Deltek

Deltek Costpoint Business Intelligence 8.2.12

Installation Guide for Full Installations and New Users

July 1, 2024

This edition published July 1, 2024.

Contents

Overview

The Costpoint Business Intelligence New User Installation Guide includes instructions for installing and configuring the software for Costpoint Business Intelligence 8.2.12 with Cognos Analytics with Watson 11.2.4.

The sections of this guide follow the proper installation order. Follow the steps in this guide in the order in which they appear.

Important: After the successful installation of Costpoint BI and Cognos Analytics with Watson, follow the procedures in the Costpoint Business Intelligence Post Installation and Configuration Guide for 8.2.12 to properly secure your BI environment before you allow users to run and create reports and dashboards in Costpoint BI.

Get Installation Help

Deltek strongly recommends that you contact the Deltek Consulting Sales Group for assistance when you run your Deltek Costpoint Business Intelligence installation.

While Deltek has worked hard to ensure a step-by-step installation, Costpoint Business Intelligence, which leverages IBM® Cognos® Analytics with Watson software, is a complex enterprise application, and these installation instructions are just one possible installation solution. Deltek's team of technical consultants can assist you with your installation in a timely manner. Deltek’s involvement ensures that all applications are installed properly, regardless of the complexity of the deployment scenario.

You can ask for assistance in your installation and send an email to ConsultingSalesRequest@deltek.com.

If You Need Assistance

Deltek can help you in the implementation of Costpoint Business Intelligence in your organization.

If you need assistance installing, implementing, or using Costpoint Business Intelligence, Deltek makes a wealth of information and expertise readily available to you through various customer services and the Deltek Support Center site.

To access the Deltek Support Center site:

1. Go to https://deltek.custhelp.com.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

Note: If you forget your username or password, you can click the **Login Help?** button on the login screen for help.

Customer Services

There are different customer services that Deltek provides.

For over 30 years, Deltek has maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center
- Phone and email support from Support Center analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and Web-based training

Attention: Find out more about these and other services from the Deltek Support Center site.

Deltek Support Center Site

Deltek provides a Web portal for customers.

The Deltek Support Center site is a support Web site for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center site provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community

- Access Cloud specific documents and forums
- Review comprehensive listing of product compatibilities
- Review product lifecycle information to check on schedule for versions moving to sustaining support.
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Customer Success analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Use Quick Chat to submit a question to a Customer Success analyst online

Note: For more information regarding Deltek Support Center, refer to the online help available from the Web site.

Access Deltek Support Center

You need your Deltek Support Center (formerly known as Customer Care Connect) **Username** and **Password** to access the site.

To access the Deltek Support Center site, complete the following steps:

1. Go to http://support.deltek.com.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

   Note: If you do not have a username and password for the Deltek Support Center site, contact your firm's Costpoint Business Intelligence Administrator. If you forget your username or password, you can click the **Login Help?** button on the login screen for help.

Additional Documentation

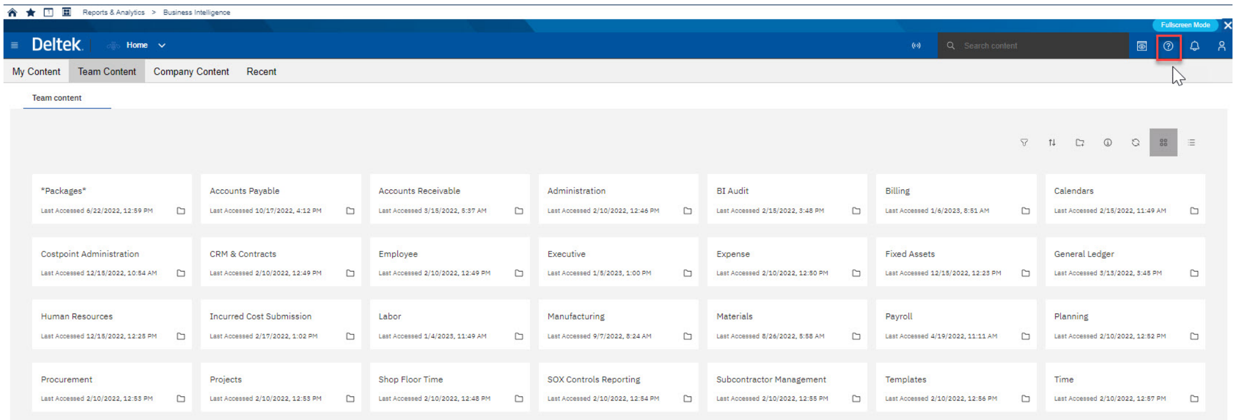
Deltek provides a variety of documentation for this release of Costpoint Business Intelligence.

Except where noted, all the user guides and quick reference guides listed in the table are available for download from the Deltek Support Center site.

Document Name	Description
Deltek Costpoint 8.2.12 Release Notes	This document provides release information, such as new features, resolved software issues, and support resources about Costpoint

Document Name	Description
	including Costpoint Business Intelligence 8.2.12.
Deltek Costpoint Business Intelligence 8.2.12 Post Installation and Configuration Guide	This document includes configuration procedures to be done after the successful installation of Costpoint Business Intelligence 8.2.12.
Deltek Costpoint Business Intelligence 8.2.12 Upgrade Installation Guide	This document provides instructions on how to upgrade to Costpoint Business Intelligence 8.2.12 from an earlier version.
Deltek Costpoint Business Intelligence 8.2.12Team Content Guide	This document provides a list of the offerings included in the Team content folder in Costpoint Business Intelligence that contain descriptions and related information.
Deltek Costpoint Business Intelligence 8.2.12 Reports List	This document includes the list of all Costpoint Business Intelligence offerings including reports, dashboards, and others that are provided in this release.
Deltek Costpoint Business Intelligence 8.2.12 Smart AI Guide	This document provides information about the Smart AI feature in Costpoint Business Intelligence.
IBM Cognos Analytics 11.2.4 Product Documentation	IBM provides extensive documentation for Cognos Analytics, the underlying foundation for Costpoint Business Intelligence. In addition to the Cognos documentation provided with Costpoint Business Intelligence, you can find all of the most current Cognos documentation on the IBM Support website.

Note: Cognos Analytics 11 documentation is also available in the online help of the main Costpoint BI page.



Downloading Deltek Products using Deltek Software Manager

You can use Deltek Software Manager (DSM) to download complete Deltek products, hot fixes, and sub-releases.

You can access DSM directly or through the Deltek Support Center site.

When you access DSM directly, you will be prompted to log on before you can access the application. If you access DSM from within the Deltek Support Center site, you do not have to log on since you are already logged into the Support Center site.

Accessing DSM from within the Deltek Support Center Site

You can access DSM within the Deltek Support Center site in a few easy steps.

To access DSM from within the Deltek Support Center site:

1. In your web browser, go to https://deltek.custhelp.com.
2. Enter your Deltek Support Center **Username** and **Password**, and click **Login**.
3. When the Deltek Support Center page displays, click **Product Downloads**.
4. On the Deltek Software Manager screen, click **Launch Deltek Software Manager**.
5. Click **Settings** at the top right of the dialog box to use the Settings dialog box to specify the folder where you want to download Deltek products, and click **OK**.

   > **Note:** When you log on for the first time, DSM asks you to select a default folder where Deltek products are to be downloaded. You can change this folder anytime in the Settings dialog box.

6. In the left pane of Deltek Software Manager, expand the Deltek product that you want to download, if it is not already expanded.
7. Select the product type that you want to download. Options include:.
   - **Complete**
   - **Cumulative Updates**
   - **HotFixes**
   - **Sub-Release**
8. In the table, select the check box that corresponds to the Deltek product that you want to download.

   The right pane displays a message stating that the product has been added to the download queue.

   > **Note:** To view the items in the download queue, click **View Download Queue** at the bottom of the left pane.

9. Click **Download** at the bottom of the left pane to download the product to the folder that you selected.

DSM Documentation and Troubleshooting

There are several reference materials that can help you use DSM such as the online help, tutorial, and troubleshooting information.

- To view the online help for Deltek Software Manager, click here.
- To view a tutorial on how to use Deltek Software Manager, click here.
- To view more information on troubleshooting Deltek Software Manager, click here.

Note: When you click a link, you will be asked to log into DSM if you aren't already logged in.

System Compatibility Requirements

Before installing Cognos software, make sure that your workstations and servers meet the requirements for Cognos to operate efficiently.

The following tables list the software requirements for installing and using Costpoint Business Intelligence. The specifications listed in this section are the minimum requirements. If you process a large amount of data, run a large number of reports, or have a large number of users, then your servers must exceed these requirements.

Note: A more comprehensive and updated compatibility list is available on the Deltek Support Center site at https://deltek.custhelp.com/app/answers/detail/a_id/38499. For more specific hardware requirements, please contact your account manager to receive the technical specification document for this product and a conference call to discuss, if required.

For more information about the supported software for IBM Cognos Analytics 11.2.x, see the IBM Cognos Analytics 11.2.x Supported Software Environments.

The list of all open included source software for IBM Cognos Analytics 11.2.x is provided for every installation. You can find the file in .../<cog install dir>/analytics/license/notices.

Client Workstation

Using Cognos requires only a web browser and users do not need powerful workstations.

Requirement	Specification
Web Browser	Apple Safari 10,11,13 or 14 and future fix packs Apple Safari on IOS 12.x and future fix packs Apple Safari on iPadOS 13.x,14.x, and future fix packs Google Chrome (latest release) and future fix packs Microsoft Edge Chronium latest release and future fix packs Mozilla Firefox ESR 91, 102, and future fix packs
Application Software	None.

Note: While Deltek has tested the applications on Google Chrome, other browsers have been tested by IBM and are compatible with some Costpoint BI applications. See the full compatibility list on the Deltek Support Center site. Some legacy applications such as Analysis Studio and Query Studio will only work on Mozilla Firefox.

Cognos Server

The Cognos server must be a powerful server-class machine in order to provide satisfactory response time to users creating and executing reports. A Microsoft® Windows workstation will not provide satisfactory performance if it is used as a report server.

Requirement	Specification
Operating System	▪ Windows 8 ▪ Windows 8.1 ▪ Windows 10 ▪ Windows Server 2016 ▪ Windows Server 2019 ▪ Windows Server 2022
Application Software	IBM Cognos Analytics with Watson 11.2.4 FP3 IBM Cognos Analytics Framework Manager 11.2.4 FP3

Database Servers

Cognos must have access to the Deltek databases. In addition, Cognos requires a database of its own. This database is used for the Cognos Content Store, which contains all Cognos settings, published models, and saved reports.

Requirement	Specification
Content Servers and Data Sources	Microsoft SQL Server® 2019 Microsoft SQL Server® 2022 Oracle Database 19c Oracle Database 21c
Deltek Application Databases compatibility	Deltek Costpoint 8.2.11 which includes Deltek Time & Expense and Costpoint Planning. Deltek Shop Floor Time 2.2

Getting Organized

You need to install the necessary Cognos applications to be able to use Deltek Costpoint Business Intelligence 8.2.12.

Required Cognos Downloads

To use Costpoint Business Intelligence 8.2.12, you need to download and install the required Cognos applications and updates.

While additional Cognos applications are available for download from the Deltek Support Center site (https://support.deltek.com), these are the only required applications:

- **Cognos Analytics Server Version 11.2.4 FP3** — Use the contents of this download to install the Cognos Analytics Server.
- **Cognos Analytics Framework Manager 11.2.4 FP3** — Use the contents of this download to install the Cognos Analytics Modeling software (Framework Manager and Map Manager).
- **Latest fix pack for Cognos Analytics 11.2.4** (if available) — Use the contents of this download to install the latest updates from IBM for your version of Cognos Analytics.

Required Deltek Download for Costpoint Business Intelligence

The required Deltek download from the Product Downloads page of the Deltek Support Center is the Costpoint Business Intelligence 8.2.12 installer.

Deltek also recommends that you download the Costpoint Business Intelligence documentation. Like the software itself, the documentation is available from the Product Downloads page.

Creating the Cognos Analytics Content Store

Before installing the Cognos Analytics software, you must configure the Content Store. The Content Store is the database used with Cognos Analytics.

You create your Content Store on your database server. You can create the Content Store as a Microsoft SQL Server database or an Oracle database.

This section provides detailed instructions for creating the Content Store using Microsoft SQL Server or Oracle.

Content Store in Microsoft SQL Server

You must have Microsoft SQL Server installed and configured correctly prior to creating the content store.

Use the following settings and guidelines on your Microsoft SQL Server:

- UTF-8 or UTF-16 encoding is used. Please see the Microsoft SQL Server documentation for more information about character sets, encoding, and collation.
- The collation sequence is case-insensitive. In a Custom installation, you choose a collation, which includes character sets and sort order, during the SQL Server setup. In a Typical installation, the installation uses the locale identified by the installation program for the collation. This setting cannot be changed later.
- The authentication mode for the database is set to SQL Server and Windows. For more information, see knowledge base article 269587 on the Microsoft Web site.
- The TCP/IP protocol is enabled. Cognos requires this protocol.

Creating the Content Store Using Microsoft SQL Server

To create the Cognos Analytics Content Store database, use the SQL Server Management Studio application.

To create the Cognos Analytics Content Store, complete the following steps:

1. On the computer that you will use as your database server, select **Programs** » **Microsoft SQL Server [XXXX]** » **SQL Server Management Studio** from the Windows Start menu.
2. On the Connect to Server dialog box, log into SQL Server Management Studio using the **sa** (system administrator) account username and password.
3. In the Object Explorer pane, right-click **Database**, and select **New Database**.
4. On the New Database dialog box, enter **cm** in the **Database name** field, and click **OK**. The new cm database is created.
5. Create a user account (Login) called **cognos** and grant it public and db_owner access to the cm database:
   a) In the **Object Explorer** pane on the left, expand the **Security** tree.
   b) Right-click **Login** and select **New Login**.

c) On the Login – New dialog box, create the new user by entering or selecting the following information:

- **Login name** — Enter **cognos**.
- **SQL Server authentication** — Select this option and enter a password in the **Password** field. Enter it again in the **Confirm Password** field.
- **Enforce password policy** — Clear this check box.
- **Default database** — Select **cm** (the database you created earlier in these instructions) from the list.

6. In the **Select a page** pane on the left, click **User Mapping**.
7. In the **Users mapped to this login** table, select **cm**. Then select **db_datareader**, **db_datawriter**, **db_ddladmin**, **db_owner** and **public** in the **Database role membership for: cm** list.
8. Click **OK**.
9. Close SQL Server Management Studio.

Creating the Content Store Using Oracle

If you use an Oracle database, you need to create the Cognos Analytics Content Store using Oracle.

The following list contains important information and steps for creating the Content Store in Oracle:

- Create the Content Store on the machine you will use as your database server.
- Create an Oracle database that uses a Unicode character set. This is required in the setup for Cognos and the Costpoint Business Intelligence software.
  - NLS_CHARACTERSET = AL32UTF8
  - NLS_NCHAR_CHARACTERSET = AL16UTF16

    Use this statement to verify that you are using the correct character set in the instance you use for the Cognos Content Store.

    SELECT * FROM NLS_DATABASE_PARAMETERS;
- Create the **cognos** user as the account that will access the database.
- Ensure that the user account that accesses the database has permission to do the following tasks:
  - Connect to the database
  - Create, alter, and drop tables, triggers, views, procedures, and sequences
  - Insert, update, and delete data in the database tables

    For example, grant the CONNECT and RESOURCE roles to the cognos11 account.
- Size the database as appropriate. Database sizing depends on variables such as concurrent users and saved reports.

> **Attention:** For details, see the *IBM Cognos Analytics Installation and Configuration Guide* (inst__cr_winux.pdf) for the version of Cognos Analytics that you use.

- Install the 32-bit client. Cognos Analytics does not support the 64-bit Oracle client.
- Use the following guidelines when installing the Oracle client:
  - Install the Oracle Administrator Client Utilities on the Cognos BI server.
  - You cannot connect to the Content Store using Oracle without first installing these utilities.
  - Establish a connection to the Oracle server where you have created the Content Store schema using the Oracle Configuration Assistant.
  - Install the Oracle Net Configuration Assistant.
  - After you install Cognos BI (see Installing Cognos BI Server), perform the following:

    Copy the necessary jar file from the ORACLE_HOME/jdbc/lib directory to <Cognos install location>\drivers directory.
    - For Oracle 11g, you must copy ojdbc5.jar.
    - For Oracle 12c, you must copy ojdbc7.jar.

  These files are available from an Oracle client or server install. You can also download jar files for your version of Oracle in the Oracle technology Web site.

> **Note:** The different JDBC drivers also depend on the version of Java that you are using.
>
> - If you are running Cognos with Java Runtime Environment (JRE) 1.5, use ojdbc5.jar.
> - If you are running JRE 1.6, use ojdbc6.jar

Installing Cognos Analytics with Watson

When you install the Cognos Analytics with Watson 11.2.4 FP3 software on your application server, the installation includes the Cognos Workspace, Reporting, and Data Modeling components.

This section includes instructions for installing the Cognos Analytics with Watson 11.2.4 FP3 software on your application server.

Note: Costpoint Business Intelligence leverages on Cognos Analytics software. The installation instructions in this section are just one of many possible installation solutions. In certain situations, the Costpoint Business Intelligence installation may require special consideration. There are variables that may affect your installation such as in the case of multiple server installation, load balancing, database replication, or firewall and DMZ deployments.

Attention: If you are performing an advanced installation, refer to the IBM documentation for this version of Cognos Analytics. It is also recommended that you contact ConsultingSalesRequest@deltek.com for assistance.

Cognos Analytics in 64-bit Environment

You can install Cognos Analytics in a 64-bit environment.

The default installation folder of Cognos Analytics 11 is C:\Program Files\ibm\cognos\analytics.

Note:

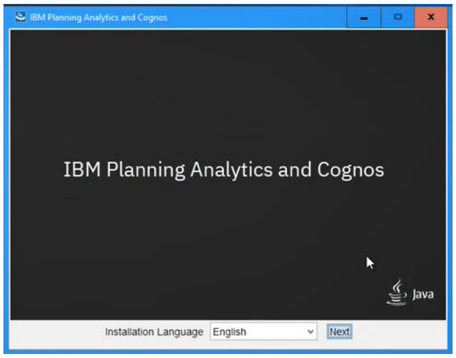
- Cognos Analytics Server components are the only true 64-bit components of Cognos Analytics. The 64-bit Cognos Analytics Server component must be installed on a 64-bit server.
- Cognos Analytics components (Framework Manager) are not 64-bit components, but they can be installed on the 64-bit server or on a separate 32-bit computer. If you install them on the 64-bit server, however, they must be in a separate directory from the 64-bit components.

Install Cognos Analytics Server 11

Install Cognos Analytics Server 11.2.4 FP3 software in your application server.

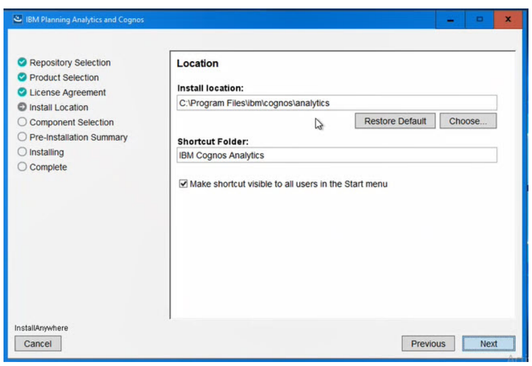
To install Cognos Analytics Server 11.2.4 FP3, complete the following steps:

1. Go to the location of the **analytics-installer-3.7.21-win.exe** that you downloaded from Deltek Software Manager.
2. Right-click **analytics-installer-3.7.21-win.exe** file and select **Run as administrator**.
3. Select the language that you want to use for the installation process, click **Next**.



4. On the **Let's get started!** screen, select **IBM Cognos Analytics - 11.2.4** and click **Next**.
5. On the **License Agreement** screen, review the agreement, select the **I accept the terms of the License Agreement** check box, and click **Next**.
6. On the **Location** screen, enter or select the folder in which you want to install the Cognos Analytics Server. Click **Next**.

   Note: Take note of the installation path that you use. You will need it for other installation and configuration tasks, such as configuring Microsoft IIS. The default folder will depend on the environment you are using.

   For upgrades, a dialog box may appear that tells you that your chosen location has files of your old Cognos Analytics installation and that they may be overwritten. Just click **Yes**. However, be sure that you have already made a back-up of your existing CER or Costpoint BI implementation. A dialog box may also appear that tells you that your files can be preserved. You can either select **Yes** to preserve, otherwise, click **No**.
7. On the **Choose components** screen, select **Content Tier**, **Application Tier**, and **Gateway**, and then click **Next**.
8. On the **Pre-Installation Summary** screen, review the information, and click **Install**.

   The installation progress displays at the bottom of the Installation Progress screen. When the installation is complete, the Finish screen displays.
9. Click **Done** to complete the installation.

Replace the JSQL Driver for MS SQL Server with MS JDBC Driver (For MS SQL Server Users only)

The JSQL driver for Microsoft SQL Server has been replaced with Microsoft JDBC driver starting in IBM Cognos Analytics 11.0.5 onwards.

> **Note:** Verify if you already have the latest driver in **C:\Program Files\ibm\cognos\analtyics\drivers**. If you have the correct JDBC Driver version, you can skip this step and proceed to the next.

For Cognos Analytics 11.0.8 and later, use **sqljdbc42.jar**. Download the **sqljdbc42.jar** file from Microsoft and copy to your Cognos server's *install location*\drivers directory.

> **Note:** The MS JDBC driver will depend on the MS SQL server database that you are using. Go to the Microsoft website as reference when choosing the right JAR file. Just make sure that it is for JRE 8.0.

For example, copy **sqljdbc42.jar** to **C:\Program Files\ibm\cognos\analtyics\drivers**.

To learn more about other configuration actions, see the IBM website, Critical Configuration Actions.

Replace the ODBC Driver for Oracle Server (for Oracle 12 Server Users only)

For Oracle 12 users, copy the **odbc7.jar** file from Oracle into the **C:\Program Files\ibm\cognos\analytics\drivers** folder in your Cognos server.

Install Costpoint Business Intelligence Software

There are default folder locations when you install Costpoint Business Intelligence.

Default Installation Locations for Costpoint Business Intelligence 8.2.12 Models

The Costpoint Business Intelligence installation copies various files into the default directory location or a location that you specify.

The default Costpoint Business Intelligence installation location for both 32-bit and 64-bit installations is C:\Program Files (x86)\Deltek\CostpointBusinessIntelligence\CBI8212.

The following types of files are copied into the default Costpoint Business Intelligence installation location or a location that you specify.

Folder	Files
/Accounts Payable	Model files (.cpf and .xml files) for Accounts Payable
/Accounts Receivable	Model files (.cpf and .xml files) for Accounts Receivable
/Billing	Model files (.cpf and .xml files) for Billing
/Costpoint Administration	Model files for Costpoint Enterprise Reporting for Costpoint Administration
/CRM & Contracts	Model files (.cpf and .xml files) for Contract and Opportunity Management
/Deploy	Deployment Files
/Employee	Model files (.cpf and .xml files) for Employee
/Expense	Model files (.cpf and .xml files) for Expense
/Fixed Assets	Model files for Costpoint Enterprise Reporting for Fixed Assets
/General Ledger	Model files (.cpf and .xml files) for General Ledger
/Human Resources	Model files for Costpoint Enterprise Reporting for Human Resources and Payroll
/Incurred Cost Submission	Grant scripts and model files for Incurred Cost Submission (ICS) Reporting
/Labor	Model files (.cpf and .xml files) for Labor
/Manufacturing	Model files for Costpoint Enterprise Reporting for Project Manufacturing

Folder	Files
/Materials	Model files for Costpoint Enterprise Reporting for Materials
/Payroll	Model files for the Payroll package
/Planning	Model file for Project Planning Reporting and Analysis
/Procurement	Model files for Costpoint Enterprise Reporting for Procurement
/Projects	Model files for Project Reporting and Analysis
/Shop Floor Time	Model files for Costpoint Enterprise Reporting for Costpoint Shop Floor Time
/SOX	Scripts and model files for Sarbanes-Oxley for Costpoint and Time and Expense
/Subcontractor Management	Model files for Subcontractor Management
/Time	Model files for Time
/zLegacy	Model files for the legacy models, Budgeting and Planning, Costpoint Enterprise Reporting, and Fixed Assets
/zSupport Files	Files such as font, theme, extension and the files needed to install Costpoint Authentication Provider (CAP) 8.2

Installation Procedure

After downloading the installer and satisfying all the prerequisites described in System Compatibility Requirements, you are ready to begin the installation.

To install Costpoint Business Intelligence, complete the following steps:

1. Download Costpoint Business Intelligence and extract the contents of the file.
2. From the application server, go to the folder where you downloaded Costpoint Business Intelligence installation file.
3. Right-click the **DeltekCostpointBusinessIntelligence8_2_12.exe** file, and click the **Run as Administrator** option to start the installation process.
4. Read the information on the Welcome screen, and click **Next**.

   Tip: Deltek recommends that you close all other open programs before continuing with the installation.

5. On the Destination Folder screen, accept the default location, or click **Change** to select a different installation folder, and click **Next**.

> **Note:** The C: drive can be used as the initial installation location, but the models should not be permanently stored on the C: drive because C: drives are not usually backed up. The permanent location of the models and reports should be a network drive that gets backed up regularly.

6. On the Cognos Options screen, do one of the following actions:
   - If you are installing in a non-Cognos server, clear the **Cognos Server** check box and click **Next**.
   - If you are installing in a Cognos server, select the **Cognos Server** check box, and then specify the Cognos Install Folder Location. Click **Next**.
7. On the Ready to Install the Program screen, click **Install**.

   > **Warning:** Do not cancel the installation during this step because folders are being created in your drive, and the models are being extracted from the installation and stored in these folders.

8. When the InstallShield Wizard Completed screen displays, click **Finish**.

Configuring Microsoft IIS with Cognos Analytics

After you install the required Cognos downloads, you need to configure Microsoft Internet Information Services (IIS) for use with Cognos.

To set up IIS with Cognos Analytics, an automated procedure is available on the IBM website, Automate the configuration of Microsoft's Internet Information Service to support IBM Cognos Analytics.

Note: As of Cognos Analytics 11.1.2, the Cognos Analytics 11 and IIS configuration batch file is now available in the software. The file is located in **analytics\cgi-bin\templates\IIS** directory.

Note: You need the following features installed in your Microsoft IIS as pre-requisite to run the automated procedure:

- **Web Server (IIS)** » **Security** » **Request Filtering and Windows Authentication**
- **Web Server (IIS)** » **Application Development** » **ISAPI Extensions and ISAPI Filters**
- **Web Server (IIS)** » **Management Tools** » **IIS Management Console and IIS Management Scripts and Tools**

If you prefer the manual process, you can follow the Configuring IIS with Cognos Analytics procedure.

Note: If you are using Microsoft Windows Server 2016, you might encounter an error where IIS URL Rewrite Module 2 is required. Follow the procedures in the following sections to configure the gateway:

- Install URL Rewrite 2.1
- Install ARR 3.0 x64

Install Microsoft IIS for Cognos Analytics with PowerShell (Admin)

Install the IIS prerequisites for Cognos Analytics.

To install the IIS features:

1. Open Windows PowerShell (Admin).
2. Run the command:

```
Install-WindowsFeature -Name Web-Server,Web-Windows-Auth,Web-
ISAPI-Ext,Web-ISAPI-Filter,Web-Scripting-Tools -
IncludeManagementTools
```

3. Run this command to verify the installed features:

```
get-WindowsFeature -name Web-*
```

Administrator: Windows PowerShell

```
PS C:\Windows\system32> Install-WindowsFeature -Name Web-Server,Web-Windows-Auth,Web-ISAPI-Ext,Web-ISAPI-Filter,
Web-Scripting-Tools -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
------- -------------- ---------      --------------
True    No             Success        {Application Development, Common HTTP Feat...

PS C:\Windows\system32> get-windowsfeature -name web-*

Display Name                                            Name                       Install State
------------                                            ----                       -------------
    [ ] Web Application Proxy                           Web-Application-Proxy          Available
[X] Web Server (IIS)                                    Web-Server                     Installed
    [X] Web Server                                      Web-WebServer                  Installed
        [X] Common HTTP Features                        Web-Common-Http                Installed
            [X] Default Document                        Web-Default-Doc                Installed
            [X] Directory Browsing                      Web-Dir-Browsing               Installed
            [X] HTTP Errors                             Web-Http-Errors                Installed
            [X] Static Content                          Web-Static-Content             Installed
            [ ] HTTP Redirection                        Web-Http-Redirect              Available
            [ ] WebDAV Publishing                       Web-DAV-Publishing             Available
        [X] Health and Diagnostics                      Web-Health                     Installed
            [X] HTTP Logging                            Web-Http-Logging               Installed
            [ ] Custom Logging                          Web-Custom-Logging             Available
            [ ] Logging Tools                           Web-Log-Libraries              Available
            [ ] ODBC Logging                            Web-ODBC-Logging               Available
            [ ] Request Monitor                         Web-Request-Monitor            Available
            [ ] Tracing                                 Web-Http-Tracing               Available
        [X] Performance                                 Web-Performance                Installed
            [X] Static Content Compression              Web-Stat-Compression           Installed
            [ ] Dynamic Content Compression             Web-Dyn-Compression            Available
        [X] Security                                    Web-Security                   Installed
            [X] Request Filtering                       Web-Filtering                  Installed
            [ ] Basic Authentication                    Web-Basic-Auth                 Available
            [ ] Centralized SSL Certificate Support     Web-CertProvider               Available
            [ ] Client Certificate Mapping Authentic... Web-Client-Auth                Available
            [ ] Digest Authentication                   Web-Digest-Auth                Available
            [ ] IIS Client Certificate Mapping Authe... Web-Cert-Auth                  Available
            [ ] IP and Domain Restrictions              Web-IP-Security                Available
            [ ] URL Authorization                       Web-Url-Auth                   Available
            [X] Windows Authentication                  Web-Windows-Auth               Installed
        [X] Application Development                     Web-App-Dev                    Installed
            [ ] .NET Extensibility 3.5                  Web-Net-Ext                    Available
            [ ] .NET Extensibility 4.7                  Web-Net-Ext45                  Available
            [ ] Application Initialization              Web-AppInit                    Available
            [ ] ASP                                     Web-ASP                        Available
            [ ] ASP.NET 3.5                             Web-Asp-Net                    Available
            [ ] ASP.NET 4.7                             Web-Asp-Net45                  Available
            [ ] CGI                                     Web-CGI                        Available
            [X] ISAPI Extensions                        Web-ISAPI-Ext                  Installed
            [X] ISAPI Filters                           Web-ISAPI-Filter               Installed
            [ ] Server Side Includes                    Web-Includes                   Available
            [ ] WebSocket Protocol                      Web-WebSockets                 Available
    [ ] FTP Server                                      Web-Ftp-Server                 Available
        [ ] FTP Service                                 Web-Ftp-Service                Available
        [ ] FTP Extensibility                           Web-Ftp-Ext                    Available
    [X] Management Tools                                Web-Mgmt-Tools                 Installed
        [X] IIS Management Console                      Web-Mgmt-Console               Installed
        [ ] IIS 6 Management Compatibility              Web-Mgmt-Compat                Available
            [ ] IIS 6 Metabase Compatibility            Web-Metabase                   Available
            [ ] IIS 6 Management Console                Web-Lgcy-Mgmt-Console          Available
            [ ] IIS 6 Scripting Tools                   Web-Lgcy-Scripting             Available
            [ ] IIS 6 WMI Compatibility                 Web-WMI                        Available
        [X] IIS Management Scripts and Tools            Web-Scripting-Tools            Installed
        [ ] Management Service                          Web-Mgmt-Service               Available
[ ] IIS Hostable Web Core                               Web-WHC                        Available
```

Install URL Rewrite 2.1

URL Rewrite 2.1 is required.

To install URL Rewrite 2.1:

1. On your web browser, go to the Microsoft website URL Rewrite.

   Note: In case your machine does not have access direct internet connection, do this in a separate machine. And then, copy the URL Rewrite installer to your server.

2. Look for the link where you can download the URL Rewrite Module 2.1.
3. After downloading, you will see the **urlrewrite2.exe**. Copy this file in your server.
4. Right-click **urlrewrite2.exe** and click **Run as administrator**.
5. Follow the installation instructions.

Install ARR 3.0 x64

Microsoft Application Request Routing (ARR) 3.0 (x64) is required.

To install ARR 3.0 x64:

1. On your web browser go to the Microsoft website, Microsoft Application Request Routing 3.0 (x64).

   Note: In case your machine does not have access direct internet connection, do this in a separate machine. And then, copy the ARR 3.0 x64 installer to your server.

2. Click **Download**.
3. After downloading, you will see the **requestRouter_amd64.msi**. Copy this file in your server.
4. Right-click **requestRouter_amd64.msi** and click **Install**.
5. Follow the installation instructions.

Edit and Run the CA_IIS_Config.bat Script

There is an automated way to configure IIS with Cognos Analytics. However, you need to edit the CA_IIS_Config.bat script file first before you run it.

You need to have access to Microsoft's Internet Information Service's appcmd command line tool to run the batch script included in this procedure. Your Microsoft IIS should also have the following features:

- **World Wide Web Services** » **Application Development Features** » **ISAPI Extentions and Isapi Filters**
- **World Wide Web Services** » **Security** » **Request Filtering and Windows Authentication**

Also, Deltek recommends that you back up IIS before running this configuration tool.

To edit and run CA_IIS_Config.bat Script:

1. On your web browser, go to the IBM website, Automate the configuration of Microsoft's Internet Information Service to support IBM Cognos Analytics.
2. On the website, look for the **CA_IIS_Config_v2(03.29.19).zip** file and download.
3. Copy the zip file to your server.
4. Go back to the IBM website and follow the instructions.

Costpoint Business Intelligence URL

After you set up the gateway, the URL might have changed when you did the manual instructions or ran the batch script.

The URL will be either one of the following:

- http://svr/analytics/bi/
- http://svr/ibmcognos/bi/

The trailing slash is required.

Note: These URLs are presented as reference. They will only work if the Cognos service has been configured and started.

Copy Deployment Files

During the Costpoint Business Intelligence installation, report package files are copied to the C:\Program Files (x86)\Deltek\CostpointBusinessIntelligence\CBI8212\Deploy folder.

The filename of the zip file is **CPBI 8.2.12.zip**.

The installation also copies the deployment file to the <*Cognos Installation directory*>\Deployment folder (for example, C:\Program Files\ibm\cognos\analytics\deployment) to make it available for selection from the Cognos Administration screen later in the configuration process.

Attention: See Configuring Data Sources Using Cognos Administration for details

Configuring the Cognos Analytics Data Access from Cognos Configuration

You must configure the Cognos Analytics Data Access object to point to the **cm** Content Store database that you created using the instructions in the Creating the Cognos Analytics Content Store section.

You perform this configuration on the database server. Follow the instructions for Microsoft SQL Server or for Oracle, depending on your database platform.

Configure the Data Access Object for Microsoft SQL Server

From your Microsoft SQL database server, you need to specify the Cognos Content Store and Notification settings on the Data Access object in IBM Cognos Configuration.

To configure the Data Access object, complete the following steps:

1. From your Cognos server, open IBM Cognos Configuration.
2. From the **Explorer** pane on the left side of the screen, expand **Data Access** » **Content Manager**, and click **Content Store**.
3. If a **Content Store** exists for a type other than your database platform, right-click **Content Store** and select **Delete**. If there's none, skip this step.
4. Right-click **Content Manager** and select **New resource** » **Database**.
5. Enter **Content Store** as **Name** and select **Microsoft SQL Server database** as **Type(Group)**.
6. Enter the following for the other fields on the **Content Store** section:

Option	Description
Database Server with port number	Enter your database server and port. The default port is **1433** for SQL Server. For example, **localhost:1433**
User ID and password	Enter **cognos** as the user and enter the password you set up in SQL Server.
Database name	Enter **cm**

7. If you are setting up email notification now, select **Notification** under **Data Access** in the **Explorer** pane, and enter the following:

Option	Description
SMTP mail server	Enter the SMTP email server.
Account and password	Enter the authentication information, if necessary.

Option	Description
Default sender	Enter the email address of the default sender.

Note: If you do not set up notification information at this point, when you start the Cognos Analytics Server from Cognos Configuration, you will receive a mail server setup error. You can ignore the error and continue starting up the server. You can set up the SMTP mail server information at a later time.

8. Click on the toolbar to save changes.
9. Click on the toolbar to start the service and test connectivity.
10. If prompted, click **Yes** to save changes and continue.
    A dialog box displays the server startup status.
11. When the process is complete, click the **Details** button to review the details.
12. Close the dialog box, and exit Cognos Configuration.

Note: If you receive an installation error message, the prerequisite Microsoft SQL TCP/IP protocol may not be enabled. See Troubleshoot Your Installation: Enable TCP/IP Protocol for additional information.

Configuring the Data Access Object for Oracle

From your Oracle database server, you need to specify the Cognos Content Store and Notification settings on the Data Access object in IBM Cognos Configuration.

To configure the Data Access object for Oracle, complete the following steps:

1. From the database server, open IBM Cognos Configuration.
2. From the **Explorer** pane on the left side of the screen, expand **Data Access** » **Content Manager**, and click **Content Store**.
3. If a content store exists for a type other than your database platform, right-click **Content Store** and select **Delete**. If there's none, skip this step.
4. Right-click **Content Manager** and select **New resource** » **Database**.
5. Enter **Content Store** as **Name** and select **Oracle database** as **Type(Group)**.
6. Enter the following for the other fields on the **Content Store** section:

Option	Description
Database Server and port number	Enter your database server and port.
User ID and password	Enter **cognos** as the user and enter the password you set up in Oracle.

Option	Description
Service name	Enter **cm**.

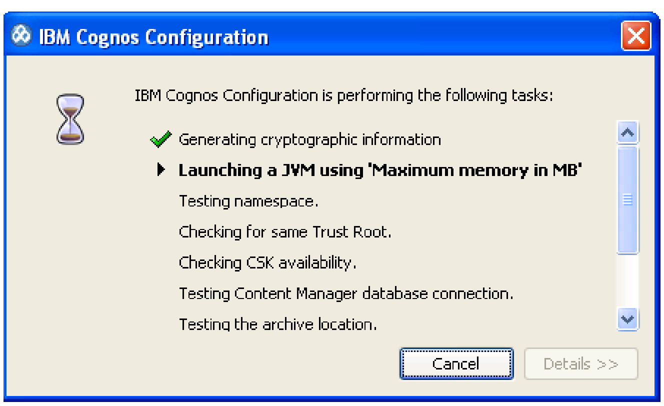
7. If you are setting up email notification now, select **Notification** under **Data Access** in the **Explorer** pane, and enter the following:

Option	Description
SMTP mail server	Enter the SMTP email server.
Account and password	Enter the authentication information, if necessary.
Default sender	Enter the email address of the default sender.

> **Note:** If you do not set up notification information at this point, when you start the Cognos Analytics Server from Cognos Configuration you will receive a mail server setup error. You can ignore the error and continue starting up the server. You can set up the SMTP mail server information at a later time.

8. Click on the toolbar to save changes.
9. Click on the toolbar to start the service and test the connectivity.
10. If prompted, click **Yes** to save changes and continue.

    A dialog box displays the server startup status.



11. When the process is complete, review the details by clicking the **Details** button.
12. Close the dialog box, and exit Cognos Configuration.

Configuring Data Sources Using Cognos Administration

You need to specify data source connection settings for Costpoint, Time & Expense, Costpoint Planning, and Shop Floor Time in Cognos Administration.

Refer to the Microsoft SQL Server or Oracle procedure, depending on your database platform.

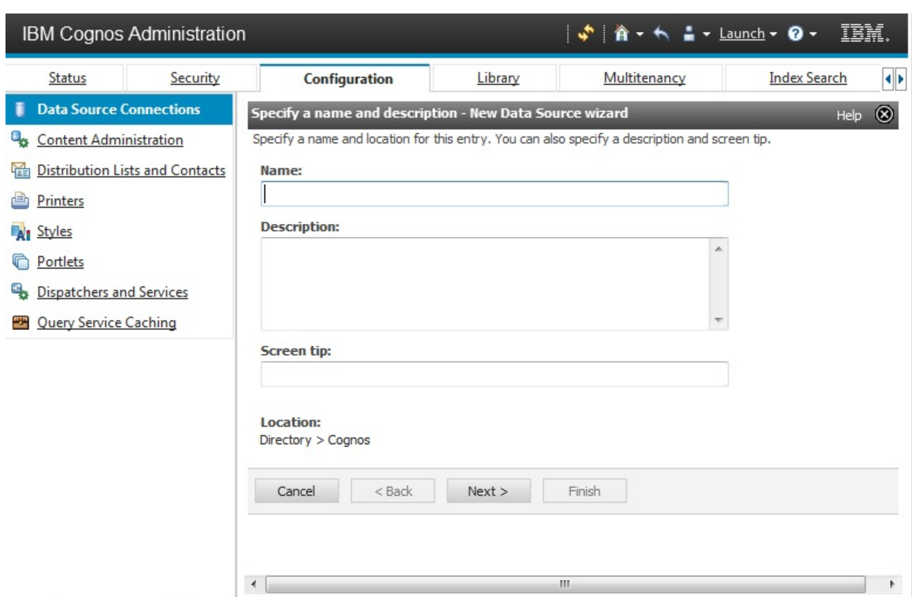
Configure Microsoft SQL Server Data Sources

From your Microsoft SQL database server, you need to specify the data source connections for Costpoint, Time & Expense, TESS, Costpoint Planning, and Shop Floor Time in IBM Cognos Administration.

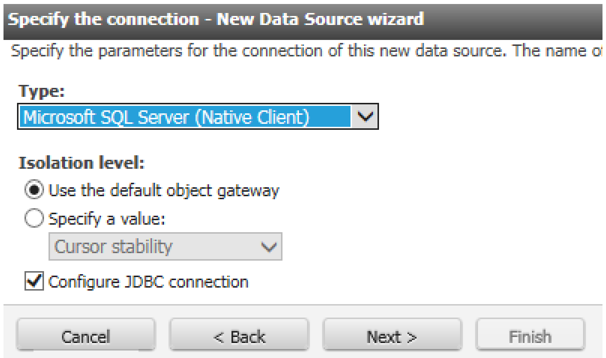
The Microsoft SQL Server Native Client software and Microsoft SQL Server Management Studio needs to be installed in the IBM Cognos server(s). The Microsoft SQL Server should be listed in the Windows Programs and Features list in the Cognos server. To know more about how to download the SQL Server Management Studio (SSMS), click here.

To configure Microsoft SQL Server Data Sources using Cognos Administration, complete the following steps:

1. Open your web browser and open the Cognos Analytics portal (http://<your host server name>:9300/bi/).
2. Click the Open menu ( ) and then click **Manage** » **Administration console**.
3. From Cognos Administration, click the **Configuration** tab.
4. Click the **New Data Source** icon ( ) in the upper-right corner of the screen.
5. In the **Name** field, enter **Costpoint** as the data source name, and click **Next**.



6. On the Specify the connection screen, select **Microsoft SQL Server (Native Client)** in the **Type** field, select the **Configure JDBC connection** check box, and click **Next**.



7. On the Specify the Microsoft SQL Server (Native Client) connection string screen, perform the following:

Option	Description
Server Name	Enter the name for the server of the database.
Database Name	Enter the name for the database.
Signons	Select this option in the **Signons** section.
Password	Select this check box.
Create a signon that the Everyone group can use	Select this check box.
User ID	Enter your Costpoint user ID.
Password/Confirm Password	Enter the password associated with your user ID.

8. At the bottom of the Specify the Microsoft SQL Server (Native Client) connection string screen, click the **Test the connection** link to test the database connection.
9. On the Test the connection screen, click **Test** to check the connection parameters.
10. On the View the results screen, click **Close**, and on the Test the connection screen, click **Close** again.
    The parameters you set for your database connection displays.
11. If the connection test worked, click **Next**.

    If not, make changes as necessary and test again.

12. On the Specify the Microsoft SQL Server (JDBC) connection string screen, enter the **Server name** and **Database name**. Fill out the rest of the fields based on your database setup.
13. On the Test the connection screen, click **Test** to check the connection parameters.
14. On the View the results screen, click **Close**, and on the Test the connection screen, click **Close** again.
15. Click **Next**.
16. On the Specify the commands screen, click **Finish**.
17. Repeat steps 4 – 16 for the following:

Application	Instructions
Costpoint	Use the following data source names: ▪ **COSTPOINT** — Enter the appropriate user ID and password information for this data source. ▪ **COSTPOINT_ADMIN** — Enter the appropriate user ID and password information for this data source. ▪ **COSTPOINT_SYSTEM** — Enter the appropriate user ID and password information for this data source.
Time & Expense	Use **TESS** as the data source name, and enter the appropriate user ID and password information for this data source.
Costpoint Planning	Use **DeltekBP** as the data source name, and enter the appropriate user ID and password information for this data source.
Shop Floor Time	Use **SFT** as the data source name, and enter the appropriate user ID and password information for this data source.

Configure Oracle Data Sources

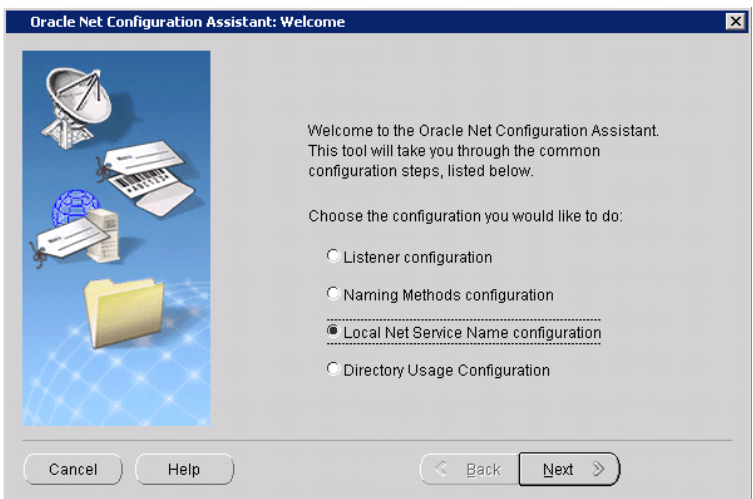
Oracle users must first create the Cognos Analytics database and the Costpoint TNSNAMES, and then they must configure the data source using Cognos Administration.

Creating the Cognos Analytics Database and Costpoint TNSNAMES

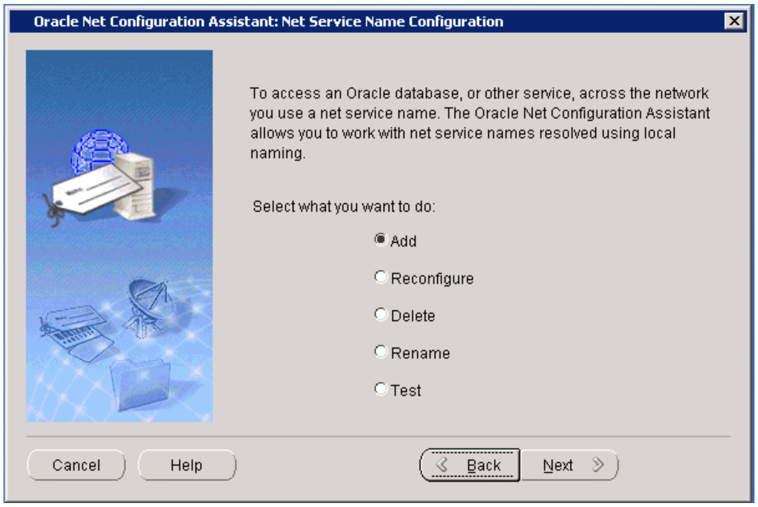
Set the Cognos Analytics Database and Costpoint TNSNAMES in the Oracle Net Configuration Assistant.

To create the Cognos Analytics database and Costpoint TNSNAMES on the Cognos server, complete the following steps:

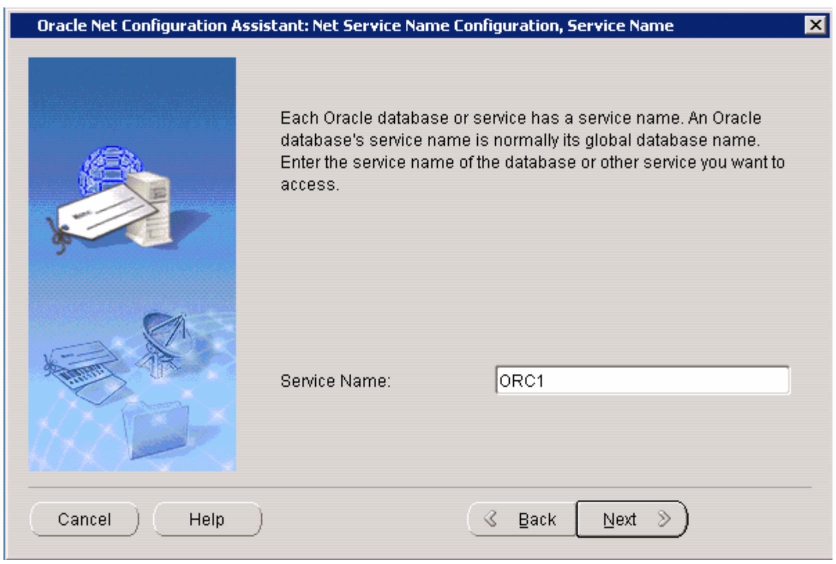
1. Take one of the following actions to open the Net Configuration Assistant to create a connect string to the Costpoint data:
   - On UNIX, run **netca** from $ORACLE_HOME/bin.
   - On Windows, click **Start** » **Programs** » **Oracle - HOME_NAME** » **Configuration and Migration Tools** » **Net Configuration Assistant**.
2. On the Welcome screen, select **Local Net Service Name configuration**, and click **Next**.



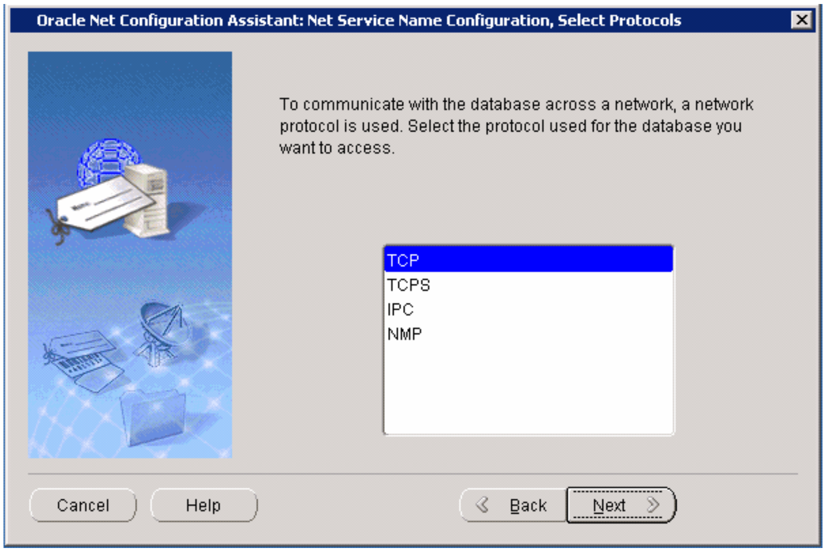
3. On the Net Service Name Configuration screen, select **Add**, and click **Next**.



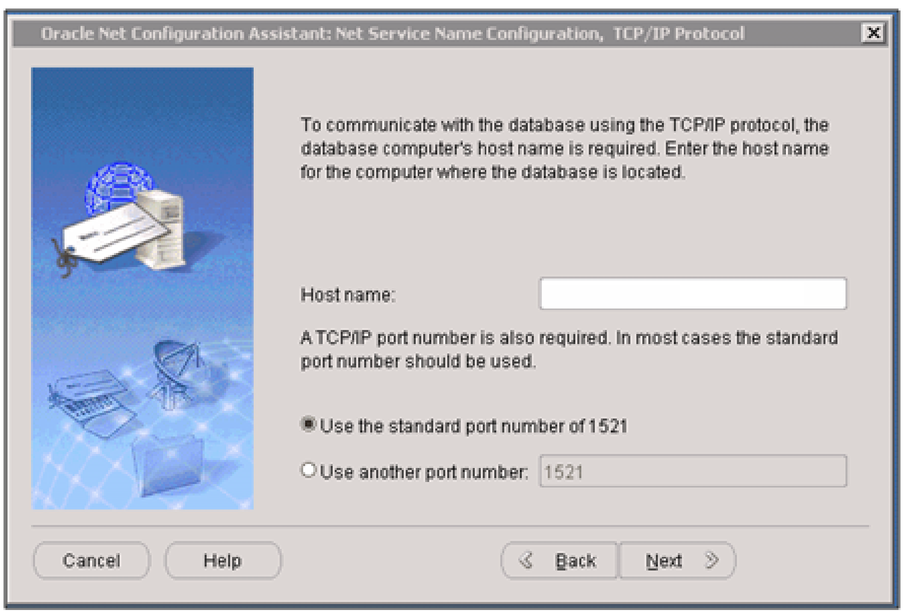
4. On the Service Name screen, enter the service name for the Costpoint data in the **Service Name** field, and click **Next**.



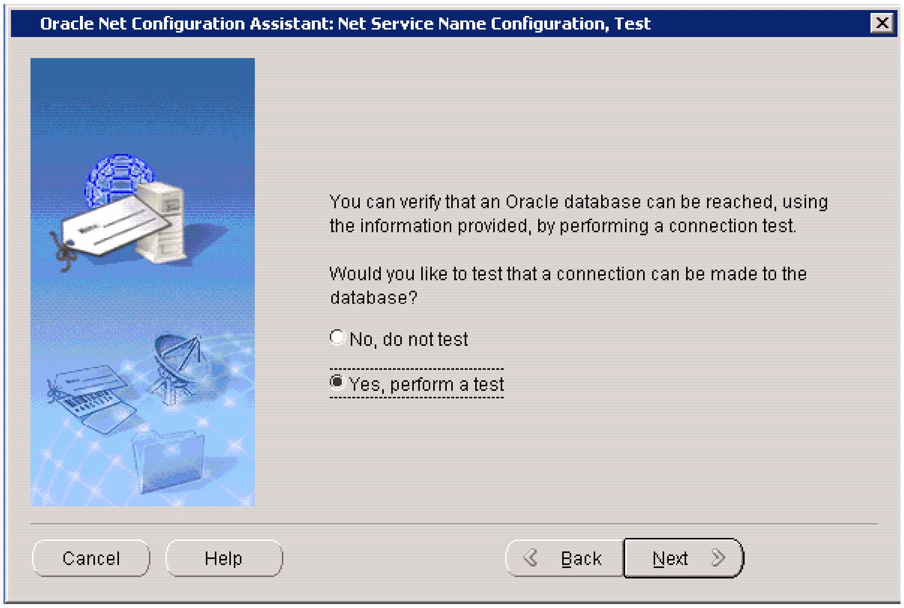
5. On the Select Protocols screen, select **TCP**, and click **Next**.



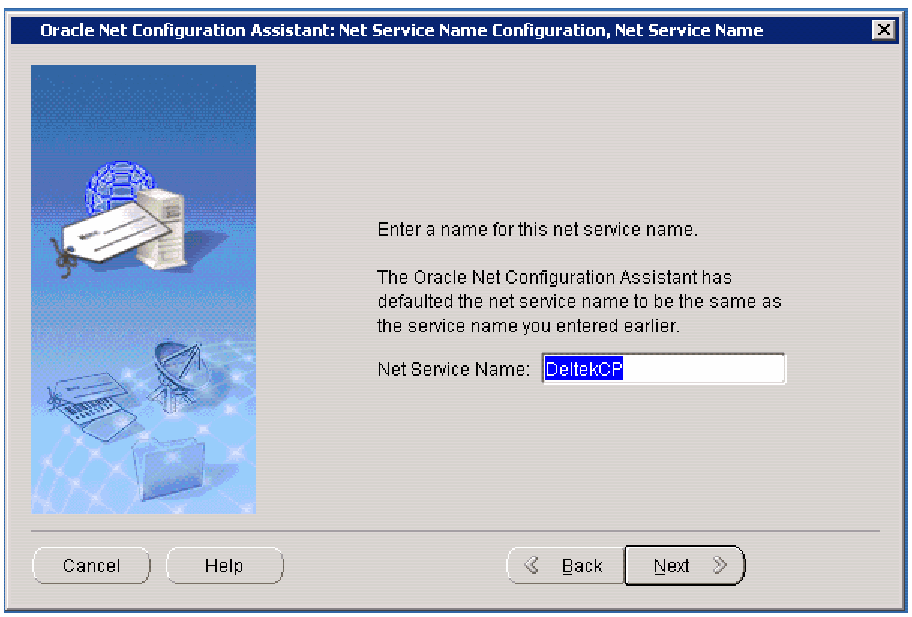
6. On the TCP/IP Protocol screen, enter the server or hostname in the **Host name** field, and click **Next**.



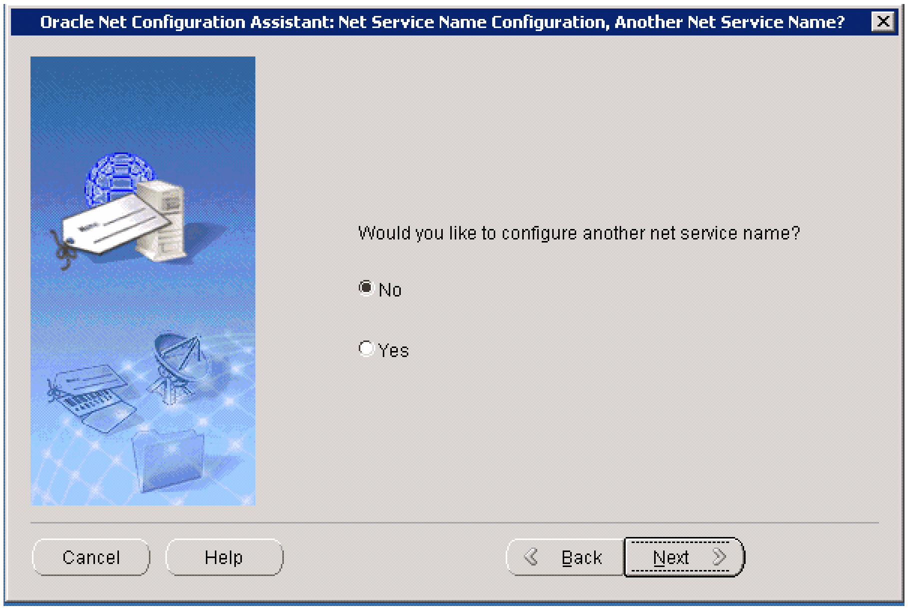
7. On the Test screen, select **Yes, perform a test**, and click **Next**.



8. On the Net Service Name screen, enter a **Net Service Name**, and click **Next**.



9. On the Another Net Service Name screen, select **No**, and click **Next**.



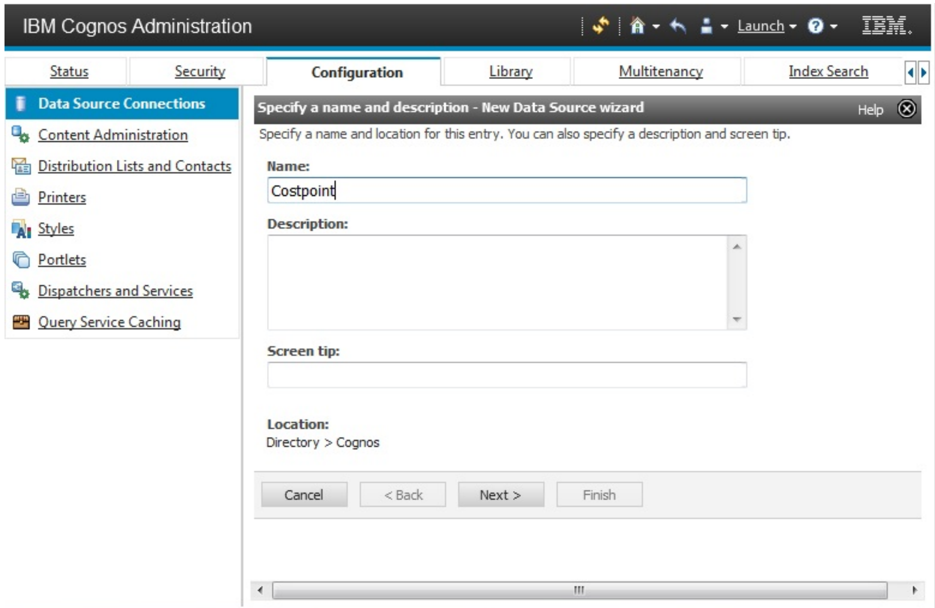
10. Click **Finish** to complete the procedure.

Configure the Oracle Data Source Using Cognos Administration

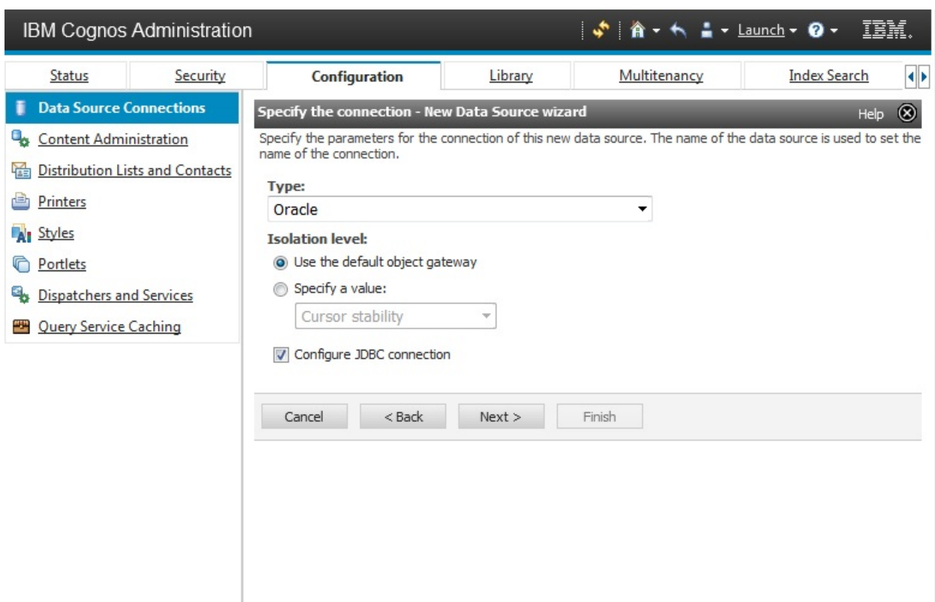
Set your Oracle data sources for Costpoint, TESS, COSTPOINT_ADMIN, and SFT in IBM Cognos Administration.

To configure Oracle data sources, complete the following steps:

1. On your web browser, open the Cognos Analytics Welcome portal (http://<your host server name>:9300/bi/).
2. On the Welcome portal screen, click **Manage** » **Administration console**.
3. From Cognos Administration, click the **Configuration** tab.
4. In the left pane, click **Data Source Connections**.
5. Click the **New Data Source** icon ( ) in the upper-right corner of the screen.
6. In the **Name** field, enter **Costpoint** as the data source name, and click **Next**.



7. In the **Type** field, select **Oracle**.



8. Click **Next**.
9. On the Specify Oracle connection string screen, perform the following:

Option	Description
SQL Net connect string	Enter the connection string to connect to the Costpoint data. This is the name you entered in the **Service Name** field in the Oracle Net Configuration Assistant during creation of the Content Store (for example, **ORC1**).

Option	Description
User ID	Select this check box in ths **Signon** section.
Password	Select this check box.
Create a signon that the Everyone group can use	Select this check box.
User ID	Enter your Costpoint user ID.
Password/Confirm Password	Enter the password associated with your user ID.

10. At the bottom of the Specify the Oracle connection string screen, click the **Test the connection** link to test the database connection.
11. On the Test the connection screen, click **Test** to check the connection parameters.
12. On the View the results screen, click **Close**, and on the Test the connection screen, click **Close** again.
    The parameters you set for your database connection displays.
13. If the connection worked, click **Next**.

    If not, make the necessary changes and test again.
14. Click **Finish**.
15. Repeat steps 4 – 14 to connect to the data sources for the following:

Application	Instructions
Costpoint	Use the following data source names: ▪ **COSTPOINT** — Enter the appropriate user ID and password information for this data source. ▪ **COSTPOINT_ADMIN** — Enter the appropriate user ID and password information for this data source. ▪ **COSTPOINT_SYSTEM** — Enter the appropriate user ID and password information for this data source.

Application	Instructions
Time & Expense	Use **TESS** as the data source name, and enter the appropriate user ID and password information for this data source.
Shop Floor Time	Use **SFT** as the data source name, and enter the appropriate user ID and password information for this data source.

Importing Deltek Content into Cognos Analytics

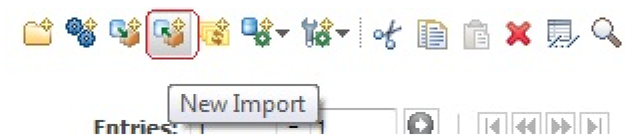
You must specify the folders and packages that you want to include in the import. If you want to add or remove packages or folders, you can also use your existing settings in IBM Cognos Administration. Make sure that you import Cognos groups and roles as well.

Import Deltek Content

Set up the folders and packages that you want to include in the import on IBM Cognos Administration. Include the Cognos user groups and roles as well.

To import Deltek content into Cognos Analytics, complete the following steps:

1. On your web browser open the Cognos Analytics portal (http://<your host server name>:9300/bi/).
2. Click the open **Manage** » **Administration Console**.
3. From Cognos Administration, click the **Configuration** tab.
4. Click **Content Administration** in the left pane.
5. Click the **New Import** icon in the upper-right corner of the screen.



Warning: Deltek does not recommend deploying Deltek content to any location other than the standard location under Team Content because of the danger of breaking links to packages, common library reports, drill reports, and security permissions. However, if you want to deploy Deltek reports to a different location, it is important that you read the information in the Deploying Reports to a Location Other Than the Standard Location topic before you begin the import procedure.

6. On the Select a deployment archive screen, select **CPBI 8.2** or **CPBI 8.2.x** from the available options depending on the version that you want to apply, and click **Next**.
7. Enter **InstallCPBI** in the **Password** field.

Note: This password is required by IBM Cognos Analytics to unzip a data set into the content store upon installation. In this version Deltek has provided a Calendar Data Set which allows for using relative time (such as, Current Period, Prior Year Period, and so on) in a data module. The inclusion of this data set has caused the need for this password.

8. On the Specify a name and description screen, click **Next**.
9. On the Select the public folders, directory and library content screen, select the check box for the folders and packages that you want to include in the import, and click **Next**.

10. On the Select the directory content screen, select the **Include Cognos groups and roles** check box. Select **Keep existing entries**. Click **Next**.
11. On the Specify the general options screen, select the **Include access permissions** check box. And then select **Apply to new entries only** option. Click **Next**.
    A summary of your import parameters displays.
12. Review the summary information and when ready, click **Next**.
13. Select the **Save and run once** option, and click **Finish**.
14. From the Run with options screen, click **Run**.
15. Click **OK** to confirm the run options.

Company Content

The Company Content in Costpoint BI is an area where you can organize your custom BI content.

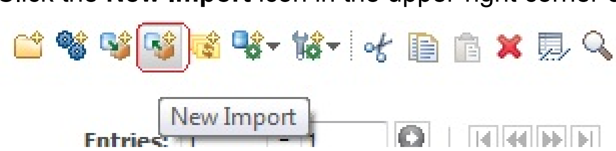
As part of the installation, Deltek provides a pre-established folder structure which is secured using our standard security groups so that your organization can get started right away and also fully utilize the Menu Report tab. See the Menu Report section of the *Deltek Costpoint Business Intelligence 8.2.12 Team Content Guide* or the Menu Report topic in Costpoint Administration of the online help to know more about this Menu Report. Deltek recommends that you import the Company Content folder and use it for your custom reports. This reduces the risk of future Deltek upgrades overwriting your customization. However, you can organize and secure your Company Content folder anyway you desire. This structure is simply provided as a quick start.

Optional: Import Company Content

Deltek recommends that you import the Company Content folder, but this is an optional step

To import Company Content:

1. On your web browser open the Cognos Analytics portal (http://<your host server name>:9300/bi/).
2. Click the open **Manage** » **Administration Console**.
3. From Cognos Administration, click the **Configuration** tab.
4. Click **Content Administration** in the left pane.
5. Click the **New Import** icon in the upper-right corner of the screen.



6. On the Select a deployment archive screen, select **CPBI 8.2 Companycontent** from the available options, and click **Next**.
7. On the Specify a name and description screen, click **Next**.
8. On the Select the public folders, directory and library content screen, select the check box for the folders and packages that you want to include in the import, and click **Next**.

9. On the Select the directory content screen, select the **Include Cognos groups and roles** check box. Select **Keep existing entries**. Click **Next**.
10. On the Specify the general options screen, select the **Include access permissions** check box. And then select **Apply to new entries only** option. Click **Next**.
    A summary of your import parameters displays.
11. Review the summary information and when ready, click **Next**.
12. Select the **Save and run once** option, and click **Finish**.
13. From the Run with options screen, click **Run**.
14. Click **OK** to confirm the run options.

Installing the Cognos Framework Manager

You will need to install Cognos Framework Manager on your application server to be able to manage the Framework Manager models in Costpoint Business Intelligence.

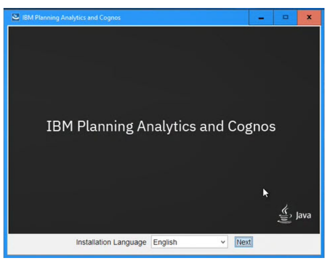
> **Attention:** If you are performing an advanced installation, refer to the IBM website of how to install Cognos Analytics with Watson 11.2.x. It is also recommended that you contact ConsultingSalesRequest@deltek.com for assistance.

Install Cognos Framework Manager 11.2.4 FP3

When you install Cognos Framework Manager 11.2.4 FP3 on your application server, you should select the client repository file.

To install Cognos Framework Manager 11, complete the following steps:

1. Go to the location of the **analytics-installer-3.7.21-win.exe** that you downloaded from Deltek Software Manager.
2. Right-click **analytics-installer-3.7.21-win.exe** and select **Run as administrator**.
3. On the first screen, select the language that you will use for the installation. Click **Next**.



4. On the **Let's get started!** screen, select **IBM Cognos Framework Manager - 11.2.4**. Click **Next**.
5. On the **License Agreement** screen, read the agreement, select the **I accept the terms of the License Agreement** check box, and click **Next**.
6. On the **Location** screen, enter or select the folder where you want to install Cognos Framework Manager, and click **Next**.

   > **Note:** The default folder depends if you use a 32-bit or 64-bit environment.

   For upgrades, a dialog box may appear that tells you that your chosen location has files of your old Cognos Analytics installation and that they may be overwritten. Just click **Yes**. However, be sure that you have already made a back-up of your existing CER or Costpoint BI implementation. In addition, old files may also be preserved and a dialog box will display during this step that has the directory location.
7. On the **Pre-Installation Summary** screen, review the information and click **Install**. The installation progress displays at the bottom of the screen. When the installation is complete, the Finish screen displays.

8. Click **Done** to complete the installation.

Configure IBM Cognos Framework Manager

Enter the appropriate settings for **Gateway URI** and **Dispatcher URI for external applications** in order to connect IBM Cognos Framework Manager with IBM Cognos Analytics and its components.

To configure IBM Cognos Framework Manager:

1. In the computer where IBM Cognos Framework Manager is installed, launch IBM Cognos Configuration.
2. In the Explorer pane on the left-hand side, click **Environment**.
3. Specify the appropriate values for the following:
   - **Gateway URI**
     - Default: http://ca_server:port/bi/v1/disp
     - Example: http://my_ca_server:9300/bi/v1/disp or https://my_ca_server:443/bi/v1/disp
     - This URI must always be the same as for Cognos Analytics.
     - If the URI contains **localhost**, replace **localhost** with a fully-qualified host name or IP address.
   - **Dispatcher URI for external applications**
     - Default: http://ca_server:port/bi/vi/disp
     - Example: http://ca_server:9300/bi/v1/disp
     - If the URI contains **localhost**, replace **localhost** with a fully-qualified host name or IP address.
4. Click **Save**.

Testing Configuration

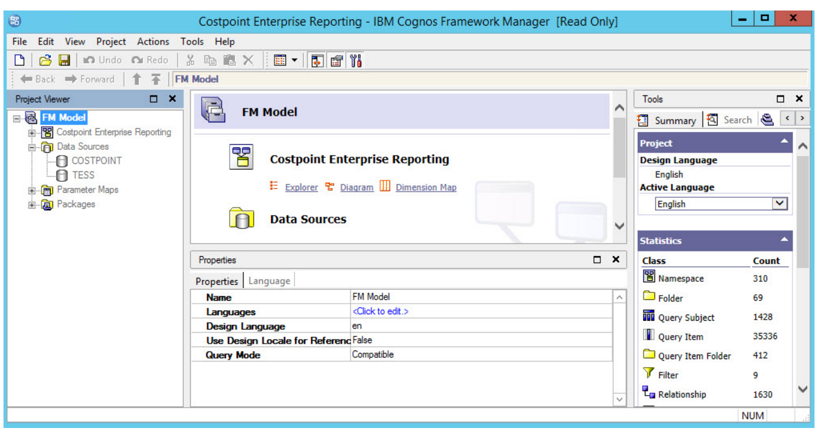
Test your configuration by opening Framework Manager to verify that the data sources display and by testing the link to the Cognos Analytics Welcome portal.

Test Configuration of Data Sources from Framework Manager

You must verify that the data sources for all the projects that you use are listed in Framework Manager.

To test database connections, complete the following steps:

1. Open Framework Manager.
2. On the Welcome screen, click **Open a project**. If you decide to use Framework Manager, you have to configure Cognos with a regular authentication provider, such as ADS. Costpoint Authentication Provider cannot be used with Framework Manager as authentication source.
3. Browse to the Costpoint Enterprise Reporting.cpf file in the \Models subdirectory of the Costpoint Business Intelligence installation location (for example, C:\Program Files (x86)\Deltek\CostpointBusinessIntelligence\CER8212\zLegacy\Costpoint Enterprise Reporting\Model).
4. Verify that the Costpoint and TESS data sources are listed under **FM Model** » **Data Sources** on the **Project Viewer** pane.



5. Repeat these steps for the other projects.

   The table lists the projects with their data sources:

Project	Data Source
Accounts Payable.cpf	COSTPOINT
Accounts Receivable.cpf	COSTPOINT
Billing.cpf	COSTPOINT

Project	Data Source
Administration.cpf	COSTPOINT; COSTPOINT_ADMIN; COSTPOINT_SYSTEM; DELTEKBP; TESS
Contracts and Opportunities.cpf	COSTPOINT
Costpoint Enterprise Reporting.cpf	COSTPOINT
Costpoint Enterprise Reporting for Budgeting and Planning.cpf	DeltekBP
Costpoint Enterprise Reporting for Fixed Assets	COSTPOINT
Costpoint Enterprise Reporting for HR and Payroll.cpf	COSTPOINT
Costpoint Enterprise Reporting for Costpoint Project Manufacturing.cpf	COSTPOINT; COSTPOINT_ADMIN
Costpoint Enterprise Reporting for Shop Floor Time.cpf	COSTPOINT; SFT
CPSOX.cpf	COSTPOINT
Employee.cpf	COSTPOINT
Expense.cpf	TESS
General Ledger.cpf	COSTPOINT
Human Resources.cpf	COSTPOINT
ICS-Presentation.cpf	COSTPOINT
(ICS) Core Model.cpf	COSTPOINT
Labor.cpf	COSTPOINT
Manufacturing.cpf	COSTPOINT
Materials.cpf	COSTPOINT
Payroll.cpf	COSTPOINT
Procurement.cpf	COSTPOINT
Project Reporting and Analysis.cpf	Costpoint
Project Planning Reporting and Analysis.cpf	DeltekBP
Subcontractor Management.cpf	COSTPOINT
TESOX.cpf	TE; TE_Config
Time.cpf	TESS

Test Configuration by Navigating to the Cognos Analytics Portal

To test the service, open your web browser and go to the Cognos Analytics portal (http://<your host server name>:9300/bi/).

Costpoint Authentication Provider

Costpoint Authentication Provider (CAP) lets you use Costpoint Business Intelligence with the Costpoint database as the authentication source.

CAP is the tool that verifies your user credentials whenever you access Costpoint BI in Costpoint. It checks for your Costpoint BI user group and access rights that are set up one time in Costpoint and in Costpoint Business Intelligence.

Cognos and Costpoint User Groups Mapping Table

Note: Please take note of the double underscore used as prefix for CAP user groups in Costpoint. For example, **CER__**ACCTG.

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
CER Accounting	CER__ACCTG	CER Accounting	Object Security	This is a Deltek group used to set permissions on Accounting content such as reports, dashboards, stories, packages, and others.
CER Accounting All Secure	CER__ACCT_ALL_SECURE	CER Accounting All Secure	Object Security	This is a Deltek group used to set permissions on all secure Accounting content.
CER Cloud Administrator	CER__ADMIN	CER Cloud Administrator	Cognos Capabilities	This is a Deltek role used to secure capabilities in the IBM Cognos software based on Deltek's licensing structure. This limited administrator role is intended for SaaS customers where Deltek Cloud OPS is performing some of the administration.
CER Advanced User	CER__ADV	CER Advanced User	Cognos Capabilities	This is a Deltek role used to secure capabilities in the IBM Cognos software based on Deltek's licensing structure.

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
CER Advanced Lite	CER__ADV_LITE	CER Advanced User Lite	Cognos Capabilities	This is similar to CER__ADV but with limited capabilities.
CER All	CER__ALL	CER All	Object Security	This is a Deltek group used to set permissions for all domains.
CER Accounts Payable Secure	CER__AP_SECURE	CER Accounts Payable Secure	Object Security	This is a Deltek group used to set permissions on secure Accounts Payable content.
CER Accounts Receivable Secure	CER__AR_SECURE	CER Accounts Receivable Secure	Object Security	This is a Deltek group used to set permissions on secure Accounts Receivable content.
CER Billing Secure	CER__BILL_SECURE	CER Billing Secure	Object Security	This is a Deltek group used to set permissions on secure Costpoint Billing content.
CER Consumer	CER__CONSUMER	CER Consumer	Cognos Capabilities	This is a Deltek role used to secure capabilities in the IBM Cognos software based on Deltek's licensing structure.
CER Contracts	CER__CONTRACTS	CER Contracts	Object Security	This is a Deltek group used to set permissions on Contract & Opportunity Management content such as dashboards, packages, reports, and others.
CER CP Administrator	CER__CP_ADMIN	CER Costpoint Administrator	Object Security	This is a Deltek group used to set permissions on Costpoint Administration content.
CER Developer	CER__DEV	CER Developer	Cognos Capabilities	This is a Deltek role used to secure capabilities in the IBM Cognos software based

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
				on Deltek's licensing structure.
CER Development	CER__DEVELOPMENT	CER Development	Object Security	This is an object security group, and users assigned can create managed content in the company content area.
CER Employee Secure	CER__EMPL_SECURE	CER Employee Secure	Object Security	This is a Deltek group used to set permissions on secure Employee content.
CER Executive Secure	CER__EXEC_SECURE	CER Executive Secure	Object Security	This is a Deltek group used to set permissions on secure executive content in Costpoint BI.
CER Expense Secure	CER__EXPENSE_SECURE	CER Expense Secure	Object Security	This is a Deltek group used to set permissions on secure expense content.
CER Fixed Assets	CER__FA_SECURE	CER Fixed Assets	Object Security	This is a Deltek group used to set permissions on Costpoint Fixed Assets content.
CER General Ledger Secure	CER__GL_SECURE	CER General Ledger Secure	Object Security	This is a Deltek group used to set permissions on secure General Ledger content.
CER HR	CER__HR	CER HR	Object Security	This is a Deltek group used to set permissions on Human Resources content such as reports, dashboards, stories, packages, and others.
CER Human Resources Secure	CER__HR_SECURE	CER Human Resources Secure	Object Security	This is a Deltek group used to set permissions on secure Human Resources content.
CER Labor Secure	CER__LABOR_SECURE	CER Labor Secure	Object Security	This is a Deltek group used to set permissions

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
				on secure Labor content.
CER Materials	CER__MATERIALS	CER Materials	Object Security	This is a Deltek group used to set permissions on Materials content such as reports, dashboards, stories, packages, and others.
CER Materials Secure	CER__MATERIAL_SECURE	CER Materials Secure	Object Security	This is a Deltek group used to set permissions on secure Costpoint Materials content.
CER Manufacturing Secure	CER__MFG_SECURE	CER Manufacturing	Object Security	This is a Deltek group used to set permissions on secure Manufacturing content
CER Materials Manufacturing All Secure	CER__MM_ALL_SECURE	CER Materials Manufacturing All Secure	Object Security	This is a Deltek group used to set permissions on all secure Materials Manufacturing content
CER People	CER__PEOPLE	CER People	Object Security	This is a Deltek group used to set permissions on People content such as reports, dashboards, stories, packages, and others.
CER Planning (Projects) Secure	CER__PLAN_PRJ_SECURE	CER Planning (Projects) Secure	Object Security	This is a Deltek group used to set permissions on secure project based Planning content.
CER Planning (Projects)	CER__PLAN_PROJ	CER Planning (Projects)	Object Security	This is a Deltek group used to set permissions on project-based Planning content such as reports, dashboards, stories, packages, and others.
CER Procure Secure	CER__PROCURE_SECURE	CER Procurement	Object Security	This is a Deltek group used to set permissions

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
				on secure Procurement content.
CER Projects	CER__PROJECTS	CER Projects	Object Security	This is a Deltek group used to set permissions on Costpoint project content such as reports, dashboards, stories, packages, and others.
CER Project Secure	CER__PROJ_SECURE	CER Project Secure	Object Security	This is a Deltek group used to set permissions on secure Costpoint Project content.
CER Payroll Secure	CER__PR_SECURE	CER Payroll Secure	Object Security	This is a Deltek group used to set permissions on secure Costpoint Payroll content.
CER Role Security Group	CER__ROLE_SEC	CER Role Security Group	Project Security	
CER Subcontractor Management Secure	CER__SUBK_SECURE	CER Subcontractor Management Secure	Object Security	This is a Deltek group used to set permissions on secure Subcontractor Management content.
CER Time & Expense	CER__TE	CER Time & Expense	Object Security	This is a Deltek group used to set permissions on Time & Expense content.
CER Time Secure	CER__TIME_SECURE	CER Time Secure	Object Security	This is a Deltek group used to set permissions on secured Time & Expense content.
CER User	CER__USER	CER User	Cognos Capabilities	This is a Deltek role used to secure capabilities in the IBM Cognos software based on Deltek's licensing structure.

Group or Role in Cognos	Group ID in Costpoint	Group Name in Costpoint	Use	Description
CER Web Administrator	CER__WEB_ADMIN	CER Web Administrator	Cognos Capabilities	This is a Deltek role who is assigned to the system administrator for cloud users.

When you use these user groups with the combination of the Deltek-shipped add-on deployment packages, you will automatically secure Deltek add-on folders/packages based on these default user groups and roles.

In order to set up the Costpoint Authentication Provider, the following are the major steps:

- In the Costpoint Server side:
  - Add the Tenant ID in the Configuration Utility
  - Assign CER Administrators in Costpoint
  - Assign CPSUPERUSER to Costpoint BI User Groups
- In the Cognos Server side:
  - Check and Copy the Latest biintegration.res file
  - Copy Setup Files
  - Copy and Modify the Configuration Property File
  - Remove old CAP files (if any)
  - Set up the CAP Namespace
  - Set up the CAP_SSO Namespace
  - Add the Namespaces in IBM Cognos Configuration
  - Add Admin Tenant on the Multitenancy Tab
  - Set Up a Cognos System Administrator
  - Remove 'Everyone' as System Administrator
  - Update Cognos Authentication and Namespace Properties
  - Restart the Cognos Server

Set Up the Costpoint Authentication Provider in Costpoint

The succeeding sections must be done in the Costpoint Server. Follow the procedures in this section in the order they were written.

Tenant ID and the Configuration Utility

The Configuration Utility tool in Costpoint establishes the Tenant ID that will be used for the Costpoint Authentication Provider.

The Costpoint System Administrator enters the Tenant ID in the Configuration Utility tool. Afterwards, he will log on to Costpoint and open the Rebuild Global Settings (SYPSTNG) application to reload settings and generate token that contains the newly added Tenant ID.

> **Note:** You need at least one admin tenant to manage the Costpoint Authentication Provider (CAP). For more information about the Costpoint Configuration Utility, see the *DeltekCostpoint82ConfigurationUtility.pdf*.

Configure Costpoint Business Intelligence in the Costpoint Configuration Utility

Use the **Rpts & Analytics** tab of the Costpoint Configuration Utility to configure the interface between Costpoint Business Intelligence and Costpoint.

To configure Costpoint Business Intelligence in the Costpoint Configuration Utility:

1. Launch the Costpoint Configuration Utility.
2. Click the **System** tab. And then, click the **System Integrations** tab. On the **Rpts & Analytics** tab, select the **Use Costpoint Enterprise Reporting (CER) Integration** check box.
3. Enter the following information:
   - Enterprise Reporting instance URL
   - Tenant ID

   For example you have the following values:

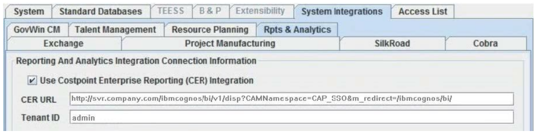
   - Server Name = svr.company.com *(the fully qualified domain name or FQDN should be included)*
   - Tenant ID in Cognos = admin

     The Tenant ID must match the tenant indicated in the **deltek_cap.properties** file. As default, **admin** is the Tenant ID in the said file. You will use the **deltek_cap.properties** file in succeeding sections of this document.

   The **CER URL** will be:

   - http://**svr.company.com**/ibmcognos/bi/v1/disp?CAMNamespace=CAP_SSO&m_redirect=/ibmcognos/bi/ *OR*
   - http://**svr.company.com**/analytics/bi/v1/disp?CAMNamespace=CAP_SSO&m_redirect=/analytics/bi/

   The **Tenant ID** must be **admin**.



Take note of the **Tenant ID** that you will enter on this screen. You will use this Tenant ID when you modify the **deltek_tenants.properties** file later when you configure CAP in the Cognos server side.

4. Save and then restart the WebLogic servers or run the Rebuild Global Settings (SYPSTNG) application in Costpoint for changes to take effect.

Assign Costpoint Business Intelligence Administrators in Costpoint

You should assign Costpoint Business Intelligence Administrators in Costpoint via the Manage User Groups screen.

To assign Costpoint Business Intelligence administrators:

1. In Costpoint, go to **Admin** » **Security** » **System Security** » **Manage User Groups**.
2. In the **User Groups** table window, select **CER__ADMIN**.
3. Click the **Assign Users to Group** subtask.
4. Click the **New** button in the **Assign Users to Groups** table window.
5. Enter or select the CP Cloud Admin users.
6. Click **Save**.

Add CPSUPERUSER to Costpoint Business Intelligence User Groups

You should assign **CPSUPERUSER** to all CER__ User Groups. This will make the groups visible when it is time to map Costpoint and Costpoint Business Intelligence user groups.

To add CPSUPERUSER to Costpoint Business Intelligence User Groups:

1. In Costpoint, go to **Admin** » **Security** » **System Security** » **Manage Users**.
2. Click the **Query** button.
3. On the **Manage Users** query dialog box, open the **Find** tab.
4. In the **ID** field of the **Search Criteria** group box, select **is equal to** in the drop-down and enter **CPSUPERUSER**.
5. Click **Find** button.
6. On the **Manage Users** screen, click the **Assigned User Groups** subtask.
7. Click the **New** button in the **Assigned User Groups** table window.
8. Enter or select a Costpoint Business Intelligence user group. For example, **CER__ACCTG**.

9. Repeat steps 7 to 8 for all the Costpoint Business Intelligence user groups.

   > **Note:** All Costpoint Business Intelligence User Groups has a prefix of **CER__**. Please take note of the double underscore (__).

10. Click **Save**.

Set Up the Costpoint Authentication Provider in Cognos

In the Cognos Server side, there are certain procedures that you should follow to set up the Costpoint Authentication Provider. Follow them in the order that they were written.

Check and Copy the Latest biintegration.res File

The biintegration.res file is the resource file that contains the key in coding the token. This file is generated by either the Costpoint Configuration Utility or at the start of Costpoint services. Make sure that you get the latest version of the biintegration.res file.

You need to have access to Costpoint server directories to get the latest file.

To check and copy the latest biintegration.res file, complete the following steps:

1. Check if the biintegration.res file is in this Costpoint server directory:
   `{Costpoint Server}\deltek\costpoint\<Costpoint version>\applications\enterprise\properties`
2. Make a copy of the latest biintegration.res file and put it in this Cognos server directory:
   `{Cognos server}Program Files\ibm\cognos\analytics\configuration`

   > **Warning:** If the file already exists in the Cognos server location, replace it with the new file that you just copied from the Costpoint server. This is to make sure that you have the latest key file.

Create an AAA Folder

The AAA folder will hold the JAR file that supports the creation of log activities.

To create the AAA folder:

1. Open **{Cognos Server}\C:\Program Files\ibm\cognos\analytics\webapps\p2pd\WEB-INF** folder.
2. Create a new folder and label it as **AAA**.
3. Create a **lib** folder in **{Cognos Server}\C:\Program Files\ibm\cognos\analytics\webapps\p2pd\WEB-INF\AAA**.

Copy Setup Files to the Cognos Server

The files must be copied to the Cognos Server to complete the Costpoint Authentication Provider setup.

To copy the setup files to the Cognos server:

1. Go to the installation directory of Costpoint BI and open the **CAP8.2** folder. As default, the location is **C:\Program Files (x86)\Deltek\CostpointBusinessIntelligence\CBI82x \zSupport Files\CAP8.2**.
2. Copy the following files to their respective Cognos directories and replace old CAP files, if any.

Filename	Copy to this Cognos directory:
▪ **commons-dbcp2-2.1.1.jar** ▪ **commons-logging-1.2.jar** ▪ **commons-pool2-2.4.2.jar** ▪ .	**{Cognos Server}\C:\Program Files\ibm \cognos\analytics\webapps\p2pd\WEB-INF \lib**
DeltekCAP.jar	**{Cognos Server}\C:\Program Files\ibm \cognos\analytics\webapps\p2pd\WEB-INF \AAA\lib**
log4j.dtd	**{Cognos Server}C:\Program Files\ibm \cognos\analytics\configuration**

3. Open the **{Cognos Server}\C:\Program Files\ibm\cognos\analytics\webapps\p2pd \WEB-INF\lib** directory and look for the following **log4j** JAR files:
   - **log4j-api-2.x.jar**
   - **log4j-core-2.x.jar**
4. Copy the **log4j** JAR files to **{Cognos Server}\C:\Program Files\ibm\cognos\analytics \webapps\p2pd\WEB-INF\AAA\lib**.
5. Open the **C:\Program Files (x86)\Deltek\CostpointBusinessIntelligence\CBI82x \zSupport Files\CAP8.2\sample_configuration** folder and look for the **log4j2_deltek.xml** file.
6. Copy **log4j2_deltek.xml** to the **{Cognos Server}C:\Program Files\ibm\cognos \analytics\configuration** directory.

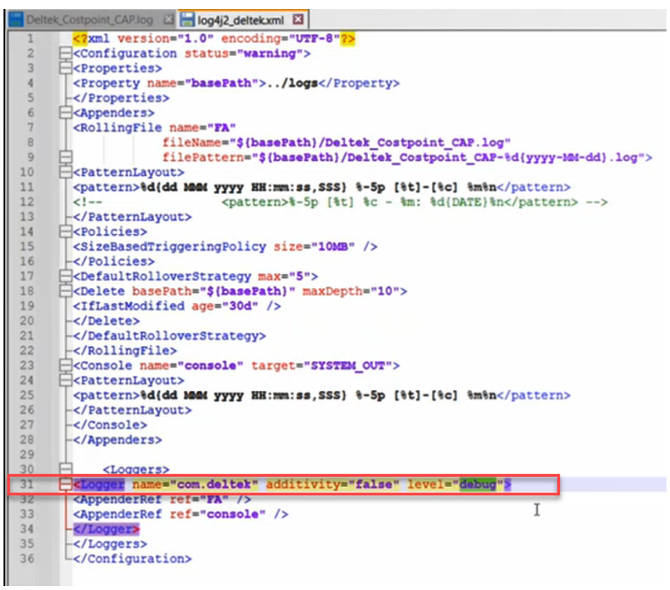
Modify log4j2_deltek.xml

Set the logging level in Costpoint BI to either **debug** or **warning**.

To set the logging level in Costpoint BI:

1. In your Cognos server, go to the **ibm\cognos\analytics\configuration** directory and look for the **log4j2_deltek.xml** file.
2. Open the **log4j2_deltek.xml** file via Notepad.
3. Set the logging level as either:

Option	Description
debug	Use this to log debug information. For example: Logger name="com.deltek" additivity="false" level="**debug**"
warning	Use this to log warning information. For example: Logger name="com.deltek" additivity="false" level="**warning**"



4. Save.

Copy and Modify the Configuration Property Files

You need to locate the **sample_configuration** folder from the extracted files from DSM. After installing Costpoint Business Intelligence 8.2, the default location is **C:\Program Files**

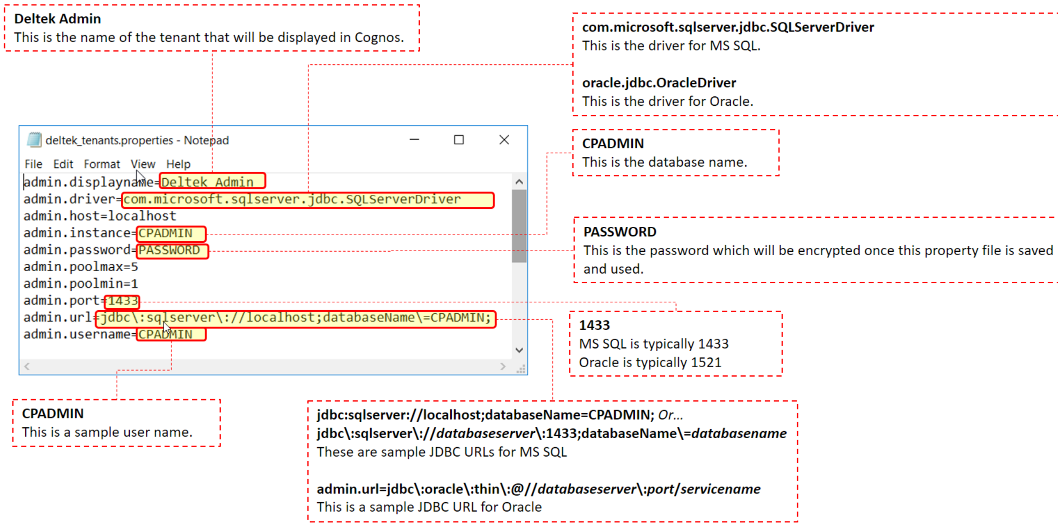
(x86)\Deltek\CostpointBusinessIntelligence\CBI820\Support Files \CAP8.2\sample_configuration.

Warning: If you are upgrading your CAP installation, go to **C:\Program Files\ibm\cognos \analytics\configuration** in your Cognos server and back up your existing **deltek_tenants.properties** file. Put the file in a safe directory location. You will need to use this file as reference when you modify the new **deltek_tenants.properties** file from CAP 8.2

To modify the configuration property files:

1. In the **sample_configuration** folder, look for the following files:
   - **deltek_cap.properties**: Use this file to define the administrator tenant within the CAP namespace
   - **detlek_cap_sql.properties**: This file contains the SQL script to get information about users and user groups
   - **deltek_tenants.properties**: Use this file to define the new tenant with information about the database connection
   - **domainMapping.xml**: This file is used for backwards compatibility for old CAP versions.
   - **domainMappingCAP.xml**: This file contains the namespace to be used for the Costpoint Authentication Provider. As a default, use "CAP"
2. Copy the configuration files mentioned above to **C:\Program Files\ibm\cognos \analytics\configuration**.

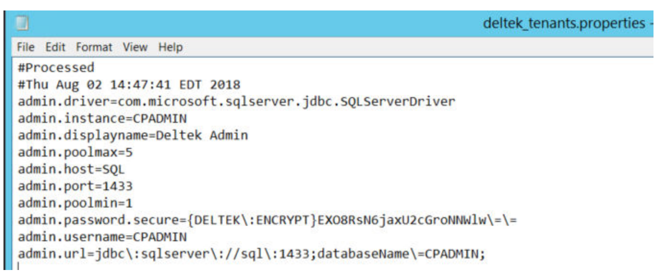
   Note: You can make copies of the files and leave the original ones in the **sample_configuration** folder for backup.
3. Open the **deltek_tenants.properties** file to modify it.
4. In the **deltek_tenants.properties** file, add an Admin Tenant by following the syntax in this diagram:



Note: Make sure that you are using the ADMIN instance of the Costpoint database instead of the Transaction instance. If you entered a **Tenant ID** in the Costpoint Configuration Utility tool, make sure that you enter the same **Tenant ID** in the **deltek_tenants.properties** file so that they match. In the diagram above, **admin** is used in the **deltek_tenants.properties** file which should be the same **Tenant ID** in the Costpoint Configuration Utility tool.

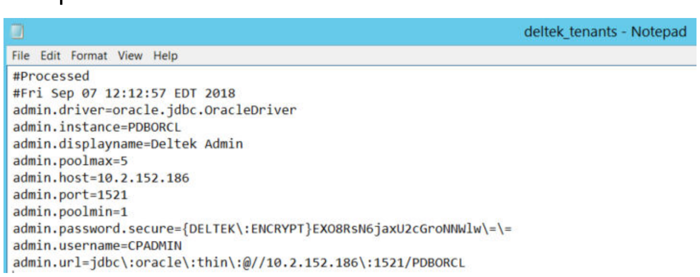
If you only have one tenant, make sure that it uses **admin** similar to the diagram. If you have multiple tenants, the first tenant must be **admin**.

Sample MS SQL file:



```
#Processed
#Thu Aug 02 14:47:41 EDT 2018
admin.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
admin.instance=CPADMIN
admin.displayname=Deltek Admin
admin.poolmax=5
admin.host=SQL
admin.port=1433
admin.poolmin=1
admin.password.secure={DELTEK\:ENCRYPT}EXO8RsN6jaxU2cGroNNWlw\=\=
admin.username=CPADMIN
admin.url=jdbc\:sqlserver\://sql\:1433;databaseName\=CPADMIN;
```

Sample Oracle file:



```
#Processed
#Fri Sep 07 12:12:57 EDT 2018
admin.driver=oracle.jdbc.OracleDriver
admin.instance=PDBORCL
admin.displayname=Deltek Admin
admin.poolmax=5
admin.host=10.2.152.186
admin.port=1521
admin.poolmin=1
admin.password.secure={DELTEK\:ENCRYPT}EXO8RsN6jaxU2cGroNNWlw\=\=
admin.username=CPADMIN
admin.url=jdbc\:oracle\:thin\:@//10.2.152.186\:1521/PDBORCL
```

5. Remove any unused tenant property in the **deltek_tenants.properties** file.
6. **Save** the configuration property file and **Close**.

> **Note:** Restart **IBM Cognos Configuration** if it is already open so that the system will pick up these newly copied and modified files.

The Tenant Properties File

The **deltek_tenants.properties** file is scanned by CAP to check if there are changes to the tenants.

Five seconds after a change has been made to the **deltek_tenants.properties** file, CAP rereads its content for changes.

- If the attributes of a tenant are the same, CAP skips and checks the next tenant.
- If the attributes of a tenant have updates, the tenant is reconfigured. This includes closing the old database connection and opening a new connection with the updated connection attributes.
- If a tenant has been removed in the **deltek_tenants.properties** file, that tenant is removed from CAP and users will not be able to login. Currently, active sessions are not considered invalid for tenants that have been removed.

> **Note:** The **deltek_tenants.properties** file is AES encrypted.

Remove Old CAP Files

If you have installed a previous version of CAP, you might have old configuration files. Remove these files in your server.

Skip this procedure if you have not installed an old version of CAP.

To remove configuration files of previous CAP versions:

1. Go to **{Cognos Server} C:\Program Files\ibm\cognos\analytics\webapps\p2pd\WEB-INF\lib** in your Cognos Analytics server.
2. Look for the files listed below and delete them.
   - **CAM_AAA_COSTPOINT.jar**
   - **DeltekCAP.jar**
3. Next, go to **{Cognos Server}\C:\Program Files\IBM\Cognos\analytics\Configuration**.
4. Look for the files listed below. Delete them.
   - **dbutil.class**
   - **JDBC_Config_<namespace ID>.properties**

Set Up The Cognos Authentication Provider

The authentication provider handles the verification process between Cognos and Deltek Costpoint. You need to create the namespaces for CAP and CAP_SSO.

Set Up the CAP Namespace

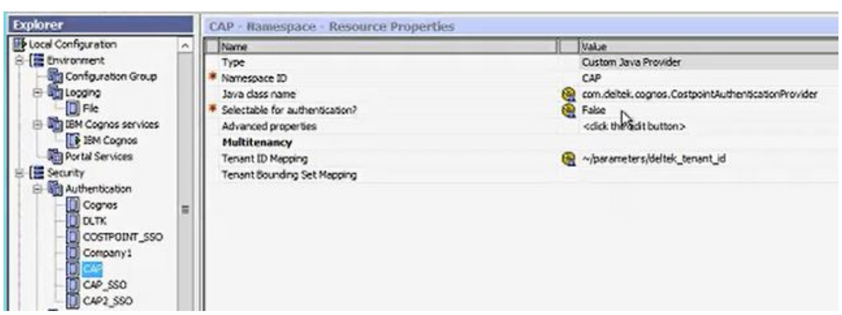
Create the namespace for CAP that will handle the verification process between Cognos and Costpoint cloud and non-cloud users.

To set up the CAP namespace:

1. Launch the IBM Cognos Configuration application.
2. From the Explorer pane on the left side of the screen, go to **Security** » **Authentication**. Right-click **Authentication** and go to **New resource** » **Namespace**.
3. Enter **CAP** in the **Name** field.

   > **Note:** Make sure that the **Name**, in this case **CAP**, is the same as the **Tenant ID** that has been configured in the **domainMappingCAP.xml** file.

4. Select **Custom Java Provider** in the **Type** field. Click **OK**.
5. On Namespace - Resource Properties pane, fill out the following:
   - **Namespace ID** - Enter **CAP**
   - **Java class name** - Enter **com.deltek.cognos.CostpointAuthenticationProvider**
   - **Selectable for authentication?** - Select **False**
   - **Tenant ID Mapping** - Click the pencil icon. On the Tenant ID Mapping screen, select **Pattern** as **Type**. In the **Value** field enter **~/parameters/deltek_tenant_id**
6. Click **Save configuration** icon.



Set Up the CAP_SSO Namespace

Create the CAP_SSO Namespace when you are using Costpoint Business Intelligence application via the Costpoint user interface.

To set up the CAP_SSO namespace:

1. Launch the IBM Cognos Configuration application.
2. From the Explorer pane on the left side of the screen, go to **Security** » **Authentication**. Right-click **Authentication** and go to **New resource** » **Namespace**.
3. Enter the **CAP_SSO** in the **Name** field.
4. Select **Custom Java Provider** in the **Type** field. Click **OK**.
5. On Namespace - Resource Properties pane, fill out the following:
   - **Namespace ID** - Enter **CAP_SSO**
   - **Java class name** - Enter **com.deltek.cognos.sso.CostpointSSO**
   - **Selectable for authentication?** - Select **False**
6. Click **Save configuration** icon.

Add 'Admin' Tenant on the Multitenancy Tab

You need to add the 'Admin' tenant in Cognos that is similar with the **Tenant ID** that is in the Costpoint Configuration Utility and the **deltek_tenants.properties** file.

To add the Admin tenant:

1. Log in to Cognos Analytics with Watson.
2. Click the the Open Menu icon () and then click **Manage** » **Multitenancy**.
3. Click the plus icon.
4. In the **Name** and **Tenant ID** fields, enter the Admin tenant. Make sure that it matches with the **Tenant ID** in the Costpoint Configuration Utility and the Admin tenant in the **deltek_tenants.properties** file.
5. Click **Add**.
6. On the **Multitenancy** pane, the newly created tenant appears. Right-click on the tenant and click **Enable**.

Update Cognos Authentication and Namespace Properties

You should configure the appropriate settings for anonymous settings and Cognos authentication via the IBM Cognos Configuration application.

To update the Cognos Authentication and Namespace properties:

1. Launch the IBM Cognos Configuration application.
2. On the **Explorer** pane, go to **Security** » **Authentication** » **Cognos**.

3. On the **Cognos Namespace - Resource Properties** pane on the right, set the **Allow anonymous access?** field to **False**.
4. On the **Explorer** pane, go to **Security** » **Authentication**.
5. On the **Authentication - Component Properties** pane on the right, set the **Restrict access to members of the built-in namespace?** field to **True**.
6. Click **Save**.
7. Restart the Cognos server.

Set Up a Cognos System Administrator

In the **deltek_tenants.properties** file, an admin tenant has been defined. You will need to assign a user who belongs to this admin tenant as your System Administrator who will then manage your Costpoint Business Intelligence system.

To set up the System Administrator:

1. Log in to Cognos Analytics with Watson. Click the **Open menu** icon (≡) and then click **Manage** » **Administration Console**.
2. Open the **Security** tab and click **Cognos** in the Directory table.
3. Look for **System Administrators** in the list and click **More...** found on the right.
4. Click **Set members...**. And then, click **Add**.
5. Under the **Available entries** box on the left-hand side of the screen, select **Cognos** » **Everyone**. Click the yellow arrow button to move **Everyone** to the **Selected entries** box on the right.

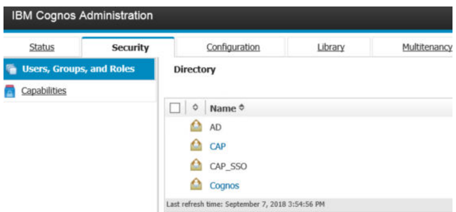
   Note: The **Everyone** account is added at this stage for configuration purposes, but will be removed once we are done.

6. Under the **Available entries** box, click on the active directory (AD) folder and select **Show users in the list** check box. Look for your AD account and add it to the System Administrators account.
7. Click **OK**. And then, click **OK** again. **Log off** of Cognos Analytics with Watson.

   Note: Close all the IBM Cognos Analytics with Watson sessions that are open or simply close your browser and open a new one.

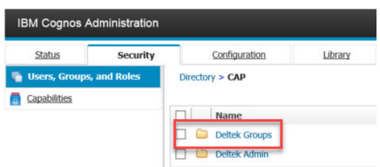
8. Login to Costpoint as one of the users you added to the **CER__ADMIN** group.
9. Go to **Reports and Analytics** » **Business Intelligence** » **Business Intelligence** » **Business Intelligence**.
10. Click the **Open menu** icon (≡) and then click **Manage** » **Administration Console**.
11. Open the **Security** tab and click **Cognos** in the Directory table.
12. Click the **Deltek** folder.
13. Look for **CER Cloud Administrator** and click **More...** on its right.
14. Click **Set members...** . Then, click **Add...**

15. Click **CAP**.
16. Click the **Deltek Groups** folder.
17. Select the check box before **CER Cloud Administrator** and click the yellow arrow.
18. Click **OK**. And then, click **OK** again.
19. Click **Cognos**.
20. Scroll through the Directory until you see **System Administrators**.
21. Click **More...** found on the right that is adjacent to **System Administrators**.
22. Click **Set members...**. Then, click **Add...**
23. Click on the **CAP** folder



Note: If the **CAP** folder is missing, try to restart the dispatch servers.

24. Click the **Deltek Groups** folder.



25. Select the **CER Cloud Administrator**.
26. Click the yellow arrow button to add the selected groups as **System Administrators**.
27. Click **OK**. And then, click **OK** again.
This step will add your administrators. However, further steps are needed to be done to add the rest of the Deltek groups in the appropriate Cognos user groups. You will see the procedure and more information about this once you review the Costpoint Business Intelligence Post Installation Guide.

Remove 'Everyone' as System Administrator

Once a System Administrator has been established, the 'Everyone' group should be removed in the System Administrator role.

Note: This procedure should only be done after a user with System Administrator rights has been created.

To remove the 'Everyone' group as System Administrator:

1. In IBM Cognos Administration, open the **Security** tab and click **Cognos** in the Directory table.
2. Scroll through the Directory until you see **System Administrators**.
3. Click **More...** found on the right that is adjacent to **System Administrators**.
4. Click **Set members...**
5. Look for **Everyone** and select.
6. Click **Remove** and then **OK**.

Restart the Cognos Server

Restart the Cognos server after the procedures have been successfully completed.

The procedures are:

- Check and Copy the Latest biintegration.res file
- Create an AAA folder
- Copy Setup Files
- Modify log4j2_deltek.xml
- Copy and Modify the Configuration Property File
- Remove old CAP files (if any)
- Add the Namespaces in IBM Cognos Configuration
- Add Admin Tenant on the Multitenancy Tab
- Update Cognos Authentication and Namespace Properties
- Set Up a Cognos System Administrator
- Remove 'Everyone' as System Administrator

CAP Troubleshooting

Use the **Deltek_Costpoint_CAP.log** file when you need to troubleshoot a Costpoint Authentication Provider issue.

You can find the log file in:
{Cognos Server}\C:\Program Files\ibm\cognos\analytics\logs\Deltek_Costpoint_CAP.log

User Token Error

When you experience a user token error, there are two potential issues. Check to see if they are addressed.

You can check the following:

- In the **Deltek_Costpoint_CAP.log** file, see if it indicates that the token has expired. If so, make sure that the time zones in the Costpoint, Costpoint database, and Cognos application servers are the same.
- Check that the latest **biintegration.res** file from the Costpoint server directory is in the Cognos server directory.
  - Costpoint server directory:
    - `{Costpoint Server}\deltek\costpoint\`*`<Costpoint version>`*`\applications\enterprise\properties`
  - Cognos server directory:
    - `{Cognos server}Program Files\ibm\cognos\analytics\configuration`

Configure an Active Directory Namespace

An option for an authentication provider is the Active Directory which is also required for Framework Manager. Another option is the Costpoint Authentication Provider or CAP.

To see the procedure in setting up active directory, see Configuring an Active Directory Namespace on the IBM website.

Create New View for Organization Security

Open the Manage BI Settings (BIMCERSETTINGS) screen in Costpoint to generate several required views for the Costpoint and Planning databases. These views will be used for the organization security that is applied to the Planning, Materials, Procurement, and Manufacturing models.

To create a new view for Organization Security:

1. In Costpoint, enter **Manage BI Settings** in the **Browse Applications** field or go to **Reports & Analytics** » **BI Controls** » **Manage BI Settings**.
2. Once the Manage BI Settings application is displayed, check and verify the settings. Make the necessary changes, if needed. Click **Save** and then close the screen.

Set the _as_of_date Global Parameter

As an administrator, set up the **_as_of_date** global parameter that is needed to run the new Resource Management dashboard.

To set the _as_of_date global parameter for data modules:

1. In Costpoint Business Intelligence, click the **Open menu** icon (■) and then click **Manage** » **Customization**. Select the **Parameters** tab.
2. Click **+New** and enter **_as_of_date** in the space provided. Press **ENTER** on the keyboard.
3. Adjacent to the **_as_of_date** parameter that you just made, click the **More** icon and select **Properties**.
4. Click the **Applied to all roles** check box.

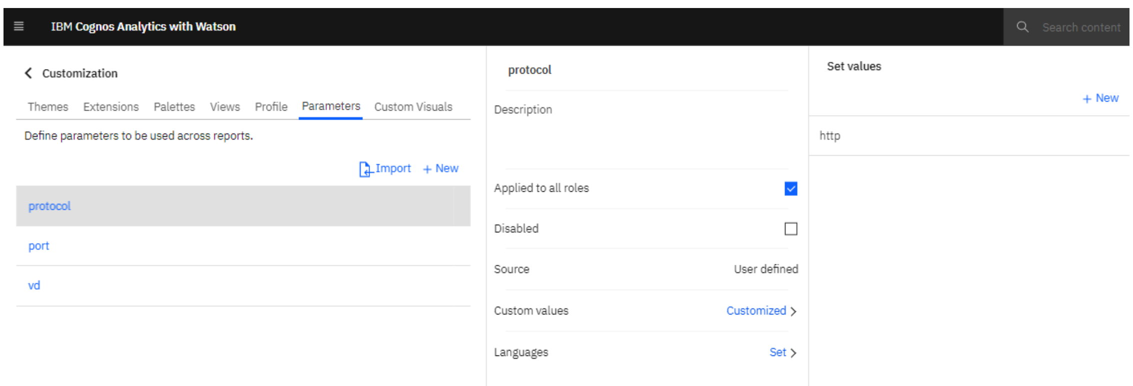
   Note: For more details in setting the **_as_of_date** global parameter, see the IBM website.

Add Parameters for the Menu Tab

The Menu tab contains links to the custom tenant reports and links to standard reports. For it to work, some parameters need to be added.

To add the parameters for the Menu tab:

1. In Costpoint Business Intelligence, click the **Open menu** icon (▪) and then click **Manage** » **Customization**. Select the **Parameters** tab.
2. Click **+New** and enter **protocol** in the space provided. Press **ENTER** on the keyboard.
3. Adjacent to the **protocol** parameter that you just made, click the **More** (⋮) icon and select **Properties**.
4. Click the **Applied to all roles** check box.
5. Repeat steps 2 to 4 and add the following parameters:
   - port
   - vd
6. Click the **More** icon for **protocol** and select **Properties**.
7. In the **Custom values** field, click **Set values** and click **+New** .
8. Enter either **http** or **https** depending on the use of your server.



9. Repeat Steps 6 to 8 and enter the following **Custom values** for **port** and **vd** parameters:
   - port: 9300
   - vd: leave blank

> **Note:** If the custom values are left blank, the following default values will be used and the server might fail when it runs.
> - protocol=HTTPS
> - port=433
> - vd=ibmcognos

Troubleshoot Your Installation

One of the prerequisites before you can create the content store is enabling the Microsoft SQL Server TCP/IP protocol. If you receive errors during the installation process, you must check this setting in Microsoft SQL Server.

The Cognos Error During Installation Process section provides an example of an installation error and the Enable TCP/IP Protocol section contains steps to enable the protocol in Microsoft SQL Server.

Cognos Error During Installation Process

During the installation process, if the Microsoft SQL Server TCP/IP Protocol is disabled, you will not encounter an error until you start services in Cognos Analytics.

Cognos will display the following error message:

“The test phase has warnings. Do you want to continue?.”

Click **No** and complete the steps in the Enable TCP/IP Protocol procedure. Return to Cognos and continue the installation process.

Enable TCP IP Protocol

Before you can create the content store (see Creating the Cognos Analytics Content Store), you must have the proper version of Microsoft SQL Server installed and TCP/IP protocol enabled.

To confirm if TCP/IP is enabled, complete the following steps:

1. Open Microsoft SQL Server.
2. Open the SQL Server Configuration Manager.
3. On the left menu pane, expand **SQL Server Network Confirmation**.
4. Click **Protocols for MSSQLSERVER**.
   The **Protocol Name** and **Status** fields on the right information pane display the name of each protocol and current status.
5. Confirm that the TCP/IP protocol is **Enabled**.
6. If TCP/IP is **Disabled**, double-click **TCP/IP**.
7. On the TCP/IP Properties dialog box, click the Protocol tab.
8. Click the **Enabled** line, and select **Yes** from the drop-down list.
9. Click **OK** to save your changes.

   > **Note:** Because changes do not take place until SQL services are stopped and restarted, you must stop services.

10. On the left menu pane of the SQL Server Configuration Manager, click **SQL Server [XX] Services**.
11. Click **SQL Server (MSSQLSERVER)**, and click **Stop Services** .

12. Click **SQL Server (MSSQLSERVER)** again, and click **Start Services** to restart the services.
13. Close the SQL Server Configuration Manager.

Mixed Active Content

When your Costpoint implementation is using the HTTPS protocol while your Cognos Analytics is HTTP, a blank page will display.

This is called Mixed Active Content and is blocked by all major web browsers now.

To correct this, put both Costpoint and Cognos Analytics implementation in either HTTPS or HTTP protocol.

Cannot Retrieve Data from Data Set

Microsoft Internet Information Service imposes a limit on the size of the URL address. This may cause an error when you use dashboards where it says that you cannot retrieve data from a data set . To avoid this, you must modify the values in the **Maximum URL Length** and **Maximum Query String**.

To modify the Maximum URL Length and Maximum Query String:

1. On the Cognos Analytics with Watson IIS host server, open the **Control Panel** under **Administrative tools** option. Open **Microsoft Internet Information Service Manager**.
2. On the navigation tree on the left-hand side, click **Sites/Default Web Site\IBMCognos** and select **bi** directory.
3. Double click **Request Filtering**. And then, click **Edit Feature Settings**.
4. Enter **16000** on the **Maximum URL Length** field.
5. Enter **8000** on the **Maximum Query String** field.
6. Restart IIS.

Deploying Reports to a Location Other Than the Standard Location

Deltek does not recommend deploying reports to any location other than the standard location because of the danger of breaking links to packages, common library reports, and drill reports.

If you choose to deploy reports to a different location, note the following:

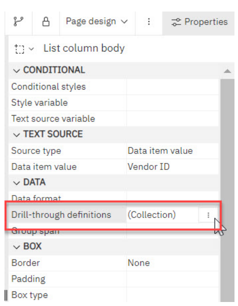
- To minimize the impact on the links, first deploy the reports to the standard directory under Team Content, and then cut and paste the reports to move them to the desired location. This approach preserves the links to the packages and common library reports. However, it breaks the links to drill reports because the main (source) reports and drill (target) reports are not located in the same folders.
- After you relocate the reports, you must use edit the report to redefine the links between the main reports and the drill reports.

Redefine Links to Drill Reports

When you move reports to a non-standard location, you need to specify the new deployment location of all the drill reports in Cognos Analytics with Watson.

To redefine the links to drill reports, complete the following steps:

1. Go to the location of the report from Team Content and right-click the report and select **Edit report**.
2. On the report page, click the drill-through link (displayed as blue underlined text), and click the **Properties** icon on the right-hand side of the screen.
3. On the List column body pane, click **Drill-through definitions** field. Click the more icon.



4. On the Drill-Through definitions dialog box, click the first item in the **Drill-Through definitions:** list.

   The **Report** field displays the drill report.
5. Click the more icon next to **Report**, and browse to the new deployment location.
6. Select the drill report in that location, and click **Open**.
7. If the **Drill-Through Definition** list contains more than one item, repeat steps 4 – 6 for each one.
8. Click **OK** to close the Drill-Through Definitions dialog box.

9. Save the report.

Hiding and Displaying Entries in Costpoint Business Intelligence

You can show or hide entries in Costpoint Business Intelligence if you have the option to hide them. Examples of reports that you can hide if you have the rights are the drill-thru reports in Contracts and the Common Library report.

You can open the drill-thru reports in Contracts when you click their corresponding links in the Customer Inquiry report. For example, you can open the Contract Drill-Thru report and see details when you click the contract link in the Customer Inquiry report. An option to hide the drill-thru reports is available through the **Profile and settings** feature.

Another Costpoint Business Intelligence entry that you have the option to hide is the Common Library report which is not an actual report that you are intended to run. Rather, it contains elements, such as Deltek logos, prompt tabs, product version number, and so on, that are used in common by all reports.

> **Note:** Even if the Common Library report and drill-thru reports are hidden, they are still visible to users with **Show hidden entries** selected in their preferences, though the icon for the report is dimmed. System administrators may want this option selected. However, for those users who should never see these reports, it is recommended that you make sure **Show hidden entries** is not selected and that you do not give them access to change this preferences option.

Make an Entry Visible in Costpoint Business Intelligence

You can adjust whether or not to display hidden reports to users.

To make a hidden report visible in Costpoint Business Intelligence, complete the following steps:

1. On the home page of Costpoint BI, open the reporting package that contains the report.

   The Common Library report is located in **Team Content** » **Administration**.

   The Contract drill-thru reports are located in **Team Content** » **CRM & Contracts** » **Reports** .
2. If the hidden report is not visible in the list of reports, click the **Personal menu** icon ( ) on upper right-hand side of the screen, and click **Profile and settings**.
3. Click the **Settings** tab.
4. Click the **Show hidden entries** toggle to enable it.

   > **Note:** If the **Show hidden entries** toggle is not displayed, you do not have the necessary access rights to change it.
5. Go to the report, for example Common Library, right-click the report and click **Properties**.
6. Clear the **Hide this entry** check box.
7. To hide the report again, repeat this procedure and click the **Hide this entry** check box in step 6.

About Deltek

Better software means better projects. Deltek delivers software and information solutions that enable superior levels of project intelligence, management, and collaboration. Our industry-focused expertise makes your projects successful and helps you achieve performance that maximizes productivity and revenue.

www.deltek.com