if applicable), and uninstall the older version of IBM Cognos.

### Procedure

#### 1. Prepare the production environment.

- Back up files and data.

You may have modified files other than those in the configuration folder. We strongly recommend that you back up the entire installation directory.

When you back up the configuration data, store it in a secure directory. You must protect the directory from unauthorized or inappropriate access.

- Install your new release system in the production environment.

If you install the new software from the test environment to the same location as the existing software, you must first uninstall the existing software.

- Configure the system.

## 2. Manually configure customization.

- If you manually edited any configuration files, the changes will be overwritten during the upgrade. You must reapply the changes. You should keep a record of any customizations to ensure that they can be reapplied after upgrading. You should also back up these files so that you can restore the original version if necessary.
- The IBM Cognos presentation service supports automatic upgrade of some system.xml files. If you made many customization changes to system.xml files, you can use this automatic upgrade feature instead of reapplying the changes manually after upgrading. The system.xml files are overwritten during the installation of IBM Cognos. Therefore, you must back up the customized versions of these files and then copy them to the directory after upgrading IBM Cognos. The automatic upgrade will be applied when you start the IBM Cognos service.
- The system.xml files for which automatic upgrade is supported are in the following directories:

*ccr\_location/templates/ps*

*ccr\_location/templates/ps/portal*

*ccr\_location/templates/ps/qs*

**Note:** The recommended method to upgrade customized files is to manually reapply changes after the new software is installed. Use automatic upgrade of system.xml files only when you have made a large number of customizations to these files.

## 3. Deploy the application on the production system.

When upgrading, you can export the entire content store to a deployment archive and then import the deployment archive into IBM Cognos after upgrading the software.

## 4. Deploy the reports and models from the test system to the production system.

# Install or Upgrade Other Products

---

When you upgrade IBM Cognos Controller, you may need to upgrade to new versions of other products or install additional other products to support new features in IBM Cognos Controller.

To view a list of other products that are used by IBM Cognos Controller, see [“System requirements” on page 19](#).

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the Software Product Compatibility Reports (<http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

## Procedure

If you do not have the supported version of a required other product, install or upgrade the product.

Instructions are provided in this guide for some of the required other products:

- installing Microsoft .NET Framework [“Install and Configure Microsoft .NET Framework” on page 27](#)
- installing and configuring ASP.NET [“Install server roles and features” on page 28](#)
- configuring a Web server [“Configure the web server ” on page 50](#)
- configuring a Web browser [“Configure your web browser” on page 26](#)

For instructions to install or upgrade other products, see the instructions provided with each product.

## Back Up Your Application Data

---

Before you upgrade IBM Cognos Controller, we recommend that you back up your application data and make copies of your application uniform data language (UDL) files in a secure location.

If your normal production procedures include backing up data, you may want to schedule your upgrade after you perform a regular backup.

For information about backing up your database system, see the documentation for your database application.

## Uninstall the Older Version of IBM Cognos Controller

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You must uninstall the older version of IBM Cognos Controller before you can install a new version. Different versions of IBM Cognos Controller cannot exist on the same computer due to resource conflicts.

You can keep the older version of IBM Cognos Controller if you install the new version on a separate computer. For more information, see [“Upgrading to a New Computer”](#) on page 43.

We recommend that you perform a trial upgrade several weeks before upgrading your production system. For more information, see [“Recommendation - Perform a Trial Upgrade”](#) on page 32

Tip: When you uninstall, all IBM Cognos Controller Configuration settings are reverted to the default settings. We recommend that you make a note of all your configuration settings, before you uninstall IBM Cognos Controller. This way you can easily configure the new version of IBM Cognos Controller using the same settings.

### Procedure

1. From the **Start** menu, click **Programs, IBM Cognos, Uninstall IBM Cognos, Uninstall IBM Cognos**.
2. Follow the instructions to uninstall the components.

The cognos\_uninst\_log.htm file, in the Temp directory, records the activities that the **Uninstall** wizard performs.

## Install the New Version of IBM Cognos Controller

---

The process for installing the new version of IBM Cognos Controller is the same as for a new installation.

### Before you begin

We recommend that you install the new components in the same location from which you uninstalled the older version. Ensure that you have uninstalled the older version first. If you want to keep the older version running until you switch over to the new version, you can install the new version on a separate computer. For more information, see [“Upgrading to a New Computer”](#) on page 43.

We recommend that you perform a trial upgrade several weeks before upgrading your production system. For more information, see [“Recommendation - Perform a Trial Upgrade”](#) on page 32.

### Procedure

1. Launch the Cognos Controller installation wizard by double-clicking the */Controller installer package download location/winx64h/issetup.exe* file.  
The **Welcome** page of the installation wizard displays.
2. In the **Welcome** page of the installation wizard, click **Next**.
3. Accept the licensing agreement and then click **Next**.
4. Select the installation directory and then click **Next**.

If you receive a warning that you are installing to the same location as a previous installation, click **No** and then ensure that you select the correct directory and that you uninstalled the older version of IBM Cognos Controller. This warning protects other IBM Cognos products from being overwritten.

5. Follow the directions in the installation wizard to copy the same components to your computer that were installed for the older version.
6. In the **Finish** page of the installation wizard, choose whether to start IBM Cognos Configuration or view the Release Notes and then click **Finish**.

## Results

You must now apply the new configuration.

## Apply the New Configuration

---

Before you can use the new version of IBM Cognos Controller, you must save the configuration so that the content store is upgraded. Even if you do not change any configuration settings, you must still save the configuration.

### Procedure

1. If it is not already running, start IBM Cognos Configuration.
2. If you want to change any settings, do the following:
  - In the **Explorer** window, click the node for the component that you want to configure.
  - In the **Properties** window, change the settings as required.
3. From the **File** menu, click **Save**.

## Upgrading your application databases

---

When you upgrade from an older version of IBM Cognos Controller, you must upgrade your Controller application databases.

Perform the database upgrade using the database conversion utility to import new data structures into the existing database that is specified in the Controller UDL file.

**Tip:** After completing the database upgrade on Oracle databases, schedule a performance optimization procedure, `prc_analyze_schema`, to run on a weekly basis.

### Before you begin

To perform the upgrade using the new utility, you must be using a database of version 789 or higher. To upgrade database versions lower than 789 use the old Database Conversion Utility tool in the `c10\legacy` directory.

### Procedure

1. From the **Start** menu, start **Controller Configuration**.
2. In the **Explorer** window, expand **Database Connections**.
3. Select the database that you want to upgrade.
4. Click **Actions > Run**.
5. If no Java is found, browse to and select the Java 8 JRE in the `install\bin64\jre\8.0\` directory.
6. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
7. In the **Database Conversion Utility** window, click **Connect** and then click **Upgrade**.

The database conversion utility upgrades the existing database with the new data structures.



8. Click **Close**.

### What to do next

If you have an Oracle database installed, perform [“Optimizing Oracle database”](#) on page 43.

## Optimizing Oracle database

---

If you are upgrading to IBM Cognos Controller 10.3.1 and have an Oracle database in your system, perform database optimization.

### Procedure

1. Log in to Cognos Controller as an administrative user.
2. From the **Maintain** menu, select **Configuration > General**.
3. Click the **Server Preferences** tab.
4. Create an entry in the table with **Variable Name** = ORA\_DYNAMIC\_TEMP and **Variable Value** = OPTIMIZE.
5. Click **Save** and then close Cognos Controller.
6. Ensure that no users are logged in to Cognos Controller.
7. Log in to Cognos Controller as an administrative user.
8. From the **Maintain** menu, select **User > Single Mode**.
9. From the **Maintain** menu, select **Database > Optimize**.
10. Select all available options.
11. Click **Run**.

A progress bar displays. Wait for the **Database Optimized** message to display and then click **OK**.

12. Close the **Optimize Database** window.
13. Remove the server preference that you created earlier.

## Upgrading to a New Computer

---

You can install a new version of IBM Cognos Controller on a separate computer and configure it to use your existing data. Using this as a staging environment, you can test your reports with the new product. You can continue to run the older version of IBM Cognos Controller in your production environment. When the new version is operating and fully tested, you can switch your production environment to the new version and then uninstall the old version.

To configure the new version of IBM Cognos Controller to use your existing data, you must create copies of the databases and then configure the new version to use the copies. Then you must upgrade your databases.

### Procedure

1. Using your database tools, create copies of your existing databases:
  - content store database
  - Controller data source
2. Install the new version of IBM Cognos Controller on the new computer.

If you do not accept the default installation location, be sure to use only ASCII characters in the name of any new installation directory you create.
3. Configure a new set of Web server aliases for IBM Cognos Controller.
4. Configure IBM Cognos Controller, using the following requirements:
  - Configure the Content Manager computer to use the copy of your content store database.

- Configure the Controller Web Services Server computers to use the copy of your Controller data source.
5. Upgrade your application databases [“Upgrading your application databases” on page 42.](#)
  6. Test the new version with existing reports.

## Results

After upgrading, there may be additional installation and configuration required to use new features. For example, if you want to use the Publish to Data Mart Framework Manager model, you must also install and configure IBM Cognos Framework Manager, set up a database [“Create a Controller Data Mart Database” on page 89](#) and define a data source [“Define a Data Source for the Controller Data Mart” on page 93](#) for the Controller data mart, and then extract and publish the Framework Manager model to IBM Cognos Connection [“Extract the Publish to Data Mart Model and Publish It to IBM Cognos Connection” on page 93.](#)

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## Chapter 8. Installing and Configuring IBM Cognos Controller on One Computer

IBM Cognos Controller requires the installation of server components and client components.

You can install IBM Cognos Controller on the same computer where other IBM Cognos products of the same version are installed. This is the typical scenario in a single-computer installation.

If you intend to distribute IBM Cognos Controller, you can start your installation process by installing the server components on a single computer. After you verify that Cognos Controller is running, you can add additional components as required.

### Before you begin

You must install either IBM Cognos Business Intelligence or IBM Cognos Analytics. The specific components that are required are listed in [“System requirements” on page 19](#).

You must set up your environment [Chapter 6, “Setting Up the Environment,” on page 19](#) before you install and configure IBM Cognos Controller server and client components.

Ensure that you have administrator privileges for the Windows computer that you are installing on. Also ensure that your computer has a TEMP system variable that points to the directory where you want to store temporary files. During installation, files are temporarily copied to this directory.

Install IBM Cognos components in a directory that contains only ASCII characters in the path name.

### Procedure

1. [Install IBM Cognos Controller.](#)
2. [Install Fix Packs.](#)
3. [Set up database connectivity for the content store database. Refer to the IBM Cognos Business Intelligence or IBM Cognos Analytics documentation for information on how to do this.](#)
4. [Set up database connectivity for the Controller database.](#)
5. [Set up database connectivity for the Controller data mart.](#)
6. [Configure the Web server.](#)
7. [Test the reporting components.](#)
8. [Set database connection properties for the controller data source.](#)
9. [Install the client interfaces.](#)
10. [Enable the COM+ server.](#)
11. [Test the installation and configuration.](#)
12. [Enable security.](#)

### Results

After you complete these installation and configuration tasks, you can perform additional configuration tasks [Chapter 11, “Additional Configuration Options,” on page 87](#), and change the IBM Cognos Controller default behavior [“Changing IBM Cognos Controller Default Configuration Settings” on page 94](#) to better suit your environment.

If you no longer require IBM Cognos Controller, you can [uninstall all IBM Cognos Controller components](#).

## Install Cognos Controller

---

Use the IBM Cognos Controller installation wizard to select the components that you want to install and the location on your computer where you want to install them. If you plan to install two or more IBM Cognos Controller components on the same computer, we strongly recommend that you install them in the same installation location to avoid conflicts among ports and other default settings.

### Before you begin

If you have a old version of Controller on your computer, you must uninstall it and then ensure that all folders in the old installation location are deleted. For more information, see [“Uninstall the Older Version of IBM Cognos Controller”](#) on page 41.

### About this task

Although the gateway and Controller Client Distribution Server can be installed on separate computers in a distributed installation, we recommend that these two components be installed on the same computer. When Controller Client Distribution Server is installed on a different computer from the gateway or Report Server, additional configuration is required.

### Procedure

1. If you are installing to a directory with other IBM Cognos components, stop the IBM Cognos service.
2. In the IBM Cognos Controller software package, run `issetup.exe`.

The **Welcome** page of the installation wizard appears.

3. In the **Welcome** page of the installation wizard, click **Next**.
4. If you are installing IBM Cognos Controller in the same location as another IBM Cognos installation, the following warning appears:

You are installing to the same location as a previous installation. Do you want to continue?

- If this is a single-computer installation, click **Yes**.
- If you want the flexibility of managing the IBM Cognos Controller upgrades independently of the IBM Cognos upgrades, click **No**, and choose a different installation directory.

**Note:** If you do not accept the default installation location, be sure to use only ASCII characters in the name of any new installation directory you create.

5. In the Component Selection screen, select all components.
6. Follow the directions in the installation wizard to copy the required files to your computer.
7. In the **Finish** page of the installation wizard, do one of the following:
  - If you want to change any default settings immediately, click **Start IBM Cognos Configuration**.
  - If you want to see late-breaking information about IBM Cognos components, click **View the Release Notes**.

## Installing fix packs

---

IBM provides interim maintenance packages that contain updates to one or more components in your IBM Cognos product. If a fix pack is available when you are installing or upgrading your product, you must install it after you install the IBM Cognos Business Intelligence components.

If a fix pack becomes available after your IBM Cognos product has been deployed, you must stop the service, install the fix pack in the same location as the IBM Cognos BI components, and then start the service.

Fix packs are available for download from IBM Support at <http://www.ibm.com/support/us/en/>.

**Important:** Fix packs are not standalone installations. You must install them on computers that have IBM Cognos BI server components installed. Install the fix pack or packs that are appropriate for your product

version. To check your version, open the component list file at `ccr_location\cmplst.txt` and check the line that starts with `C8BISVR_version=`.

## Before you begin

Before you install the fix pack, create a backup of the content store database. In addition, back up any customized files from the current installation.

## Procedure

1. Stop the following services:

- Internet Information Services (IIS) Manager (the Default Web Site)
- IBM Cognos Controller Consolidation

2. Back up the content store database.

3. If your IBM Cognos BI environment is customized, back up the entire IBM Cognos BI location.

4. Insert the disk for the Microsoft Windows operating system fix pack or go to the location where you downloaded and extracted the files.

If more than one fix pack is available, install the fix pack with the lowest version number first.

5. On the disk or in the download location, go to the **win32** directory and double-click the `issetup.exe` file.

6. Follow the directions in the installation wizard, installing in the same location as your existing IBM Cognos BI server components.

The `issetup` program prompts you to allow the fix pack to create a backup copy in the installation folder before copying new files.

7. If an updater is available, do the following:

- To install from a disk, insert the updater disk for the Windows operating system.
- To install from a download, follow the instructions on the support site and then go to the location where you downloaded and extracted the files.
- In the updater directory on the disk or download location, go to the **win32** directory and double-click the **issetup.exe** file.
- Follow the directions in the installation wizard.

8. Upgrade your Controller application databases.

9. To return a deployed IBM Cognos BI product to service, open IBM Cognos Configuration, save the configuration, and then start the IBM Cognos service.

10. If you have a distributed environment, repeat these steps for all remaining IBM Cognos BI servers.

11. If you are running the IBM Cognos BI product on an application server other than the default, IBM WebSphere, redeploy the IBM Cognos BI product to the application server.

12. Start the Internet Information Services (IIS) Manager (the Default Web Site).

13. Start the IBM Cognos Controller Consolidation service.

## Update the Java Environment

---

The Java Runtime Environment (JRE) is automatically installed with IBM Cognos Controller Financial Analytics Publisher and IBM Cognos Controller Web Services Server. This means that you no longer need to define the `JAVA_HOME` or `CCR_JAVA_HOME` environment variables.

**Tip:** In most cases, you should not set any `JAVA_HOME` variable. It is only when the JRE does not exist in the default location that IBM Cognos Configuration and other IBM Cognos BI components require that the JRE is referenced by the `JAVA_HOME` environment variable. On Microsoft Windows operating system, if `JAVA_HOME` is not set, the JRE that is packaged with IBM Cognos Controller is used by default.

IBM Cognos Controller cryptographic services use specific .jar (Java Archive) files in your Java Runtime Environment (JRE) to determine the allowed strength of the JRE. IBM Cognos Controller provides the necessary jurisdictional policy .jar files in case your JRE does not have the minimum required cryptographic strength.

If you do not have a JAVA\_HOME variable already set, the JRE files provided with the installation will be used, and you do not have to update any files in your environment. If JAVA\_HOME points to a Java version that is not valid for IBM Cognos Controller, you must update JAVA\_HOME with the path to a valid Java version.

If you want to use your own JRE and have JAVA\_HOME set to that location, you may have to update the Java environment for the cryptographic services.

**Important:** The JRE you use for Controller must be 64-bit.

The need to update your Java environment depends on the relative strength of jurisdictional policy .jar files in your environment. For example, if you already have stronger files in your environment than are provided with IBM Cognos Controller, you do not have to update the environment. Doing so, in this case, may cause other applications to not work correctly.

If you update your Java environment, it is recommended that you make a backup copy of the files you overwrite. If other applications fail, you may have to replace the original jurisdictional policy .jar files.

You can set JAVA\_HOME as a system variable or a user variable. If you set it as a system variable, it may be necessary to restart your computer for it to take effect. If you set it as a user variable, set it so that the environment in which IBM WebSphere is running can access it.

Java 1.6.0 is the minimum supported JRE for IBM Cognos Controller.

Java 1.5.0 is the minimum supported JRE for IBM Cognos. Ensure that you installed the correct JRE for the hardware that you are using.

## Procedure

1. Ensure that the JAVA\_HOME environment variable is set to the JRE location.

For example, to set JAVA\_HOME to the JRE files provided with the installation, the path is *ccr\_location/bin/jre/version*.

2. Copy the bcprov-jdknn-*nnn*.jar file from the *ccr\_location/bin/jre/version/lib/ext* directory to the *Java\_location/jre/lib/ext* directory.

## Set Up Database Connectivity for the Controller Database

---

For IBM Cognos Controller, both Controller Web Services Server and Report Server access the Controller database. The Web server must be able to connect to the Controller database.

## Procedure

Ensure that you install the database API software for your reporting sources on each computer where Application Tier Components are installed.

On Windows, Application Tier Components support either native database connectivity or ODBC. On UNIX and Linux, Application Tier Components support the native database connectivity.

On UNIX, for Microsoft SQL Server only, Application Tier Components support the Data Direct ODBC driver. This driver is available from Data Direct.

IBM Cognos requires TCP/IP connectivity with the Microsoft SQL Server.

## Using JDBC drivers for IBM Cognos Controller

IBM Cognos Controller uses JDBC (Java Database Connectivity) connectivity to access the Controller database. You need to download a suitable JDBC driver from the relevant database provider's website.

Table 7. JDBC drivers required for databases	
Database	JDBC driver
DB2	DB2 driver, for example db2jcc.jar
Microsoft SQL Server	JDBC driver, for example sqljdbc4.jar
Oracle	JDBC thin driver, for example ojdbc5.jar

### Procedure

1. Copy the downloaded driver jar file to C:\Program Files\C10\Server\Integration directory.
2. Edit the `ccr-dbTypes.properties` file to match the copied driver jar file using a text editor such as Notepad. You need the following information depending on which driver file you are using:

#### IBM DB2

```
DB2.name = DB2
DB2.driver = com.ibm.db2.jcc.DB2Driver
DB2.url = jdbc:db2://%s%s/%s
```

#### SQL Server (MS native)

```
SQL_SERVER.name = MS SQLServer (Microsoft native)
SQL_SERVER.driver = com.microsoft.sqlserver.jdbc.SQLServerDriver
SQL_SERVER.url = jdbc:sqlserver://%s%s;databaseName=%s
```

#### Oracle

```
ORACLETHIN.name = Oracle thin
ORACLETHIN.driver =oracle.jdbc.driver.OracleDriver
ORACLETHIN.url = jdbc:oracle:thin:@%s%s:%s
```

More information is available in the `ccr-dbTypes.properties` file.

3. Restart the IBM Cognos Controller Java Proxy service if it is running.

**Note:** Make a backup copy of the `ccr-dbTypes.properties` file to avoid overwriting it when the system is updated.

## Set Up Database Connectivity for the Controller Data Mart

If you use a different type of database for the Controller data mart than you use for the content store, then you must set up connectivity to the Controller data mart. A Controller data mart database is required only if you intend to use the Publish to Data Mart Framework Manager model that is provided with IBM Cognos Controller.

### Procedure

Install the appropriate JDBC driver for your Controller data mart, as follows:

Table 8. JDBC drivers for Controller data mart databases	
Database	JDBC Driver
DB2	DB2 driver, for example db2jcc.jar

Table 8. JDBC drivers for Controller data mart databases (continued)	
Database	JDBC Driver
Oracle	JDBC thin driver, for example ojdbc5.jar
Microsoft SQL Server	IBM Cognos requires TCP/IP connectivity with Microsoft SQL Server.
IBM Cognos Content Database	Included with IBM Cognos components. No other software is required.

## Start IBM Cognos Configuration

Use IBM Cognos Configuration to configure IBM Cognos components and to start and stop IBM Cognos services.

### Procedure

From the **Start** menu, click **Programs, IBM Cognos, IBM Cognos Configuration**.

## Configure the web server

Before you can access the IBM Cognos Controller portal, you must configure your web server. You must set up virtual directories, also known as web aliases, for the directories that contain the HTML and web files for IBM Cognos Controller.

### Before you begin

You must use Microsoft Internet Information Services (IIS) version 7 or later.

### Procedure

1. In the **Internet Information Services (IIS) Manager**, expand the node with your server name, and select **Application Pools**.
2. Select **DefaultAppPool** and then from the **Actions** pane, select **Advanced Settings**.
3. Set the **.Net CLR Version** to v.4.0.
4. Set **Enable 32-Bit Applications** to False.
5. Set **Identity** to LocalSystem.
6. Click **OK**.
7. Expand **Sites** and under your web site, create the following virtual directories as shown in the table. If you are installing on the same machine as IBM Cognos Business Intelligence or IBM Cognos Analytics, create the virtual directories under the `ibmcognos` virtual directory.

Alias	Location
controller	<code>controller_install_location\ccrmdir</code>
controllerbin	<code>controller_install_location\webcontent\ccr</code>

8. Select the controller virtual directory.
9. double click on HTTP redirect.
10. Select **Redirect Requests to this destination** and enter the following path:  
`/controllerbin/app.publish/CCR.application`
11. Click **Apply**.
12. Right-click your web site and click **Add Application**.



- a) Set **Alias** to **ControllerServer**.
  - b) Set **Application pool** to **DefaultAppPool**.
  - c) In the **PhysicalPath** field, enter *controller\_install\_location/ControllerProxyServer*.
  - d) Click **OK**.
13. Click **Apply** and click **OK**.

## Connecting Cognos Controller to Cognos Analytics or Cognos Business Intelligence

---

After you have installed IBM Cognos Controller, you must configure it to communicate with IBM Cognos Business Intelligence or IBM Cognos Analytics.

### Before you begin

Make sure your IBM Cognos Business Intelligence or IBM Cognos Analytics instance is up and running and accessible from the Cognos Controller server by accessing the IBM Cognos Business Intelligence or IBM Cognos Analytics gateway URI and Dispatcher URI in your web browser.

### Procedure

1. Start IBM Cognos Controller Configuration using the **Run as administrator** option.
2. Under **Web Services Server > Report Server** point the URI to the IBM Cognos Business Intelligence or IBM Cognos Analytics addresses.

Configure the following addresses:

Server	Value
Report server URI for Cognos Analytics	<code>http://CA_server/bi/v1/dispatcher URI</code>
Report server URI for Cognos Business Intelligence	<code>http://BI_server/ibmcognos/cgi-bin/cognos.cgi</code>
Dispatcher URI for Cognos Analytics and Cognos Business Intelligence	<code>http://BI_OR_CA_Server/p2pd/servlet/dispatch</code>

## Set Database Connection Properties for the Controller Data Source

---

Before you can run IBM Cognos Controller, you must configure a Controller database connection. IBM Cognos Controller databases must be created using either IBM DB2, Oracle or Microsoft SQL Server.

To run reports against IBM Cognos Controller data sources, the data sources must be configured for Report Server and appear in IBM Cognos Connection.

If you are installing IBM Cognos Controller for the first time, or if you do not want to connect to an existing Controller database, you can create a database connection to an empty Controller database.

### Before you begin

If you want to create a connection to an existing Controller database, we recommend that you create a backup of your database before you create the Controller data source connection. This is because the Controller Database Conversion Utility, which runs against the database during the data source connection process, updates the database tables for use with IBM Cognos Controller.

## Procedure

1. From the **Start** menu, start **Controller Configuration**.

If you are using a Windows 7 or Windows 2008 computer, installed the product to the Program Files directory, and the User Account Control (UAC) is turned on, IBM Cognos Controller Configuration is identified as an administrative application; therefore, you must run it with elevated administrative privileges. To properly save the configuration settings, the UAC prompts for credentials if you are using a standard account.

2. In the **Explorer** window, click **Database Connections**, and then click **File > New**.
3. In the **Properties** window, click the **Database type** box, and then use the drop-down arrow to select the database type.

You can choose **DB2**, **Oracle** or **SQL Server**.

4. In the **Name** box, type a name for the database connection.
5. In the **Provider** box, type the name of the database provider.

To obtain the database provider information, see the DB2, Oracle or SQL Server documentation.

6. In the **User ID** and **Password** boxes, type the user name and password for the Controller database.
7. In the **Initial catalog** box, type the Controller database name.
8. In the **Data source** box, type the database server computer name.

Do not use localhost.

9. Click **File > Save**.
10. In the **Explorer** window, expand **Database Connections**.
11. Select the database you want to upgrade.
12. Click **Actions > Run**.
13. If no Java is found, browse to and select the Java 7 JRE in the *install\dir\bin64\jre\7.0\* directory.
14. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
15. If this is an empty Controller database, in the **Database Conversion Utility** window, click **Create Db**.

The Database Conversion Utility initializes the database.

**Note:** When you create a new database, by default the database version is 813. You then need to perform database upgrade to the latest version of IBM Cognos Controller.

16. In the **Database Conversion Utility** dialog box, click **Connect** and then click **Upgrade**.

The Database Conversion Utility upgrades the existing database.

**Note:** To upgrade database versions lower than 789 use the old Database Conversion Utility tool in the c10\legacy directory.

17. Click **Close**.
18. From the **Actions** menu, click **Check**.

If the database connection validation fails, review the database connection properties and fix any errors.

19. From the **File** menu, click **Save**.
20. In the **Explorer** window, under **Web Services Server**, click **Report Server**.
21. Under **Report Server connections**, click **Repair**.

The new database is now configured as a data source for Report Server, and is listed as a data source in IBM Cognos Connection.

## Verifying connectivity to the Controller database

Test the connection to the IBM Cognos Controller database to ensure that the Application Tier Components that use the data source connections can access the database.

### Procedure

1. From the **Start** menu, click **Programs > IBM Cognos 10 Controller > IBM Cognos Controller > Controller Configuration**.
2. In the **Explorer** window, expand **Database Connections**.
3. Select a connection that describes the location and type of database that you want to test.
4. From the **Actions** menu, click **Check**.
5. Repeat steps 3 - 4 for each database connection listed.

### Results

The connection details are validated, and a message confirms that the connection succeeded. If the database connection validation fails, ensure that in the **Data source** box for the database, the database server computer name is not localhost.

## Default Settings for IBM Cognos Controller

IBM Cognos Controller uses default ports and URI settings for the following:

- Gateway, Content Manager, and Report Server
- Controller Web Services Server and Controller Client Distribution Server

### Default Settings for the Gateway, Content Manager, and Report Server

The following table lists the default ports and URI settings for the gateway, Content Manager, and Report Server.

After installation, you can use IBM Cognos Configuration to change the settings. You can also change them by editing the cogstartup.xml file in the *ccr\_location/configuration* directory.

Table 9. Default ports and URI settings for the gateway, Content Manager, and Report Server		
Setting	Default	Description
Content Manager URI	http://localhost:9300/p2pd/servlet	The URI to Content Manager
Gateway URI	http://localhost:80/ibmcognos/cgi-bin/cognos.cgi	The URI to the gateway
Dispatcher URI (Internal, External)	http://localhost:9300/p2pd/servlet/dispatch	The URI to the dispatcher
Dispatcher URI for external applications	http://localhost:9300/p2pd/servlet/dispatch	The URI to the dispatcher
Dispatcher URIs for gateway	http://localhost:9300/p2pd/servlet/dispatch/ext	The URI to the primary dispatcher used by the gateway

*Table 9. Default ports and URI settings for the gateway, Content Manager, and Report Server (continued)*

Setting	Default	Description
Controller URI for gateway	http://localhost:80/ibmcognos/ controllerserver	The URI to Controller Web Services Server used by the gateway
Log server port	9362	The port used by the local log server

## Default Settings for Controller Web Services Server and Controller Client Distribution Server

The following table lists default URI settings for Controller Web Services Server and Controller Client Distribution Server.

After installation, you can use IBM Cognos Controller Configuration to change the settings.

*Table 10. Default URI settings for Controller Web Services Server and Controller Client Distribution Server*

Setting	Default	Description
Server Authentication, Dispatcher URI	http://localhost:9300/p2pd/ servlet/dispatch	The URI to the dispatcher used by Controller Web Services Server
Report Server URI	http://localhost/ibmcognos/cgi- bin/cognos.cgi	The URI to the IBM Cognos Gateway for the Report Server
CASURL Client Distribution Server URI	http://localhost/ibmcognos/ controllerbin	The Controller Client Distribution Server URI used by client downloads
WSSURL Web Services Server URI	http://localhost/ibmcognos/ controllerserver	The Controller Web Services Server URI used by client downloads
Controller online help URL	http://localhost/ibmcognos/ controllerhelp	The URI to the IBM Cognos Controller online help used by client downloads. Only change this when you do not want use IBM Knowledge Center ( <a href="https://www.ibm.com/support/knowledgecenter/">https://www.ibm.com/support/knowledgecenter/</a> ).

## Installing the client interfaces

You can install the following client interfaces:

- \_\_\_ • IBM Cognos Controller Link for Microsoft Excel
- \_\_\_ • Framework Manager
- \_\_\_ • IBM Cognos Controller Financial Analytics Publisher

## Enabling access to Cognos Controller from Cognos Business Intelligence

To access IBM Cognos Controller from the IBM Business Intelligence portal you must add Cognos Controller to IBM Cognos Connection.

### Before you begin

You must have a Personal Information Exchange (.pfx) file that contains your security certificate. The security certificate can be self-signed or issued by a certificate authority.

### About this task

In this task, you'll sign the CCR.application file using your security certificate.

### Procedure

1. Go to `<controller installation location>\webcontent\ccr\app.publish`.
2. Double-click CCRSignApp.exe.
3. Browse to the location of the .pfx file.  
You may be required to enter a password.
4. Click **Sign application**.  
A message appears saying that the CCR.application was successfully signed.
5. Click **OK** and close CCRSignApp.exe.

## Install the IBM Cognos Controller Link for Microsoft Excel

IBM Cognos Controller provides an add-in for Microsoft Excel that is automatically downloaded, along with the Controller client, the first time that users access IBM Cognos Controller. Users must have administrative privileges for their computers so that IBM Cognos Controller Link for Microsoft Excel can be downloaded.

If your users do not have administrative privileges, you can install the IBM Cognos Controller Link for Microsoft Excel remotely for them. For users who have slow network connections, you might prefer to copy the complete client installation package to a CD and then distribute the CD for users to install.

To facilitate the installation of IBM Cognos Controller on the client computer, you can run the CCRLocalClient executable file. If users are installing the Controller client on a Windows 7 computer and the User Account Control (UAC) is turned on, users are prompted to consent to running the application as elevated. The operating system identifies the IBM Cognos Controller Client as an administrative application.

As an administrator, the CCRLocalClient32.msi and CCRLocalClient64.msi files are available if you want full control over the deployment process. For example, the .msi installation program allows you to automate the installation or uninstallation, and standard logging. By using the .msi program, you can also customize the installations and resolve configuration problems.

### Procedure

1. On the computer where Controller Client Distribution Server is installed, go to the `ccr_location\webcontent\ccr` directory.
2. To distribute the IBM Cognos Controller Link for Microsoft Excel remotely to the IBM Cognos Controller client computers, run the ControllerExcelLinkSetup\_x64 or the ControllerExcelLinkSetup file on IBM Cognos Controller client computers by using Active Directory or Patchlink.
3. To copy the complete client installation package to a CD or USB drive for installation by users, copy the CCRLocalClient32.exe or CCRLocalClient64.exe files from the ccr directory to your transportable media.

Users with administrative privileges can then copy the client installation package from the media to their IBM Cognos Controller client computer. This procedure allows users to run the CCRLocalClient32.exe or CCRLocalClient64.exe files.

## Set Up the Data Source Environment for Framework Manager

The IBM Cognos modeling tools create and manage metadata. Framework Manager creates and manages metadata for the reporting functions. Because metadata is derived from data sources in multi-platform or multilingual environments, there are several things you must think about or do when you set up the data source environment for Framework Manager. Commonly, these things depend on the other technology you use for your data or import source.

If you use a Sybase data source, these steps are not necessary.

If you upgraded from an older version of Framework Manager, you are not required to set up anything in the data source environment. You must set up the data source environment only if you installed Framework Manager in a different location from the older version.

### Before you begin

Install IBM Cognos Framework Manager. For information on how to install Cognos Framework Manager, refer to the IBM Cognos Analytics or IBM Cognos Business Intelligence installation procedures.

Ensure that you install the appropriate fonts to support the character sets and currency symbols you use.

### Procedure

1. Set the environment variable for multilingual support:

- For Oracle, set the NLS\_LANG (National Language Support) environment variable on each computer where Framework Manager is installed by typing the following command:

```
NLS_LANG = language_territory.character_set
```

Examples are:

```
NLS_LANG = AMERICAN_AMERICA.UTF8
```

```
NLS_LANG = JAPANESE_JAPAN.UTF8
```

The value of the variable determines the locale-dependent behavior of IBM Cognos. Error messages, sort order, date, time, monetary, numeric, and calendar conventions automatically adapt to the native language and locale.

- For DB2, set the DB2CODEPAGE environment variable to a value of 1252.

For more information about whether to use this optional environment variable, see the DB2 documentation.

No settings are required for SAP BW. SAP support only a single code page on non-Unicode SAP BW systems.

2. For Oracle, add \$ORACLE\_HOME/lib to your LD\_LIBRARY\_PATH.

When you set the load library paths, ensure that the 32-bit Oracle libraries are in the library search path, which is usually the \$ORACLE\_HOME/lib directory or the \$ORACLE\_HOME/lib32 directory if you installed a 64-bit Oracle client.

3. For Oracle, copy the ojdbc14.jar file from ORACLE\_HOME/jdbc/lib to the *ccr\_location/webapps/p2pd/WEB-INF/lib* directory. For Oracle 11 g, copy the ojdbc5.jar file from ORACLE\_HOME/jdbc/lib to the *ccr\_location/webapps/p2pd/WEB-INF/lib* directory.

If the directory contains the classes12.jar file, delete it before installing the ojdbc14.jar or ojdbc5.jar file.

4. For SAP BW, configure the following authorization objects so that the modeling tool can retrieve metadata.

Some of the values shown, such as \*, are default values that you may want to modify for your environment.

*Table 11. Authorization objects to configure for SAP BW when you set up the data source environment for Framework Manager*

Authorization object	Field	Value
S_RFC	Activity	16
	Name of RFC to be protected	SYST, RSOB, SUGU, RFC1, RS_UNIFICATION, RSAB, SDTX, SU_USER
	Type of RFC object to be protected	FUGR
S_TABU_DIS	Activity	03
	Authorization Group	&NC&
S_RFC	Activity	16
	Name of RFC to be protected	SYST, RSOB, SUGU, RFC1, RS_UNIFICATION, RSAB, SDTX, SU_USER
	Type of RFC object to be protected	FUGR
S_TABU_DIS	Activity	03
	Authorization Groups	&NC&
S_USER_GRP	Activity	03, 05
	User group in user master main	*
S_RS_COMP	Activity	*
	Info Area	<i>InfoArea Technical Name</i>
	Info Cube	<i>InfoCube Technical Name</i>
	Name (ID) of reporting components	*
	Type of reporting components	*
S_RS_COMP1	Activity	*
	Name (ID) of reporting components	*
	Type of reporting components	*
	Owner (Person Responsible)	*
S_RS_HIER	Activity	71
	Hierarchy Name	<i>Hierarchy Name</i>
	InfoObject	<i>InfoObject Technical Name</i>
	Version	<i>Hierarchy Version</i>

Table 11. Authorization objects to configure for SAP BW when you set up the data source environment for Framework Manager (continued)

Authorization object	Field	Value
S_RS_ICUBE	Activity	03
	InfoCube sub-object	DATA DEFINITION
	Info Area	<i>InfoArea Technical Name</i>
	InfoCube	<i>InfoCube Technical Name</i>

&NC& represents any table that does not have an authorization group. For security reasons, create a new authorization group and assign the table RSHIEDIR to it. The new authorization group restricts the user's access to the table only, which is needed by the modeling tool. Create the new authorization group as a customization in the SAP system.

For more information about SAP BW authorization objects, see Transaction SU03.

## Installing Cognos Controller Financial Analytics Publisher

IBM Cognos Controller includes an integration component, IBM Cognos Financial Analytics Publisher, that automates the process of extracting data in close to real time from Cognos Controller into IBM Cognos TM1.

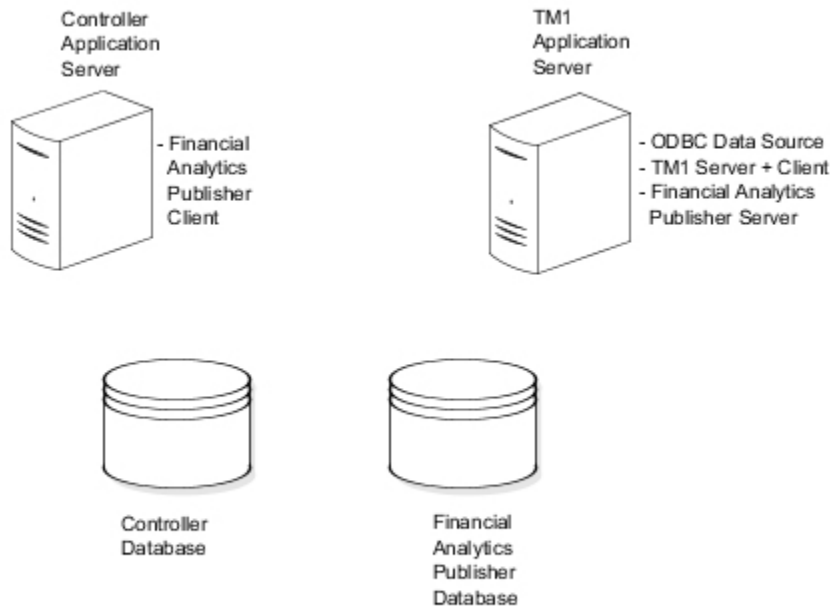
IBM Cognos Financial Analytics Publisher uses a temporary storage area before populating the TM1 cube. Once the initial publish operation is started, the TM1 cube is updated continuously, and you can define how often the service should run. From the TM1 cube, the IBM Cognos Controller data can be accessed by a number of reporting tools, including IBM Cognos BI studios. For more information about using Cognos Controller Financial Analytics Publisher, see *Using Financial Analytics Publisher*.

### Schematic overview

Because the installation of IBM Cognos Controller Financial Analytics Publisher includes several different server components, there are a number of installation options.

The following diagram shows one of these options and how it relates to the IBM Cognos Controller application and database servers. The Cognos Controller Financial Analytics Publisher Client (that is, the admin console) is installed on the Cognos Controller application server, the Financial Analytics Publisher database on a separate database server, finally the Financial Analytics Publisher Server and TM1 on the TM1 application server.





In addition to the server components, you need access to the cube. There are a number of reporting tools you can use, including IBM Cognos BI studios.

## Setting up the IBM Cognos Controller Financial Analytics Publisher environment

Before you can run IBM Cognos Controller Financial Analytics Publisher you must set up resources in your environment so that the components can operate.

If you install all Controller components on one computer the Financial Analytics Publisher Client and Financial Analytics Publisher Server components are installed by default.

Use the following checklist to guide you through the setup process:

- \_\_\_ • [Configure the IBM Cognos Controller Database and the System Audit Log](#)
- \_\_\_ • [Create a Financial Analytics Publisher Database](#)
- \_\_\_ • [Configure the Financial Analytics Publisher Server](#)
- \_\_\_ • [Install TM1](#)

## Enabling data transfer to Financial Analytics Publisher

You must configure the IBM Cognos Controller Database to enable integration with IBM Cognos Controller Financial Analytics Publisher.

**Note:** The Controller database must be upgraded with a dbconv step corresponding to the IBM Cognos Controller 10.3.0 release, or later. For more information, see [“Upgrading your application databases”](#) on page 42.

You enable data transfer when you connect to a data source in Cognos Controller Financial Analytics Publisher and the data source status is flagged as Active. When you disconnect from a data source, the data transfer for FAP is disabled and the trickle tables are purged. The System Audit log and the data transfer to FAP are two separate functions. Therefore, you can enable or disable them separately.

For more information about the Audit Trail function, see *Using Controller*.

## Create a Cognos Controller Financial Analytics Publisher database

When you install IBM Cognos Controller Financial Analytics Publisher, you must create an empty Financial Analytics Publisher database. This is because Financial Analytics Publisher requires a database to publish data from the Controller database.

### Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.

If you are using a Microsoft Windows 2008 or Microsoft Windows 2012 computer, installed the product to the Program Files directory, and the User Account Control (UAC) is turned on, IBM Cognos Controller Configuration is identified as an administrative application; therefore, you must run it with elevated administrative privileges. To properly save the configuration settings, the UAC prompts for credentials if you are using a standard account.

2. In the **Explorer** window, click **Database Connections**, and then click **File > New**.
3. In the **Properties** window, select the database type.

You can choose **DB2**, **Oracle**, or **SQL Server**.

4. Type a name for the database connection.
5. In the **Provider** field, type the name of the database provider, for example SQLNCLI11.1 for SQL Server.

To obtain the database provider information, see the DB2, Oracle or SQL Server documentation.

6. Type the user name and password for the Cognos Controller database.
7. In the **Initial catalog** field, type the Cognos Controller database name.
8. In the **Data source** field, type the database server computer name.

Do not use localhost.

9. Click **File > Save**.
10. In the **Explorer** window, expand **Database Connections**, and browse to the location of the UDL file for the FAP database you want to upgrade.
11. Browse to the location of the UDL file for the FAP database you want to upgrade.
12. Click **Actions > Run**.

The Database Conversion Utility opens.

13. If no Java is found, browse to and select the Java 7 JRE in the *install\_dir\bin64\jre\7.0\* directory.
14. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
15. Click **FAP DB**.
16. In the **Database Conversion Utility** window, click **Connect**, and then **Create Db**.

The Database Conversion Utility initializes the database.

17. To update an existing database, click **Connect**, and then **Upgrade**.

The Database Conversion Utility upgrades the existing database.

18. Click **Actions > Check**.

If the database connection validation fails, review the database connection properties and fix any errors.

19. Click **File > Save**.

## Configure the Financial Analytics Publisher Server and start the service

Before you configure the Financial Analytics Publisher Server and start the service, ensure that your Java Runtime Environment is updated. However, if JAVA\_HOME is not set, the JRE that is packaged with IBM Cognos Controller is used by default.

## Procedure

1. Go to the *c10location\server\FAP* directory, and open the *FAPService.properties* file in a text editor.
2. Edit the following values to connect to your FAP database.

a) Set the value for *db* to the name of your FAP database. For example, *db=FAP*.

b) Set the value for *host* to the name of your database server. For example, *host=servername:port*.

c) Set the value for *dbType* to the type of database.

For example:

*dbType=sqlserver*

*dbType=db2*

*dbType=oracle*

d) Set the value for *user* to the user name for your database. For example, *user=username*.

e) Set the value for *password* to the password for you user. For example, *password=password*.

You can optionally add the following parameters to the file, depending on your database type:

*db2DbConnectionType=Db2\_connection\_type*, the default is *db2*.

*db2DbProvider=Db2\_provider*, the default is *com.ibm.db2.jcc.DB2Driver*.

*sqlserverDbConnectionType=SQLServer\_connection\_type*, the default is *sqlserver*.

*sqlserverProvider=SQLServer\_provider*, the default is *com.microsoft.sqlserver.jdbc.SQLServerDriver*.

*oracleDbConnectionType=Oracle\_connection\_type*, the default is *oracle*.

*oracleProvider=Oracle\_provider*, the default is *oracle*.

- All settings are case sensitive.
- If you are using Microsoft SQL Server, and your database uses an instance name, please refer to <http://www-01.ibm.com/support/docview.wss?uid=swg21417314> for further instructions.
- If you are using Oracle but not using the default port number 1521, please refer to <http://www-01.ibm.com/support/docview.wss?uid=swg21415196> for further instructions.

3. Click **Start > Control Panel > Administrative Tools > Services**.

4. Select **IBM Cognos FAP Service**, and click **Start**.

## Install the TM1 Client

This procedure can be skipped when the Financial Analytics Publisher service and the TM1 application server reside on the same server and TM1 is a 32-bit installation.

The TM1 client includes the dll files that are required for the Financial Analytics Publisher server to communicate with the TM1 server.

When installing the TM1 Server on a 64-bit server it is necessary to install the 32-bit TM1 client on the server where the Financial Analytics Publisher service is installed.

For more information about installing and configuring the TM1 client, see the *IBM Cognos TM1 Installation Guide*.

## Procedure

1. In Windows Explorer, right-click **My Computer**, and select **Properties**.
2. On the **Advanced** tab, click **Environment Variables**.
3. Under **System Variables**, select **Path**, and click **Edit**.

4. Copy the path to the *TM1\bin64* directory on your client, and paste it in at the end of the shown path.

## Installing IBM Cognos TM1

After you have installed the Financial Analytics Publisher as a Windows server, you must install IBM Cognos TM1, create a TM1 server and set up the IBM Cognos Security.

For information on how to install IBM Cognos TM1, see the *IBM Cognos TM1 Installation Guide*.

### Creating a new TM1 Server

To be able to run the Financial Analytics Publisher, you need to create a local TM1 Server on the TM1 application server (the admin host server).

For information on how to create a TM1 server, see the *IBM Cognos TM1 Installation Guide*.

**Note:** If you are using TM1 10.2 or earlier, you specify the maximum number of groups by editing the *Tm1s.cfg* file and setting the **GroupsCreationLimit** according to your requirements. The default value is 20. The maximum number of groups for **GroupsCreationLimit** is 65535. If you are using TM1 10.2.2 or later, you do not need to set the **GroupsCreationLimit** parameter.

### Financial Analytics Publisher and IBM Cognos Security

Both Controller users who are designated as IBM TM1 Users and Controller authorization groups are published to TM1. Authorization groups are assigned prefixes to avoid naming conflicts.

The following security modes are available for Cognos Controller and Cognos Controller Financial Analytics Publisher in TM1:

- For TM1 9.5.x, Cognos Controller users and authorization groups are published and can be leveraged if CAM authentication is not used to access the Cognos Controller Financial Analytics Publisher cube (for example from the TM1 Excel plug-in, but not from BI).

**Note:** Both Controller users who are designated as IBM TM1 Users and Controller authorization groups are cleared in TM1 during the initial publish operation.

- For TM1 9.5.2 and later, there is integrated security between Controller and TM1. This means that both Controller users who are designated as IBM TM1 Users and Controller authorization groups are published to TM1. Then for all CAM users present in TM1, the CAM user ID will be connected to the Controller user ID (provided the CAM information has been maintained in Controller) and get the appropriate authorization groups.
- TM1 Security Mode Settings that are not supported by Controller will result in the initial publish process being aborted and the datamart being set to Error. The following TM1 API security modes are not supported:
  - Distributed  
Implies that the TM1 server is a distributed server that accepts connections without specifying any credentials.
  - Mixed  
Implies that the TM1 server accepts user authenticating either using Basic authentication or Windows Integrated Authentication.
  - WIA  
Implies that the TM1 server accepts connections that can authenticate based on Windows Integrated Authentication.

#### Configuring CAM security mode

You need to configure the CAM security mode.

## Procedure

1. In the IBM Cognos Controller Financial Analytics Publisher dialog box, click the **Data Marts** tab.

2. Enter the following credentials:

- Client - <CAM user as 'namespace\user'>
- Password - <CAM password>

This user must exist in Controller.

3. The CAM user must be created on the TM1 server and associated with the ADMIN group.

4. For TM1 9.5.2 and later, all CAM users in IBM Cognos Controller who are designated as IBM TM1 Users and who should be managed by the FAP Service security must be added to the TM1 server. This is done manually in TM1 Architect. To add users, follow the instructions in the *IBM Cognos TM1 Operations Guide*. All the existing users in Controller that you want to provide access to TM1 for, must be imported.

5. In the FAPService.properties file, add the new property clientcamuri, for example clientcamuri=http://Cam Server Name/IBMCognos/cgi-bin/cognos.cgi. This parameter should have the CAMURI value as Controller and TM1.

**Note:** In the Tm1s.cfg configuration file, the IntegratedSecurityMode parameter must be set to the following value by the administrator (default value is 1) when performing an initial publish:

1 = BASIC, 5 = CAM

## Results

For more information about setting up a TM1 server to use CAM, see the *IBM Cognos TM1 Operations Guide*.

**Note:** In the next initial publish, users already present in TM1 will be re-used, therefore only new CAM users must be added.

## Creating an ODBC Data Source for TM1

You need to create an ODBC Data Source, named FAP, pointing to the Financial Analytics Publisher database. The client software for your relational database must be installed on the same computer you are creating the FAP ODBC Data Source and TM1 server on.

## Enable Access to the COM+ Server

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When you install IBM Cognos Controller, a Controller COM+ application is created. After you install IBM Cognos Controller, you must confirm that network access to the COM+ Server is enabled.

By default, installations of Windows Server 2008 restrict the functionality of network and communication components. You must enable the COM+ Server before IBM Cognos Controller can operate.

### Procedure

1. In the Windows **Control Panel**, click **Add or Remove Programs**, and then click **Add/Remove Windows Components**.
2. Click **Application Server**, and then click **Details**.
3. Click **Enable network COM+ Access**, and then click **OK**.
4. Click **Next**, and then click **Finish**.

## Test the IBM Cognos Controller Installation and Configuration

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After you configure the Controller database connection and COM+ Server, test your configuration settings to confirm that you can start IBM Cognos Controller and connect to a Controller database.

You can test your IBM Cognos Controller installation and configuration on a client computer by starting IBM Cognos Controller from IBM Cognos Connection or from a URL, and by running the IBM Cognos Controller Link for Microsoft Excel. You can test from IBM Cognos Connection only if you are using IBM Cognos Controller native authentication.

If you installed Framework Manager for use with the Publish to Data Mart Framework Manager model, you can also test the connection to Framework Manager.

## Before you begin

Before you can run IBM Cognos Controller from a client computer, you must set up the local environment. To set up the local environment for IBM Cognos Controller, you must install and configure the Microsoft .NET Framework.

**Tip:** To view the IBM Cognos Controller user interface in optimal conditions, we recommend that you set the Display Properties for your monitor to a screen resolution of 1024 X 768 and a DPI setting of 96.

## Procedure

1. Start Microsoft Internet Explorer.
2. Start IBM Cognos Connection by typing one the following, where *ibmcognos* is the virtual directory you created when you configured the Web server:
  - For the CGI gateway: type **http://host\_name:port/ibmcognos**
  - For an ISAPI gateway: type **http://host\_name:port/ibmcognos/isapi**

It may take a few minutes for the Web page to open.

3. In the IBM Cognos Connection **Welcome** page, click the IBM Cognos Controller link.

The **Select Database** window opens.

4. Select a database in the list, and click the check mark.
5. Enter your logon credentials:

In the **IBM Cognos Controller - Login** window, type the User ID, Password, Actuality, and Period, and then click the check mark.

**Tip:** For new databases, the default User ID is **ADM** and the default Password is **kbs**.

If IBM Cognos Controller opens, your IBM Cognos Controller installation is working.

## Run IBM Cognos Controller from a URL

After you configure the Controller database connection and COM+ Server, test your configuration settings to confirm that you can start IBM Cognos Controller and connect to a Controller database.

You can test your IBM Cognos Controller installation and configuration on a client computer by starting IBM Cognos Controller from IBM Cognos Connection or from a URL, and by running the IBM Cognos Controller Link for Microsoft Excel. You can test from IBM Cognos Connection only if you are using IBM Cognos Controller native authentication.

## Procedure

1. On a client computer, start Microsoft Internet Explorer.
2. Type the following URL, where *servername* is the computer where IBM Cognos Controller Client Distribution Server is installed:

**http://servername/ibmcognos/controller**

The **Select Database** window opens.

3. Select a database in the list, and click the check mark.
4. Enter your logon credentials:

In the **IBM Cognos Controller - Login** window, type the User ID, Password, Actuality, and Period, and then click the check mark.

**Tip:** For new databases, the default User ID is **ADM** and the default Password is **kbs**.

If IBM Cognos Controller opens, your IBM Cognos Controller installation is working.

## Run the IBM Cognos Controller Link for Microsoft Excel

After you configure the Controller database connection and COM+ Server, test your configuration settings to confirm that you can start IBM Cognos Controller and connect to a Controller database.

You can test your IBM Cognos Controller installation and configuration on a client computer by starting IBM Cognos Controller from IBM Cognos Connection or from a URL, and by running the IBM Cognos Controller Link for Microsoft Excel. You can test from IBM Cognos Connection only if you are using IBM Cognos Controller native authentication.

### Procedure

1. On a client computer, start Microsoft Excel.

You must have accessed IBM Cognos Controller at least once from the client computer.

2. From the **Controller** menu, click **Log on**.

3. In the **Select Database** dialog box, select a database and click the check mark.

4. Enter your logon credentials:

- In the **IBM Cognos Controller - Login** dialog box, type the User ID, Password, Actuality, and Period, and click the check mark.

**Tip:** For new databases, the default User ID is **ADM** and the default Password is **kbs**.

From the **Controller** menu, the IBM Cognos Controller Link for Microsoft Excel features are available.

## Run Framework Manager

After you configure the Controller database connection and COM+ Server, test your configuration settings to confirm that you can start IBM Cognos Controller and connect to a Controller database.

You can test your IBM Cognos Controller installation and configuration on a client computer by starting IBM Cognos Controller from IBM Cognos Connection or from a URL, and by running the IBM Cognos Controller Link for Microsoft Excel. You can test from IBM Cognos Connection only if you are using IBM Cognos Controller native authentication.

### Procedure

1. Start the IBM Cognos service.
2. To start Framework Manager, from the **Start** menu, click **Programs, IBM Cognos, Framework Manager**.

If you see the **Welcome** page of Framework Manager, your installation is working.

## Verifying functionality in IBM Cognos Controller client interfaces

---

You can test relevant functionality in the IBM Cognos Controller client interfaces by accessing various menu commands, including those commands that connect to the IBM Cognos Business Intelligence components.

### Before you begin

IBM Cognos Controller must be installed and configured before verifying the functionality within the application. For information about testing the installation, see [“Test the IBM Cognos Controller Installation and Configuration” on page 63](#).

## About this task

To ensure that the installation of the IBM Cognos Controller Client interfaces were completed successfully, you can take additional actions.

## Procedure

1. To test the setup of the client distribution server, and that the authentication method used is working, start IBM Cognos Controller and log on.
2. To test basic navigation in the application, from the **Maintain** menu, click **Company Structure**.
3. To test IBM Cognos BI integration, access a standard report.

You can choose to access the report from the **Company** or **Group** menu, or from the **Transfer** or **Maintain** menu.

4. To test the IBM Cognos Controller Link for Microsoft Excel installation, open the IBM Cognos Controller Link for Microsoft Excel in one of the following ways:
  - Click **Company > Data Entry - Reported Values**.  
The **Data Entry - Reported Values** window is displayed and Microsoft Excel is opened in the background.
  - On the **Reports** menu, click the IBM Cognos Controller Link for Microsoft Excel.  
Microsoft Excel opens and you are logged on to IBM Cognos Controller.
5. To test the connection to the IBM Cognos Controller Help system and launch the appropriate Help files from within the user interface, click **Help**.

## Enabling Security

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IBM Cognos Controller is operating with the minimum security level. We recommend that you use a higher level of security than the default authentication settings.

For more information, see [Chapter 10, “Configuring Authenticated Access,” on page 71](#).

## Uninstall IBM Cognos Controller

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If you no longer require IBM Cognos Controller, uninstall all IBM Cognos Controller components.

It is not necessary to back up the configuration and data files on Windows. These files are preserved during the uninstallation.

We recommend that you close all programs before you uninstall IBM Cognos Controller. Otherwise, some files may not be removed.

## Procedure

1. From the **Start** menu, click **Programs, IBM Cognos, Uninstall IBM Cognos**.

The **Uninstall** wizard appears.

**Tip:** Cognos is the default name of the Program Folder that is created during the installation. If you chose another name, go to that folder to find the program.

2. Follow the instructions to uninstall the components.

The cognos\_uninst\_log.htm file records the activities that the **Uninstall** wizard performs while uninstalling files.

**Tip:** To find the log file, look in the Temp directory.

3. Delete all temporary Internet files.

For more information, see your Web browser documentation.



## **Results**

Uninstalling does not remove any files that changed since the installation, such as configuration and user data files. Your installation location remains on your computer, and you retain these files until you delete them using Windows Explorer.



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## Chapter 9. Load balancing in IBM Cognos Controller

IBM Cognos Controller can use multiple Cognos Controller application servers to balance the load.

If you balance the load, then the work of the Cognos Controller Server is divided between separate Microsoft Windows servers.

Load balancing can be achieved in the following ways:

- Scaling up: If you add more CPU cores or more memory to a Cognos Controller application server, then the Cognos Controller application server will use the improved hardware.
- Scaling out: If you add more separate Cognos Controller application servers, then you can spread the load between these separate servers. For more information, see [“Load balancing with multiple IBM Cognos Controller application servers”](#) on page 69.

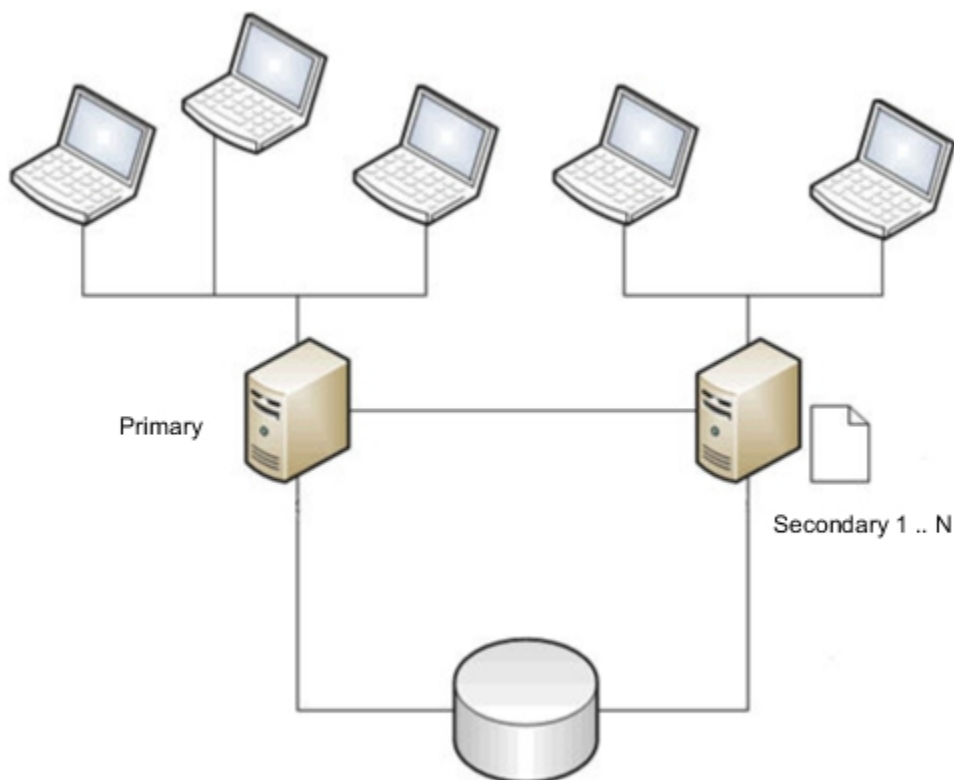
### Load balancing with multiple IBM Cognos Controller application servers

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To increase the performance of IBM Cognos Controller, you can spread the workload between several Cognos Controller application servers.

#### Before you begin

If you want to use several Cognos Controller application servers, where some users use server 1 and others use server 2, then the following diagram shows how to set up these Cognos Controller application servers.



One application server acts as the master. The primary server hosts the active user manager. You can have several separate secondary servers. The secondary servers use the user manager that runs on the primary server.

## Procedure

1. On the master system, install the Cognos Controller application server.
2. On the secondary system perform the following tasks:
  - a) Install only the Cognos Controller server components.
  - b) Use the same version of Cognos Controller on the primary and secondary system.
  - c) Configure the Cognos Controller server on the secondary system in the same way as the primary application server. The master and secondary systems must contain the same database connections (same UDL files).
  - d) Configure the Cognos Controller server on the secondary system to use the same Cognos BI server. This Cognos BI server might be the Cognos BI server on the primary system.
3. On each secondary system, configure the `web.config` file by performing the following tasks:
  - a) In the `ControllerProxyServer` folder, open the `web.config` file.  
The default location of the `ControllerProxyServer` folder is `C:\Program Files\ibm\cognos\ccr_64\ControllerProxyServer`.
  - b) In the `<appSettings>` section, add the following entry `<add key="ccrRemoteServer" value=" http://MASTERSERVER_NAME/ibmcognos/controllerserver" />`.
4. Save the changes and restart all servers.

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## Chapter 10. Configuring Authenticated Access

IBM Cognos Controller uses three methods of logon authenticated : native, IBM Cognos, Microsoft Windows Active Directory authentication. When you configure your IBM Cognos Controller environment to use a particular authentication method, you must configure a corresponding authentication level for the reporting components.

By default, IBM Cognos Controller uses native authentication. The corresponding default for the reporting components is anonymous access.

We recommend that you use a higher level of security than the default native authentication settings. If you want to use the IBM Cognos authentication method, you must use a Cognos namespace for authentication with the reporting components.

The first step for setting up IBM Cognos or Windows authentication is to configure the IBM Cognos Controller components with an authentication namespace for the type of authentication provider you want to use. If you installed IBM Cognos Controller in an environment that includes IBM Cognos Business Intelligence, the namespace is configured for IBM Cognos Business Intelligence. Unless you want to change authentication providers, you do not have to configure an authentication namespace now. For information about configuring a namespace for various other authentication providers, see [“Configuring IBM Cognos Components to Use an Authentication Namespace”](#) on page 77.

If you want to use the IBM Cognos authentication method, you must add the IBM Cognos Controller users to the IBM Cognos Controller roles. After you add the users to the roles, the first user to log on to Controller is automatically mapped to the Controller Administrative User account and inherits the privileges of that account.

For both the IBM Cognos and the Windows authentication methods, you must map the users that are defined in IBM Cognos Controller to the users that are defined in the Cognos namespace roles.

### Procedure

1. Perform [Configure the IBM Cognos Controller authentication method.](#) or [“Configure Active Directory authentication”](#) on page 75.
2. Add [IBM Cognos Controller users to IBM Cognos Controller roles](#), for the IBM Cognos authentication method only.
3. Map [IBM Cognos Controller users to IBM Cognos users](#).

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## Configure the IBM Cognos Controller Authentication Method

After you configure the authentication provider, you must configure the Controller Web Services Server computers with IBM Cognos or Windows authentication. The default authentication method is Native authentication.

If users access the IBM Cognos Controller, IBM Cognos Controller Link for Microsoft Excel or IBM Controller Web applications when not being logged on as domain users, they receive a prompt to enter their domain credentials in order to be authenticated against the domain

With native authentication, logon information is configured in the IBM Cognos Controller databases and in the IBM Cognos Controller user interface. Native authentication is the authentication method used in previous versions of IBM Cognos Controller. If you use Native authentication, when users log on to IBM Cognos Controller from IBM Cognos Connection or from a URL and have selected a database to log on to, they are prompted to log in. Users are prompted with the same logon window when they log on to IBM Cognos Controller using the IBM Cognos Controller Link for Microsoft Excel. If you want to use Native authentication in your IBM Cognos Controller environment, the reporting components must run under anonymous access. When the reporting components run under anonymous access, no logon is required. In IBM Cognos Connection, anonymous access is enabled by default. Native authentication provides minimal security in your IBM Cognos Controller environment.

IBM Cognos authentication is shared between IBM Cognos Controller and the reporting components. When you use the IBM Cognos authentication method, you can use the IBM Cognos built-in namespace to restrict access to defined users, or you can create an appropriate namespace for the type of authentication provider in your environment. Access is then restricted to users belonging to any group or role defined in the namespace. If you use the IBM Cognos authentication method, when users log on to IBM Cognos Controller from IBM Cognos Connection or from a URL and have selected a database to log on to, they are prompted to log on. Users are prompted with the same logon window when they log on to IBM Cognos Controller using the IBM Cognos Controller Link for Microsoft Excel. IBM Cognos authentication uses shared memory for passport IDs. However, if your company security policy prohibits the use of shared memory, you can disable the use of shared memory for passport IDs. If you disable shared memory for passport IDs, users must log on separately to IBM Cognos Controller and to the IBM Cognos Controller Link for Microsoft Excel.

Windows Authentication is the authentication provided through the configuration of Internet Information Services (IIS). When Windows Authentication is enabled, user connections established with the Microsoft Internet Information Services Web server on Controller Web Services Server are validated against the domain that the server is part of. When users log on to client computers as users that are part of the Active Directory domain, they are not prompted with further logons when they run Cognos Controller or the Cognos Controller Link for Microsoft Excel.

**Note:** In Controller Web, users are still required to input their username and password.

If users access the Cognos Controller, Cognos Controller Link for Microsoft Excel or Controller Web applications when not logged on as domain users, they receive a prompt to enter their domain credentials to be authenticated against the domain.

**Note:**

To avoid using different authentication mechanisms, you should reuse IBM Cognos authentication if you have integrated your Cognos Controller environment with IBM Cognos Analytics or IBM Planning Analytics.

## Before you begin

If you are using Native or IBM Cognos authentication, ensure that you have configured the appropriate namespace. If you are using Windows Authentication, ensure that the Cognos Controller server is part of the domain that is to be used for authentication and that the Windows Authentication role service has been installed as part of IIS.

## About this task

Perform this procedure on the Cognos Controller server.

## Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, click **Web Services Server, Server Authentication**.
3. In the **Select authentication method** box, click the drop-down arrow, and then select the authentication method:
  - Click **IBM Cognos** to enable IBM Cognos authentication.
  - Click **Windows Authentication** to enable Windows Authentication.
4. From the **File** menu, click **Save**.

## Add IBM Cognos Controller Users to the IBM Cognos Controller Roles

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Users, groups, and roles are created for authentication purposes. In IBM Cognos Controller, you can use users, groups, and roles created in other authentication providers, and groups and roles created in IBM

Cognos Controller. The IBM Cognos Controller groups and roles created in IBM Cognos Controller are referred to as IBM Cognos Controller groups and IBM Cognos Controller roles.

When you use the IBM Cognos authentication method, you must add IBM Cognos Controller users to the IBM Cognos Controller roles.

## About this task

Perform the steps in this task on the IBM Cognos Business Intelligence or IBM Cognos Analytics server.

## Procedure

1. Launch IBM Cognos Administration.
  2. On the **Security** tab, click **Users, Groups, and Roles**.
  3. Click the **Cognos** namespace.
  4. In the **Actions** column, click the properties button for the **Controller Administrators** role.
  5. Click the **Members** tab.
  6. To add members, click **Add** and do one of the following to select members:
    - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
    - To search for entries, click **Search** and in the Search string box, type the phrase you want to search for. For search options, click **Edit > Find**, and click the entry you want.
    - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:  
***namespace/group\_name;namespace/role\_name;namespace/user\_name;***  
For example: **Cognos/Authors;LDAP/scarter;**
  7. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.
  8. On the **Members** tab, click the **Everyone** namespace, and then click **Remove**.
  9. Click **OK**.
  10. Close the **Properties** window to return to the Users, Groups, Roles tab.
  11. Repeat steps 4 to 8 for the **Controller Users** role.
- Tip:** The **Controller Administrators** role must be a member of the **Controller Users** role.
12. Click **OK**.

## Results

After the users are added to the roles, the first user to log on to Controller is automatically mapped to the Controller Administrative User account and inherits the privileges of that account.

## Enable Controller Administrators and Users to View Standard Reports in Cognos Viewer

To view standard reports, Controller Administrators and Controller Users require execute and traverse permissions for the Cognos Viewer capability.

## About this task

Perform the steps in this task on the IBM Cognos Business Intelligence or IBM Cognos Analytics server.

## Procedure

1. In **IBM Cognos Connection**, in the upper-right corner, click **Launch, IBM Cognos Administration**.

2. On the **Security** tab, click **Capabilities**.
3. Locate the **Cognos Viewer** capability, click its actions button, and then click **Set properties**.
4. On the **Permissions** tab, click **Add**.
5. Click the **Cognos** namespace.
6. Select the check boxes for the **Controller Administrators** and **Controller Users**.
7. Click the right-arrow button, and when the entries appear in the **Selected entries** box, click **OK**.
8. Click **OK** again.
9. Select the check boxes for the **Controller Administrators** and **Controller Users** roles.
10. In the box next to the list, select the **Execute** and **Traverse** check boxes.  
The icons for **Execute** and **Traverse** appear in the **Permissions** column.
11. Click **Apply**.

## Map IBM Cognos Controller Users to IBM Cognos Users

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When you use the IBM Cognos authentication method, you must create an association between the users defined in the IBM Cognos Controller application and those defined in the Cognos namespace roles.

IBM Cognos Controller supports logons to only one namespace.

### Before you begin

**Important:** The first user who logs on to IBM Cognos Controller using IBM Cognos Authentication is automatically mapped to the IBM Cognos Controller Administrative User, the named user defined by default in Controller. Associations between users can be created only by a user who was configured in IBM Cognos Connection as a member of the Controller Administrators role. It is important, therefore, that the first user who logs on was configured to be a member of the Controller Administrators role. Otherwise, the automatic mapping to the IBM Cognos Controller Administrative User will not occur and the user's logon will fail.

For more information about setting user rights and limitations in IBM Cognos Controller, see *Using Controller*.

### About this task

Perform this procedure on the Cognos Controller server.

### Procedure

1. Start IBM Cognos Controller.  
**Note:** You must be a member of the Controller Administrators role in IBM Cognos Connection.
2. From the **Maintain** menu, click **Rights, Users**.
3. Select the user as defined in the IBM Cognos Controller database.
4. Next to the **CAM User** box, click **Show Valid Choices** and then select the user as defined in the Cognos namespace roles.
5. Click **Save**.

## Create an IBM Cognos Controller User Based on an IBM Cognos User

When you use the IBM Cognos authentication method, you must create an association between the users defined in the IBM Cognos Controller application and those defined in the Cognos namespace roles.

### About this task

Perform this procedure on the Cognos Controller server.



## Procedure

1. Start IBM Cognos Controller.

**Note:** You must be a member of the Controller Administrators role in IBM Cognos Connection.

2. From the **Maintain** menu, click **Rights, Users**.
3. Click **New**.
4. Next to the **CAM User** box, click **Show Valid Choices**, and then select the user as defined in the Cognos namespace roles.
5. Change the default values for **Name** and **E-Mail Address**, as required.
6. Next to the **User Group** box, click the browse button, and then click the user group for the IBM Cognos Controller user.
7. Under **Options**, select the appropriate check box to identify the user:
  - IBM Cognos Controller User
  - IBM Cognos Controller Administrator

If you select IBM Cognos Controller Administrator, ensure that the user is a member of the Controller Administrators role in IBM Cognos Connection.

You can add other optional information.

8. Click **Save**.

## Configure Active Directory authentication

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Active Directory authentication is embedded in IBM Cognos Controller so all you have to do is configure it.

### Before you begin

Make sure that the following things are in place:

- The Cognos Controller server must be in the Active Directory that is used for authentication. If the server has Microsoft Windows 2012 or earlier installed, then you must install the Windows Authentication component. For more information, see [Adding Windows Authentication Providers <add>](https://docs.microsoft.com/en-us/iis/configuration/system.webserver/security/authentication/windowsauthentication/providers/add) (<https://docs.microsoft.com/en-us/iis/configuration/system.webserver/security/authentication/windowsauthentication/providers/add>).
- Cognos Controller directories and the Cognos Controller application pool are set up.

## Procedure

1. Open Internet Information Services Manager and select the **controllerServer** application.
2. Double-click **Authentication**.
3. Enable **Anonymous Authentication** and **Windows Authentication**.
4. Open IBM Cognos Controller Configuration.
5. In the **Explorer** pane, click **Server Authentication**.
6. For the authentication method, select **Windows Authentication**.
7. Under **Authentication settings**, set the following values:

**Active Directory Domain**

Domain name of the Active Directory

**Active Directory Base DN**


Search path from which look up of users is done

**Active Directory User**

User to bind to the Active Directory

**Active Directory User Password**

Password of the Active Directory user

8. Click **Save** .
9. Open the `<Controller-install-path>\ccr_64\fcweb\wlp\usr\servers\fcweb\com.ibm.cognos.fcweb.properties` file and set the following value:  
`loginMode=ACTIVE_DIRECTORY.`

## Map Cognos Controller users to Active Directory users

When you use the Active Directory authentication method, you must create an association between the users defined in IBM Cognos Controller and Active Directory users.

### Before you begin

**Important:** The first user who logs on to IBM Cognos Controller using Active Directory authentication is automatically mapped to the Cognos Controller Administrative User, the named user defined by default in Cognos Controller. Associations between users can be created by any user who has the corresponding application permissions.

For more information about setting user rights and limitations in Cognos Controller, see *User Rights in Using Cognos Controller Classic*.

### About this task

Perform this procedure on the Cognos Controller server.

### Procedure

1. Start IBM Cognos Controller.
2. From the **Maintain** menu, click **Rights, Users**.
3. Select the user as defined in the Cognos Controller database.
4. Next to the **Active Directory User** box, click **Show Valid Choices** and then select the user from the domain part of the specified base search path.
5. Click **Save**.

## Create a Cognos Controller user based on an Active Directory user

When you use the Active Directory authentication method, you must create an association between the users defined in the IBM Cognos Controller application and those defined in the Active Directory.

### About this task

Perform this procedure on the Cognos Controller server.

### Procedure

1. Start IBM Cognos Controller.
2. From the **Maintain** menu, click **Rights, Users**.
3. Click **New**.
4. Next to the **Active Directory User** box, click **Show Valid Choices**, and then select the user from the base search path.
5. Change the default values for **Name** and **E-Mail Address** as required.
6. Next to the **User Group** box, click the browse button, and then click the user group for the Cognos Controller user.
7. Under **Options**, select the appropriate check box to identify the user:
  - IBM Cognos Controller User

- IBM Cognos Controller Administrator
8. Click **Save**.

## Configuring IBM Cognos Components to Use an Authentication Namespace

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When authenticated access is enabled and configured, user authentication is managed by other authentication providers. You must configure IBM Cognos components with an appropriate namespace for the type of authentication provider in your environment.

You can configure multiple namespaces for authentication and then choose which namespace you want to use. IBM Cognos Controller supports logons to only one namespace. For more information, see the *IBM Cognos Administration and Security Guide*.

After you configure new namespaces, you can [test namespaces](#).

You can also delete namespaces that you added if they are no longer required [“Delete an Authentication Provider”](#) on page 85. After you delete a namespace using IBM Cognos Configuration, you must complete the process by deleting it in the portal.

**Important:** You must not delete the Cognos namespace. It contains authentication data that pertains to all users and is required to save the configuration.

After IBM Cognos Controller is connected to a namespace, you cannot change the connection to another namespace.

IBM Cognos components support the following types of servers as authentication sources:

- Active Directory Server
- Custom Authentication Provider
- Netegrity SiteMinder

If you enable security, you must configure security settings immediately after you complete the installation and configuration process. For more information, see the *IBM Cognos Administration and Security Guide*.

**Important:** We recommend that you do not disable security after you enable it. If you delete a namespace, the user preferences, My Folders, and My Pages entries are permanently lost. Existing permission settings will refer to users, groups, or roles that no longer exist. While this does not affect how the permissions work, a user administering the permission settings may see entries that are marked as unknown. Because these entries refer to users, groups, and roles which no longer exist, you can safely delete them.

After you configure an authentication provider for IBM Cognos components, you can enable single signon between your authentication provider environment and IBM Cognos components. This means that a user logs on once and can then switch to another application without being asked to log on again.

### Before you begin

Some authentication providers require libraries external to the IBM Cognos Controller environment to be available.

### About this task

Perform the steps in this task on the IBM Cognos Business Intelligence or IBM Cognos Analytics server.

### Procedure

1. [Enable single signon](#)
2. [Disable anonymous access](#)
3. Configure IBM Cognos components to use the appropriate namespace:

- [Active Directory Server](#)
- [Custom authentication provider](#)
- [Netegrity SiteMinder](#)

## Enable Single Signon

If you want users to log on once to IBM Cognos Controller and then be able to switch to another IBM Cognos product without logging on again, you can enable single signon.

Single signon in IBM Cognos Controller is supported between the Controller client and Controller Excel client only.

### Procedure

1. On each computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, click **Authentication**.
3. In the **Properties** window, set the value of **Allow session information to be shared between client applications** to **True**.

## Disable Anonymous Access

You can use both anonymous and authenticated logon with your IBM Cognos components installation. If you choose to use only authenticated logon, you can disable anonymous access.

By default, IBM Cognos reporting components do not require user authentication. Users can log on anonymously. If you want to use authenticated logon only, you can use IBM Cognos Configuration to disable anonymous access.

To support single signon in IBM Cognos Controller, you must disable anonymous access.

### Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security, Authentication**, click **IBM Cognos**.  
The IBM Cognos resource represents the Cognos namespace. The Cognos namespace stores information about Cognos groups, such as the Anonymous User, contacts, and distribution lists, and refers to objects in other security namespaces. For more information, see the *IBM Cognos Administration and Security Guide*.
3. In the **Properties** window, click the box next to the **Allow anonymous access** property and then click **False**.
4. From the **File** menu, click **Save**.

### Results

Now, users are required to provide logon credentials when they access IBM Cognos resources.

## Restrict User Access to the Cognos Namespace

Access can be restricted to users belonging to any group or role defined in the IBM Cognos built-in namespace. By default, all users belong to several built-in groups or roles. To restrict access, you must:

- enable the property to restrict access
- remove the Everyone group from the IBM Cognos built-in roles and groups
- ensure that authorized users belong to at least one IBM Cognos role or group

### Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.

2. In the **Explorer** window, under **Security**, click **Authentication**.
3. In the **Properties** window, change the value of **Restrict access to members of the built-in namespace** to **True**.
4. From the **File** menu, click **Save**.

## Results

You must now use the portal to remove the Everyone group from the IBM Cognos built-in roles and groups and then ensure that authorized users belong to at least one IBM Cognos built-in role or group.

For information about adding or removing members of an IBM Cognos group or role, see the *IBM Cognos Administration and Security Guide*.

## Configuring IBM Cognos Components to Use Active Directory Server

When you install Content Manager on a Windows computer, you can configure Active Directory as your authentication source using an Active Directory namespace.

If you want to use Microsoft SQL Server as a data source and use single signon for authentication, you must use Active Directory as your authentication source.

To use an Active Directory Server namespace and to set up single signon, do the following:

- \_\_\_ • [Configure IBM Cognos Controller components to use an Active Directory Server namespace.](#)
- \_\_\_ • [Enable single signon between Active Directory Server and IBM Cognos Controller components.](#)

## Configure an Active Directory Namespace

You can use Active Directory Server as your authentication provider.

You also have the option of making custom user properties from the Active Directory Server available to IBM Cognos Controller components.

**Note:** For IBM Cognos components to work properly with Active Directory Server, ensure that the Authenticated users group has Read privileges for the Active Directory folder where users are stored.

## Before you begin

If you are configuring an Active Directory namespace to support single signon with a Microsoft SQL Server data source, the following configuration is required:

- The IBM Cognos gateway must be installed on an IIS Web server that is configured for Windows Integrated Authentication.
- Content Manager must be installed on a Windows 2008 server.
- Content Manager, Report Server (Application Tier Components), IIS Web server, and the data source server (Microsoft SQL Server) must belong to the Active Directory domain.
- The data source connection for Microsoft SQL Server must be configured for **External Namespace** and that namespace must be the Active Directory namespace.

For more information about data sources, see the *IBM Cognos Administration and Security Guide*.

## Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, right-click **Authentication**, and then click **New resource, Namespace**.
3. In the **Name** box, type a name for your authentication namespace.
4. In the **Type** list, click the appropriate namespace and then click **OK**.

The new authentication provider resource appears in the **Explorer** window, under the **Authentication** component.

5. In the **Properties** window, for the **Namespace ID** property, specify a unique identifier for the namespace.
6. Specify the values for all other required properties to ensure that IBM Cognos components can locate and use your existing authentication provider.
7. Specify the values for the **Host and port** property.
8. If you want to be able to search for details when authentication fails, specify the user ID and password for the **Binding credentials** property.  
Use the credentials of an Active Directory Server user who has search and read privileges for that server.
9. From the **File** menu, click **Save**.
10. Test the connection to a new namespace. In the **Explorer** window, under **Authentication**, right-click the new authentication resource and click **Test**.

## Results

IBM Cognos Controller loads, initializes, and configures the provider libraries for the namespace.

## Make Custom User Properties for Active Directory Available to IBM Cognos Controller Components

You can use arbitrary user attributes from your Active Directory Server in IBM Cognos components. To configure this, you must add these attributes as custom properties for the Active Directory namespace.

You can also use custom properties inside command blocks that are used to configure Oracle sessions and connections. The command blocks can be used with Oracle light-weight connections and virtual private databases. For more information, see the *IBM Cognos Administration and Security Guide*.

## Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security, Authentication**, click the Active Directory namespace.
3. In the **Properties** window, click in the **Value** column for **Custom properties** and click the edit button.
4. In the **Value - Custom properties** window, click **Add**.
5. Click the **Name** column and enter the name you want IBM Cognos components to use for the session parameter.
6. Click the **Value** column and enter the name of the account parameter in your Active Directory Server.
7. Repeat the preceding two bulleted steps for each custom parameter.
8. Click **OK**.
9. From the **File** menu, click **Save**.

## Include or Exclude Domains Using Advanced Properties

When you configure an authentication namespace for IBM Cognos components, users from only one domain can log in. By using the Advanced properties for Active Directory Server, users from related (parent-child) domains and unrelated domain trees within the same forest can also log in.

If you set a parameter named `chase_referrals` to true, users in the original authenticated domain and all child domains of the domain tree can log in to IBM Cognos. Users above the original authenticated domain or in a different domain tree cannot log in.

If you set a parameter named `multi_domain_tree` to true, users in all domain trees in the forest can log in to IBM Cognos.

## Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security, Authentication**, click the Active Directory namespace.
3. In the **Properties** window, specify the **Host and port** property:
  - For users in one domain, specify the host and port of a domain controller for the single domain.
  - For users in one domain tree, specify the host and port of the top-level controller for the domain tree.
  - For users in all domain trees in the forest, specify the host and port of any domain controller in the forest.
4. Click in the Value column for **Advanced properties** and click the edit button.
5. In the **Value - Advanced properties** window, click **Add**.
6. Specify two new properties, **chaseReferrals** and **MultiDomainTrees**, with the following values:

Table 12. Domain options and values for the properties chaseReferrals and MultiDomainTrees		
Authentication for	chaseReferrals	MultiDomainTrees
One domain	False	False
One domain tree	True	False
All domain trees in the forest	True	True

7. Click **OK**.
8. From the **File** menu, click **Save**.

## Enabling Single Signon Between Active Directory Server and IBM Cognos Controller Components

By default, the Active Directory provider uses Kerberos delegation and integrates with the IIS Web server for single signon if Integrated Authenticated (formerly named NT Challenge Response) is enabled on the IIS Web server.

If Integrated Authenticated is enabled, you are not prompted to reenter authentication information when accessing IBM Cognos content that is secured by the Active Directory namespace.

If you do not want Kerberos delegation, the provider can be configured to access the environment variable REMOTE\_USER to achieve single signon. You must set the advanced property singleSignonOption to the value IdentityMapping. Microsoft sets REMOTE\_USER by default when you enable Windows Integrated Authentication.

## Configuring IBM Cognos to Use a Custom Authentication Provider

If you implemented a custom Java authentication provider with your existing security infrastructure, you can configure IBM Cognos components to use it.

You can use a custom authentication provider to access and authenticate users to an alternate authentication source. You can also use it as a single signon mechanism to integrate IBM Cognos components with your security infrastructure.

For more information, see the Custom Authentication Provider *Developer Guide*.

## Configure a Custom Authentication Namespace

You can configure IBM Cognos components to use a custom authentication namespace. Any additional configuration for authentication source access, single signon, or custom attributes are dependent on the custom authentication provider implementation.

## Procedure

1. On every computer where you installed Content Manager, open IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, right-click **Authentication**, and click **New resource, Namespace**.
3. In the **Name** box, type a name for your authentication namespace.
4. In the **Type** list, click **Custom Java Provider** and then click **OK**.

The new authentication provider resource appears in the **Explorer** window, under the **Authentication** component.

5. In the **Properties** window, for the **NamespaceID** property, specify a unique identifier for the namespace.

**Tip:** Do not use colons (:) in the Namespace ID property.

6. Specify the values for all other required properties to ensure that IBM Cognos can locate and use your existing authentication provider.
7. From the **File** menu, click **Save**.
8. Test the connection to a new namespace. In the **Explorer** window, under **Authentication**, right-click the new authentication resource and click **Test**.

## Results

IBM Cognos loads, initializes, and configures the provider libraries for the namespace.

## Configuring IBM Cognos components to use eTrust SiteMinder

You can configure IBM Cognos components to use a Netegrity SiteMinder namespace as the authentication source, provided that you installed Content Manager on a non-Linux computer.

To configure an authentication provider in an eTrust SiteMinder environment, you configure an LDAP, NTLM, or Netegrity SiteMinder namespace depending on your eTrust SiteMinder configuration. Supported eTrust SiteMinder configurations are LDAP, Active Directory Server, and NTLM user directories.

**Note:** The authentication provider uses an eTrust SiteMinder SDK to implement a custom agent, and the custom agent deployment requires that the Agent Properties in the eTrust SiteMinder Policy server administration console be set to be able to support 4.x agents.

If you configured eTrust SiteMinder for more than one user directory, you must use the Netegrity SiteMinder namespace. After configuring the Netegrity SiteMinder namespace in IBM Cognos, you must also add a corresponding LDAP, Active Directory Server, or NTLM namespace to the IBM Cognos configuration for each user directory defined in eTrust SiteMinder.

When configuring a corresponding LDAP namespace, you must ensure that the External identity mapping property is enabled and that you include the token REMOTE\_USER in the value for the property. This does not mean that eTrust SiteMinder must be configured to set REMOTE\_USER. The IBM Cognos Netegrity SiteMinder namespace passes user information internally to the corresponding LDAP namespace when it receives successful user identification from the eTrust SiteMinder environment.

When configuring a corresponding Active Directory namespace, you must ensure that the singleSignonOption property is set to IdentityMapping. The IBM Cognos Netegrity SiteMinder namespace passes user information internally to the corresponding LDAP namespace using the REMOTE\_USER environment variable when it receives successful user identification from the eTrust SiteMinder environment. For more information, see [“Enabling Single Signon Between Active Directory Server and IBM Cognos Controller Components”](#) on page 81.

If eTrust SiteMinder is configured with only one user directory, the Netegrity SiteMinder namespace is not required. You can use the user directory as your authentication source by configuring the appropriate namespace, or you can configure the eTrust SiteMinder provider with one user directory. For example, if the eTrust SiteMinder user directory is NTLM, you can configure IBM Cognos components with an NTLM namespace or configure IBM Cognos components with one Netegrity SiteMinder namespace, referring to one user directory that is an NTLM namespace.



If the eTrust SiteMinder user directory is Active Directory, you can use an Active Directory namespace or an LDAP namespace that is configured for use with Active Directory.

If you want to use the user directory as your authentication source directly instead of configuring a Netegrity SiteMinder namespace, configure the appropriate namespace. In this case, you must verify the Agent Configuration Object properties in eTrust SiteMinder Policy Server. Ensure that SetRemoteUser is activated.

When configuring the LDAP namespace, in this case, you must ensure that the External identity mapping property is enabled and that you include the token REMOTE\_USER in the value for the property.

When configuring the Active Directory namespace, in this case, you must ensure that the singleSignonOption property is set to IdentityMapping. For more information, see [“Enabling Single Signon Between Active Directory Server and IBM Cognos Controller Components”](#) on page 81.

## Procedure

1. [Configure IBM Cognos components to use a Netegrity SiteMinder namespace](#)
2. [Enable secure communication to the eTrust SiteMinder user directory](#)
3. [Enable single signon between eTrust SiteMinder and IBM Cognos](#)
4. [Protect the IBM Cognos Web alias](#)

## Configure a Netegrity SiteMinder Namespace

If you configured eTrust SiteMinder for more than one user directory, you must use the Netegrity SiteMinder namespace. After adding the Netegrity SiteMinder namespace, you must also add a corresponding LDAP or NTLM namespace for each user directory.

You can also configure an Netegrity SiteMinder namespace if users are stored in

- an LDAP server
- an NTLM server
- an Active Directory server

## Procedure

1. On the computer where you installed Content Manager, open IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, right-click **Authentication**, and click **New resource, Namespace**.
3. In the **Name** box, type a name for your authentication namespace.
4. In the **Type** list, click the Netegrity SiteMinder namespace and then click **OK**.  
The new authentication provider resource appears in the **Explorer** window, under the **Authentication** component.
5. In the **Properties** window, for the **NamespaceID** property, specify a unique identifier for the namespace.  
**Tip:** Do not use colons (:) in the Namespace ID property.
6. Specify the values for all other required properties to ensure that IBM Cognos components can locate and use your existing authentication provider.
7. In the **Explorer** window, under **Security, Authentication**, right-click the namespace and click **New resource, SiteMinder Policy Server**.
8. In the **Name** box, type a name for the policy server and click **OK**.
9. In the **Properties** window, specify the **Host** property and any other property values you want to change.
10. In the **Explorer** window, right-click the new SiteMinder Policy Server and click **New resource, User directory**.

**Tip:** Configure a user directory for each user directory in the SiteMinder policy server.

11. In the **Name** box, type a name for the user directory and click **OK**.

**Important:** The name of the user directory must match the name that appears on the policy server.

12. In the **Properties** window, type a value for the **Namespace ID reference** property.
13. From the **File** menu, click **Save**.
14. Test the connection to a new namespace. In the **Explorer** window, under **Authentication**, right-click the new authentication resource and click **Test**.
15. Configure a corresponding LDAP, Active Directory, or NTLM namespace for each LDAP, Active Directory, or NTLM user directory.

**Important:** Ensure that you use the same value for the **Namespace ID** property that you use for the **Namespace ID** property for the Netegrity SiteMinder namespace.

## Enabling Secure Communication to the eTrust SiteMinder User Directory

If you use an SSL connection to the directory server, you must appropriately configure the Cognos namespace for the user directory.

## Enable Single Signon Between eTrust SiteMinder and IBM Cognos

By configuring single signon, you are not prompted to reenter authentication information.

IBM Cognos components automatically refer to the eTrust SiteMinder session cookie for user session data.

If the eTrust SiteMinder user directory is LDAP or Active Directory, you must configure the eTrust SiteMinder user directory to use external identity mapping to the REMOTE\_USER environment variable.

If the eTrust SiteMinder user directory is NTLM, Integrated Windows Authentication is used for single signon and no additional configuration is required.

## Protecting the IBM Cognos Web Alias

eTrust SiteMinder must be configured correctly to protect the IBM Cognos Web alias.

Use the test tool provided with eTrust SiteMinder to verify that the resource is protected, authenticated, and authorized. For more information, see your eTrust SiteMinder documentation.

## Test the Namespaces

After you configure one or more new namespaces for IBM Cognos components, you can test the namespaces. The test can occur before or after you start the IBM Cognos service. You can test all namespaces at the same time or test them individually.

### Procedure

1. To test all namespaces, in the **Explorer** window, right-click **Authentication** and click **Test**.

IBM Cognos Controller components load, initialize, and configure the provider libraries for one namespace before testing the next namespace.

**Tip:** To cancel a namespace test, click **Cancel**. The test stops when the current namespace test is complete.

2. To test a single namespace, in the **Explorer** window, under **Authentication**, right-click the new authentication resource and click **Test**.

IBM Cognos Controller components load, initialize, and configure the provider libraries for the namespace.

## Delete an Authentication Provider

If they are no longer required, you can delete namespaces that you added or unconfigured namespaces that IBM Cognos Controller components detected after an upgrade.

**Important:** You must not delete the Cognos namespace. It contains authentication data that pertains to all users and is required to save the configuration.

When you delete a namespace, you can no longer log on to the namespace. Security data for the namespace remains in Content Manager until you permanently delete it in the portal. For more information, see the *IBM Cognos Administration and Security Guide*.

After you delete a namespace, it appears as Inactive in the portal.

### Procedure

1. On the computer where you installed Content Manager, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security, Authentication**, right-click the namespace and click **Delete**.
3. Click **Yes** to confirm.

The namespace disappears from the **Explorer** window and you can no longer log on to the namespace on that computer.

4. From the **File** menu, click **Save**.

### Results

You must now log on to the portal and permanently delete the data for the namespace. For more information, see the *IBM Cognos Business Intelligence Administration and Security Guide*.



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## Chapter 11. Additional Configuration Options

After you install one or more IBM Cognos Controller components on your computer, you must configure them to work in your IBM Cognos environment.

Initially, default property settings chosen by IBM Cognos are used to configure the IBM Cognos Controller components. However, you may want to change these default settings if existing conditions make the default choices inappropriate, or to better suit your environment.

Other configuration tasks are optional and depend on your IBM Cognos environment. Use these optional configuration tasks to customize your configuration so that IBM Cognos Controller integrates easily into your existing environment. You can also configure IBM Cognos Controller to use other resources. For example, you can use an authentication provider and then enable single signon for the database connection and the users.

Use IBM Cognos Configuration to configure your IBM Cognos Environment URIs and to specify the database connection properties to the content store. When you change the value of a property, you must save the configuration and then restart the IBM Cognos service to apply the new settings to your computer.

Use IBM Cognos Controller Configuration to configure your Controller data source and Controller data mart connections, the COM+ Server, and server authentication. When you change the value of a property, you must save the configuration.

---

### Import the IBM Cognos Controller Standard Reports Package

Before you can run IBM Cognos Controller and view reports in Cognos Viewer, you must import the IBM Cognos Controller standard reports package into Content Manager.

#### Procedure

1. Launch IBM Cognos Administration.
2. Click the **Configuration** tab, and then click **Content Administration**.
3. On the toolbar, click the **New Import** button. The **New Import** wizard appears.
4. In the **Deployment archive** box, click the **Controller** package, and then click **Next**.
5. Type the name and an optional description and screen tip for the deployment specification, select the folder where you want to save it, and then click **Next**.
6. Select the content that you want to include in the import.
7. Select the options you want, along with your conflict resolution choice for options that you select.
8. In the **Specify the general options** page, select whether to include access permissions and references to external namespaces, and who should own the entries after they are imported in the target environment.
9. Click **Next**.

The summary information appears.

10. Review the summary information and click **Next**.
11. In the **Select an action** page, select **Save and run once**, and then click **Finish**.

#### Results

After you run the import, the IBM Cognos Controller reports package appears in your IBM Cognos Connection content.

## Verifying the import of the standard reports package

---

Test the import of the standard reports package. The Report Server can use the information in the package to determine the structure of data in the IBM Cognos Controller database.

### About this task

The Report Server renders IBM Cognos Controller reports, in PDF and HTML formats, using information provided in the Controller standard reports package.

IBM Cognos software keeps history information each time an entry runs in the background. The run history for an entry includes information such as the request time, start time, completion time, and whether the deployment import ran successfully. You can look at a more detailed run history for the entry, which includes general, error, and warning messages related to the entry and any actions that you can take.

### Procedure

1. In **IBM Cognos Connection**, click **Launch, IBM Cognos Administration**.
2. On the **Configuration** tab, click **Content Administration**.
3. Locate the package that you imported, under **Actions**, click **More**, and then click **View run history**.
4. Under **Statuses**, ensure that **All statuses** is selected.

The **View run history** details page shows run details, such as start time and completion time, run status, and error messages for a failed run. Verify that the status of the import shows as **Succeeded**.

5. If you want to view the run history details for an import that has failed, in the **Actions** column, click the

**View run history details** icon  next to the entry.

## Configuring Cognos Controller Embedded Report Library

---

The IBM Cognos Controller Embedded Report Library supports viewing of the Cognos Controller predefined reports without the requirement for Cognos Analytics to be installed.

### Before you begin

In the Cognos Controller installation wizard, you must select the **Controller Reports** component.

### Procedure

1. Open C:\Program Files\IBM\cognos\ccr\_64\ControllerProxyServe\Web.config, and verify that it contains the following line. If it isn't there, then add it: `<add key="ccrReports" value="http://[servername]:9082/fcm.reports/report" />`.
2. Open **Windows Service Control Manager**, find the **IBM Cognos Controller Reports** service, and start it.

## Set Import Directories for Flat Files

---

If a Controller user intends to import external data contained in flat files, you must specify the directories that contain the files so that they are available for selection when importing the data. This step is necessary only if the files are not located on the client computer so that the Controller user can select the Server option for Import file provider.

You set these directories on the Web services server.

### Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.

2. In the **Explorer** window, click **Import Directories**.
3. In the Properties window, click the browse button and go to the folder that contains the text files to be imported into IBM Cognos Controller, and click **OK**.
4. Repeat the previous step to add more than one folder.
5. From the **File** menu, click **Save**.

## Schedule a Performance Optimization Procedure for an Oracle Controller Database

---

IBM Cognos Controller provides an SQL procedure that analyses the schema in the Controller database and gathers the appropriate statistics, which Oracle requires for optimal performance. This procedure can be run by the Controller user, but we recommend that you create a job to run it automatically on a weekly basis.

### Procedure

1. Create a file and add the following command lines:

```
SQL> DECLARE JOB BINARY_INTEGER;
BEGIN
  DBMS_SCHEDULER.create_job (
    job_name      => 'Analyze_Controller_Schema_week',
    job_type      => 'PLSQL_BLOCK',
    job_action    => 'BEGIN PRC_ANALYZE_SCHEMA; END;',
    start_date    => SYSTIMESTAMP,
    repeat_interval=> 'freq=weekly; byday=sat; byhour=9; byminute=0; bysecond=0;',
    end_date      => NULL,
    enabled       => TRUE,
    comments      => 'Analyze schema job to be run Saturdays 9:00
AM');
END;
```

2. Run the file on a weekly basis.

## Using the Controller Data Mart

---

To use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, do the following tasks:

1. Create a Controller data mart database.
2. Set database connection properties for the data mart.
3. Extract and publish the data mart.

### Create a Controller Data Mart Database

If you want to use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, you must create an additional database to use for the Controller data mart.

#### Before you begin

The Controller data mart database must be created using DB2, Oracle or Microsoft SQL Server.

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the Software Product Compatibility Reports (<http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

## Create a Controller Data Mart Database for DB2

If you want to use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, you must create an additional database to use for the Controller data mart. Here are the steps you must follow for DB2.

### Procedure

1. Determine whether the database is Unicode.

To check if the database is Unicode, type the following at the command prompt:

```
Db2 get db cfg for <databasename here> | find "code set"
```

2. If the result set returns a code set that is not Unicode, create a new database that uses a Unicode code set.
3. Set the territory identifier to the correct language.
4. In Windows, add the user account to both the DB2ADMNS and DB2USERS groups.
5. The user account that accesses the data should be the same that owns the database objects (tables, indexes).
6. Grant the following privileges to the user account that owns and accesses the database:

- dbadm
- createtab
- bindadd
- connect
- create\_not\_fenced\_routine
- implicit\_schema
- load
- create\_external\_routine
- quisce\_connect

7. To be able to connect to the data mart from the Controller database, the data mart server and database need to be cataloged.

Type the following at the command prompt:

- catalog the server;  

```
catalog tcpip node <Node name> remote <hostname> server <port>;
```
- catalog the database;  

```
catalog database <databasename> as <alias> at node <node name>  
authentication server
```

To list nodes and databases, type the following at the command prompt:

- Db2 list node directory
- Db2 list database directory

For more information about cataloging the database, see the *DB2 Database Administration Concepts and Configuration Reference*.

### Results

Performance in a DB2 database will often change over time, and it is crucial to keep track of this. For database maintenance, contact your database administrator.



## Create a Controller Data Mart Database for Microsoft SQL Server

If you want to use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, you must create an additional database to use for the Controller data mart. Here are the steps you must follow for Microsoft SQL Server.

### Procedure

1. If you performed a Typical installation of Microsoft SQL Server, after you install you must change the authentication mode to **SQL Server and Windows**.

For more information, see the related knowledge base article on the Microsoft Web site.

2. Create the database.

Ensure that the database collation sequence is case insensitive.

3. Determine which user account Controller Web Services Server will use to access the database.
4. Grant create table privileges for the database to the user account.

Ensure that the user account is a member of the db\_owner role.

## Create a Controller Data Mart Database for Oracle

If you want to use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, you must create an additional database to use for the Controller data mart. Here are the steps you must follow for Oracle.

### Procedure

1. Determine whether the database is Unicode.

**Tip:** One method is to type the following select statement:

```
select * from NLS_DATABASE_PARAMETERS
```

2. If the result set returns an NLS\_CHARACTERSET that is Unicode, create a database that uses a Windows 1252 character set such as WE8MSWIN1252 (non-unicode).
3. Determine which user account Controller Web Services Server uses to access the database.
4. Grant the following privileges to the user account that accesses the database:

- create session
- alter session
- create table
- create database link
- create sequence
- create trigger
- create view
- create procedure
- create materialized view
- create synonym
- create job
- select\_catalog\_role
- unlimited tablespace

5. Create a tablespace and set it as the default tablespace for exclusive use by the user account that accesses the Controller data mart database.

## Results

You can increase the performance of your Oracle database by changing the default setting of the `optimizer_index_cost_adj` parameter in the `init.ora` file. We recommend that you change the default setting of 100 to a much smaller number, for example: `set optimizer_index_cost_adj = 5`.

## Set Database Connection Properties for the Controller Data Mart

To prepare for using the Publish to Data Mart Framework Manager model, provided with IBM Cognos Controller, you must create a database connection to the empty Controller data mart database, which you previously created.

### Before you begin

Before you configure the Publish to data mart connection, you must have set the connection properties for the Controller database. The Controller database contains the data to be published to the data mart.

### Procedure

1. From the **Start** menu, start **Controller Configuration**.
2. In the **Explorer** window, click **Database Connections for publish to data mart**.
3. In the **Properties** window, select the Controller database that will be used to publish to the data mart.
4. In the **Provider** box, type the name of the database provider that is appropriate for the database type that is hosting the data mart.

For information about the database provider, see the DB2, Oracle or SQL Server documentation.

5. In the **User ID** and **Password** boxes, type the user name and password for the data mart database.
6. In the **Initial catalog** box, type the data mart database name.
7. In the **Data source** box, type the name of the server computer that hosts the data mart database.

Do not use localhost.

8. Click **File > Save**.
9. Click **Actions > Check**.

If the database connection validation fails, review the database connection properties and fix any errors.

10. In the **Explorer** window, under **Database Connections**, click the Controller database that will be used to publish to the data mart.
11. Click **Actions > Run**.
12. If no Java is found, browse to and select the Java 7 JRE in the *installldir\bin64\jre\7.0\* directory.
13. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
14. Click **Data Mart DB**.
15. In the **UDL File** box, browse to the location of the UDL file for the Controller data mart database at *ccr\_location\DMData* and click **Open**.
16. Click **Create DB**.

The Database Conversion Utility creates the data mart tables.

17. Click **Close**.
18. Click **File > Save**.
19. In the **Explorer** window, under **Web Services Server**, click **Report Server**.
20. In the **Report Server** window, under **Report Server connections**, click **Repair**.

If the repair button is unavailable, the data mart database is already known to Content Manager. The new data mart database is now configured as a data source for Report Server, and is listed as a data source in IBM Cognos Connection.

## Define a Data Source for the Controller Data Mart

If you are preparing to use the Publish to Data Mart Framework Manager model provided with IBM Cognos Controller, you must define a new data source so that Framework Manager can communicate with the Controller data mart database. You can define data sources in IBM Cognos Administration or in Framework Manager. The data source appears in both places, regardless of where it was defined. Existing data source connections can be edited only in the portal.

### Procedure

1. Launch IBM Cognos Administration.
2. On the **Configuration** tab, click **Data Source Connections**.
3. Click the **New Data Source** button.
4. In the **Name** box, type **CCR82\_DM**, the name of the Controller data mart database.
5. In the **Description** box, type text to describe the database, and then click **Next**.
6. In the **Type** box, select the appropriate database type for the data mart database.

The connection string page for the selected database appears.

7. Enter any parameters that make up the connection string, and specify any other settings, such as a signon or a timeout.

**Note:** If you are using DB2, you need to add MapDecimalFloatDescribe=3 into the DB2 connect string text box.

**Tip:** To test whether parameters are correct, click **Test**. If prompted, type a user ID and password or select a signon, and then click **OK**.

8. Click **Finish**.

The data source appears as an entry in the Directory tool in the portal, and can be selected when using the import wizard in IBM Cognos Framework Manager.

## Extract the Publish to Data Mart Model and Publish It to IBM Cognos Connection

You must unzip the Publish to Data Mart Framework Manager model and publish it to IBM Cognos Connection so that a report author can use the model in Report Studio for creating custom reports.

### Before you begin

You must have IBM Cognos Framework Manager installed and configured before you can open the Publish to Data Mart model.

### Procedure

1. Copy the CCR82\_DM.zip file from the *ccr\_location/deployment* directory to a location that is accessible by Framework Manager.
2. Unzip the CCR82\_DM.zip file to extract the CCR82\_DM.cpf model.
3. In IBM Cognos Framework Manager, from the **File** menu, click **Open** and go to the location of CCR82\_DM.cpf project file and then click **Open**.
4. In the Project Viewer, expand the **CCR82\_DM** folder, under **Packages**, click **CCR82\_DM**, and from the **Actions** menu, click **Package** and then select **Publish Packages**.
5. Click **Publish**.

A message informs you that the model is published under Public Folders CCR82\_DM in IBM Cognos Connection.

6. Click **Finish** and then click **Close**.
7. Close Framework Manager.

## Changing IBM Cognos Controller Default Configuration Settings

---

When you install IBM Cognos Controller components, the installation uses default configuration settings. If you have any reason not to use these default values, such as a port is being used by another process, use the IBM Cognos Controller configuration tools to change the value.

If you change the value of a property using IBM Cognos Controller Configuration, you must save the configuration to apply the new setting to your computer.

Using IBM Cognos Controller Configuration, you can do the following things:

- [Add or remove Controller database Connections](#)
- [“Change the COM+ Server Configuration” on page 95](#)
- [“Enabling the batch service” on page 96](#)
- [“Enable Enhanced Reporting Optimization” on page 96](#)
- [“Change the Default Installation of the IBM Cognos Controller Link for Microsoft Excel” on page 98](#)

## Add or Remove Controller Database Connections

You must set up a Controller database connection during the IBM Cognos Controller installation and configuration process. After the installation and configuration process is complete, you can add additional data source connections, or delete data source connections.

### Add a Controller Database Connection

You must set up a Controller database connection during the IBM Cognos Controller installation and configuration process.

#### Procedure

1. From the **Start** menu, start **Controller Configuration**.
2. In the **Explorer** window, click **Database Connections**, and then click **File > New**.
3. In the **Properties** window, click the **Database type** box, and then use the drop-down arrow to select the database type.

You can choose **DB2**, **Oracle** or **SQL Server**.

4. In the **Name** box, type a name for the database.

Choose a name that is meaningful for IBM Cognos Controller users.

5. In the **Provider** box, type the name of the database provider.

To obtain the database provider information, see the DB2, Oracle or SQL Server documentation.

6. In the **User ID** and **Password** boxes, type the user name and password for the Controller database.
7. In the **Initial catalog** box, type the Controller database name.
8. In the **Data source** box, type the database server computer name.

**Tip:** Do not use localhost.

9. Click **File > Save**.
10. In the **Explorer** window, expand **Database Connections**.
11. Select the database that you want to upgrade.
12. Click **Actions > Run**.

13. If no Java is found, browse to and select the Java 7 JRE in the *installdir\bin64\jre\7.0\* directory.
14. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
15. Click **Connect**, and then **Upgrade**.

The Database Conversion Utility upgrades the existing database.

16. Click **Close**.
17. Click **Actions > Check**.

If the database connection validation fails, review the database connection properties and fix any errors.

18. Click **File > Save**.
19. In the **Explorer** window, under **Web Services Server**, click **Report Server**.
20. In the **Report Server** window, under **Report Server connections**, click **Repair**.

The new database is now configured as a data source for Report Server, and is listed as a data source in IBM Cognos Connection.

## Delete a Database Connection

After the installation and configuration process is complete, you can add additional data source connections, or delete data source connections.

### Procedure

1. From the **Start** menu, start **Controller Configuration**.
2. In the **Explorer** window, click **Database Connections**, and then click the database connection you want to delete.
3. Click **File > Delete**.
4. Click **File > Save**.

## Change the COM+ Server Configuration

You configure the COM+ Server during the initial IBM Cognos Controller installation and configuration. However, you can change the account under which the COM+ service runs at any time.

### Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, click **COM+ Server**.
3. In the **COM+ Server** window, click the **Shutdown** button.
4. In the **COM+ Server** window, configure the COM+ Server:
  - Select **System Account** to configure the COM+ server with the computer's system account.
  - Select **Specify Account** to configure the COM+ server with a user account that has administrator privileges on the computer.
5. If you selected **Specify Account**:
  - In the **User** box, type the user name for the account.
  - In the **Password** and **Confirm Password** boxes, type the password for the account.
6. From the **File** menu, click **Save**.

## Enabling the batch service

When you install and configure IBM Cognos Controller, you must start the Cognos Controller Batch Service.

### Procedure

1. On the computer where Cognos Controller is installed, click the **Start** menu, and then click **Controller Configuration**.
2. In the **IBM Cognos Controller Configuration** window, click **Client Distribution Server Configuration**.
3. In the **WSSUrl** field, enter the URI for your IBM Cognos Controller Web Service Server (IIS server).
4. Click **Save**.
5. Click **Batch Services**.
6. From the **Actions** menu, click **Run**.

## Enable Enhanced Reporting Optimization

When IBM Cognos Controller Microsoft Excel reports contain a significant amount of data, the Enhanced Reporting Optimization feature provides for faster data transfer from the IBM Cognos Controller client to the Controller database.

When a report is run using Enhanced Reporting Optimization, Microsoft Excel sends a string to a file share on the database server. The file is inserted in the Controller database using bulk insert technology, and the report runs from that location.

Enhanced Reporting Optimization uses one of two methods: File Copy or File Transfer (FTP). Use the [File Copy method](#) for Microsoft SQL Server databases or for Oracle databases when the Oracle server is installed on a Windows operating system. Use the [FTP method](#) for Oracle databases when the Oracle server is installed on an operating system other than Windows, for example a Linux or UNIX operating system.

### Configure the File Copy Method

Use the File Copy method for Microsoft SQL Server databases or for Oracle databases when the Oracle server is installed on a Windows operating system.

### Before you begin

Before you configure the File Copy method, you must

- create a shared directory on the database server
- provide the IBM Cognos Controller administrator with read and write access permissions to the shared folder on the database server, or create a local account with read and write access permissions to the shared folder on the database server
- set read and write access permissions on the shared folder for the database server
- for Microsoft SQL Server databases, enable the Bulk Insert Administrators server role for the Controller database owner

In addition, set the Controller database owner as the owner of tempdb and model.

- for Oracle databases, set the UTL\_FILE\_DIR parameter to point to the local path of the shared directory
- configure reports to use Enhanced Reporting Optimization

### Procedure

1. To configure reports to use enhanced reporting optimization, in Microsoft Excel, in the first worksheet in the report, position your cursor in cell A1.
2. From the **Insert** menu, click **Name, Define**.

3. In the **Define Name** box, under **Names in workbook**, type **Optimise2**, and then click **OK**.

You are now ready to configure the file copy method.

4. To configure the file copy method, from the **Start** menu, start IBM Cognos Controller Configuration.
5. In the **Explorer** window, click **Enhanced Reporting Optimizations**.
6. In the **Enhanced Reporting Optimizations** window, in the **Select Connection** drop-down list, select a database.
7. Under **Connection Optimizations**, in the **File Mode** box, click the drop-down arrow and select **File Copy**.
8. In the **Server** box, type the computer name for the server on which you created the shared directory.
9. In the **Share** box, type the name of the share you created in Step 1.
10. For Oracle databases, in the **Server Directory** box, type the path to the shared directory that will be used by the Oracle database.

Example: e:\oracle\ora92\utlfile

**Note:** The name of the shared directory is case sensitive. Use the same value that you set for the UTL\_FILE\_DIR parameter.

11. If the database is in another domain, in the **User ID** and **Password** boxes, type the logon user name and password for the domain user.

The password is encrypted with IBM Cognos Controller standard encryption.

12. From the **File** menu, click **Save**.

## Configure the File Transfer Protocol (FTP) Method

Use the FTP method for Oracle databases when the Oracle server is installed on an operating system other than Windows, for example a Linux or UNIX operating system.

### Before you begin

Before you configure the FTP method, you must:

- set up an FTP server on the database server
- create a shared directory on the database server with a user that has read and write access permissions
- set read and write access permissions on the shared folder for the database server
- for Oracle databases, set the UTL\_FILE\_DIR parameter to point to the local path of the shared directory
- configure reports to use Enhanced Reporting Optimization

### Procedure

1. To configure reports to use enhanced reporting optimization, in Microsoft Excel, in the first worksheet in the report, position your cursor in cell A1.
2. From the **Insert** menu, click **Name, Define**.
3. In the **Define Name** box, under **Names in workbook**, type **Optimise2**, and then click **OK**.
4. To configure the file transfer protocol (FTP) method, from the **Start** menu, start IBM Cognos Controller Configuration.
5. In the **Explorer** window, click **Enhanced Reporting Optimizations**.
6. In the **Enhanced Reporting Optimizations** window, in the **Select Connection** drop-down list, select a database.
7. Under **Connection Optimizations**, in the **File Mode** box, click the drop-down arrow and select **File Transfer (FTP)**.
8. In the **Server** box, type the computer name for the FTP Server.
9. In the **FTP Sub Directory** box, type the name of the FTP sub-directory.

10. In the **Server Directory** box, type the path to the shared directory that will be used by the Oracle database.

Example: e:\oracle\ora92\utlfile

**Note:** The name of the shared directory is case sensitive. Use the same value that you set for the UTL\_FILE\_DIR parameter.

11. In the **User ID** and **Password** boxes, type the FTP account user name and password.

The password is encrypted with IBM Cognos Controller standard encryption.

12. In the **Access Type** box, click the drop-down arrow and select the FTP access type.

Select **Direct**, **Proxy**, or **Windows Standard**.

13. In the **Passive Mode** box, click the drop-down arrow and choose whether to enable passive mode:

- Select **True** to enable passive mode when connecting to the FTP server.
- Select **False** to disable passive mode when connecting to the FTP server.

14. In the **Port** box, specify the port for the FTP connection.

15. If you selected the **Proxy** access type, in the **Proxy** box, type the name for the FTP proxy computer.

16. If you selected the **Proxy** access type, in the **Proxy bypass** box, type the names of the FTP proxy computers to avoid.

17. From the **File** menu, click **Save**.

## Change the Default Installation of the IBM Cognos Controller Link for Microsoft Excel

When users first run the IBM Cognos Controller client, the IBM Cognos Controller Link for Microsoft Excel is installed automatically. If you installed the IBM Cognos Controller Link for Microsoft Excel remotely for users by using Active Directory or Patchlink, you may want to disable the automatic installation.

### Procedure

1. On the computer where Controller Client Distribution Server is installed, from the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, expand **IBM Cognos Controller Configuration, Client Distribution Server**.
3. Click **Client Distribution Server Configuration**.
4. Click **Install IBM Cognos Controller Link for Microsoft Excel**.
5. Change the value to **False**.
6. From the **File** menu, click **Save**.

## Configure the Router to Test Dispatcher Availability

---

If you use a router to distribute requests to IBM Cognos dispatchers, and the router can test the availability of a server using a test URL, you can configure the router to test the availability of an IBM Cognos dispatcher.

### Procedure

Configure the router to use a URL with the path /p2pd/servlet/ping.

If the dispatcher is not ready, the following response is returned:

503 Service Unavailable

If the dispatcher is ready, the following response is returned:

200 OK



## Configuring IBM Cognos Controller to Work with Other IBM Cognos Products

---

Some IBM Cognos products provide functionality that is not available in IBM Cognos Controller. You can continue to use these products in the same environment. Additional configuration tasks may be required to ensure that IBM Cognos Controller can access objects that were created using other IBM Cognos products. Additional requirements for access depend on how you choose to run the two products.

### Accessing Product Documentation in an Integrated Environment

The documentation for IBM Cognos components is installed with the gateway component. If you integrate different IBM Cognos products, you can either use the same gateway or use separate gateways. If you want to use the same gateway, all gateway components must be of the same product version, and you should install the IBM Cognos gateway component for each product into the same location on the same computer. This ensures that all of the product documentation is available to all users. If you want to use separate gateways for each product, you can install the IBM Cognos gateway component for each product on separate computers, but the product documentation on each gateway will be specific for the IBM Cognos product you installed.

For example, you have IBM Cognos Business Intelligence and IBM Cognos Controller installed using separate gateways but sharing the same content store. When users access IBM Cognos Connection, both Report Studio and Controller are available, assuming they have permission for both components. If users access Report Studio through the IBM Cognos Business Intelligence gateway, they are able to use the component and access the documentation for that component. However, if users access Report Studio through the IBM Cognos Controller gateway, they are able to use the component but do not have access to the Report Studio documentation.

If you want users to access each IBM Cognos product through separate gateways, yet still be able to access documentation for all components, you can install each product's gateway component into the same location as your other IBM Cognos gateway components.



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## Chapter 12. Setting Up an Unattended Installation and Configuration

Set up an unattended installation and configuration to

- install an identical configuration on several computers on your network
- automate the installation and configuration process by specifying options and settings for users

Unattended installations for IBM Cognos Controller can only be set up for single-computer installations.

**Important:** All configuration tasks using IBM Cognos Controller Configuration must be completed manually.

Before you set up an unattended installation and configuration, ensure that all the system requirements and prerequisites are met and that all other products are installed and configured.

To set up an unattended installation and configuration, you must complete these tasks:

- \_\_\_ • Configure a transfer specification file (.ats) to specify installation options.
- \_\_\_ • Run the installation tool in silent mode.
- \_\_\_ • Use a preconfigured IBM Cognos Controller configuration file from another computer.
- \_\_\_ • Run IBM Cognos Configuration in silent mode.

After you complete these tasks, you must also do the following:

- \_\_\_ • Ensure that the IBM Cognos Controller installation directory on all computers is protected from unauthorized or inappropriate access.
- \_\_\_ • Import the IBM Cognos Controller Framework Manager package.
- \_\_\_ • Configure the IBM Cognos Controller Configuration settings manually.

You are now ready to use IBM Cognos Controller.

---

### Set Up an Unattended Installation

Use a transfer specification file (.ats) to copy IBM Cognos Controller components to your computer without being prompted for information.

By default, each time you install Cognos Controller components using the installation wizard, the options you select are recorded in a transfer specification file. Therefore, if you already installed Cognos Controller components on a sample computer, you can use the generated transfer specification file as a template for unattended installations on different computers.

You can check if the unattended installation was successful by checking the return status. A value of zero (0) indicates success and all other values indicate that an error occurred.

#### Procedure

1. Use the installation wizard to install Cognos Controller components on your computer.
2. Go to the *ccr\_location/instlog* directory.
3. Locate the transfer specification file (.ats) that was generated.

The file name is *ts-CONTRL-version-yyyyymmdd\_hhmm.ats*.

4. Copy the transfer specification file to the computer where you are installing Cognos Controller.
5. Copy the contents of the Cognos directory from the original computer to the computer where you are installing the software.

6. Install Cognos. From the **Start** menu, click **Programs, Command Prompt** to open a **Command Prompt** window, and then type the following command, where location is the directory where you copied filename, the transfer specification file:

```
issetup -s location/filename.ats
```

## Results

If a return status other than zero (0) is returned, check the log files for error messages. Errors are recorded in the installation directory in the following log file:

```
t1-CONTRL-version-yyyyymmdd-hhmm_summary-error.txt
```

If errors occur before sufficient initialization occurs, log messages are sent to one of the following log files in the Temp directory:

```
t1-CONTRL-version-yyyyymmdd-hhmm.txt
```

Also ensure that the installation directory is protected from unauthorized or inappropriate access.

After all errors are resolved, you can [set up an unattended IBM Cognos Controller configuration](#).

## Set up an unattended installation using the response.ats file

If you do not use the installation wizard to install components, you can use the default transfer specification response.ats file. You must modify the response.ats file for your environment before you can use it for an unattended installation.

### Procedure

1. Copy the *Controller installer package download location/win32* directory from the computer where you downloaded Cognos Controller to the computer where you want to do the unattended installation.

2. Go to the win32 directory and open the response.ats file in a text editor.

Each section in the response.ats file corresponds to a dialog box in the installation wizard.

3. Type the installation location of the program files for IBM Cognos Controller:

**appPath=location**

**Tip:** There should be no space on either side of the equal (=).

4. For the server components of IBM Cognos Controller, in the section named **Component List**, next to each component do one of the following:

- To install the component, type 1.
- To not install the component, type 0.

5. For the APPFOLDER= property, type the name of the **Start** menu folder that contains your program shortcuts.

**Tip:** To ensure that the shortcut folder is visible to all users, type 1 for the VISIBLETOALL= property.

6. For the install information in the [Install Conditions] section:

- To specify the condition is true, type 1
- To specify the condition is false, type 0

7. Save the response.ats file to a local directory after you make the necessary changes.

8. Go to the win32 directory.

9. At the command prompt type the following command, where location is the directory where you copied the response.ats file:

```
issetup -s location/response.ats
```

## Results

If a return status other than zero (0) is returned, check the log files for error messages. Errors are recorded in the installation directory in the following log file:

`t1-CONTRL-version-yyyyymmdd-hhmm_summary-error.txt`

If errors occur before sufficient initialization occurs, log messages are sent to one of the following log files in the Temp directory:

`t1-CONTRL-version-yyyyymmdd-hhmm.txt`

Also ensure that the installation directory is protected from unauthorized or inappropriate access.

After all errors are resolved, you can [set up an unattended IBM Cognos Controller configuration](#).

## Set Up an Unattended Configuration

---

Before you set up an unattended IBM Cognos Controller configuration, you must export a configuration from another computer that has IBM Cognos Controller installed. You can then run IBM Cognos Configuration in silent mode.

The exported configuration contains the properties of the IBM Cognos Controller components that you installed on the source computer. If you made changes to the global configuration, you must also copy the global configuration file from the source computer to the computer where you plan to run an unattended configuration. Global configuration includes such settings as content locale, product locale, and cookie settings.

Ensure that the configuration settings on the local computer are appropriate to use to configure another IBM Cognos Controller computer with the same installed components. For example, if you changed the host name portion of the Gateway URI property from local host to an IP address or computer name, ensure this setting is appropriate for the new computer's configuration.

You can check if the unattended configuration was successful by checking the return status. A value of zero (0) indicates success and all other values indicate that an error occurred.

## Procedure

1. In IBM Cognos Configuration, from the **File** menu, click **Export as**.
2. If you want to export the current configuration to a different folder, in the **Look in** box, locate and open the folder.  
  
Ensure that the folder is protected from unauthorized or inappropriate access.
3. In the **File name** box, type a name for the configuration file.
4. Click **Save**.
5. Copy the exported configuration file from the source computer or network location to the *ccr\_location/* configuration directory on the computer where you plan to do an unattended configuration.
6. Rename the file to `cogstartup.xml`.
7. If you changed the global configuration on the source computer, copy the `coglocale.xml` file from the source computer to the *ccr\_location/configuration* directory on the computer where you plan to do an unattended configuration.
8. Go to *ccr\_location/bin*.
9. Type the configuration command:

```
cogconfig.bat -s
```

**Tip:** To view log messages that were generated during an unattended configuration, see the `cogconfig_response.csv` file in the *ccr\_location/logs* directory.

## Results

IBM Cognos Configuration applies the configuration settings specified in the local copy of cogstartup.xml, encrypts credentials, generates digital certificates, and if applicable, starts IBM Cognos Controller services or processes.

## Import the IBM Cognos Controller Standard Reports Package

---

Before you can run IBM Cognos Controller and view reports in Cognos Viewer, you must import the IBM Cognos Controller standard reports package into Content Manager.

### Procedure

1. Start IBM Cognos Connection.
2. On the portal toolbar, click **Tools**, and then click **Content Administration**.
3. On the toolbar, click the **New Import** button. The **New Import** wizard appears.
4. In the **Deployment archive** box, click the **Controller** package, and then click **Next**.
5. Type an optional description and screen tip for the deployment specification, select the folder where you want to save it, and then click **Next**.
6. Select the content that you want to include in the import.
7. Select the options you want, along with your conflict resolution choice for options that you select.
8. In the **Specify the general options** page, select whether to include access permissions and references to external namespaces, and who should own the entries after they are imported in the target environment.
9. Click **Next**.

The summary information appears.

10. Review the summary information and click **Next**.
11. In the **Select an action** page, select **Save and run once**, and then click **Finish**.

## Results

After you run the import, the IBM Cognos Controller reports package appears in your IBM Cognos Connection content.

## Configure Start Configuration Settings Manually

---

After you run an unattended installation and configuration, you must configure the IBM Cognos Controller Configuration settings manually.

### Procedure

1. [Configure the IBM Cognos Controller database connection.](#)
2. [Configure the COM+ Server.](#)

## Set Database Connection Properties for the Controller Data Source

Before you can run IBM Cognos Controller, you must configure a Controller database connection. IBM Cognos Controller databases must be created using either DB2, Oracle or Microsoft SQL Server.

To run reports against IBM Cognos Controller data sources, the data sources must be configured for Report Server and appear in IBM Cognos Connection.

If you are installing IBM Cognos Controller for the first time, or if you do not want to connect to an existing Controller database, you can create a database connection to an empty Controller database.

## Before you begin

If you want to create a connection to an existing Controller database, we recommend that you create a backup of your database before you create the Controller data source connection. This is because the Controller Database Conversion Utility, which runs against the database during the data source connection process, updates the database tables for use with IBM Cognos Controller.

## Procedure

1. From the **Start** menu, start **Controller Configuration**.
2. In the **Explorer** window, click **Database Connections**, and then click **File > New**.
3. In the **Properties** window, click the **Database type** box, and then use the drop-down arrow to select the database type.

You can choose **DB2**, **Oracle** or **SQL Server**.

4. In the **Name** box, type a name for the database connection.
5. In the **Provider** box, type the name of the database provider.

To obtain the database provider information, see the DB2, Oracle or SQL Server documentation.

6. In the **User ID** and **Password** boxes, type the user name and password for the Controller database.
7. In the **Initial catalog** box, type the Controller database name.
8. In the **Data source** box, type the database server computer name.

Do not use localhost.

9. Click **File > Save**.
10. In the **Explorer** window, expand **Database Connections**.
11. Select the database you want to upgrade.
12. Click **Actions > Run**.
13. If no Java is found, browse to and select the Java 7 JRE in the *install\_dir\bin64\jre\7.0\* directory.
14. If you have more than one Oracle version installed a message appears, select the same Oracle version that you are using with Controller.
15. If this is an empty Controller database, in the **Database Conversion Utility** window, click **Create Db**.

The Database Conversion Utility initializes the database.

**Note:** When you create a new database, by default the database version is 813. You then need to perform database upgrade to the latest version of IBM Cognos Controller.

16. In the **Database Conversion Utility** dialog box, click **Connect** and then click **Upgrade**.

The Database Conversion Utility upgrades the existing database.

**Note:** To upgrade database versions lower than 789 use the old Database Conversion Utility tool in the c10\legacy directory.

17. Click **Close**.
18. From the **Actions** menu, click **Check**.

If the database connection validation fails, review the database connection properties and fix any errors.

19. From the **File** menu, click **Save**.
20. In the **Explorer** window, under **Web Services Server**, click **Report Server**.
21. Under **Report Server connections**, click **Repair**.

The new database is now configured as a data source for Report Server, and is listed as a data source in IBM Cognos Connection.

## Configure the COM+ Server

After you configure network access to the COM+ Server, you must configure the Controller COM+ Server to run under a dedicated user.

### Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, click **COM+ Server**.
3. In the **COM+ Server** window, click **Specify Account** to configure the COM+ Server with a user account that has administrator privileges on the computer.
4. In the **User** box, type the user name for the account.
5. In the **Password** box, type the password for the account.
6. In the **Confirm Password** box, retype the password for the account.
7. Click in the space under **COM+ Role**, and then from the **File** menu, click **New**.
8. Under **COM+ Role**, type **ControllerUsers**.
9. Under **COM+ User**, type **IUSR\_XXX**, where XXX is the ID configured in IIS for anonymous access.

This ID must be the same ID under which you configured the Web aliases.

To locate the IIS anonymous access ID, in IIS, right-click the **ibmcognos** Web alias, and then click **Properties**. On the **Directory Security** tab, click the **Edit** button. Copy the Anonymous AccessID in the **User name** box.

10. From the **File** menu, click **New**.
11. Under **COM+ Role**, type **ControllerUsers**.
12. Under **COM+ User**, type **IWAM\_XXX**, where XXX is the ID configured in IIS for anonymous access.
13. From the **Actions** menu, click **Check** to validate each user.
14. From the **File** menu, click **Save**.



---

## Chapter 13. Configuring Controller Web

You must configure two IBM Controller Web components.

### Before you begin

Install IBM Cognos Controller and select the check boxes for **Controller Web** and **Controller Web Frontend**.

### Procedure

1. Find the `server.env` file in the installation directory.  
The default directory path is `C:\Program Files\ibm\cognos\ccr_64\fcweb\wlp\etc\`.
2. Open `server.env` and set the `JAVA_HOME` installation directory to the location of the `jre` folder.  
The default location of the `jre` folder is `JAVA_HOME=C:/Program Files/ibm/cognos/ccr_64/fcweb/jre`.
3. Open a command prompt window and run `SyncDBConf.bat` with the following parameters:  
**UDL files folder**  
Path to the folder that contains the UDL files (specifying database connections) defined for Cognos Controller  
**Data source folder**  
Output path for the folder that contains the data sources that are generated from the UDL files  
**Note:** You must have administrator permission to run this file.  
This file synchronizes Controller Web with the Uniform Data Language (UDL) files that are defined for databases used by Controller Web.  
For example, `C:\Program Files\ibm\cognos\ccr_64\fcweb\SyncDBConf.bat ..\Data\wlp\usr\shared\config\datasources`.
4. Locate the `com.ibm.cognos.fcm.web.properties` file in the installation directory.
5. Open `com.ibm.cognos.fcm.web.properties` and set the following values:
  - `ccrwsUrl`=<the WSSUrl to which `/ccrws.asmx` is appended>. For example, `ccrwsUrl=http://myControllerServer/ibmcognos/controllerserver/ccrws.asmx`.
  - `loginMode=NATIVE`
6. Optional: You can change the available memory by doing the following steps:
  - a) Find the `jvm.options` file in the `C:\Program Files\IBM\cognos\ccr_64\fcweb\wlp\etc\` folder.
  - b) Change the `Xms/Xmx` settings.
7. Open the Microsoft Windows Service Manager console, find **IBM Cognos Controller Web**, and start the service.
8. Find the `config.js` file in `C:\Program Files\IBM\cognos\ccr_64\frontend`.
9. Open the file in a text editor and make the following changes:
  - a) Change the "proxies" – "options" – "target" – "host" parameter to the FQDN of the application server that is running Controller Web  
The parameter "proxies" – "options" – "target" refers to the connection to Controller Web Backend.  
For example, `"host": "myhost.domain.com"`.
  - b) Change the "expressJs" – "host" parameter to the address through which you want to access Controller Web (FQDN/IP/machine name)  
The "expressJs" parameter configures the way the Controller Web UI service is exposed.

For example, "host": "myhost.domain.com".

10. Save the file.
11. Open the Microsoft Windows Service Manager console, find **IBM Cognos Controller Web UI**, and start the service.
12. Open a web browser, enter the following URL, and log in to Controller Web:  
`http://[servername]:9080/`

## Modifying UDL files

---

When you need to add or modify Uniform Data Language (UDL) files, after the initial configuration of IBM Controller Web, then you need to stop the Controller Web Windows service, before you run `SyncDBConf.bat` with the new database definitions.

### Before you begin

If you want to add or modify Uniform Data Language (UDL) files, perform the next steps.

### Procedure

1. In the Windows Services console, find **IBM Cognos Controller Web** and stop the service. The service is set to start automatically after for example server re-boots.
2. Add or modify UDL files.
3. Run `SyncDBConf.bat` as an administrator from the command line.
4. In the Windows Services console, find **IBM Cognos Controller Web** and start the service.

## CAM Authentication

---

You can configure IBM Controller Web to log on with Cognos Access Management (CAM) authentication.

### Before you begin

You must configure IBM Cognos BI to not allow for anonymous authentication. You must also specify the Controller Web settings.

### Procedure

1. In the Cognos BI installation folder, `<BI_installation_folder>/templates/ps/portal/`, create a file with the name `variables_CCRWeb.xml`.
2. The content of the file `variables_CCRWeb.xml` must be as follows:

```
<CRNenv c_cmd="http://{host_name}:{port_number}/#!/CamLogin">
  <cookies>
    <param name="cam_passport"/>
  </cookies>
</CRNenv>
```

3. Locate the file `com.ibm.cognos.fcm.web.properties` in the `C:\Program Files\IBM\cognos\ccr_64\fcweb\wlp\usr\servers\fc.web` folder.
4. Open the file `com.ibm.cognos.fcm.web.properties` and set the following properties:
  - a) `biUrl`: the URL that the user must go to when CAM authentication is needed. The default location is `http://$<BI_host>:80/ibmcognos/cgi-bin/cognos.cgi`. This property is only valid for CAM login mode.
  - b) `biDispatchEndpoint`: the endpoint to which Controller Web connects to validate CAM users and CAM passports. The default location is `http://$<BI_host>:9300/p2pd/servlet/dispatch`. This property is only valid for CAM login mode.
  - c) `loginMode`: the authentication type. The accepted values are: CAM and NATIVE.

## Appendix A. Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products.

See the [IBM Accessibility Center](http://www.ibm.com/able) (<http://www.ibm.com/able>) for more information about the commitment that IBM has to accessibility.

### Keyboard Shortcuts for the Installation Wizard

Keyboard shortcuts, or shortcut keys, provide you with an easier and often faster method of navigating and using software. The installation wizard uses standard Microsoft Windows operating system navigation keys in addition to application-specific keys.

**Note:** The following keyboard shortcuts are based in US standard keyboards. The following table lists the keyboard shortcuts that you can use to perform some of the main tasks in the installation wizard on the Windows operating system.

<i>Table 13. Keyboard shortcuts for main tasks in the installation wizard on the Windows operating system</i>	
<b>To do this</b>	<b>Press</b>
Move to the next field on a page	Tab
Return to the previous field on a page	Shift+Tab
Close the installation wizard	Alt+F4
Move to the next configuration step	Alt+N
Return to the previous configuration step	Alt+B
Move to the next selection in a list	Down arrow
Move to the previous selection in a list	Up arrow

The following table lists the keyboard shortcuts you can use to perform some of the main tasks in the installation wizard on the UNIX or Linux operating system.

<i>Table 14. Keyboard shortcuts for main tasks in the installation wizard on the UNIX or Linux operating system</i>	
<b>To do this</b>	<b>Press</b>
Move to the next field on a page	Tab
Return to the previous field on a page	Shift+Tab
Close the installation wizard	Alt+F4
Move to the next selection in a list	Down arrow
Move to the previous selection in a list	Up arrow

The following table lists the keyboard shortcuts you can use to perform some of the main tasks in the License Agreement page of the installation wizard.

<i>Table 15. Keyboard shortcuts for main tasks in the License Agreement page of the installation wizard</i>	
<b>To do this</b>	<b>Press</b>
Accept the license agreement	Alt+A

*Table 15. Keyboard shortcuts for main tasks in the License Agreement page of the installation wizard (continued)*

<b>To do this</b>	<b>Press</b>
Decline the license agreement	Alt+D
Quit the installation wizard	Alt+x

---

## Appendix B. Troubleshooting

Use this troubleshooting reference information as a resource to help you solve specific problems you may encounter during or after the installation of IBM Cognos Controller components.

Problems are characterized by their symptoms. Each symptom can be traced to one or more causes by using specific troubleshooting tools and techniques. After being identified, each problem can be fixed by implementing a series of actions.

When you cannot resolve a problem, the final resource is your IBM Cognos technical support representative. To analyze a problem, your technical support representative requires information about the situation and the symptoms that you are experiencing. To help isolate the problem, collect the necessary data before you contact your representative.

---

### Troubleshooting checklist

*Troubleshooting* is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and how to resolve the problem.

Review the following checklist to help you or customer support resolve a problem.

- \_\_\_ • Apply all known fix packs, or service levels, or program temporary fixes (PTF).

A product fix might be available to resolve your problem.

- \_\_\_ • Ensure that the configuration is supported.

To see an up-to-date list of environments supported by Cognos Controller, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, run the [Software Product Compatibility Reports](http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5) (<http://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/prereqsForProduct?deliverableId=5438B720AFE711E9A75C0935320290F5>).

- \_\_\_ • Look up error messages by selecting the product from the IBM Support Portal, and then typing the error message code into the **Search support** box on the right vertical menu bar.

Error messages give important information to help you identify the component that is causing the problem.

- \_\_\_ • Reproduce the problem to ensure that it is not just a simple error.

If samples are available with the product, you might try to reproduce the problem by using the sample data

- \_\_\_ • Check the installation directory structure and file permissions.

The installation location must contain the appropriate file structure and the file permissions.

For example, if the product requires write access to log files, ensure that the directory has the correct permission.

- \_\_\_ • Review all relevant documentation, including release notes, technotes, and proven practices documentation.

Search the IBM knowledge bases to determine whether your problem is known, has a workaround, or if it is already resolved and documented.

- \_\_\_ • Review recent changes in your computing environment.

Sometimes installing new software might cause compatibility issues.

If the items on the checklist did not guide you to a resolution, you might need to collect diagnostic data. This data is necessary for an IBM technical-support representative to effectively troubleshoot and assist you in resolving the problem. You can also collect diagnostic data and analyze it yourself,

## Troubleshooting resources

---

Troubleshooting resources are sources of information that can help you resolve a problem that you are having with a Cognos product. Many of the resource links provided in this section can also be viewed in a short video demonstration.

To view the video version, search for "Cognos troubleshooting" through either Google search engine or YouTube video community.

### Support Portal

The IBM Support Portal is a unified, centralized view of all technical support tools and information for all IBM systems, software, and services.

The IBM Support Portal lets you access all the IBM support resources from one place. You can tailor the pages to focus on the information and resources that you need for problem prevention and faster problem resolution. Familiarize yourself with the IBM Support Portal by viewing the [demo videos](#).

Find the Cognos content that you need by selecting your products from the [IBM Support Portal](#).

### Searching and navigating Cognos products

Access to IBM Cognos product information can now be configured in the IBM Support Portal, which provides the ability to see all of your links on a single page.

Best practices for searching and navigating for Cognos product information are available on [the IBM Cognos Support Portal and Technote Search Best Practices page](#).

#### *Gathering information*

Before contacting IBM Support, you will need to collect diagnostic data (system information, symptoms, log files, traces, and so on) that is required to resolve a problem. Gathering this information will help to familiarize you with the troubleshooting process and save you time.

Information on what data to collect is available in the form of [MustGather technotes](#).

If you want to troubleshoot unexpected behavior that resulted in an error message, you can click **Details** in the message window for more diagnostic information. You can copy this information to send to IBM Support.

You can also specify the level of detail that is displayed in the Details section of an error message. The setting for the level of detail is included in the web.config configuration file. For more information, see [“Specifying the level of detail displayed in error messages” on page 112](#).

#### *Specifying the level of detail displayed in error messages*

You can specify the level of details that are displayed in an error message to help you troubleshoot your problem. Change this setting by modifying the properties in the Web.config file.

#### **About this task**

Error messages include details that can help IBM Support diagnose the problems and trace the events that led up to the failure. As a system administrator, you might want to restrict the type and quantity of information that is displayed in the error message as a security precaution. Errors can contain sensitive information that you do not want users to see.

You can change the level of details shown in the error messages by setting the **ControllerWebServiceException** property in the ASP.NET Web.config configuration file. The Web.config file specifies configuration information that is specific to IBM Cognos Controller.

#### **Procedure**

1. In a text editor, open the web.config file.

The default location of the Web.config file `ccr_location/ ControllerProxyServer`

2. Go to the `ControllerWebServiceException` property and change the detail setting based on the following values:

```
<!--Return error to client, Levels: 0=None, 1=Normal, 2=All-->
<add key="ControllerWebServiceException" value="1"/>
```

The property value is set to 1 by default. When the property is set to 0, no details are provided except for the instruction to contact the system administrator. If you set the property to 2, users can send the information in the Details section of the message to IBM Support for further investigation.

3. Save the changes and close the editor.

## Results

You are not required to restart the web server after modifying the `Web.config` file. For performance reasons, Internet Information Services (IIS) monitors the `Web.config` file for changes and caches the contents.

## Problem determination

Several IBM Cognos problem determination tools are available to diagnose and troubleshoot common problems.

These tools can be downloaded from the [Cognos Diagnostic Utilities page](#). IBM Education Assistant provides video and other training resources on some of these diagnostic tools on the [IBM Education Assistant Problem Determination website](#).

## Service requests

Service requests are also known as Problem Management Reports (PMRs). Several methods exist to submit diagnostic information to IBM Software Technical Support.

To open a PMR or to exchange information with technical support, view [the IBM Software Support Exchanging information with Technical Support page](#). PMRs can also be submitted directly by using [the Service requests \(PMRs\) tool](#), or one of the other supported methods detailed on the [exchanging information page](#).

## Cognos Customer Center

The IBM Cognos Customer Center provides Cognos-specific information, updates, and troubleshooting resources.

To view Cognos troubleshooting information, access the [Cognos Customer Center](#), and view the information under "Contacting Support" or "Troubleshooting Resources".

## Fix Central

Fix Central provides fixes and updates for your system's software, hardware, and operating system.

Use the pull-down menu to navigate to your product fixes on [Fix Central](#). You may also want to view [Getting started with Fix Central](#).

## Knowledge bases

You can find solutions to problems by searching IBM knowledge bases.

You can use the IBM masthead search by typing your search string into the Search field at the top of any [ibm.com](#) page.

## ***IBM Knowledge Center***

IBM Knowledge Center includes documentation for each release. This documentation is also available through product help menus.

You can access the documentation at [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome) (<http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome>).

To find links to the latest known problems and APARs, access the release notes available on the Knowledge Center.

## ***IBM Redbooks***

IBM Redbooks are developed and published by IBM's International Technical Support Organization, the ITSO.

[IBM Redbooks](#) provide in-depth guidance about such topics as installation and configuration and solution implementation.

## ***Proven Practices documentation***

Created by Cognos experts from customer experiences, Cognos Proven Practices provides verified technical information in specific technology environments.

As a troubleshooting resource, Proven Practices provides easy access to the most popular practices for Business Intelligence and Financial Performance Management, in addition to videos and other information: [Cognos Proven Practice documentation](#).

## ***Software support and RSS feeds***

IBM Software Support RSS feeds are a quick, easy, and lightweight format for monitoring new content added to websites.

After you download an RSS reader or browser plug-in, you can subscribe to IBM product feeds at [IBM Software Support RSS feeds](#).

## ***Forums and communities***

IBM Cognos product forums offer a place to share ideas and solutions with your peers in the IBM Cognos community.

Active Cognos forums are available at [Cognos forums and communities](#).

## ***Log Files***

When you are troubleshooting, several files can help you:

### **The ccr.log file**

This file records technical information about activities performed in IBM Cognos Controller. The ccr.log file is located in the C:\Program Files\ibm\cognos\ccr\_64\log directory. You can use this file to troubleshoot technical problems, and when contacting technical support.

### **The Transfer Log File**

This file records the activities that the installation wizard performed while transferring files. The transfer log file is located in the C:\Program Files\ibm\cognos\ccr\_64\instlog directory. The file name identifies the product name, version, and build number, and includes a time stamp. The following is an example of the file name format:

tl-CNTRL-10.3-1100.213-20171027\_0956.txt

### **The Transfer Summary-Error Log File**



This file records the components you installed, disk space information, the selections you made in the transfer dialogs, and any errors the installation wizard encountered while transferring components. The transfer summary-error log file is located in the C:\Program Files\ibm\cognos\ccr\_64\instlog directory. The file name identifies the product name, version, and build number, and includes a time stamp. The following is an example of the file name format:

tl-CNTRL-10.3-1100.213-20171027\_0956\_summary\_error.txt

## The Startup Configuration File

This file records your configuration choices each time you save your property settings. The file name is cogstartup.xml. If you are unable to save your configuration, or are having problems you can revert to a previously saved configuration file. The backup configuration files are located in the C:\Program Files\ibm\cognos\analytics\configuration directory. The following is an example of the file name format for backup configuration files:

cogstartup\_200211231540.xml

## The Locale Configuration File

This file records the configuration choices you make in Cognos Configuration for product and content locales, locale mapping, and currency support. If you experience problems with language support in the user interface or in reports, use these files to track your changes. The backup configuration files are located in the C:\Program Files\ibm\cognos\analytics\configuration directory. The following is an example of the file name format:

coglocale\_200211231540.xml

## The Run-Time Log File

The default Cognos log file named cogserver.log file, or other log files that you configure to receive log messages from the log server, record information after you start the IBM Cognos service. They are located in the *ca\_or\_bi\_install\_path*\logs directory. If you configured another destination for log messages, check the appropriate file or database.

Some log messages indicate problems. Most messages provide information only, but others can help you to diagnose problems in your run-time environment.

## The Uninstallation Log File

This file records the activities that the Uninstall wizard performed while uninstalling files. You can use the log file to troubleshoot problems related to uninstalling IBM Cognos components. The location for the file varies with the type of uninstall. If you do a partial uninstall, the file is in *controller\_install\_path*\instlog. If you do a full uninstall, the file is in %temp% and the file name is cognos\_unist\_log.txt.

## Windows Event Viewer

Windows Event Viewer provides information about program, security, and system events. For example, if the IBM Cognos service fails to start, this fact is recorded in the event log.

For information about how to use Windows Event Viewer, see the Windows help.

## Microsoft Internet Information Services (IIS) Log File

This file records Microsoft Internet Information Services (IIS) activities. The log file is found in the *installation\_location/windows/system32/logFiles/W3SVC1* directory. You can use this log file to troubleshoot problems related to your IIS Web server. For example:

- Code 404 is a page not found error.  
Your virtual directory may not be configured correctly.
- Code 304 is a security credential error.  
Your directory security may not be configured correctly.
- Code 200 indicates that IIS is working correctly.  
The problem you are encountering is not related to your IIS Web server.

For more information, see the Microsoft Internet Information Services help.

## Problems Starting IBM Cognos Controller

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You may encounter problems when you try to start IBM Cognos Controller or log on to IBM Cognos Controller. Solutions are provided for specific problems.

### The Controller Link Is Missing in IBM Cognos Connection

You completed a distributed installation integrating IBM Cognos Controller with IBM Cognos Business Intelligence. When you access IBM Cognos Connection to start IBM Cognos Controller, the Controller link does not appear on the IBM Cognos Connection start page or on the studio bar.

Ensure that you installed the Gateway Integration Enabler on the IBM Cognos Gateway computer, and the IBM Cognos Connection Integration Enabler on the IBM Cognos application servers.

If you started the IBM Cognos service before the IBM Cognos Connection Integration Enabler was installed, you must restart the IBM Cognos service.

You may also need to verify that the URI for IBM Cognos Connection is correct. The URL parameter in the ControllerLaunch.xml file sets the link associated with Controller in IBM Cognos Connection. For a distributed installation, this must be the full URL for the Controller Client Distribution Server.

### Procedure

1. Start IBM Cognos Configuration.
2. From the **Actions** menu, if the service is currently running, click **Restart**, or if the service is stopped, click **Start**.
3. To Verify That the IBM Cognos Connection Integration Enabler Is Installed, in the *ccr\_location/webapps/p2pd/WEB-INF/service* directory, verify that the ControllerStudio.xml file exists.
4. To Verify the URI for IBM Cognos Connection, if the Report Server and Controller Client Distribution Server are on different computers, set the URL to point to Controller Client Distribution Server:
  - In the *ccr\_location\templates\ps\portal\launch* directory, open the ControllerLaunch.xml file in a text editor.
  - Change the value of the URL parameter from `../controller` to the fully-qualified URI of the computer where Controller Client Distribution Server is installed, such as `http://servername/cognos/controller`
  - Save and close the file.

### Warning! You Are About to Navigate Away from This Page

When you try to start IBM Cognos Controller, an error message may state that you are about to leave this page. There may be an error in the Code Group settings of the Microsoft .NET Framework runtime security policy that you configured.

Verify that you have installed the supported version of Microsoft .NET Framework that is listed in the “System requirements” on page 19 section. Ensure that the URL to the Controller Client Distribution Server is correct.

## You Receive No Response When Starting IBM Cognos Controller

When you start IBM Cognos Controller, you receive no response. There may be an error in the configuration of the Microsoft .NET Framework runtime security policy that you configured.

Verify that you have installed the supported version of Microsoft .NET Framework for your version of Cognos Controller as listed on [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome) (<http://www.ibm.com/support/knowledgecenter/SS9S6B/welcome>). You can also delete the security policy on the client computer, reconfigure the security policy, and then deploy a new package to the client computer.

## Error - Page Cannot Be Found When Starting IBM Cognos Controller

When you try to start IBM Cognos Controller, an error message may state that the page cannot be found.

Ensure that the ControllerServer virtual directory is defined on the Controller Web Services Server, that it points to the *ccr\_location/ControllerProxyServer* folder, and that you have access privileges for that folder.

You may also want to verify that you installed the supported versions of Microsoft .NET Framework as listed on IBM Cognos Knowledge Center (<http://www-01.ibm.com/support/knowledgecenter/>) and that ASP.NET is installed and configured.

### Procedure

1. In **Administrative Tools**, start **Internet Information Services (IIS) Manager**.
2. Expand **Internet Information Services (local computer)**, **Web Sites**, **Default Web Site** and verify that the *aspnet\_client* folder exists.
3. If this folder is missing, complete the steps “[Install server roles and features](#)” on page 28 to install and configure ASP.NET.
4. Expand **Internet Information Services (local computer)**, and then click **Web Services Extensions**, and verify that ASP.NET V2.0.50727 is set to **Allowed**.

## After Upgrading, You Cannot Start IBM Cognos Controller

After upgrading your version of IBM Cognos Controller, you experience problems with starting Controller that are not documented elsewhere.

You may need to delete some leftover files from the Microsoft .NET Framework cache on the Controller client computer.

### Procedure

1. Close all instances of Internet Explorer.
2. Run Windows Task Manager and stop any *iexplore.exe* process that is running.
3. In the *C:\documents and settings\username\application data\Cognos* directory, delete the *ccr* folder.
4. In Internet Explorer, return to IBM Cognos Connection, and then restart IBM Cognos Controller.
5. In Internet Explorer, from the **Tools** menu, click **Internet Options**.
6. On the **General** tab, under **Temporary Internet files**, click **Delete Files**, select the **Delete all offline content** check box, and then click **OK**.

## Error - VMWare Can't Run the ccr.exe File

You are trying to start IBM Cognos Controller in a VMWare environment and a message prompts you to confirm that you want to run the ccr.exe file.

When you click **Run**, an error occurs. Because VMWare cannot resolve the host name of an IP address, you must add it to the hosts file.

### Procedure

1. On the VMWare virtual computer, in a text editor, open the C:\windows\system32\drivers\etc\hosts file.
2. Add the IP address and the name of each server computer that you are using in your distributed installation to the hosts file.

**Tip:** Use the other entries in the hosts file as an example of correct syntax.

## An Error Occurred While Trying to Access the Server

While trying to start or log on to IBM Cognos Controller, a message states that an error occurred while trying to access the server.

This error can occur for several reasons:

- The Controller Web Services Server may not be running.
- The COM+ Server may not be running.
- The Controller database connection logon credentials may need to be reset.
- There may be errors with the configuration of authenticated access.

**Tip:** If the error occurs after you start IBM Cognos Controller, then in Administrative Tools use the Event Viewer on both the IBM Cognos Controller client computer and the Controller Web Services Server computer for internal errors.

## Verifying That the Controller Web Services Server Is Running

Verify that the Controller Web Services Server is running.

### Procedure

1. On the Controller Web Services Server computer, start Internet Explorer and go to <http://computername/ibmcognos/controllerserver/ccrws.aspx>
2. If the CCRWS operations page does not appear, verify that ASP.NET is installed and configured [“Error - Page Cannot Be Found When Starting IBM Cognos Controller”](#) on page 117. If it is not, install and configure ASP.NET [“Install server roles and features”](#) on page 28 and then repeat steps 1 and 2.
3. On the CCRWS operations page, click the **ConnectionBusiness SelectDB** method link.
4. Click **Invoke**.
5. If a Web page containing XML data with the list of databases does not appear, ensure that the directory security settings in Microsoft Internet Information Services (IIS) are configured correctly so that remote users can connect and [verify that the COM+ Server is running](#). Then repeat steps 1 to 4 on a client computer.

If this still fails, it may be a network connection problem.

## Verify That the COM+ Server Is Running

Verify that the COM+ Server is running.

## Procedure

1. On the Controller Web Services Server computer, in **Administrative Tools**, start Component Services.
2. Under **Console Root**, expand **Component Services, Computers, My Computer, Running Processes**.
3. Expand COGNOSCONTROLLER, and also expand the next level of COGNOSCONTROLLER.

If components are listed under this level, the COM+ Server is running.

## Reset the Microsoft SQL Server Logon Credentials

Reset the Microsoft SQL Server Logon Credentials.

## Procedure

In SQL\*Plus, type the following command to run a stored procedure that resets the database user name and password:

```
sp_change_users_login 'Update_one', 'username', 'password'
```

## Test the Database Connection

Use IBM Cognos Controller Configuration to test the database connection.

## Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, under **Web Services Server**, click **Database Connections** and select the problem connection for the Controller database.
3. From the **Actions** menu, click **Run**.

The Database Conversion Utility opens.

4. Verify that the **Current Version** is the same as the **Upgrade to** version of the database.

## Map an IBM Cognos Controller User to an IBM Cognos User

Map an IBM Cognos Controller user to an IBM Cognos user.

## Procedure

1. Start IBM Cognos Controller.

You must be a member of the Controller Administrators role in IBM Cognos Connection.

2. From the **Maintain** menu, click **Rights, Users**.
3. Select the user you defined for the IBM Cognos Controller database.
4. Next to **CAM User** box, click **Show Valid Choices** and then select the user you mapped to the Cognos namespace roles.
5. Click **Save**.

## Error - No Database Configured

While trying to log on to IBM Cognos Controller, a message states that no database is configured. This is the result when the Controller Web Services Server cannot find any UDL files.

Verify that you created a database connection for the Controller database.

## Error - The File Is Not a Valid Compound File

While trying to log on to IBM Cognos Controller, a message states that the file is not a valid compound file. This can occur when the UDL file for the Controller database is corrupted.

You can try to repair the database connection, or delete it and create a new one.

### Procedure

1. From the **Start** menu, start IBM Cognos Controller Configuration.
2. In the **Explorer** window, under **Web Services Server**, click **Database Connections** and select the problem connection for the Controller database.
3. From the **Actions** menu, click **Check**.
4. If the database connection validation fails, review the database connection properties and fix any errors.
5. From the **File** menu, click **Save**.
6. In the **Explorer** window, under **Web Services Server**, click **Report Server**.
7. In the **Report Server** window, under **Report Server connections**, click **Repair**.

## Error - Another Session of IBM Cognos Controller Is Already Running

While trying to log on to IBM Cognos Controller, a message states that another session of Controller is already running. You can only run one session of IBM Cognos Controller at a time.

Verify that another session of IBM Cognos Controller is already running, and use this session instead.

## Error QE-DEF-0288 - Unable to find the data source

When you run a standard report in IBM Cognos Controller that uses DB2 and you manually set the TCP port, then the following error message is shown.

QE-DEF-0288

Unable to find the data source

'IBMDADB2.DB2COPY1:<servername>:TCPport:DATABASECONNECTION:<username>' in the content store.

In Controller Configuration, the database connection contains the TCP port (for example, 50000) in the **Location** field.

Resolve the problem by renaming the data source in IBM Cognos Connection.

### Procedure

1. Start IBM Cognos Connection (<http://<servername>/ibmcognos>).
2. Click **Administer IBM Cognos content > Configuration > Data Source Connections**.
3. On the relevant data source, click the **Set properties** icon.
4. In the **Name** field, add the TCP port to the name.  
For example: IBMDADB2.DB2COPY1:VBRACONTDB2:50000:RCTST04A:fastnet.

## Problems Starting the IBM Cognos Controller Link for Microsoft Excel

---

You may encounter problems during your testing of the IBM Cognos Controller Link for Microsoft Excel. Solutions are provided for specific problems.

If the specific problems identified do not include your issue, you can use the **Control Panel, Add or Remove Programs** window to uninstall the IBM Cognos Controller Link for Microsoft Excel, and then restart the Controller client computer.

## After Upgrading, ControllerXLPusher Error Occurs When Starting Microsoft Excel

You accessed IBM Cognos Controller at least once from the same client computer, and are now trying to start Microsoft Excel. An error message states that the ControllerXLPusher.dll file or one of its dependencies was not found. The registry may have more than one version listed for the ControllerXLPusher.dll file.

You must verify that the version used by the registry key is the current version of the ControllerXLPusher.dll file. First identify the current version of the ControllerXLPusher.dll file and then verify the version used by the registry key.

### Procedure

1. On the client computer, in the *ccr\_location*\webcontent\ccr directory, right-click the ControllerXLPusher.dll file, and then click **Properties**.
2. Click the **Version** tab and record the **File version** number for comparing against the registry key.
3. Open the Registry Editor and search for **ControllerXLPusher** using the registry **Find** feature.  
The key HKEY\_CLASSES\_ROOT\CLSID\id\_number should be found.
4. Click the **InprocServer32** key and check whether only the version number that matches the current version of the ControllerXLPusher.dll file exists.
5. If more than one version exists, delete all entries except the current version, which you recorded earlier.

## Problems configuring IBM Cognos Controller Financial Analytics Publisher

---

You may encounter problems when you are configuring IBM Cognos Controller Financial Analytics Publisher (FAP).

### JCAM\_Crypto\_JNI-dll is not a valid Win32 application

You are upgrading to IBM Cognos TM1 10.2.2 and an error message appears when you start IBM Cognos Configuration.

The text of the message is as follows:

A fatal error occurred. Unable to run the application. An application error occurred.  
Java.lang.UnsatisfiedLinkError:JCAM\_Crypto\_JNI (C:\Program Files\IBM\cognos\tm1\_64\bin\JCAM\_Crypto\_JNI-dll is not a valid Win32 application.)

### Procedure

1. Click **Start > Control Panel > System and Security > System**.
2. Click **Advanced system settings**.
3. Click **Environment Variables**.
4. Edit the Path system variable to include the following text:  
C:\Program Files\ibm\cognos\tm1\_64\bin64
5. Click **OK**.

### NGTM1JNI.dll is not a valid 32-bit application

You are starting the Data Mart on the FAP Server and the Initial Publish (IP) fails.

The following error message appears:

NGTM1JNI.dll is not a valid 32-bit application

## Procedure

1. Click **Start > Control Panel > System and Security > System**.
2. Click **Advanced system settings**.
3. Click **Environment Variables**.
4. Edit the Path system variable to include the following text:  
C:\Program Files\ibm\cognos\tm1\_64\bin64
5. Click **OK**.

## Slow performance of Cognos Controller

---

The IBM Cognos Controller client runs slowly if there is no internet connection.

The Cognos Controller client must have access to the internet to check the certificates. If the certificate checking fails, Cognos Controller runs slowly.

The solution for this problem is to provide internet access to the Cognos Controller client.

If that is not possible, then disable the checking of .NET certificates for all applications. For more information, see [“Disabling .NET certificate checking for all applications” on page 122](#).

If it is not possible to disable the checking of .NET certificates for all applications, then disable the checking of the certificates for the following applications:

- Microsoft Excel

For more information, see [“Disabling certificate checking for Microsoft Excel” on page 122](#).

- Cognos Controller

For more information, see [“Disabling certificate checking for Cognos Controller” on page 123](#).

- Microsoft ASP.NET

For more information, see [“Disabling certificate checking for Microsoft ASP.NET” on page 123](#).

## Disabling .NET certificate checking for all applications

When the IBM Cognos Controller 10.1 client does not have internet access, Cognos Controller runs slow.

The solution for this problem is to provide internet access to the Cognos Controller client.

If that is not possible, then disable the checking of the .NET certificate for all applications.

### Procedure

1. Log on to the system that runs the Cognos Controller client.
2. Start Microsoft Internet Explorer.
3. Click Tools > Internet Options > Advanced.
4. Clear the Check for publisher's certificate revocation check box.

## Disabling certificate checking for Microsoft Excel

When the IBM Cognos Controller 10.1 client does not have internet access, Cognos Controller runs slow.

The solution for this problem is to provide internet access to the Cognos Controller client.

If it is not possible to provide internet access to the Cognos Controller client, then disable the checking of the .NET certificate for all applications.

If it is not possible to disable the checking of the .NET certificate for all applications, then disable the checking of the certificate for Microsoft Excel, Cognos Controller, and Microsoft ASP.NET.

Perform the next steps to disable the certificate checking for Microsoft Excel.



## Procedure

1. Log on to the system that runs the Cognos Controller client.
2. In a text editor, such as Microsoft Notepad, open the excel.exe.config file that is in a location such as: C:\Program Files\Microsoft Office\Office12.
3. In the file add the line `<generatePublisherEvidence enabled="false"/>` as follows:

```
<configuration>
<startup>
<supportedRuntime version="v2.0.50727"/>
</startup>
<runtime>
<generatePublisherEvidence enabled="false"/>
</runtime>
</configuration>
```

4. Save and close the file.

## Disabling certificate checking for Cognos Controller

When the IBM Cognos Controller 10.1 client does not have internet access, Cognos Controller runs slow.

The solution for this problem is to provide internet access to the Cognos Controller client.

If it is not possible to provide internet access to the Cognos Controller client, then disable the checking of the .NET certificate for all applications.

If it is not possible to disable the checking of the .NET certificate for all applications, then disable the checking of the certificate for Microsoft Excel, Cognos Controller, and Microsoft ASP.NET.

Perform the next steps to disable the certificate checking for Cognos Controller.

### Before you begin

The following procedure assumes that you start Cognos Controller from a local hard disk. For example, from C:\Program Files\Cognos\ccr\ccr.exe.

## Procedure

1. Log on to the system that runs the Cognos Controller client.
2. In a text editor, such as Microsoft Notepad, open the ccr.exe.config file that is in a location such as: C:\Program Files\IBM\IBM Cognos Controller or C:\Program Files\Cognos\ccr.
3. In the file add the line `<generatePublisherEvidence enabled="false"/>` before the `</configuration>` tag as follows:

```
<configuration>
<runtime>
<generatePublisherEvidence enabled="false"/>
</runtime>
</configuration>
```

4. Save and close the file.

## Disabling certificate checking for Microsoft ASP.NET

When the IBM Cognos Controller 10.1 client does not have internet access, Cognos Controller runs slow.

The solution for this problem is to provide internet access to the Cognos Controller client.

If it is not possible to provide internet access to the Cognos Controller client, then disable the checking of the .NET certificate for all applications.

If it is not possible to disable the checking of the .NET certificate for all applications, then disable the checking of the certificate for Microsoft Excel, Cognos Controller, and Microsoft ASP.NET.

Perform the next steps to disable the certificate checking for Microsoft ASP.NET.

## Procedure

1. Log on to the system that runs the Cognos Controller application server.
2. In a text editor, such as Microsoft Notepad, open the Aspnet.config file that is in a location such as: C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727.
3. In the file add the line `<generatePublisherEvidence enabled="false"/>` as follows:

```
<configuration>
<runtime>
<generatePublisherEvidence enabled="false"/>
</runtime>
</configuration>
```

4. Save and close the file.

## Unable to add new user

---

When you try to add a user, you receive an error message.

The following error messages appear:

- There are no CAM Users available in the popup list.
- The user currently logged in is not authorized to use this method.

To solve this, disable the timeout when IBM Cognos Controller calls Cognos Analytics content manager for users.

When the `DisableGetUsersTimeout` property is set to true, then the timeout is disabled.

The **Maintain > Rights > Users** dialog box opens. When you switch to users and then click the button to browse CAM users, then the pop-up dialog box does not appear until it retrieved all the users from CAM. This is indicated by the status bar of the window, showing that it is still fetching users.

## Before you begin

If the Controller system has encountered a problem trying to find the unused members of the Cognos security group **Controller Users**, then the message **There are no CAM Users available in the popup list** is displayed. For more information, see <https://www.ibm.com/support/pages/troubleshooting-unable-add-new-users-there-are-no-cam-users-available-popup-list>.

If the Controller system does not consider that the current logged on user is a member of the group **Controller Administrators**, then the message **The user currently logged in is not authorized to use this method** is displayed. For more information, see <https://www.ibm.com/support/pages/troubleshooting-user-currently-logged-not-authorized-use-method-when-creating-new-users>.

## Procedure

1. In the `ControllerProxyServer` folder, open the `web.config` file. The default location of the `ControllerProxyServer` folder is C:\Program Files\ibm\cognos\ccr\_64\ControllerProxyServer.
2. In the `<appSettings>` section, add the following entry `<add key="DisableGetUsersTimeout" value="true" />`.
3. Save and close the file.

## Notices

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# Glossary

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This glossary provides terms and definitions for the IBM Cognos Controller software and products.

The following cross-references are used in this glossary:

- *See* refers you from a nonpreferred term to the preferred term or from an abbreviation to the spelled-out form.
- *See also* refers you to a related or contrasting term.

For other terms and definitions, see the [IBM Terminology website](#) (opens in new window).

## A

---

### **access right**

A designation of the rights that users have, such as read, modify, create, delete, and admin (RMCDAs).

### **actuality**

A set of data that can be collected, such as forecast, budget, or actuals. An actuality often defines a period.

### **adjustment dimension**

A dimension that is used to eliminate intercompany balances or internal profit.

### **advanced formula calculation account (AFC account)**

An account used for complex calculations including built-in logic and formulas.

### **AFC account**

See [advanced formula calculation account](#).

### **allocation**

The distribution of data, specified at a summary level of a dimension, to lower levels. For example, the measures used to forecast quarterly sales revenue can be distributed to the month and day levels.

### **audit log**

A log that maintains the history of all commands that modify metadata or configuration data and significant operations, including commands that would have made a change but failed to do so.

### **audit trail**

The ability to track changes made to data and structures.

### **automatic journal**

A set of rules and definitions connected to a control table. Automatic journals define which eliminations should be calculated in a consolidation, as well as how and when the consolidation should take place.

## B

---

### **base**

A predefined contribution version which contains no automatic journals.

### **base value**

A reported value to which different adjustments are made.

### **batch queue**

A queue that places batch jobs in sequence for execution. A batch queue's run limit controls how many jobs in the queue can run simultaneously.

### **business rule**

A user-defined script to be included in the consolidation process.

## C

---

**calculation account**

An account used for calculating ratios and formulas in reports. The abbreviation for calculation account is CALC account.

**change table**

A table that is used to change company codes, account codes, extended dimension codes, or to merge accounts or dimensions.

**closing version**

A reporting version that contains the reported values for a given period, plus one or more journal types.

**Command Center**

A menu from which a user can carry out tasks and monitor the status for companies and groups.

**consolidation structure**

A legal or management structure that consists of a company structure and extended dimension structures.

**contribution calculation**

The ability to view a financial amount contributed from the top level in a company hierarchy.

**contribution version**

A summary of preferred automatic journal types that is used in reports.

**control table**

A pre-defined table used by automatic journals to eliminate acquisitions, intercompany balances and intercompany profit.

**copy table**

A table used to copy period values from one account to another in the same period and for the same company.

**cube**

A multidimensional representation of data needed for online analytical processing, multidimensional reporting, or multidimensional planning applications.

## D

---

**data mart**

A subset of a data warehouse that contains data that is tailored and optimized for the specific reporting needs of a department or team. A data mart can be a subset of a warehouse for an entire organization, such as data that is contained in online analytical processing (OLAP) tools.

**dimension**

A broad grouping of descriptive data about a major aspect of a business, such as products, dates, or locations. Each dimension includes different levels of members in one or more hierarchies and an optional set of calculated members or special categories.

## E

---

**extended dimension**

A dimension that can be defined by the user.

## F

---

**fast formula**

A formula that can be used to calculate simplified, static values and store them on calculation accounts.

**form set**

A collection of forms.



## G

---

### **group**

A company type to which subordinate companies are connected; for example, subsidiaries, group companies, group adjustment companies, or legal units.

### **group adjustment company**

A virtual company for system use only.

## I

---

### **integrated account**

A sub-account that is summed into accounts in the balance sheet or the income statement.

### **investment adjustment**

One of the three consolidation models in Cognos Controller (used, for example, in the Netherlands and Denmark).

### **investment elimination template**

A template used to reconcile eliminations of investments, such as subsidiaries and associated companies.

## J

---

### **job**

A method for describing which user-defined business rules, allocation definitions, or advanced formula calculations to include in the consolidation process (by steps or by status).

### **journal type**

A user-defined journal category used for manual adjustments to reported values.

## L

---

### **legal unit**

In a company structure, one or more sub-units that are connected to a group company. A sub-unit may represent a specific geographical area in one consolidation structure, and in a parallel consolidation structure it can be included in a group representing the total of that geographical area.

### **linked actuality**

An actuality used to perform a currency conversion at a new currency rate, but with existing period values in the local currency.

### **linked structure**

A combination of selected structures that is used to limit the number of available objects, making it easier for individual users to make selections from menus.

### **local preference**

A parameter that affects one workstation or client only.

### **lookup table**

A table used to convert information from a file in an external system to correspond with the local system.

## M

---

### **mapping table**

A table for entering default jobs.

### **movement account**

An account generated from a base account, or a manually defined account that reflects movement of equity or fixed assets between opening and closing balances.

**movement extension**

A suffix which together with a base account form a movement account.

## O

---

**OLAP**

See [online analytical processing](#).

**online analytical processing (OLAP)**

The process of collecting data from one or many sources; transforming and analyzing the consolidated data quickly and interactively; and examining the results across different dimensions of the data by looking for patterns, trends, and exceptions within complex relationships of that data.

## P

---

**period**

A date interval that reported values are saved in. An example of a period is December 2000.

**period locking**

The process of restricting access to finished periods. An option exists to lock the period entirely, or to restrict data entry only.

## R

---

**REPO**

See [reported value](#).

**report book**

A set of reports which can be generated together, instead of individually.

**reported value (REPO)**

A value created by data entry or import, without any manual corrections. The abbreviation for reported value is REPO.

**reverse journal**

A function that allows the user to eliminate a journal without having to re-book values manually.

**reversing journal**

A journal that is used to copy company and group journals at year-end with alternative rules.

## S

---

**security group**

A group defined for the purpose of providing access to applications and optionally to collections of data.

**server preference**

A parameter that affects all workstations and clients.

**structure**

A relationship that describes how accounts, companies, forms or extended dimensions are connected.

**subgroup**

The name of a company type group that is connected to another group.

**submission**

A collection of form sets reported during a specific period and actuality.

**subset**

A named collection of companies.

**sub-unit**

An operative unit, such as company or sub-group, that is summed with other sub-units to form a legal unit.

**summation account**

An account to which other accounts are summed.

**T**

---

**task**

A unit of work to be accomplished by a device or process.

**transfer account**

An equity account that is included in an opening or closing balance account structure.

**W**

---

**weight**

A factor that determines how much of the source value should be put on a specific target when using the allocation functionality.



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