Deltek

Deltek Costpoint® 7.1.1

New Installation Guide for Oracle®

February 4, 2020

Contents

New Installation Checklist

The following is a checklist of the overall steps needed to install Costpoint 7.1.1. Details for each step are provided on subsequent pages.

Print this checklist and use it as you complete this installation if desired.

Done?	Step	Notes
✔	*Step summary…*	*Any pertinent notes…*

Database Tier Installation

Done?	Step	Notes
	1. Create Costpoint 7.1.1 Oracle Instance(s) and Tablespaces	
	2. Install Costpoint Database using Database Tier Installer	
	3. Apply Partitioning Script for Performance Enhancement (optional)	

Application Tier Installation

Done?	Step	Notes
	1. Install Application Tier Software	
	2. Add Users to the CostpointToolsGroup	
	3. Start Costpoint 7.1.1	
	4. Install Costpoint 7.1.1 Windows Service	
	5. Configure Costpoint 7.1.1 Windows Service	

Web Tier Installation (Microsoft IIS)

Done?	Step	Notes
	1. Configure Microsoft IIS for Costpoint 7.1.1	
	2. Install Web Tier Software	
	3. Add Users to the CostpointToolsGroup	
	4. Configure Costpoint 7.1.1 IIS Access	
	5. Restart Costpoint 7.1.1 WebLogic Server	

Done?	Step	Notes
Using Costpoint 7.1.1		
	1. Set Web Browser Internet Options	
	2. Log in to Costpoint 7.1.1	
Post-Installation		
	1. Install Latest Costpoint 7.1.1 Hot Fixes.	

Related Documentation

The following table lists the additional documentation that downloads along with this release. Except where noted, all the user guides and quick reference guides listed in this table are also available for download from the Deltek Customer Care Connect site.

You will need Adobe Reader 8.0 or higher to view the documents listed in this section.

Release Notes

Document Name	Description
Deltek Costpoint 7.1.1 Database Changes	This document describes the database changes between the release of Costpoint 7.0.1 and Costpoint 7.1.1.
Deltek Costpoint 7.1.1 Release Notes Enhancements	**Major New Features and Enhancements**: Click this bookmark to view the major new features and enhancements included in Costpoint 7.1.1. **De-Supported Applications**: Click this bookmark to view the applications that are no longer supported in Costpoint 7.1.1.
Deltek Costpoint 7.1.1 Release Notes Software Issues Resolved	This document describes the issues that were resolved between the release of Costpoint 7.0.1 and Costpoint 7.1.1.
Deltek Costpoint 7.1.1 Release Notes Software Issues Resolved Cumulative Update	This document describes the issues that were resolved in the Costpoint 7.1.1 cumulative update.

Entity Relationship Diagrams (ERDs)

Document Name	Description
DeltekCostpoint711TransactionSchemaERD.zip	ZIP file containing the ERD for the Deltek Costpoint 7.1.1 Transaction schema. Use **index.htm** to view the ERD.
DeltekCostpoint711SystemSchemaERD.zip	ZIP file containing the ERD for the Deltek Costpoint 7.1.1 System schema. Use **index.htm** to view the ERD.
DeltekCostpoint711AdminSchemaERD.zip	ZIP file containing the ERD for the Deltek Costpoint 7.1.1 Admin schema. Use **index.htm** to view the ERD.

Technical Guides

Document Name	Description
Deltek Costpoint 7.1.1 Configuration Utility	This document describes how to use the Costpoint Configuration Utility, which helps Costpoint administrators perform the most common configuration tasks.
Deltek Costpoint 7.1.1 Content Management Integration	This document describes how to configure and tune the Costpoint Content Management Integration (CMI) application to provide access to Microsoft SharePoint™, as well as other Content Management Systems (CMS) that are compliant with the Content Management Interoperability Standard (CMIS).
Deltek Costpoint 7.1.1 DB Wizard Utility	This document describes how administers can use the DB Wizard utility to apply hot fixes and database structure changes to Costpoint installations.
Deltek Costpoint 7.1.1 Deploying Hotfixes	This document describes how to apply hot fixes to Costpoint 7.1.1.
Deltek Costpoint 7.1.1 Deployment Options Technical Overview	This document provides a high level overview of various Costpoint configuration options, including server, database, and security options.
Deltek Costpoint 7.1.1 Integration Overview	This document provides a high level overview of how Costpoint reports, processes, and data can be integrated with third-party applications via Web services.
Deltek Costpoint 7.1.1 Integration Console	This document is a detailed guide to the Costpoint Integration Console, which automates the process

Document Name	Description
	of integrating Costpoint reports, processes, and data with third-party applications via Web services.
Deltek Costpoint 7.1.1 Message Boards	This document describes how integration between Costpoint and MS Exchange can enable collaboration among Costpoint users as well as between Costpoint and non-Costpoint users. This capability also allows you to link emails with attachments directly to Costpoint documents and view them directly from Costpoint.
Deltek Costpoint 7.1.1 Monitoring Utility	This document describes how to use the Monitoring Utility to diagnose Costpoint configuration problems.
Deltek Costpoint 7.1.1 Performance Optimization	This document contains Costpoint performance tips and tricks, information on the configuration of the Deltek performance lab, as well as a list of optimized applications for the Oracle parallel SQL execution option.
Deltek Costpoint 7.1.1 Post Installation Hardening Guide	This document presents common principles and recommendations that administrators should consider for post-installation hardening of the Costpoint server environment.
Deltek Costpoint 7.1.1 Process Execution Modes	This document describes the many options for executing reports and processes in Costpoint, including using interactive and batch modes and job servers.
Deltek Costpoint 7.1.1 Security	This document describes user authentication and other security safeguards in Costpoint.
Deltek Costpoint 7.1.1 User Migration Utility	This document describes how to migrate users from earlier Costpoint versions to Costpoint 7.1.1.

Other Documents

Document Name	Description
Deltek Costpoint 7.1.1 Getting Started Guide	This document describes instructions for accessing Costpoint's applications as well as descriptions of menus, toolbars, and other global features. You will also find information on logging on to Costpoint, accessing the database, printing reports, reviewing online help, and contacting Deltek Customer Care and other client services.
Deltek Costpoint 7.1.1 User Interface QRC	This document is a quick reference card which can be kept handy and used for reference as you

Document Name	Description
	navigate Costpoint 7.1.1. It describes how to navigate through the application.
Deltek Costpoint 7.1.1 Shortcut Keys Toolbar Icons And Buttons QRC	This document is a quick reference card which can be kept handy and used for reference as you work in Costpoint 7.1.1. It lists the shortcut keys available in Costpoint, as well as the toolbar icons and buttons.
Deltek Costpoint 7.1.1 Views QRC	This document is a quick reference card which can be kept handy and used for reference as you work with the Costpoint 7.1.1. It explains the differences between Table View and Form View.
Deltek Costpoint 7.1.1 Query and Lookup QRC	This document is a quick reference card which can be kept handy and used for reference as you work with the Costpoint 7.1.1. It explains how to use the query and lookup functions in Costpoint,
Deltek Costpoint 7.1.1 Extensibility Designer Coding Guide	This document contains java coding information for Costpoint Extensibility developers.
Deltek Costpoint 7.1.1 Extensibility Designer Quick Start Guide	This document outlines the basic steps for creating and deploying extensibility.
Deltek Costpoint 7.1.1 Extensibility Designer Report Guide	This document describes how to extend a report.
Deltek Costpoint 7.1.1 Extensibility Designer User Guide	This document contains detailed instructions for using the Costpoint Extensibility Designer.
Deltek Costpoint 7.1.1 Screen Customization and Business Logic Extensibility	This document is an overview of Costpoint's screen customization and business logic extensibility features.

New Installation Overview

This document provides instructions for installing the Deltek Costpoint 7.1.1 software. During the installation process, you will perform the following:

- Ensure that your system meets the installation prerequisites.

> **Note:** Please refer to the Installation Prerequisites and System Requirements sections for additional information. Also please review the full list of Related Documentation prior to installing or upgrading to Costpoint 7.1.1.

- Install the Costpoint 7.1.1 Database Tier software to create your Costpoint 7.1.1 Transaction, System, and Admin databases.
- Install the Costpoint 7.1.1 Application Tier software, which includes both the Oracle WebLogic® Server software and the Costpoint 7.1.1 software.
- Install the Costpoint 7.1.1 Web Tier software to your Internet Information Server, if applicable.
- Install the latest Costpoint 7.1.1 Hot Fixes.

> **Note:** If you need help with this installation, please contact Costpoint Technical Support at 877.HLP.PROJ (877-457-7765).

Installation Package Contents

The Costpoint 7.1.1 installation package contains the following:

- Costpoint 7.1.1 Database Tier installer
- Costpoint 7.1.1 Application Tier installer
- Costpoint 7.1.1 Web Tier installer
- Deltek Costpoint 7.1.1 New Installation Guide for Oracle

Installation Prerequisites

Database Tier Installation Prerequisites

Before you start the Database Tier installation process, your database server must meet the following software prerequisite:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here.
Passwords	To run the installation, password is required for Oracle SYSTEM and SYS users.

Prerequisite Component	Details
Oracle Instance and Tablespaces	Create an Oracle instance and Oracle tablespaces as documented in "Create Costpoint 7.1.1 Instance(s) and Tablespaces" section.
Firewall Settings	On your Database Server, the Oracle Listener Port (**1521**) must be open for Inbound and Outbound traffic through your firewall. On your Database Server, make sure that **Network discovery** and **file sharing** options are switched on.

Application Tier Installation Prerequisites

Before you start the Application Tier installation process, the application server that will run your WebLogic Server and Costpoint 7.1.1 software must meet the following prerequisites:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here.

Costpoint 7.1.1 Server Startup Prerequisites

Before you start Costpoint 7.1.1, the following must be met:

Prerequisite Component	Details
Server	On your Database Server, the Oracle Listener Port **1521** must be open for Inbound and Outbound traffic through your firewall. On your Database Server, make sure that the **Network Discovery and File Sharing** options are switched on. On your Application Server, the WebLogic Listener Port **7009** must be open for Inbound and Outbound traffic through your firewall. On your Application Server, make sure that the **Network Discovery and File Sharing** options are switched on.

Costpoint 7.1.1 Initial Log In Configuration Prerequisites

Before you can login to Costpoint 7.1.1 your Windows client computer must meet the following requirements:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here. Adobe Reader 8.0 or higher. This is required only for users who want to print Costpoint 7.1.1 reports in PDF format. Make sure that you select the **Display PDF in browser** option under the In the Preference settings for Adobe Acrobat Reader to avoid pulling up a blank IE screen when printing in PDF format.

Web Tier Installation/Microsoft Internet Information Server (IIS) Configuration Prerequisites

The Web server that will host your Internet Information Server software must meet the following prerequisites:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here. Microsoft Internet Information Server 7.0.

Installation Process for Costpoint 7.1.1

The Costpoint 7.1.1 installation process incorporates the following steps:

Component	Change Details
Database Tier Installation	The Database Tier installer automatically creates the following, user defined, schemas/users: ▪ Transaction Schema (DELTEK) ▪ Admin Schema (iCPADMIN) ▪ System Schema (CPSYSTEM) ▪ Link User (CPLINK_USER)
Application Tier Installation	The Install function in the Application Tier now automatically installs all necessary software and handles all configurations. The Application Tier installer automatically performs all the following actions: ▪ Extracting JDK ▪ Installing WebLogic

Component	Change Details
	- Extracting BIRT Lib Files - Extracting App Tier Class Files - Updating Config Files - Encrypting Passwords - Running LinkViews - Syncing Sys Settings Table - Applying License - Migrating Org Security Application Modules - Creating Demo License - Extracting HelpFiles - Creating Shortcuts The Application Tier installer creates a **CostpointToolsGroup** with the following Sharing and Security permissions: - Full Sharing and Security Permissions on your Costpoint 7.1.1 Deltek directory (C:\Deltek) - Full Security Permissions on your WebLogic directory (C:\Oracle\Middleware12.1.3)
Web Tier Installation	The Install function in the Web Tier now automatically installs all necessary software and handles all configurations. The Web Tier installer automatically perform all of following actions: - Extracting Help Files - Resetting Internet Information Server The Web Tier installer creates a **CostpointToolsGroup** with the following Sharing and Security permissions: - Full Sharing and Security Permissions on the folder containing your Costpoint 7.1.1 DEWebApp directory (C:\Deltek\Costpoint or C:\Deltek\Costpoint\70\applications)

Web Servers Supported In Costpoint 7.1.1

The Costpoint 7.1.1 system supports the following Web servers only:

- Microsoft Internet Information Server
- Oracle's WebLogic Web server

Naming Conventions

The naming conventions specified in this section are used in all installation instructions detailed in this upgrade installation guide.

Drive Letters

The table below lists the drive letters used in the installation instructions:

Drive	Description
C:	The drive where the Costpoint 7.1.1 software is installed.

Directory Names

The table below lists the directory names used in the installation instructions:

Directory Name	Description
ORACLE/MIDDLEWARE12.1.3	The name of the directory where the Oracle WebLogic software is installed.
DELTEK	The name of the directory where the Costpoint 7.1.1 software is installed.

Costpoint Schema Names

The table below lists the typical Oracle schema names used in the Costpoint Database Tier installation:

Database Name	Description
DELTEK	The name of your Costpoint Transaction schema.
CPSYSTEM	The name of the Costpoint System schema. The CPSYSTEM user is a separate database schema that stores the metadata that the Costpoint 7.1.1 software needs to function properly.
CPADMIN	The name of the Costpoint Admin schema. The CPADMIN user is a separate database schema that stores system and security information that the Costpoint 7.1.1 software needs to function properly.

Internet Information

Software installations, installation instructions, technical guides, and release notes are available for download from the Deltek Software Manager (DSM). All future releases of Costpoint 7.1.1 are also downloaded from DSM.

DSM is the sole download source for hotfix files. Deltek Knowledge Base articles provide an explanation of the fixes and contain links to DSM for retrieval of the actual files.

Deltek Software Manager Requirements

You can run DSM from any desktop. It does not need run from Deltek application servers.

In order to run DSM, you must meet the following requirements:

- Windows XP or later

- Microsoft .NET Framework 3.5 SP1 (3.5.1)

The following Deltek Knowledge Base article contains a download link to the framework. It also has examples of what you may see if you do not have the framework installed: https://deltek.custhelp.com/app/answers/detail/a_id/52469

> **Tip:** Refer to the DeltekSoftwareManager.pdf to learn more about DSM and how it works.

DSM Documentation and Troubleshooting

- 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:** The above troubleshooting link will only work if you are logged into Deltek Customer Care Connect.

Knowledge Base Documentation

To view Knowledge Base articles:

1. Go to http://www.deltek.com and click **Support Login**.

2. Enter your logon credentials in the following fields and click **Log In**:

Field Name	Description
Username	Your Support user name
Password	Your Support user password.

If you have forgotten your username or password, click **Account Assistance**.

If you have forgotten your username, enter your email address and click **Email My Username**.

If you have forgotten your password, enter your username and click **Reset My Password**.

3. On the Deltek Support Home Screen, click the Knowledge Center tab, and complete the following fields:

Field Name	Description
Refine by Product	Select Costpoint from the drop-down list.
Refine by Category/Version	Expand Service Pack / Hot Fix from the drop-down list and select **7.1.1**.
Search Type	Use the default value, Phrases, or select your preferred search type from the drop-down list.
Search by Keyword	Enter the specific text you are looking for or leave blank to return all records for this version.

4. Click **Search**.

5. On the search results screen, perform the following actions:

   ▪ In the **Summary** column, click the link for the desired correction.

   ▪ When the desired correction loads, click the links in the **Answers** section to download the files.

System Requirements

The Costpoint 7.1.1 system uses the following components:

▪ **Database Tier**: Oracle

▪ **Application Tier**: With integrated WebLogic Server

▪ **Browser Client**: Internet Explorer, Chrome, Firefox, Safari

▪ **Web Tier**: Microsoft Internet Information Server (optional)

▪ All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support site here.

> **Note:** For the Costpoint system to function properly, the system clocks on your WebLogic application server and the database server that hosts your Costpoint databases must be synchronized with each other. Failure to synchronize your system clocks may result in login and other system problems.

> **Note:** A hardware recommendations document should have previously been distributed to you. For future releases of Costpoint, hardware recommendations will be supplied via a Customer Care **Knowledge Base** article.

For the most current hardware and software requirements, please refer to the Knowledge Base article containing the Compatibility Matrix:

▪ https://deltek.custhelp.com/app/answers/detail/a_id/38499

▪ https://deltek.custhelp.com/ci/fattach/get/1072689/0/filename/DeltekProductSupportCompatibilityMatrix.pdf

Costpoint 7.1.1 Log File Information

The table below provides information on the log files used by the Costpoint 7.1.1 system. All of these log files are located on the Application Server under the C:\Deltek\Costpoint\71\logs folder.

File Name	Description
DEServer.log	This log file is maintained by the WebLogic server instance. In a clustered environment each server will write to separate file and file name matches the server name. The log records server specific events such as the startup and shutdown of servers, the deployment of new applications, or the failure of one or more subsystems. The messages include information about the time and date of the event as well as the ID of the user who initiated the event.

File Name	Description
CP_DBConn_DEServer.log	This file lists the activate connections uses by the product at given time. To enable this logging set **<SYSTEMNAME>.logDBConnectionProfile = tru**e in enterprise properties. In a clustered environment each server will write to a separate log file and name the server will determine the name of the log file. CP_DBConn_<Server>.log
CP_DEServer.log	This log file contains application specific information such as performance, security, and errors encountered while running a Costpoint application. Each server will write to a separate log file and name the server will determine the name of the log file. CP_<Server>.log.
CP_Security_DEServer.log	This file captures messages generated by Costpoint Web security module. Messages such as invalid login attempt either due to user id, password or insufficient parameters, de-activated user account are captured here. In a clustered environment each server will write to a separate log file and name the server will determine the name of the log file. CP_Security_<Server>.log.
delteke.log	This log file contains information pertained to the entire domain. It consolidates log records from all application logs and a subset of events recorded in all server logs. All the information gathered is written into a single file. Note: Not all log messages are written into domain. Only those messages that match the defined severity are consolidated.
service.log	This log file contains messages generated by Costpoint Web windows service. It helps in troubleshooting issues related to service startup, which usually occur during the initial configuration stages. In addition to service related messages, it also contains most of the information that is captured in the DEServer.log. So, after the initially startup issues are sorted out, Deltek suggests disabling this log by editing the **InstallCPWebasService.cmd** (C:\Deltek\Costpoint\71\bin folder) and removing the occurrence of **-log:%CP_ROOT%\logs\service.log**. If you remove this after installing the service you will need to uninstall and reinstall the service for the changes to take effect.

Database Tier Installation

This section provides instructions and recommendations for creating your Costpoint 7.1.1 Transaction, System, and Admin database schemas.

During this installation process, you will install the Costpoint 7.1.1 Database Tier software and automatically perform the following:

- Create and populate a Costpoint 7.1.1 Transaction database schema to store transaction data.

- Create and populate a Costpoint 7.1.1 System database schema to store meta data.

- Create and populate a Costpoint 7.1.1 Admin database schema to store system and security information.

> **Note:** If you use Oracle Real Application Clusters (RAC) and you have two or more Oracle instances, make sure that your TRANSACTION, ADMIN, and SYSTEM schemas are all part of one RAC database instead of physically separate databases. If you have a critical need to use separate databases, please contact Deltek Support.

> **Note:** The Costpoint platform does not currently support Unicode Translation Format (UTF) character sets, such as AL32UTF8. When configuring your Oracle database using Oracle tools, please make sure you choose a non-unicode character set, such as WE8MSWIN1252, when creating your initial Costpoint database.

Before You Start

Make sure that you meet all Database Tier Installation Prerequisites.

Create Costpoint 7.1.1 Oracle Instance(s) and Tablespaces

The recommended steps to configure your Oracle instance(s) and set up your Costpoint 7.1.1 database tablespaces are detailed in this section.

This step must be performed on the Oracle database server(s) that will host your DELTEK, CPSYSTEM, and CPADMIN database schemas.

The DELTEK, CPSYSTEM, and CPADMIN database schemas can reside on the same Oracle instance, separate Oracle instances on the same, or separate Oracle database servers.

To create the instance(s) and tablespaces that will host your DELTEK, CPSYSTEM, and CPADMIN database schemas:

1. Use your Oracle database software to create an Oracle instance(s) for hosting the Costpoint database.

   The following tables provide a reference for creating your Oracle instance(s).

   These initial settings are only minimal recommendations. Your production environment may need to be analyzed and adjusted to meet your specific requirements. You must customize these parameters over time based on database size, concurrent users, workload, and so on to achieve optimal performance.

Oracle Instance Parameter	Value
cursor_sharing	EXACT
db_block_size	8192
dml_locks	1500
java_pool_size	32 MB
job_queue_processes	2
log_checkpoint_interval	10000
log_checkpoint_timeout	1800
open_cursors	2000
optimizer_index_caching	0
optimizer_index_cost_adj	100
optimizer_mode	ALL_ROWS
processes	300
session_cached_cursors	1500
timed_statistics	TRUE
sga_target	0
pga_aggregate_target	0
statistics_level	Typical
db_file_multiblock_read_count	16
memory_target	Based on database size (1 GB to 15 GB)
memory_max_target	Based on database size (1 GB to 15 GB)
pga_aggregate_limit (12c only)	0

Tablespace Configuration Type	Tablespace Name	Minimum Size (MB)	Small Production System (MB)
System	SYSTEM	100	100
Default	COSTPOINT_DATA	200	500

Tablespace Configuration Type	Tablespace Name	Minimum Size (MB)	Small Production System (MB)
Index	COSTPOINT_INDEX	100	300
Dynamic	COSTPOINT_DYN	100	300
Temporary	TEMPORARY_DATA	100	400

2. For databases over 50GB, Deltek recommends the following additional tablespaces for optimal configuration.

   These initial settings are only minimal recommendations. Your production environment may need to be analyzed and adjusted to meet your specific requirements.

Recommended Customization Tablespace Configuration Type	Tablespace Name	Minimum Size (MB)	Small Production System (MB)
Temporary Data	COSTPOINT_XZDATA	512	2048
Temporary Index	COSTPOINT_XZINDEX	256	1024
Report Data	COSTPOINT_RPTDATA	1024	5120
Report Index	COSTPOINT_RPTINDEX	512	2048

Recommended Tablespace Configuration Type for CPSYSTEM and CPADMIN	Tablespace Name	Minimum Size (MB)	Small Production System (MB)
System	SYSTEM	450	450
Default	CPMETA_DATA	400	400
Index	CPMETA_INDEX	100	100
Temporary	TEMPORARY_DATA	100	100

Configuring Multiple Costpoint Transaction Schemas with Shared Admin / Meta Schema(s)

> **Note:** You can skip this step if you do not want to share your ADMIN or META schemas across multiple Costpoint systems.

If you want to share your Costpoint Meta and /or Admin schemas across multiple Costpoint Transaction schemas and the schemas reside on different databases or on separate database servers, it is necessary to configure all the Oracle databases in shared server configuration mode (also called Oracle multi-threaded server [MTS]).

An Oracle database creates server processes to handle incoming requests from user processes from client machines. A server process is called a dedicated server process when it services and is dedicated to only one user process at a time. This is the default configuration for all Oracle databases. A shared server process can service multiple user process requests in shared server architecture, thus reducing the total number of server processes needed to service a given workload. This allows for a significant reduction in system resources and enables the support of an increased number of concurrent users.

The following recommendation is just the starting point on how to configure your database with shared server architecture. It is important to understand your system configuration, number of concurrent users, server load, network load, and so on and adjust these settings for optimal performance. There are other parameters available that can be adjusted depending on your Oracle RDBMS version.

The DISPATCHERS initialization parameter configures dispatcher processes in shared server architecture. Execute the following statement in SQL Plus:

ALTER SYSTEM SET DISPATCHERS = '(PROTOCOL=TCP) (DISPATCHERS=2)';

The SHARED_SERVERS initialization parameter specifies the minimum number of shared servers created at instance startup. Execute the following statement in SQL Plus:

ALTER SYSTEM SET SHARED_SERVERS = 5;

Setting this parameter to 0 disables shared server architecture.

> **Note:** For more information on Oracle shared server architecture, please refer to Oracle documentation for your RDBMS version.

Configuring Costpoint on Oracle

Costpoint 7.1.1 supports both Oracle database architectures: non-CDB's as well as Oracle Multitenant (PDB's).

Costpoint 7.1.1 fully supports use of pluggable databases (PDB's) that form a part of a container database (CDB). When hosting a Costpoint database as a PDB, it is important to allocate adequate shared resources and/or limit the number of PDB's in the CDB in order to achieve and maintain optimal application performance. The database setup and configuration with Oracle multitenant will vary depending on the database workload characteristics, database size, concurrent users, and so on.

> **Tip:** Costoint 7.1.1 does not support use of domain name suffixed to the Oracle service name. For example, Costpoint 7.1.1 does not support **orc1.domain.com** as your service name.

Install Database Tier Software

The steps to install the Costpoint 7.1.1 Database Tier software as well as create the Transaction, System, and Admin databases are detailed in this section.

You must perform this step on your database server or from a client workstation with Oracle client connectivity tools installed to connect to the database.

You must have Internet access on the machine where the Costpoint 7.1.1 installer is invoked in order to download the latest DeltekCostpoint711DatabaseUpgradeFiles.exe and DeltekCostpointRequirementsINI.exe files automatically. The DeltekCostpoint711DatabaseUpgradeFiles.exe contains the latest database patch rollback scripts as well as the latest list of Costpoint 7.0.1 database patches that have been worked into the upgrade. The DeltekCostpointRequirementsINI.exe contains the latest OS platforms and database versions supported. These files are automatically downloaded when you launch the Database Tier installation, assuming that your database server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your database server does not have internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the DeltekCostpoint711DatabaseTier.exe file.

To install the Database Tier software:

1. Run the **DeltekCostpoint711DatabaseTier.exe** file to launch the Costpoint 7.1.1 Database Tier installation program. The Welcome to the InstallShield Wizard for Costpoint screen displays.

   > **Note:** Due to enhanced security in Microsoft Windows Server, it is advised that you use the **Run as Administrator** option when launching installation files, even if you are logged in as a user with local administrative rights. To **Run as Administrator**, right-click the DeltekCostpoint711DatabaseTier.exe file in Windows Explorer and select **Run as Administrator**.

2. Click **Next >**.

3. On the License Agreement screen, review the license agreement, select **I accept the terms of the license agreement**, and click **Next >**.

4. On the Choose Costpoint Database Scripts Directory screen, click **Browse** to navigate to an installation location for the Costpoint 7.1.1 Database Tier software, and click **Next >**.

   The default installation location is **C:\Program Files\Deltek\Costpoint\7.1.1** (recommended). Click.

5. On the Select Deltek Costpoint Install Type screen, select **New Install**, and click **Next >**.

6. On the Select Database Platform screen, select **Oracle**, and click **Next >**.

7. On the Oracle Home Information screen, from the drop-down list, select the **Oracle Home** location for your Costpoint database, and click **Next >**.

   The installer will read your registry to display all available Oracle Home locations.

8. On the Deltek Costpoint 7.1.1 Transaction Oracle Database Information screen, complete the following fields.

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Transaction (DELTEKCP) database server. The default value is your computer name.
	The values for the IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**.
	For RAC installations, you must specify the IP Address or Hostname of one of the instances. If you have SCAN listener setup, please use the Scan hostname or Scan IP Address. Do not use the Virtual IP Address.
Port	Enter the Oracle listener port of your Costpoint database server. The default port for Oracle is **1521**.
SID/SERVICE NAME	Select **SID** or **SERVICE NAME** and then enter the system identification name (SID) or Service Name (ORC1) for the Oracle instance where your Costpoint Transaction database schema will be created. The default is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported:
	$ - _
	Please note a . (period character) is <u>not</u> supported as part of the Service Name.
	Deltek Costpoint requires the Oracle Database SERVICE_NAME to be the DB_NAME value only, meaning the DB_DOMAIN value must be empty. Therefore, the SERVICE_NAME must use the "dbname" format, and not "dbname.dbdomain".
	Oracle Database software identifies a database by its global database name. A global database name consists of the database name and database domain. The DB_NAME parameter and the DB_DOMAIN parameter combine to create the global database name value assigned to the SERVICE_NAMES parameter in the initialization parameter file.
	For databases on Oracle 12c, **Service Name** <u>*must*</u> be selected.
	For databases on other Oracle versions, you are free to choose either the **SID** or the **Service Name** to connect to the Costpoint database. The Oracle SID pertains to the unique name that identifies an Oracle instance. If **SID** is used, then the SID must be registered with the listener on the database server hosting the Costpoint database.
	Similarly, if a Service Name is entered, the **Service Name** must be a valid service registered with the listener on the database server hosting the Costpoint database.
	For RAC installations, you may specify the **Oracle Instance (SID)** of one of the instances, or use the **Service Name** depending on your Oracle RDBMS version.

Field Name	Action
User Name	Enter the name for your Transaction schema user account. The default is **DELTEK**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your Transaction schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Confirm Password	Re-enter the password for your Transaction schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

9. Click **Test Connection**.

    If you have entered the proper database connection information, a message similar to the following displays:

    > "User DELTEK will be created. Click Next."

    If the message above does not display, correct the connection information, and click **Test Connection** again.

10. After receiving the message, click **Next >**.

11. On the Deltek Costpoint 7.1.1 Admin Oracle Database Information screen, complete the following fields.

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Admin (CPADMIN) database server. The default value is your computer name. The value entered in the **IP Address** or **Hostname** field cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. If you have SCAN listener setup, please use the Scan hostname or Scan IP Address. Do not use the Virtual IP Address.
Port	Enter the Oracle listener port of your Costpoint database server. The default port for Oracle is **1521**.

Field Name	Action
SID/SERVICE NAME	Select **SID** or **SERVICE NAME** and then enter the system identification name (SID) or Service Name (ORC1) for the Oracle instance where your Costpoint Admin database schema will be created. The default is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** **Please note a . (period character) is <u>not</u> supported as part of the Service Name.** Deltek Costpoint requires the Oracle Database SERVICE_NAME to be the DB_NAME value only, meaning the DB_DOMAIN value must be empty. Therefore, the SERVICE_NAME must use the "dbname" format, and not "dbname.dbdomain". Oracle Database software identifies a database by its global database name. A global database name consists of the database name and database domain. The DB_NAME parameter and the DB_DOMAIN parameter combine to create the global database name value assigned to the SERVICE_NAMES parameter in the initialization parameter file. For databases on Oracle 12c, **Service Name** <u>*must*</u> be selected. For databases on other Oracle versions, you are free to choose either the **SID** or the **Service Name** to connect to the Costpoint database. The Oracle SID pertains to the unique name that identifies an Oracle instance. If **SID** is used, then the SID must be registered with the listener on the database server hosting the Costpoint database. Similarly, if a Service Name is entered, the **Service Name** must be a valid service registered with the listener on the database server hosting the Costpoint database. For RAC installations, you may specify the **Oracle Instance (SID)** of one of the instances, or use the **Service Name** depending on your Oracle RDBMS version.
User Name	Enter the name for your Admin schema user account. The default user is **CPADMIN**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your Admin schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Confirm Password	Re-enter the password for your Admin schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

Field Name	Action
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

12. Click **Test Connection**.

    If you have entered the proper database connection information, a message similar to the following displays:

    "User CPADMIN will be created. Click Next."

    If the above message does not display, correct the connection information and click **Test Connection** again.

13. After receiving the message, click **Next >**.

14. On the Deltek Costpoint 7.1.1 System Oracle Database Information screen, complete the following fields.

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Admin (CPADMIN) database server. The default value is your computer name. The value entered in the **IP Address** or **Hostname** field cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. If you have SCAN listener setup, please use the Scan hostname or Scan IP Address. Do not use the Virtual IP Address.
Port	Enter the Oracle listener port of your Costpoint database server. The default port for Oracle is **1521**.
SID/SERVICE NAME	Select **SID** or **SERVICE NAME** and then enter the system identification name (SID) or Service Name (ORC1) for the Oracle instance where your Costpoint System database schema will be created. The default is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** **Please note a . (period character) is not supported as part of the Service Name.** Deltek Costpoint requires the Oracle Database SERVICE_NAME to be the DB_NAME value only, meaning the DB_DOMAIN value must be empty. Therefore, the SERVICE_NAME must use the "dbname" format, and not "dbname.dbdomain". Oracle Database software identifies a database by its global database name. A global database name consists of the database name and database domain. The DB_NAME parameter and the DB_DOMAIN

Field Name	Action
	parameter combine to create the global database name value assigned to the SERVICE_NAMES parameter in the initialization parameter file. For databases on Oracle 12c, **Service Name** _must_ be selected. For databases on other Oracle versions, you are free to choose either the **SID** or the **Service Name** to connect to the Costpoint database. The Oracle SID pertains to the unique name that identifies an Oracle instance. If **SID** is used, then the SID must be registered with the listener on the database server hosting the Costpoint database. Similarly, if a Service Name is entered, the **Service Name** must be a valid service registered with the listener on the database server hosting the Costpoint database. For RAC installations, you may specify the **Oracle Instance (SID)** of one of the instances, or use the **Service Name** depending on your Oracle RDBMS version.
User Name	Enter the name for your System schema user account. The default user is **CPSYSTEM**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your System schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Confirm Password	Re-enter the password for your System schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

15. Click **Test Connection**.

16. If you have entered the proper database connection information, a message similar to the following displays:

    "User CPSYSTEM will be created. Click Next."

    If the above message does not display, correct the connection information and click **Test Connection** again.

17. After receiving the message, click **Next >**.

    One of the following screens displays:

- Deltek Costpoint 7.1.1 Transaction Oracle Parallel Execution

- Deltek Costpoint Default and Temporary Tablespace Configuration

If you do not see the Deltek Costpoint 7.1.1 Transaction Oracle Parallel Execution screen, it means **Parallelism** is not enabled on your Oracle Instance.

18. If the Deltek Costpoint 7.1.1 Transaction Oracle Parallel Execution screen displays, select the **Enable Parallel Execution** check box to use parallel execution during the new installation process.

This check box is selected by default.

When using Parallelism, Deltek recommends using the Oracle Defaults for parallel execution.

19. Click **Next >**.

20. On the Deltek Costpoint Default and Temporary Tablespace Configuration screen, complete the following fields, and click **Next >**.

Schema Tablespace Information	Field Name	Action
Costpoint TRANSACTION Schema Tablespace	**Default**	Select your default tablespace for the Costpoint Transaction Schema. Deltek recommends that you use **COSTPOINT_DATA** as the tablespace value.
	Temporary	Select your temporary tablespace for the Costpoint Transaction Schema. Deltek recommends that you use **TEMPORARY_DATA** as the tablespace value.
Costpoint ADMIN Schema Tablespace	**Default**	Select your default tablespace for the Costpoint Admin Schema. Deltek recommends that you use **CPMETA_DATA** as the tablespace value.
	Temporary	Select your temporary tablespace for the Costpoint Admin Schema. Deltek recommends that you use **TEMPORARY_DATA** as the tablespace value.
Costpoint SYSTEM Schema Tablespace	**Default**	Select your default tablespace for the Costpoint System Schema. Deltek recommends that you use **CPMETA_DATA** as the tablespace value.
	Temporary	Select your temporary tablespace for the Costpoint System Schema. Deltek recommends that you use **TEMPORARY_DATA** as the tablespace value.

21. On the Transaction Custom Tablespace Configuration (optional) screen, complete the following fields, and click **Next >**.

Field Name	Action
Costpoint Index Tablespace	Select your default tablespace for the Costpoint Indexes. Deltek recommends that you use the default value, **COSTPOINT_DATA**, unless your database is over 50G. In which case, Deltek recommends that you use **COSTPOINT_INDEX** as the tablespace value.
Costpoint Temporary Data Tablespace	Select your default tablespace for the Costpoint Temporary Data (X_Z_ and Z_ tables). Deltek recommends the default value, **COSTPOINT_DATA**, unless your database is over 50G. In which case, Deltek recommends that you use **COSTPOINT_XZDATA** as the tablespace value.
Costpoint Temporary Index Tablespace	Select your default tablespace for the Costpoint Temporary Indexes (X_Z_ and Z_ tables). Deltek recommends the default value, **COSTPOINT_DATA**, unless your database is over 50G. In which case, Deltek recommends that you use **COSTPOINT_XZINDEX** as the tablespace value.
Costpoint Report Data Tablespace	Select your default tablespace for the Costpoint Report Data. Deltek recommends the default value, **COSTPOINT_DATA**, unless your database is over 50G. In which case, Deltek recommends that you use **COSTPOINT_RPTDATA** as the tablespace value.
Costpoint Report Index Tablespace	Select your default tablespace for the Costpoint Report Indexes. Deltek recommends the default value, **COSTPOINT_DATA**, unless your database is over 50G. In which case, Deltek recommends that you use **COSTPOINT_RPTINDEX** as the tablespace value.

22. On the Deltek Costpoint 7.1.1 Link User Information screen, complete the following fields.

Field Name	Action
User Name	Enter the name of your LINK user account. The default value is **CPLINK_USER**. The user (schema) should not exist in the database. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your LINK user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

Field Name	Action
Confirm Password	Re-enter the password for your LINK user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

23. Click **Test Connection**.

    If you have entered the proper database connection information, a message similar to the following displays:

    "User CPLINK_USER will be created. Click Next."

    If the above message does not display, correct the connection information and click **Test Connection** again.

24. After receiving the message, click **Next >**.

25. On the Pre-Installation Summary screen, review the installation parameters you have selected:

    ▪ If you want to change any settings, click **< Back** to go back and make the necessary changes.

    ▪ If you are satisfied with these settings, click **Install >** to begin the installation.

    Once initiated, the installation process will commence and create objects needed for Costpoint 7.1.1. Please do not interrupt the process. A Windows Command Prompt will appear on your screen that displays the scripts that are being executed.

    The installation will perform the scenarios detailed in the Installation Process for Costpoint 7.1.1 section of this document. The installation process will stop if any errors are encountered. If any errors occur during the installation, please refer to the Troubleshooting Instructions section of this document.

26. On the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box to open the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Costpoint\7.1.1\Logs directory.

    This check box is selected by default.

27. Click **Finish** to exit the installation.

28. When the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file opens, search for the following keywords:

    ▪ **"Error"**: Report any search results to Deltek Costpoint Technical Support. You can ignore "Warning: Procedure created with compilation errors" and "Warning: Package Body created with compilation errors". These errors will be fixed after Link Views are run during the Application Tier installation process.

    ▪ "**Database Installation For New Costpoint 7.1.1 TRANSACTION Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    ▪ "**Database Installation For New Costpoint 7.1.1 ADMIN Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    ▪ "**Database Installation For New Costpoint 7.1.1 SYSTEM Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    Finding the three items listed above indicates that you have successfully installed the Costpoint 7.1.1 Database Tier software and that you have created all of your users (schemas).

Make sure that the default Oracle Port (**1521**) is open for Inbound and Outbound traffic through your firewall. Also, make sure that Network Discovery and File Sharing options are switched on.

Apply Partitioning Script for Performance Enhancement

The steps to applying partitioning scripts to your Costpoint 7.1.1 TRANSACTION database schema are detailed in this section.

> **Warning:** This is an optional step for clients who run Oracle Enterprise edition licensed with partitioning support. All other clients must skip this step.

Partitioning for the following Costpoint tables and corresponding indexes is supported by the upgrade scripts starting with Costpoint 7.0 GA.

Table Name	Index Name
POOL_SIE_SUPPORT	SI_1305
PSR_FINAL_DATA	SI_1822
PSR_HDR	SI_1821
PROJ_SUM	PI_0737
PROJ_BURD_SUM	PI_0736
RPT_REVENUE_WKS	SI_1485
RPT_PROJ_LAB_SUM	SI_1037, SI_1038
RPT_REV_SUM	SI_1218
RPT_PROJ_TMA	SI_0015

The **CostpointPartitionTables.sql** file contains scripts for creating partitioned tables and indexes using the default partitioning scheme recommended by Deltek. You can choose to change the partitioning scheme to suit your requirements.

If the entire script is executed, for each table, the script will create a temporary partitioned table, move the data from the existing non-partitioned table to the partitioned version, create local partitioned indexes, and drop the original non-partitioned table.

The partitioned tables and indexes are created in the default Oracle tablespace of the Transaction schema (DELTEK). To modify this behavior or to retain the tablespace settings of the corresponding original non-partitioned tables, you will need to modify the appropriate script by adding the tablespace information, where necessary.

To partition a subset of the tables in the list above, you are expected to modify the script suitably before execution. Please make provision for adequate disk space and appropriate tablespace settings before executing the script.

While out-of-the-box partitioning should work well for a majority of customers, Deltek recommends that larger customers who need to get the most performance out of Costpoint applications consider modifying

the partitioning model and include the Fiscal Year column as an additional partition parameter on top of the columns used by Deltek.

If you use this approach, Fiscal Year should be the first column in the range criteria. Fiscal year partitioning is especially beneficial if you store multiple years of data in the above tables.

You must perform this step on your Costpoint 7.1.1 Transaction database server.

To apply the partitioning script:

1. Click **Start » All Programs » SQLPlus**.

2. Connect to your Costpoint 7.1.1 TRANSACTION database using your Transaction schema (**DELTEK**) user account, and execute the following SQL script:

   `CostpointPartitionTables.sql`

   The script is located in this folder: C:\Program Files\Deltek\Costpoint\7.1.1\Database\Scripts\Oracle\7.1.1\New\Transaction\Scripts

3. Exit out of **SQLPlus**.

Application Tier Installation

The Costpoint 7.1.1 system uses Oracle's WebLogic Server for its application server tier. During the Application Tier installation process, you will install the WebLogic Server 12.1.3 application server software and the Costpoint 7.1.1 software.

As previously mentioned in the Pre-Installation Instructions section, the Costpoint 7.1.1 WebLogic application server must not contain any previous versions of WebLogic.

Before You Start

Make sure that you meet all Application Tier Installation Prerequisites.

Install Application Tier Software

This step provides instructions for installing Oracle's WebLogic Server 12.1.3 application server software and Deltek Costpoint 7.1.1 software.

You must perform this step on the machine that will serve as your Costpoint 7.1.1 **application** server.

You must have Internet access on the machine where the Costpoint 7.1.1 installer is invoked in order to download the latest DeltekCostpointRequirementsINI.exe file automatically. The file contains the latest OS platforms and database versions supported. The file is automatically downloaded when you launch the Application Tier installation, assuming that your application server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your application server does not have internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the DeltekCostpoint711ApplicationTier.exe file.

To install the Application Tier software:

1. Run the **DeltekCostpoint711ApplicationTier.exe** file to launch the Costpoint 7.1.1 Application Tier installation program. On the Welcome to the InstallShield Wizard for Costpoint screen, click **Next >**.

   > **Note:** Due to enhanced security in Microsoft Windows Server, it is advised that you use the **Run as Administrator** option when launching installation files, even if you are logged in as a user with local administrative rights.

2. Review the license agreement, select **I accept the terms of the license agreement**, and click **Next >**.

3. On the Select Deltek Costpoint Install Type screen, select **New Install**, and click **Next >**.

4. On the Setup Type screen, complete the following fields, and click **Next >**.

Field Name	Action
Primary Application Server Tier	Select this setup type to install both the Oracle WebLogic and Deltek Costpoint Application Tier software.
	This option must be selected if installing Costpoint in a non-clustered environment or if this will be your Primary Application Server Tier in a clustered environment.
	Additional changes are required to configure a clustered environment.
Secondary Application Server Tier	Select this setup type to install only the Oracle WebLogic software. The Deltek Costpoint Application Tier software will not be installed.
	This option must only be selected when configuring a clustered environment after your Primary Application Server Tier has already been installed.

5. On the Choose Oracle WebLogic Installation Directory screen, click **Browse** to navigate to an installation location for the Oracle WebLogic software, and click **Next >**.

   The default is **C:\Oracle\Middleware12.1.3** (recommended).

   Do not install the WebLogic Server software in a directory path or folder that contains a space. The Costpoint 7.1.1 software will not function properly if the WebLogic Server software is installed to a directory path or folder that contains a space.

6. If you select **Secondary Application Server Tier** for the **Setup Type**, the Pre-Installation Summary screen displays. Proceed to step 23 of this procedure.

7. On the Choose Deltek Costpoint Installation Directory screen, navigate to the location where you want the Costpoint 7.1.1 software installed, and click **Next >**.

   The default directory is **C:\Deltek** (recommended).

   The directory in which you install the Costpoint 7.1.1 software cannot be the Oracle WebLogic install directory (C:\Oracle\Middleware12.1.3).

   > **Note:** If you choose to install to a different drive, Deltek strongly recommends that you use the same **Deltek** default directory (**E:\Deltek**).

8. On the Choose License File screen, click **Browse** to navigate to the folder containing the Deltek supplied **LICENSE.ZIP** file, and click **Next >**.

9. On the Select Database Platform screen is displayed, select **Oracle**, and click **Next >**.

10. On the Oracle for Deltek Costpoint 7.1.1 Transaction Database Information screen, complete the following fields.

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Transaction (DELTEKCP) database server. The default value is your computer name.
	The IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**.

Field Name	Action
	For RAC installations, you must specify the IP Address or Hostname of one of the instances. Do not use the Virtual IP Address.
Port	Enter the port that your Costpoint 7.1.1 Transaction database server software uses to listen for requests. The default port for Oracle is **1521**.
Service Name	Enter the service name (ORC1) for the Oracle instance where your Costpoint 7.1.1 Transaction (DELTEKCP) database schema resides. The default value is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** The Service Name must be a valid service registered with the listener on the database server hosting the Costpoint database. The Oracle Net Connect Descriptor on the client machine uses "Service_Name" in the instance portion to specify the database to connect to in the file tnsnames.ora. Oracle creates one default service with the same name as the SID when a database is created. This service registers with the local listener to provide access to the database. Customers can choose to create other service names as needed. For RAC installations, you <u>must</u> specify the Service Name of one of the instances.
User Name	Enter the name of your DELTEK user. The default is **DELTEK**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your DELTEK user. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

11. Click **Test Connection**.

If you have entered the proper database connection information, the following message displays:

"Connection Successful. Click Next."

If it this message does not display, correct the information entered, and click **Test Connection** again.

12. After receiving the message, click **Next >**.

13. On the Oracle for Deltek Costpoint 7.1.1 Admin Database Information screen, complete the following fields:

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Transaction (DELTEKCP) database server. The default value is your computer name. The IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. Do not use the Virtual IP Address.
Port	Enter the port that your Costpoint 7.1.1 Transaction database server software uses to listen for requests. The default port for Oracle is **1521**.
Service Name	Enter the service name (ORC1) for the Oracle instance where your Costpoint 7.1.1 Transaction (DELTEKCP) database schema resides. The default value is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** The Service Name must be a valid service registered with the listener on the database server hosting the Costpoint database. The Oracle Net Connect Descriptor on the client machine uses "Service_Name" in the instance portion to specify the database to connect to in the file tnsnames.ora. Oracle creates one default service with the same name as the SID when a database is created. This service registers with the local listener to provide access to the database. Customers can choose to create other service names as needed. For RAC installations, you <u>must</u> specify the Service Name of one of the instances.
User Name	Enter the name your CPADMIN user account. The default user is **CPADMIN**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your CPADMIN user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

14. Click **Test Connection**.

If you have entered the proper database connection information, the following message displays:

"Connection Successful. Click Next."

If it this message does not display, correct the information entered, and click **Test Connection** again.

15. After receiving the message, click **Next >**.

16. On the Oracle for Deltek Costpoint 7.1.1 System Database Information screen, complete the following fields:

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 Transaction (DELTEKCP) database server. The default value is your computer name. The IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. Do not use the Virtual IP Address.
Port	Enter the port that your Costpoint 7.1.1 Transaction database server software uses to listen for requests. The default port for Oracle is **1521**.
Service Name	Enter the service name (ORC1) for the Oracle instance where your Costpoint 7.1.1 Transaction (DELTEKCP) database schema resides. The default value is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** The Service Name must be a valid service registered with the listener on the database server hosting the Costpoint database. The Oracle Net Connect Descriptor on the client machine uses "Service_Name" in the instance portion to specify the database to connect to in the file tnsnames.ora. Oracle creates one default service with the same name as the SID when a database is created. This service registers with the local listener to provide access to the database. Customers can choose to create other service names as needed. For RAC installations, you <u>must</u> specify the Service Name of one of the instances.
User Name	Enter the name your CPSYSTEM user account. The default user is **CPSYSTEM**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your CPSYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

Field Name	Action
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

17. Click **Test Connection**.

If you have entered the proper database connection information, the following message displays:

"Connection Successful. Click Next."

If it this message does not display, correct the information entered, and click **Test Connection** again.

18. After receiving the message, click **Next >**.

19. On the Deltek Costpoint 7.1.1 Link User Information screen, complete the following fields:

Field Name	Action
User Name	Enter the name your LINK user account. The default user is **CPLINK_USER**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your LINK user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

20. Click **Test Connection**.

If you have entered the proper database connection information, the following message displays:

"Connection Successful. Click Next."

If it this message does not display, correct the information entered, and click **Test Connection** again.

21. After receiving the message, click **Next >**.

22. On the Costpoint System Information screen displays, complete the following fields, and click **Next >**.

Field Name	Action
Listen Port	Enter the port that your Application Server will use to listen for connections. The default value is **7009**.
System Name	Enter the system name that will be used to log on to the Costpoint 7.1.1 system. Deltek recommends that you use your Costpoint 7.1.1 database name, DELTEKCP.

Field Name	Action
	The characters used for the system name must be uppercase and alphanumeric. It must not contain any special characters and must be 16 characters or less in length.

23. On the Pre-Installation Summary screen, review the installation parameters you have selected:

  ▪ If you want to change any settings, click **< Back** to go back and make the necessary changes.

  ▪ If you are satisfied with these settings, click **Install >** to begin the installation.

  Once initiated, the installation process can take a long time to complete. Please do not interrupt the process. A Windows Command Prompt will also appear on your screen that displays the scripts that are being executed.

  The installation will perform the scenarios detailed in the Installation Process Changes for Costpoint 7.1.1 section of this document. The installation process will stop if any errors are encountered. If any errors occur during the installation, please refer to the Troubleshooting Instructions section of this document.

24. On the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box to open the DeltekCostpoint711ApplicationTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Costpoint\7.1.1\logs directory.

  This check box is selected by default.

25. Click **Finish** to exit the installation.

26. When the DeltekCostpoint711ApplicationTierInstallLog_<date>_<time>.txt file opens, search for the following keyword:

  ▪ **"Error"** – Report any search results to Deltek Costpoint Technical Support. The following error messages can be ignored:

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error401.htm**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error403.htm**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error404.htm**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error500.htm**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\tools\error.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\error.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_bottomborder-righthand.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_bottomborder.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_pointer-righthand.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_pointer.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_topborder-righthand.png**

    ▪ **OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_topborder.png**

- **OnInstallingFile - Installing File :**
  C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_vbackground-righthand.png

- **OnInstallingFile - Installing File :**
  C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_vbackground.png

If you are running a WebLogic cluster, you must repeat this step for all of your WebLogic servers. Running once on your Cluster master, select **Primary Application Server Tier** for the **Setup Type**, and on each of your cluster nodes, select **Secondary Application Server Tier** for the **Setup Type**.

Please refer to the DeltekCostpoint711ConfigurationUtility.pdf technical guide for more information on WebLogic clustering.

Make sure that your default Application Server Listener Port (**7009**) is open for Inbound and Outbound traffic through your firewall. Also, make sure that Network discovery and File Sharing options are switched on.

Add Users to the CostpointToolsGroup

The steps to add the necessary users to the newly created User Group, **CostpointToolsGroup**, are detailed in this section. The Application Tier installation you just completed has added this group to your application server, granting it both **Full Sharing** and **Full Security Permissions** to the **C:\Deltek** folder and **Full Security Permissions** to the **C:\Oracle\Middleware12.1.3** folder.

You must perform this step on your Costpoint 7.1.1 application server.

To add users to the newly created CostpointToolsGroup:

1. Click **Start » Administrative Tools » Computer Management**. For Windows Server 2012, right-click on **Start**, and select **Computer Management**.

2. From **Computer Management » Local Users and Groups » Groups**, add the following users to the **CostpointToolsGroup** group:

   - **Web Tier (IIS) install user**: The user that will run the Web Tier install will need to be in this group prior to running that install in the next section.

   - **Application Tier (Costpoint) Windows Service account**: The user that you will use to start and run the Costpoint Windows Service.

   - **Application Tier (Costpoint) Tools user**: The user that you will use to log in to the application server to run any of the Costpoint tools, such as the Config Utility, Migrate User Utility, or DBWizard.

3. Reboot your Costpoint 7.1.1 application server.

Before You Start

Make sure that you meet all [Costpoint 7.1.1 Server Startup Prerequisites](#).

Manually Start Costpoint 7.1.1

The steps to starting Costpoint 7.1.1 are detailed in this section. You must start the Costpoint 7.1.1 WebLogic Server on your application server to gain access to the Costpoint 7.1.1 system.

You must perform this step on your Costpoint 7.1.1 application server.

To start Costpoint 7.1.1:

1. This step is optional. In order for the Start Costpoint 7.1.1 Windows Command Prompt to have scrolling capability, perform the following:

   a. Right-click **Start**, select **Search**, enter **Costpoint 7.1.1**, right-click **Start Costpoint 7.1.1**, and click **Open file location**.

   b. Right-click **Start Costpoint 7.1.1** and click **Properties** on the shortcut menu.

   c. Click the Layout tab and increase the **Screen buffer size Height** from **300** to **2000**.

   d. Click **OK** to save the changes.

2. Right-click on **Start**, select **Search**, under **Costpoint 7.1.1** right-click **Start Costpoint 7.1.1**, and click **Run as administrator**.

   > **Note:** Due to enhanced security in Windows Server, it is advised that you use the **Run as Administrator** option when launching this command even if the logged in user has local administrative rights.

   This opens a Windows Command Prompt and launches a command script that starts the Costpoint 7.1.1 WebLogic Server. When the Windows Command Prompt window opens, you will see a series of messages scrolling down the screen.

   Starting the Costpoint 7.1.1 WebLogic Server can take a long time to complete. Please do not interrupt the process.

3. After the Costpoint 7.1.1 WebLogic Server has successfully started, the following message displays at the bottom of the command line shell window:

   <The server started in RUNNING mode.>

   If the Costpoint 7.1.1 WebLogic Server encounters errors during the startup process, the message will not display, and the command line shell (DOS window) may terminate.

   If the message does not display or if the command line shell (DOS window) terminates, you must perform the following:

   - Make a copy of the C:\Deltek\Costpoint\71\logs\DEServer.log file.
   - Contact Deltek Costpoint 7.1.1 Technical Support.

Install Costpoint 7.1.1 Windows Service

The steps to installing the Costpoint 7.1.1 Windows service are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To install Costpoint 7.1.1 to run as a Windows service:

1. Stop the Costpoint 7.1.1 WebLogic Server.

   > **Note:** See the Stop Costpoint 7.1.1 WebLogic Server from the Web Browser section of this document for information on starting and stopping the Costpoint 7.1.1 WebLogic Server.

2. Use Windows Explorer to navigate to the directory where the Costpoint 7.1.1 software was installed (**C:\Deltek\Costpoint\71\bin**). Right click **InstallCPWebasService.cmd**, and select **Run as administrator**.

Configure Costpoint 7.1.1 Windows Service

The steps to configuring the Costpoint 7.1.1 Windows service are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To configure Costpoint 7.1.1 Windows service:

1. Click **Start » Administrative Tools » Services**.

2. On the Services window, scroll down the **Services** drop-down list, right-click the **Costpoint 7.1.1** service, and then click **Properties** on the shortcut menu.

   If you do cannot find the **Costpoint 7.1.1** service, then the service must not have installed properly in the previous step. Please repeat Step 1 of Installing Costpoint 7.1.1 as a Windows Service.

3. On the Costpoint 7.1.1 Properties screen, click the Recovery tab, and complete the following:

Field Name	Action
First failure	Change the drop-down selection from **Take No Action** to **Restart the Service**.
Second failure	Accept the default value, **Take No Action**.
Subsequent failures	Accept the default value, **Take No Action**.
Reset fail count after	Change the value from **0** to **1** days.
Restart service after	Accept the default value, **1** minute.

4. Click **Apply**.

5. On the Costpoint 7.1.1 Properties screen, click the **Log On** tab and complete the following:

Field Name	Action
Account	Enter the domain Account. For example, Example: domain\useraccountname. If using a domain service login account instead of using the "Local System Account" select **This Account**.
Password	Enter the password for the domain Account.
Confirm Password	Re-enter your password for the domain Account.

6. Click **Apply**.

   Make sure that the login account for the Costpoint Service is in the local Administrators group on the Application Tier server and is part of the local security group created by the Application Tier installer, CostpointToolsGroup.

Also keep in mind that this login account must be given full access permissions for any Alternate File locations set up (network shared directories). Alternate File locations are used for Costpoint users for uploading and downloading files from within Costpoint.

7. On the Costpoint 7.1.1 Properties screen, click the General tab, and click **Start** to start the Costpoint 7.1.1 service.

The service will indicate that it started immediately. However, please note that it takes several minutes for the Costpoint 7.1.1 service to fully initialize.

After starting the service, wait several minutes before attempting to connect to the software.

If you encounter problems with the Costpoint 7.1.1 service, check the C:\Deltek\Costpoint\71\logs\DEServer.log file and report any errors to Deltek Costpoint 7.1.1 Technical Support.

8. Click **OK** to close the Costpoint 7.1.1 Properties screen, and close the Services window.

Web Tier Installation

The steps to integrate your Costpoint 7.1.1 software with the Microsoft Internet Information Server (IIS) is detailed in this section.

The Microsoft Internet Information Server component is **optional**. The WebLogic Server software included an integrated Web server component that you can use with the Costpoint 7.1.1 software.

Though the use of the IIS component is optional, Deltek strongly recommends that you install it in your production environment. In addition to acting as the proxy, the IIS server is also used to load balance the cluster nodes.

Before You Start

Make sure that you meet all [Web Tier Installation (Microsoft IIS) Prerequisites](#).

Configure Microsoft IIS Web Server for Costpoint 7.1.1

The steps to configure Microsoft IIS prior to the installation of Costpoint 7.1.1 are detailed in this section.

You must perform this step on a Web server that uses Microsoft Internet Information Server.

To configure Microsoft IIS Web server:

1. Click **Start » Administrative Tools » Server Manager**.
2. Click **Manage** and select **Add Roles and Features**.
3. On the Before you begin screen, click **Next**.
4. On the Select installation type screen, accept the default of **Role-based or feature-based installation** and click **Next**.
5. On the Select destination server, accept the default of **Select a server from the server pool**, which should have automatically selected the IIS server you are on, and click **Next**.
6. On the Select server roles screen, scroll down and select **Web Server (IIS)**.
7. On the Add features that are required for Web Server (IIS) screen, click **Add Features**.
8. On the Select server roles screen, click **Next**.
9. On the Select features screen, click **Next**.
10. On the Web Server Role (IIS) screen, click **Next**.
11. On the Select role services screen, perform the following:
    - Scroll down, expand **Application Development**, and select **ISAPI Extensions**.
    - Scroll down, under **Management Tools**, expand **IIS 6 Management Compatibility**, and select **IIS 6 Metabase Compatibility**.
    - Scroll down and select **IIS Management Scripts and Tools**.
    - Click **Next**.
12. On the Confirm installation selection screen, click **Install**.
13. After the installation is complete, click **Close**.
14. Click **Tools** and select **Internet Information Services (IIS) Manager**.

15. On the Internet Information Services (IIS) Manager screen, right-click your IIS computer name icon, and click **Stop**.

16. Right-click your IIS computer name icon again, and click **Start**.

17. Close the Internet Information Services (IIS) Manager window.

18. Close the Services Manager window.

Install Web Tier Software

The steps to integrate the Costpoint 7.1.1 system with Microsoft IIS are detailed in this section.

You must perform this step on a Web server that is using Microsoft Internet Information Server.

You must have Internet access on the machine where the Costpoint 7.1.1 installer is invoked in order to download the latest DeltekCostpointRequirementsINI.exe file automatically. The file contains the latest OS platforms and database versions supported. The file is automatically downloaded when you launch the Web Tier installation, assuming that your web server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your application server does not have internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the DeltekCostpoint711WebTier.exe file.

To install Costpoint 7.1.1 on your Microsoft IIS Web server:

1. Run the **DeltekCostpoint711WebTier.exe** file to launch the Costpoint 7.1.1 Web Tier installation program.

    > **Note:** Due to enhanced security in Windows Server, it is advised that you use the **Run as Administrator** option when launching the executable files even if the logged in user has local administrative rights.

2. On the Welcome to the InstallShield Wizard for Costpoint screen, click **Next >**.

3. Review the license agreement, select **I accept the terms of the license agreement**, and click **Next >**.

4. On the Select Deltek Costpoint Install Type screen, select **New Install**, and click **Next >**.

5. On the Choose Deltek Costpoint Installation Directory screen, click **Browse** to navigate to an installation location for the Deltek Costpoint 7.1.1 IIS software.

    The default is **C:\Deltek\Costpoint\71\applications** (recommended).

    The installation process populates the folder selected above with a \DEWebApp folder that contains all the program files you need to integrate the Costpoint 7.1.1 software that resides on your application server with your Microsoft IIS Web server.

6. Click **Next >**.

7. On the Deltek Costpoint 7.1.1 WebLogic System Information screen, complete the following fields:

Field Name	Action
IP Address or Hostname	Enter the IP address (**10.2.2.154**) or hostname (**appsvr01**) of your Costpoint 7.1.1 WebLogic application server. The IP Address or Hostname must not be **127.0.1.0.1** or **localhost**.
Listen Port	Enter the Listener Port for your Costpoint 7.1.1 WebLogic application server. You specified this port during the Costpoint 7.1.1 application server software installation. The default port is **7009** (recommended). Your Microsoft IIS Web server will use the IP address or hostname and Listener Port information to forward requests to your Costpoint 7.1.1 WebLogic application server. This port must match the one entered during the Costpoint 7.1.1 Application Server installation.

8. Click **Next >**.

9. On the IIS Website Name screen, locate the **Website Name** field and select the Website where you wish the Deltek Costpoint 7.1.1 Virtual Directory (**CPWeb**) to be created, and click **Next >**.

   Typically, this is the **Default Web Site**.

10. On the Choose Deltek Costpoint 7.1.1 Path screen, click **Browse** to navigate to the shared UNC path (**\\appsrv01\Deltek_shared**) of the **Deltek** folder that resides on your **Costpoint 7.1.1 Application Server** (if your Web Server is also your Application Server just enter the directory, C:\Deltek).

    The Windows Administrator user account (or equivalent) on the machine that hosts your Costpoint 711 IIS Web server software that is running this installation must exist in the CostpointToolsGroup created on your Costpoint 7.1.1 application server. That group has the proper write permissions to the C:\Deltek share created on your Costpoint 7.1.1 Application Server

11. On the Pre-Installation Summary screen, review the installation parameters you have selected:

    ▪ If you want to change any settings, click **< Back** to go back and make the necessary changes.

    ▪ If you are satisfied with these settings, click **Install >** to begin the installation.

    Once initiated, the installation process can take a long time to complete. Please do not interrupt the process.

    The installation will perform the scenarios detailed in the Installation Process Changes for Costpoint 7.1.1 section of this document.

    The installation process creates the **CPWeb** Virtual Directory under the Default Website, using the Default App Pool. The process also creates a share of your Costpoint 7.1.1 Costpoint directory, C:\Deltek\Costpoint\71\applications. In order for the Application Server (WebLogic) to deploy hot fixes and updates, this directory must be shared with Co-Owner (Full Control) rights.

    During the installation process, a new User Group, **CostpointToolsGroup**, is created and given Full Sharing and Security rights on C:\Deltek\Costpoint\71\applications.

12. On the InstallShield Wizard Complete screen, select **No, I will restart my computer later**, and click **Finish**.

13. Open the DeltekCostpoint711WebTierInstallLog_<date>_<time>.txt file (from the C:\Program Files\Deltek\Costpoint\7.1.1\logs directory), and search for the following:

- **"Error"** – Report any search results to Deltek Costpoint Technical Support. The following errors can be ignored:

  - All of these messages:

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error401.htm

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error403.htm

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error404.htm

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\error500.htm

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\tools\error.png

    OnInstallingFile - Installing File : C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\error.png

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_bottomborder-righthand.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_bottomborder.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_pointer-righthand.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_pointer.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_topborder-righthand.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_topborder.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_vbackground-righthand.png**

    **OnInstallingFile - Installing File :
    C:\Deltek\Costpoint\71\applications\enterprise\DEWebApp\images\prompt_error_vbackground.png**

Make sure that Network Discovery and File Sharing options are switched on.

Add Users to the CostpointToolsGroup

The steps to add the necessary users to the newly created **CostpointToolsGroup** are detailed in this section. The Web Tier installation added this group to your Web server and has granted the group **Full Sharing** and **Full Security Permissions** to the folder containing your DEWebApp folder, **C:\Deltek\Costpoint\71\applications**.

You must perform this step on your Costpoint 7.1.1 Web server.

To add users to the newly created CostpointToolsGroup:

1. Right-click **Start**, and select **Computer Management**.

2. From **Computer Management**, **Local Users and Groups**, **Groups**, add the following users to the **CostpointToolsGroup** group:

   - **Application Tier (Costpoint) Tools user**: The user that you will use to log in to the application server to run any of the Costpoint tools, such as the Config Utility, Migrate User Utility, or DBWizard.

3. Reboot your Costpoint 7.1.1 Web server.

Configure Costpoint 7.1.1 IIS Access

The steps to configure Costpoint 7.1.1 to work through IIS are detailed in this section.

You must perform this step on your Costpoint 7.1.1 WebLogic application server.
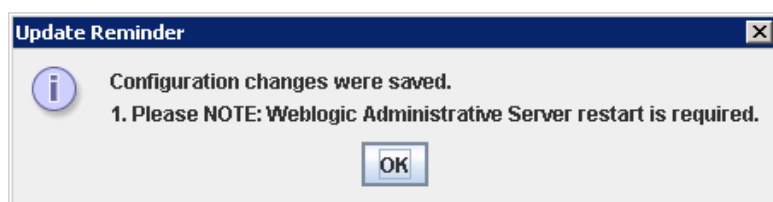
To configure Costpoint 7.1.1 and IIS:

1. With your Costpoint 7.1.1 service running, right-click **Start**, select **Search**, enter **Costpoint 7.1.1**, right-click **Start Costpoint 7.1.1 Config Utility**, and click **Run as administrator**.

> **Note:** Due to the enhanced security in Windows Server, it is advised to that you use the **Run as Administrator** option when launching this command even if the logged in user has local administrative rights.

2. On the Select Your Configuration Options screen, make sure the **IIS Connection Configuration** check box is selected and click **Next**.

3. On the Costpoint Configuration Utility screen, click the **IIS** tab and perform the following:

Field Name	Action
Use IIS	Select this check box. This option is cleared by default.
Configuration File Location (iispoxy.ini)	Click the ellipsis button, and navigate to the \\CPiisServer\Costpoint folder share on your IIS server. Select the **DEProxy\lib** folder to access the **iisproxy.ini** file, and click **Open**. Click **OK** after the following message displays: "Configuration file iisproxy.ini was successfully loaded."
DEWebApp Folder Location	Click the ellipsis button, and navigate to the shared \\CPiisServer\Costpoint folder on your IIS server, and click **Open**.
WebLogic Host IP	Enter your WebLogic application server name.
Port	Enter the WebLogic Listener Port, **7009**.

4. Click **Save**, the following messages is displayed:

```
Update Reminder                              [x]
 (i)   Configuration changes were saved.
       1. Please NOTE: Weblogic Administrative Server restart is required.
                    [ OK ]
```

5. Click **OK**, and click **Close**.

Restart Costpoint 7.1.1 WebLogic Server

The steps to stop and restart your Costpoint 7.1.1 WebLogic Server are detailed in this section.

You must perform this step on your Costpoint 7.1.1 WebLogic application server.

To stop and restart your Costpoint 7.1.1 WebLogic Server:

1. Click **Start » Administrative Tools » Services**.

2. On the Services window opens, scroll down the **Services** list and **Stop** the **Costpoint 7.1.1 service**.

3. After the service stops, **Start** the **Costpoint 7.1.1 service**.

> **Note:** The service immediately indicates that it has started. However, please note that it takes several minutes for the Costpoint 7.1.1 service to fully initialize.
>
> After starting the service, wait several minutes before attempting to connect to the software.
>
> If you encounter problems with the Costpoint 7.1 service, check the **C:\Deltek\Costpoint\7.1.1\logs\DEServer.log** file and report any errors to Deltek Costpoint 7.1.1 Technical Support.

4. Close the Services window.

Costpoint 7.1.1 Initial Log In Configuration

The steps to configure your browser and verify your Costpoint 7.1.1 Application Tier and Web Tier installations are detailed in this section. To confirm that these servers are functioning properly, you will log in to Costpoint 7.1.1 and preview a report.

Before You Start

Make sure that you meet all Costpoint 7.1.1 Initial Log In Configuration Prerequisites.

Costpoint 7.1.1 Printer Configuration

This step is optional. It provides configuration instructions for your Application Tier WebLogic Server to allow you to print Costpoint 7.1.1 reports. This is useful for asynchronous printing from the server, especially for tasks such as printing reports through the Job Server in the middle of the night.

> **Note:** Users can print to local printers from the workstations without configuring anything in this step.

You must perform this step on your Costpoint 7.1.1 application server.

To create Windows printer objects on your application server:

1. Right-click **Start**, click **Control Panel**, and under Hardware, select **View devices and printers**.

2. On the Printers and Faxes screen, double-click **Add Printer**.

3. Use the Add Printer Wizard to create a Windows printer object that will connect and print to a printer on your network.

   On your application server, you can create as many Windows printer objects as needed for your organization. After the printer objects are created, your Costpoint 7.1.1 WebLogic application server will make the printer objects available to your users.

Set Web Browser Internet Options

The steps to configure the Internet Explorer (IE) browser settings to access the Costpoint 7.1.1 system are detailed in this section.

This step must be performed on all Windows client workstations that will access your Costpoint 7.1.1 WebLogic application server.

To configure the browser settings for accessing the Costpoint 7.1.1 system:

1. Open your Web browser.

2. From the menu bar, click **Tools** » **Internet Options**.

3. On the Internet Options screen, click the General tab, and click **Settings** under the **Browsing history** section.

4. On the Temporary Internet Files and History Settings screen, complete the following:

Field Name	Action
Check for newer versions of stored pages	Select **Automatically**.
Disk space to use	Enter at least 100 Megabytes (MB).

5. Click **OK** to close the Settings screen.

6. On the Internet Options screen, click the Security tab, select **Trusted sites**, and click **Sites**.

   Depending on your environment, you may need to add your Costpoint 7.1.1 URL under **Local Internet** instead of **Trusted sites**.

7. On the **Add this website to the zone**, enter **http://<IPAddress or ComputerName>**, where **<IPAddress or ComputerName>** identifies your Costpoint 7.1.1 WebLogic application server or IIS Web server, depending on which server you will be using to access Costpoint 7.1.1 (for example, **http://10.2.2.154**).

8. Clear the **Require server verification (https:) for all sites in this zone** check box.

9. Click **Add**, and then click **Close**.

10. On the Internet Options screen, click the **Advanced tab**, scroll down under the Browsing section, and clear the **Reuse windows for launching shortcuts** check box.

11. Click **OK** to close the Internet Options screen.

12. From the menu bar, click **Tools » Pop-up Blocker » Turn Off Pop-up Block**.

    Disable any pop-up blockers or explicitly allow pop-ups for the Costpoint 7.1.1 URL, such as **http://<IPAddress or ComputerName>**, where **<IPAddress or ComputerName>** identifies your Costpoint 7.1.1 WebLogic application server or IIS Web server (for example, **http://10.2.2.154** .

13. Close your Web browser.

Log In To Costpoint 7.1.1

The steps to log in to Costpoint 7.1.1 are detailed in this section.

You can perform this step from any Windows client workstation that has TCP/IP access to your Costpoint 7.1.1 WebLogic application server.

To log in to Costpoint 7.1.1:

1. Open your Web browser, and enter one of the following URLs:

   http://<AppServerIPAddress or ComputerName>:<Port>

   http://<WebServerIPAddress or ComputerName>/cpweb

   Where <AppServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 WebLogic application server and <Port> identifies the unique port number that your Costpoint 7.1.1 WebLogic application server uses to listen for connections. You specified this port value during the Costpoint 7.1.1 software installation. The default is 7009 (for example, **http://10.2.2.154:7009**).

   Or where <WebServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 IIS Web server (for example, **http://10.2.2.156/cpweb**).

2. When the Deltek Costpoint 7.1.1 Welcome screen displays, complete the following fields.

Field Name	Action
Username	Enter **CPSUPERUSER**.
Password	Enter **password**. The password is case-sensitive and must be entered in lowercase. Passwords that you create for other user IDs may be uppercase, lowercase, or mixed.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Costpoint 7.1.1 system during the Application Server Installation. Typically, customers use a system name that is identical to their Costpoint 7.1.1 Database name, **DELTEKCP**.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: ▪ **Application**: Accept the blank default value, or enter a specific Costpoint 7.1.1 application. For example, COSTPOINT **MENU**. ▪ **Company**: Enter your company ID. For example, **1**. ▪ **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Costpoint 7.1.1, review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. This check box is not selected by default.

3. Click **Log In**.

4. Contact Custom Solutions at Deltek if the following message displays:

    "Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

5. Click **OK**, and a screen similar to the following displays.
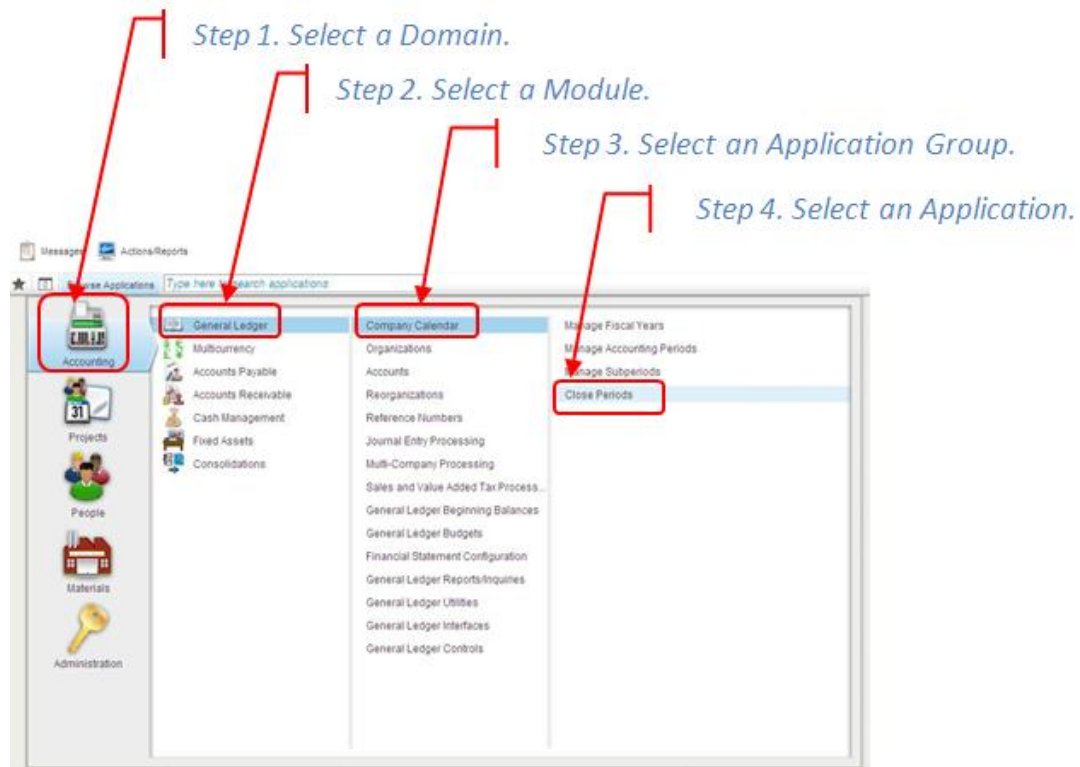
6. From the main menu screen, click **Administration » System Administration » System Administration Utilities » Rebuild Global Settings**.
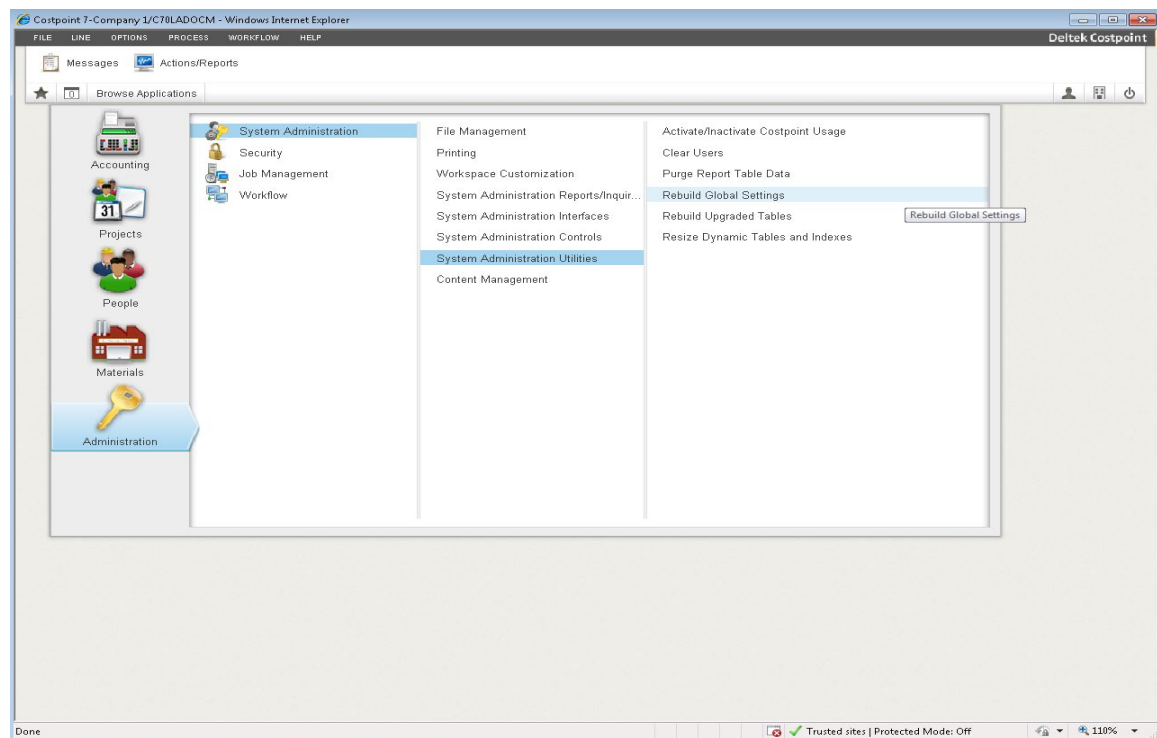
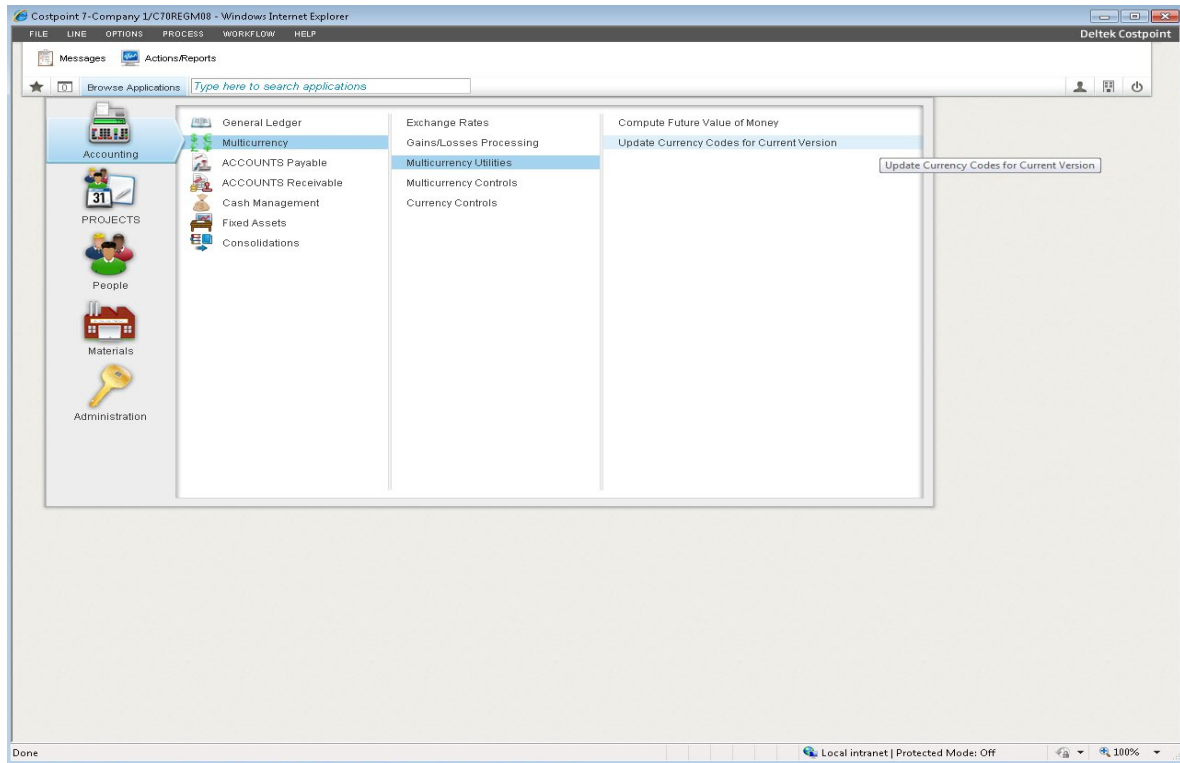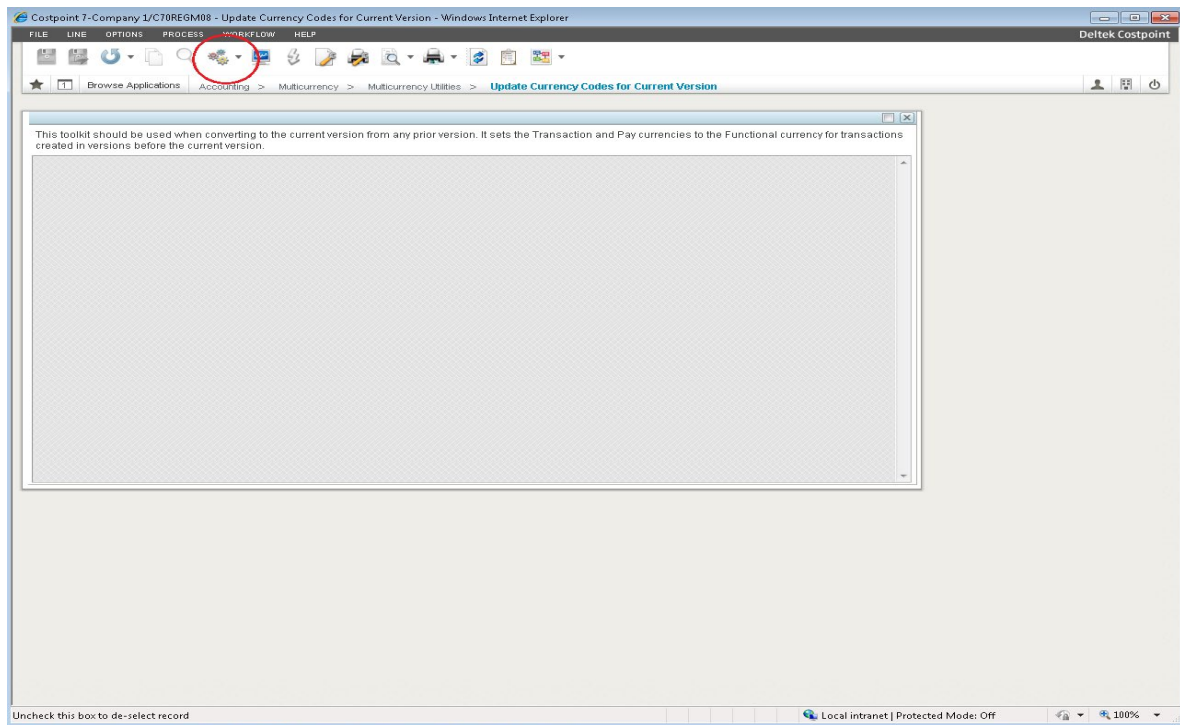7. On the Rebuild Global Settings screen, click **Default Action**.
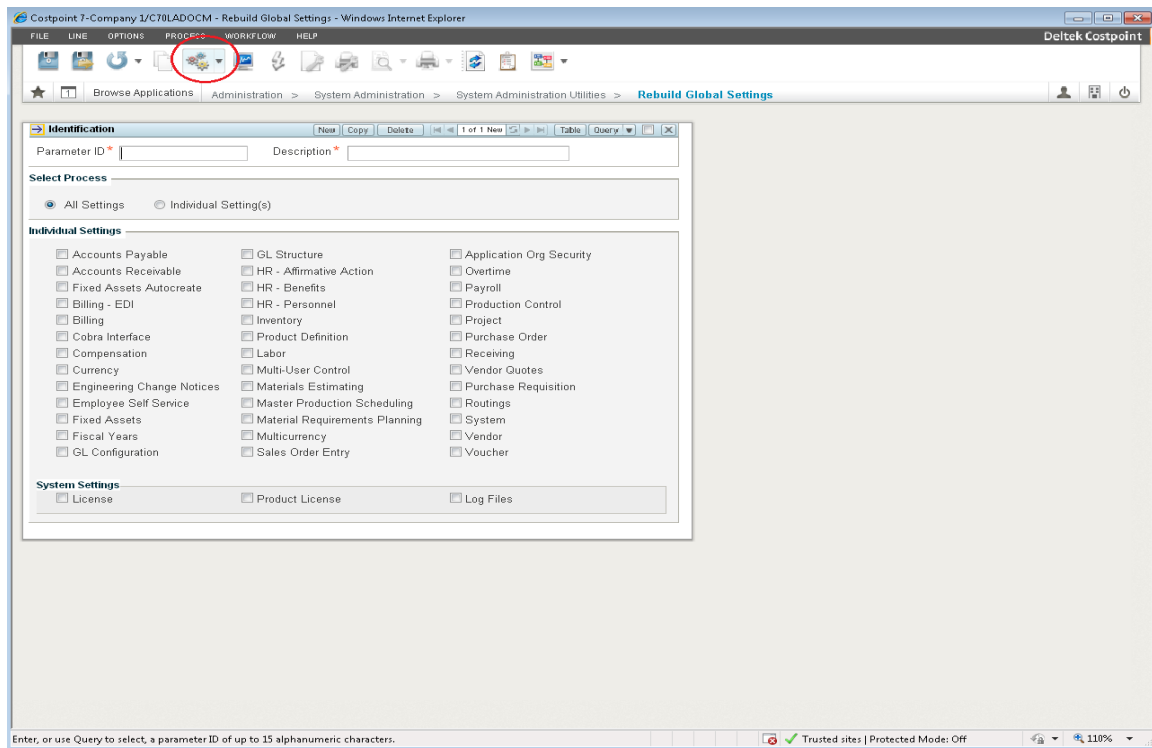
> **Note:** If you click the right side (down arrow) of the **Default Action** button, you must also select **Reload Settings**.

8. On the Processing Complete screen, click **OK**.

9. Click **File » Close Application** to close the Rebuild Global Settings screen, and click **OK** on the unsaved changes message.

10. From the main menu screen, click **Accounting » Multicurrency » Multicurrency Utilities » Update Currency Codes for Current Version**.

11. On the Update Currency Codes for Current Version screen, click **Default Action**.

> **Note:** If you click the right side (down arrow) of the **Default Action** button, you must also select **Initialize Currency Codes for Version**.

12. On the Processing Complete screen, click **OK**.

13. Click **File » Close Application** to close the Update Currency Codes for Current Version screen.

14. From the main menu screen, click **Administration » System Administration » Printing » Manage System Printers**.
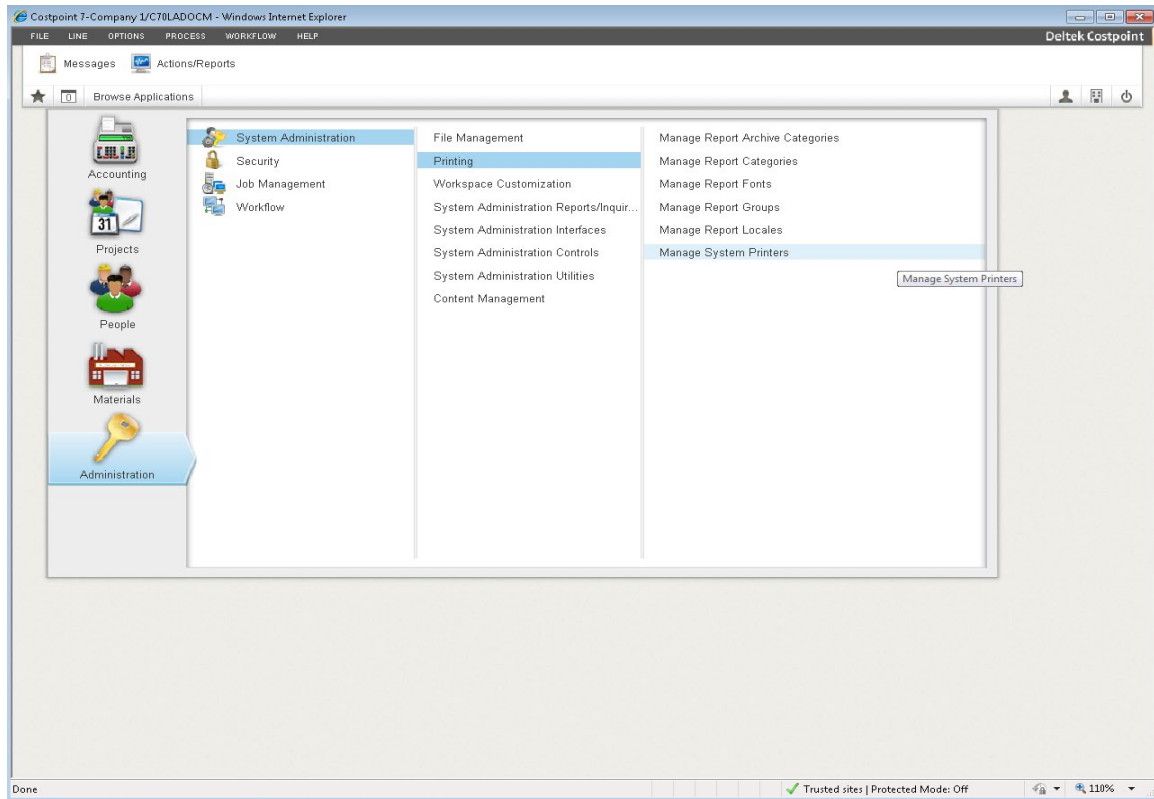
15. On the Manage System Printers screen displays, click **New Record** (**+**).
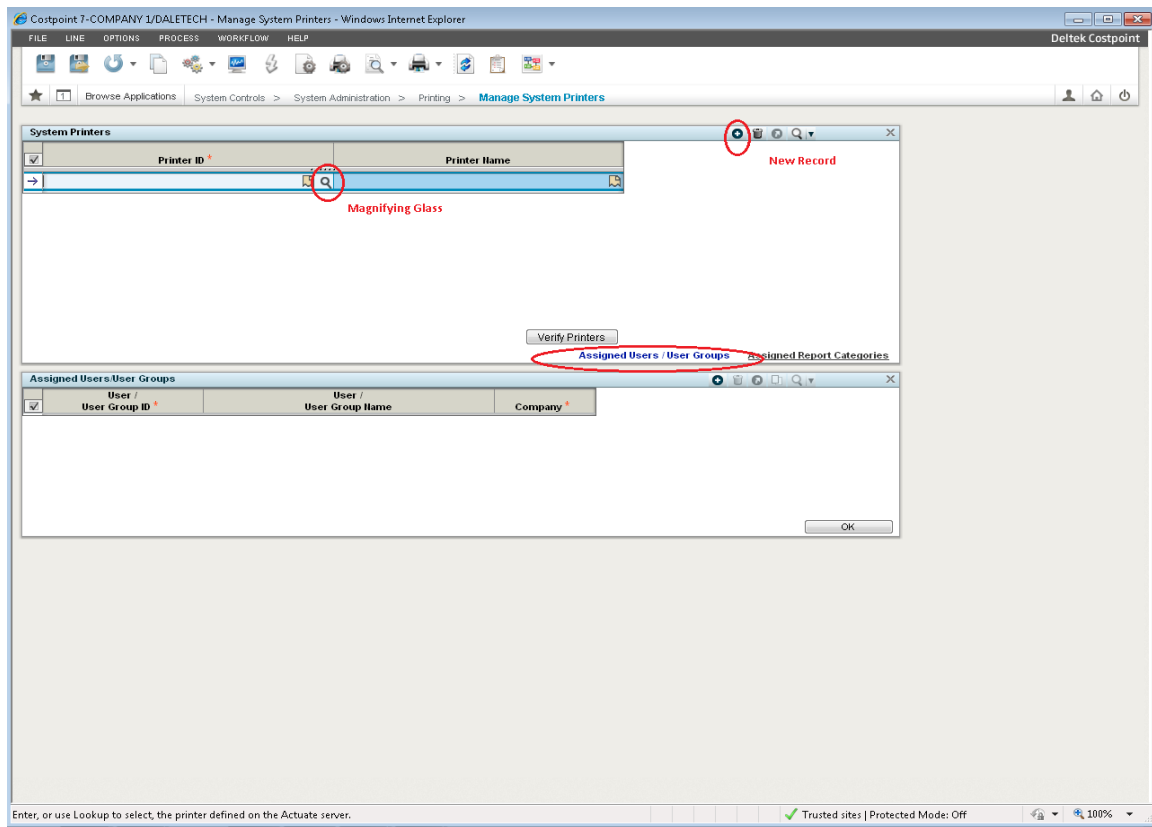
16. Complete the following fields.

Field Name	Action
Printer ID	Click the magnifying glass (circled above in red). This displays all printer objects that are available on your Application Server. Select the appropriate printer object by clicking in the check box to the left of the printer object name and then clicking **SELECT**.
Printer Name	Enter a descriptive name for the printer object.

17. Select the **Assigned Users/User Groups** link located in the lower right corner of the System Printers section.

18. When the focus switches to the Assigned Users/User Groups section at the bottom half of your browser window, click **New Record** (**+**), and complete the following fields.

Field Name	Action
User/User Group ID or User/User Group Name	Click the magnifying glass for one of these fields. Select a User/User Group that should have access to the printer object you specified above.
Company	Click the magnifying glass. Select a Company for this User/User Group.

19. Click **SELECT**. You must repeat Step 18 for each User/User Group that you want to assign the printer object that you specified in Step 16.

20. Click **Save**, and click **OK** when the following message is displayed: "Record modifications completed without error."

    You must repeat items 14-20 for any printer objects on your Application server that you wish to make available to your Costpoint 7.1.1 system users.

21. Click **File**» **Log-out** to exit out of Costpoint 7.1.1.

22. Close your Web browser.

Verify Costpoint 7.1.1 Printer Configuration

The steps to verify your Costpoint 7.1.1 printers are detailed in this section.

This step can be performed from any Windows client workstation that has TCP/IP access to your Costpoint 7.1.1 WebLogic application server.

To verify your Costpoint 7.1.1 printers:

1. Open your Web browser, and enter one of the following URLs:

   http://<AppServerIPAddress or ComputerName>:<Port>

   http://<WebServerIPAddress or ComputerName>/cpweb

   Where <AppServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 WebLogic application server and <Port> identifies the unique port number that your Costpoint 7.1.1 WebLogic application server uses to listen for connections. You specified this port value during the Costpoint 7.1.1 software installation. The default is 7009 (for example, **http://10.2.2.154:7009**).

   Or where <WebServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 IIS Web server (for example, **http://10.2.2.156/cpweb**).

2. On the Deltek Costpoint 7 Welcome screen, complete the following fields.

| Field Name	Action
Username	Enter **CPSUPERUSER**.
Password	Enter the CPSUPERUSER user password. The default is **password**.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Costpoint 7.1.1 system during the Application Server Installation process. Typically, customers use a system name that is identical to their Costpoint 7.1.1 Database name, DELTEKCP.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: ▪ **Application**: Accept the blank default value, or enter a specific Costpoint 7.1.1 application. For example, COSTPOINT **MENU**. ▪ **Company**: Enter your company ID. For example, **1**. ▪ **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Costpoint 7.1.1,

Field Name	Action
	review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. This option is not selected by default.

3. Click **Log In**.

4. Click **OK** if the following message displays:

   "Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

5. From the main menu screen, click **Administration » Security » Security Reports/Inquiries » Print User Group Rights Report**.
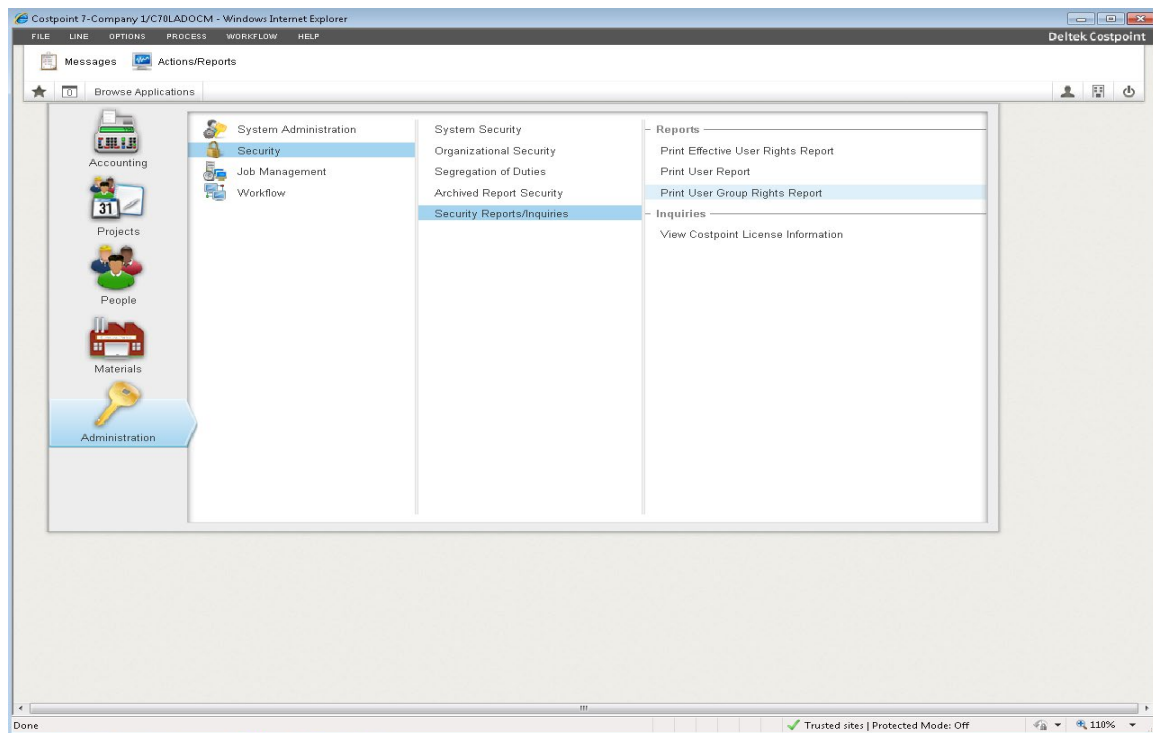
6. On the Print User Group Rights Report screen, click **Print Options**.
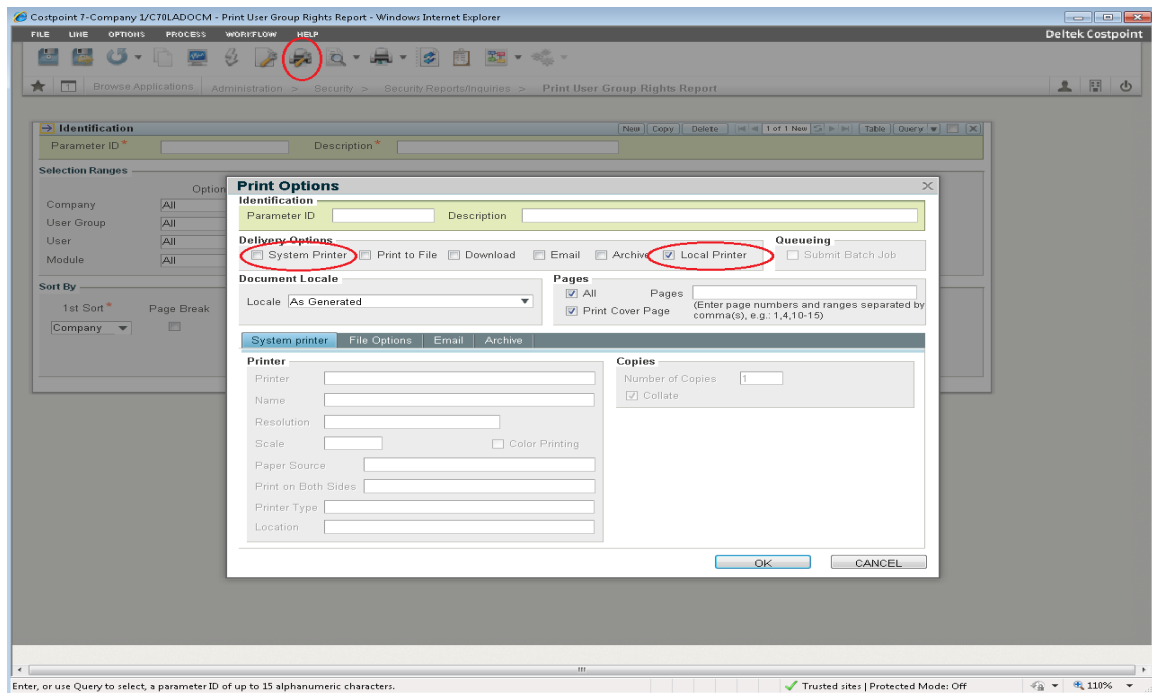
7. On the Print Options screen, select the **System Printer** or the **Local Printer** Delivery Option, depending on how you setup your Application Server printer, and click **OK**.

8. On the Print User Group Rights Report screen, click **Print Default Report**.
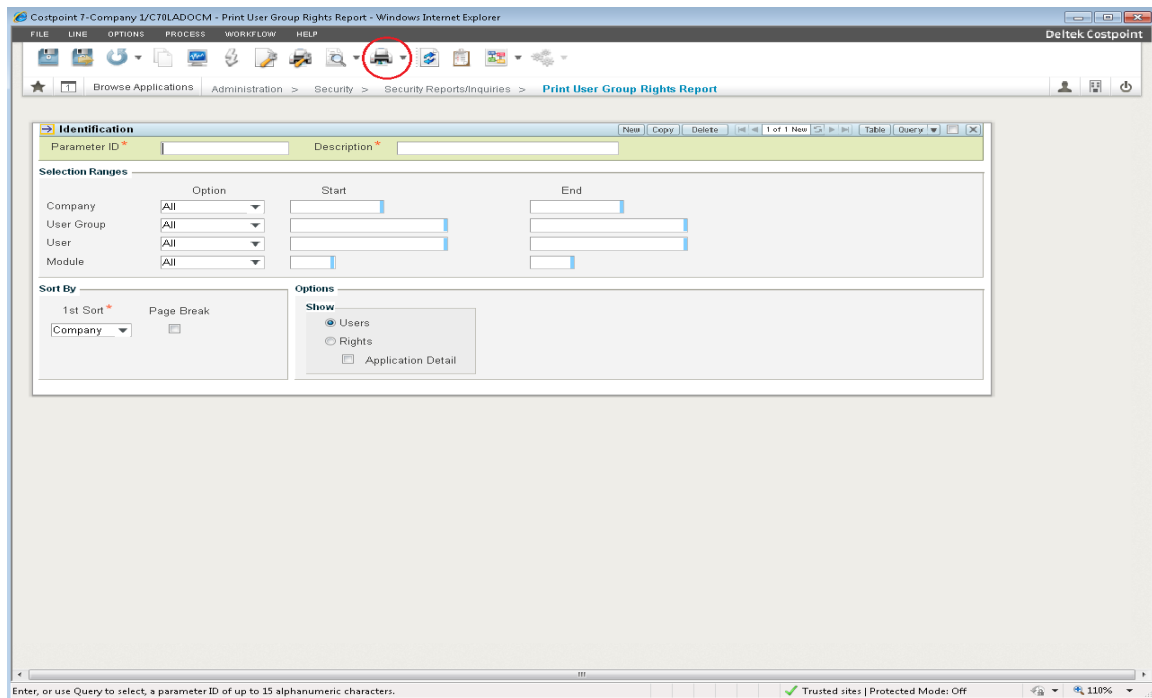
If the User Group Rights Report prints correctly, your Costpoint 7.1.1 Application Server printer setup is working properly. If the report does not print correctly, please contact Deltek Costpoint 7.1.1 Technical Support.

9. Click **File** » **Close Application** to close the Print User Group Rights Report screen.

10. Click **OK** when the following message displays:

    "You have unsaved changes. Select Cancel to go back and save changes or select OK to discard changes and close the application".

11. You can now begin to configure and use the Costpoint 7.1.1 system.

    Please refer to the "Related Documentation" section for a list of all documentation included with the Costpoint 7.1.1 release.

    Deltek strongly recommends that you change the CPSUPERUSER user's password. Please refer to the "Change CPSUPERUSER User's Password" section for instructions.

Deploy Costpoint as a Progressive Web App

A Progressive Web App (PWA) is a web application which uses a set of latest technologies to incorporate the features which were historically associated with either browser or native applications. As a result, the PWA provides the end user with the best of both worlds.

The Costpoint PWA application provides the same rich set of capabilities regardless of the device. For example, if your company configured SAML or FIDO authentication for desktops, it will work on mobile devices, with no extra steps or additional deployment/configuration necessary. If you developed an Extension, it will work on a desktop, tablet, or phone. If your users access Costpoint from your company Azure portal using SSO, it will equally work on a laptop or phone.

As Costpoint is being constantly enhanced, you can be confident that your company and your users will always have access to the latest features and functionality while using Costpoint PWA, regardless of the device used to access Costpoint.

From an IT perspective, the use of Costpoint PWAs on mobile devices have these additional benefits:

- The instructions to install Costpoint PWA on your device (similar to installing a native app from a store) describe a manual process. However, because it is not required to publish PWA applications to the store, IT can push Costpoint PWA application to your employee devices using standard MDM solutions (for example, MobileIron).

- If your company has an internal company store which employees should use to download applications (for example, using MobileIron store), a PWA application can be published in your company store.

- IT has full control over the version of Costpoint used by users, including the PWA application deployed to user devices. When your company IT or Deltek Cloud deploys any new update to Costpoint, the PWA applications on user devices will refresh automatically and seamlessly, always staying in sync with the version of Costpoint used by your organization.

- There is no need to worry about backward or forward compatibility issues with the version of applications deployed on user devices, and no need to ask or expect users to download an updated version of the application from the company store.

> **Note:** Deploying a PWA application using the steps outlined below does not only create an icon on your home screen but also generates a real native application container on your device. For example, you can tap the standard **App info** option for the Costpoint icon on an Android device and it will show that the CP icon you just created is a native application, downloaded from Google Play store.

Deploy Costpoint PWA on an Android Device

You can install the Costpoint PWA from the Costpoint Login page or the Chrome browser menu.

To deploy Costpoint PWA via the Costpoint Login page:

1. On your Android device, open the Costpoint Login page in the Chrome browser.
2. Tap **Add to Home screen** link (below the login information)
3. Name the Costpoint PWA, and then click **Add**.

   You can now tap the icon on your Home screen to launch Costpoint as a standalone web app.

To deploy Costpoint PWA via the Chrome browser menu:

1. On your Android device, open the Costpoint Login page in the Chrome browser.
2. Tap the menu (three vertical dots) in the upper-right corner.
3. Tap **Add to Home screen**.
4. Name the Costpoint PWA, and then tap **Add**.

   You can now tap the icon on your Home screen to launch Costpoint as a standalone web app.

Deploy Costpoint PWA on an iPhone or iPad

To deploy Costpoint PWA:

1. On your iPhone or iPad, open the Costpoint Login page in the Safari browser.
2. Tap the **Share** button in Safari.
3. Tap the **Add to Home Screen** icon.
4. Tap **Add** in the upper-right corner.
5. Name the Costpoint PWA.
6. Tap **Add** in the upper-right corner.

   You can now tap the icon on your Home screen to launch Costpoint as a standalone web app.

Deploy Costpoint PWA on a Desktop

Deploying the Costpoint PWA on your desktop creates a desktop shortcut to the application. When you access Costpoint using the app, more data is visible on your screen. Browser elements, like the address bar, tabs, and other controls, are removed, offering a clearer view of your Costpoint data.

> **Note:** Support for Microsoft Edge is coming soon.

To deploy Costpoint PWA in Google Chrome:

1. Open the Costpoint Login page.
2. Install Costpoint PWA using <u>one</u> of the following three options:
   a. In the Address bar, click **+ (Install Costpoint) » Install**.
   b. In the browser menu (three vertical dots), click **Install Costpoint » Install**.
   c. On the Costpoint Login page, click **Add to Home Screen » Install**

Post-Installation Configuration

Apply Latest Costpoint 7.1.1 Hot Fixes

After you have a functioning Costpoint 7.1.1 environment, follow the **DeltekCostpoint711DeployingHotFixes.pdf** installation document to install the latest Costpoint 7.1.1 hot fixes.

WebLogic Server Configuration

The following methods to start and stop your Costpoint 7.1.1 WebLogic Server are detailed in this section:

- Starting the Costpoint 7.1.1 WebLogic Server as a Windows service
- Starting the Costpoint 7.1.1 WebLogic Server from the Windows Start menu
- Starting the Costpoint 7.1.1 WebLogic Server from a Windows Command Prompt
- Stopping the Costpoint 7.1.1 WebLogic Server as a Windows service
- Stopping the Costpoint 7.1.1 WebLogic Server from a Web browser

Start Costpoint 7.1.1 WebLogic Server as a Windows Service

The steps to start your Costpoint 7.1.1 WebLogic Server as a Windows service are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To start your Costpoint 7.1.1 WebLogic Server when it is installed as a Windows service:

1. Click **Start » Administrative Tools » Services**.
2. On the Services window, scroll down the **Services** list, right-click the **Costpoint 7.1.1** service, and click **Properties** on the shortcut menu.
3. On the Costpoint 7.1.1 Properties screen, click the General tab.
4. Click **Start** to start the Costpoint 7.1.1 service.

   The service will indicate that it started immediately. However, please note that it will take several minutes for the Costpoint 7.1.1 service to fully initialize. After starting the service, wait several minutes before attempting to connect to the software.

   If you encounter problems with the Costpoint 7.1.1 service, check the C:\Deltek\Costpoint\71\logs\DEServer.log file and report any errors to Deltek Costpoint 7.1.1 Technical Support.

5. Click **OK** to close the Costpoint 7.1.1 Properties screen.
6. Close the Services window.

Start Costpoint 7.1.1 WebLogic Server from the Start Menu

The steps to start your Costpoint 7.1.1 WebLogic Server from the Windows Start menu are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To start your Costpoint 7.1.1 WebLogic Server from the Windows Start menu:

1. Right-click **Start**, select **Search**, enter **Costpoint 7.1.1**, right-click **Start Costpoint 7.1.1**, and click **Run as administrator**.

   > **Note:** Due to the enhanced security in Windows Server, it is advised to that you use the **Run as Administrator** option when launching this command even if the logged in user has local administrative rights.

2. This will open a Windows Command Prompt and launch a command script that starts the Costpoint 7.1.1 WebLogic Server. When the Windows Command Prompt window opens, you will see a series of messages scrolling down the screen.

   It will take several minutes for the Costpoint 7.1.1 WebLogic Server to start.

3. If your Costpoint 7.1.1 WebLogic Server starts successfully, the following message displays on the lower portion of the command line shell window:

   <The server started in RUNNING mode. >

   If your Costpoint 7.1.1 WebLogic Server encounters errors during the startup process, the message will not display, and the command line shell (DOS window) may terminate.

4. If you do not receive the message or the command line shell (DOS window) terminates, you should:

   - Make a copy of the C:\Deltek\Costpoint\71\logs\DEServer.log file.
   - Contact Deltek Costpoint 7.1.1 Technical Support.

Start Costpoint 7.1.1 WebLogic Server from the Windows Command Prompt

The steps to start your Costpoint 7.1.1 WebLogic Server from a Windows Command Prompt are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To start your Costpoint 7.1.1 WebLogic Server from a command line shell:

1. Open a Windows Command Prompt, navigate to the **C:\Deltek\Costpoint\71\bin** folder, and launch the following command script:

   StartCPWeb

   You will see a series of messages scrolling down the screen. It takes several minutes for the Costpoint 7.1.1 WebLogic Server to start.

2. If your Costpoint 7.1.1 WebLogic Server starts successfully, the following message displays on the lower portion of the command line shell window:

   <The server started in RUNNING mode. >

   If your Costpoint 7.1.1 WebLogic Server encounters errors during the startup process, the message will not display, and the command line shell (DOS window) may terminate.

3. If you do not receive the message or the command line shell (DOS window) terminates, you should:

   - Make a copy of the C:\Deltek\Costpoint\71\logs\DEServer.log file.

▪ Contact Deltek Costpoint 7.1.1 Technical Support.

Stop Costpoint 7.1.1 WebLogic Server as a Windows Service

The steps to stop your Costpoint 7.1.1 WebLogic Server when it is running as a Windows service are detailed in this section.

This step must be performed on your Costpoint 7.1.1 WebLogic application server.

To stop your Costpoint 7.1.1 WebLogic Server when it is installed as a Windows service:

1. Click Windows **Start » Administrative Tools » Services**.

2. On the Services window opens, scroll down the Services list, right-click the **Costpoint 7.1.1** service, and click **Properties** on the shortcut menu.

3. On the Costpoint 7.1.1 Properties screen, click the General tab.

4. Click **Stop** to stop the Costpoint 7.1.1 service.

5. Click **OK** to close the Costpoint 7.1.1 Properties screen.

6. Close the Services window.

Stop Costpoint 7.1.1 WebLogic Server from the Web Browser

The steps to stop your Costpoint 7.1.1 WebLogic Server from the WebLogic console are detailed in this section.

This step must be performed from a machine that has Web browser client access via TCP/IP to the Costpoint 7.1.1 WebLogic application server.

To stop your Costpoint 7.1.1 WebLogic Server from a Web browser:

1. Open your Web browser and enter the following, case-sensitive, URL: **http://<IPAddress or ComputerName>:<Port>/console**, where **<IPAddress or ComputerName>** identifies your Costpoint 7.1.1 WebLogic application server and **<Port>** identifies the unique port number that your Costpoint 7.1.1 WebLogic application server uses to listen for connections. You specified this port value during the Costpoint 7.1.1 software installation. The default port is **7009 (f**or example, **http://10.2.2.154:7009/console).**

2. When the WebLogic Server Administration Console screen displays, complete the following fields:

Field Name	Action
Username	Enter **system**.
Password	Enter the password for the WebLogic Administrative user. The default password is **weblogic**.

3. Click **Login**.

4. On the Welcome system screen, in the left pane, under **Domain Structure**, select the **delteke** node of the hierarchical tree.

5. On the Settings for delteke screen, click the Control tab.

6. Select the check the box to the left of the **DEServer(admin)** field.

7. Click **Shutdown**, and then click **Force Shutdown Now**.

8. When the Domain Life Cycle Assistant screen displays, click **Yes**.

9. Close the Web browser screen.

Change CPSUPERUSER User's Password

The steps to change the CPSUPERUSER users password are detailed in this section.

This step may be performed from any Windows client workstation that has TCP/IP access to your Costpoint 7.1.1 WebLogic **application** server.

To change the CPSUPERUSER user's password:

1. Open your Web browser, and enter one of the following URLs:

   http://<AppServerIPAddress or ComputerName>:<Port>

   http://<WebServerIPAddress or ComputerName>/cpweb

   Where <AppServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 WebLogic application server and <Port> identifies the unique port number that your Costpoint 7.1.1 WebLogic application server uses to listen for connections. You specified this port value during the Costpoint 7.1.1 software installation. The default is **7009** (for example, **http://10.2.2.154:7009**).

   Or where <WebServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 IIS Web server (for example, **http://10.2.2.156/cpweb**).

2. On the Deltek Costpoint 7 Welcome screen, complete the following fields.

| Field Name	Action
Username	Enter **CPSUPERUSER**.
Password	Enter the CPSUPERUSER user's password. The default is **password**.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Costpoint 7.1.1 system during the Application Server Installation process. Typically, customers use a system name that is identical to their Costpoint 7.1.1 Database name, DELTEKCP.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: ▪ **Application**: Accept the blank default value, or enter a specific Costpoint 7.1.1 application. For example, COSTPOINT **MENU**. ▪ **Company**: Enter your company ID. For example, **1**. ▪ **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Costpoint 7.1.1, review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. This option is not selected by default.

3. Click **Log In**.

4. Click **OK** if the following message displays:

    "Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

5. From the main menu screen, click **Administration** » **Security** » **System Security** » **Manage Users**.
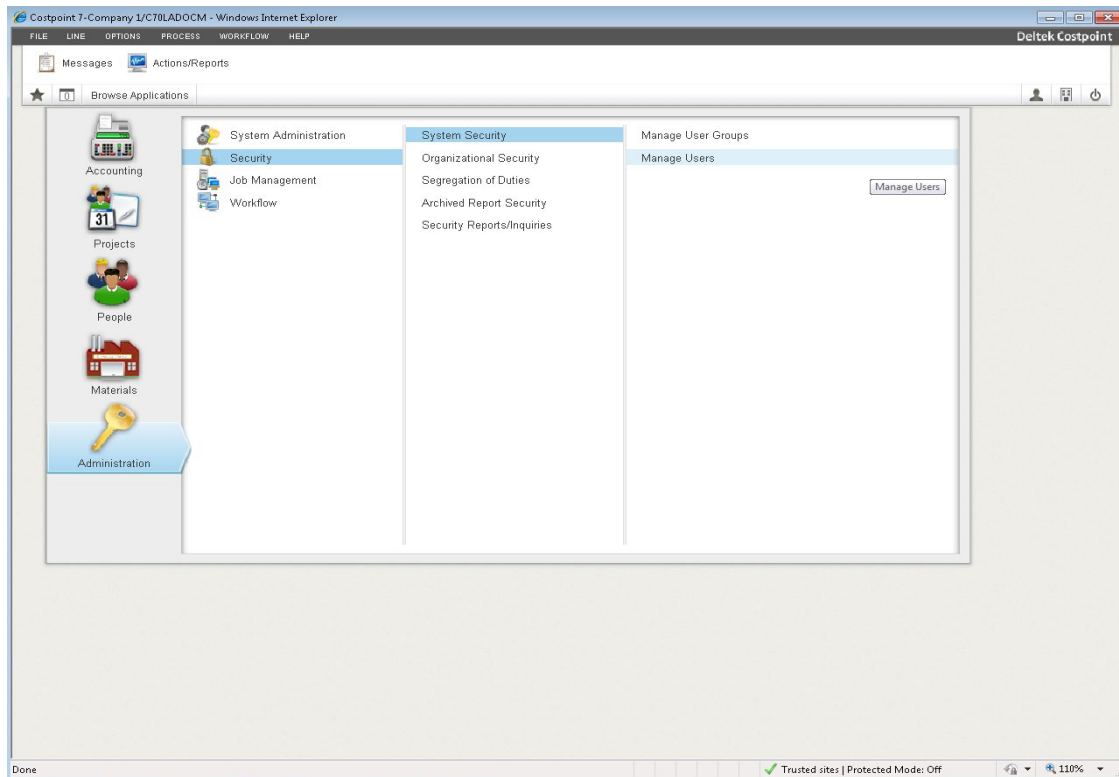
6. On the Manage Users screen, click **Query**.
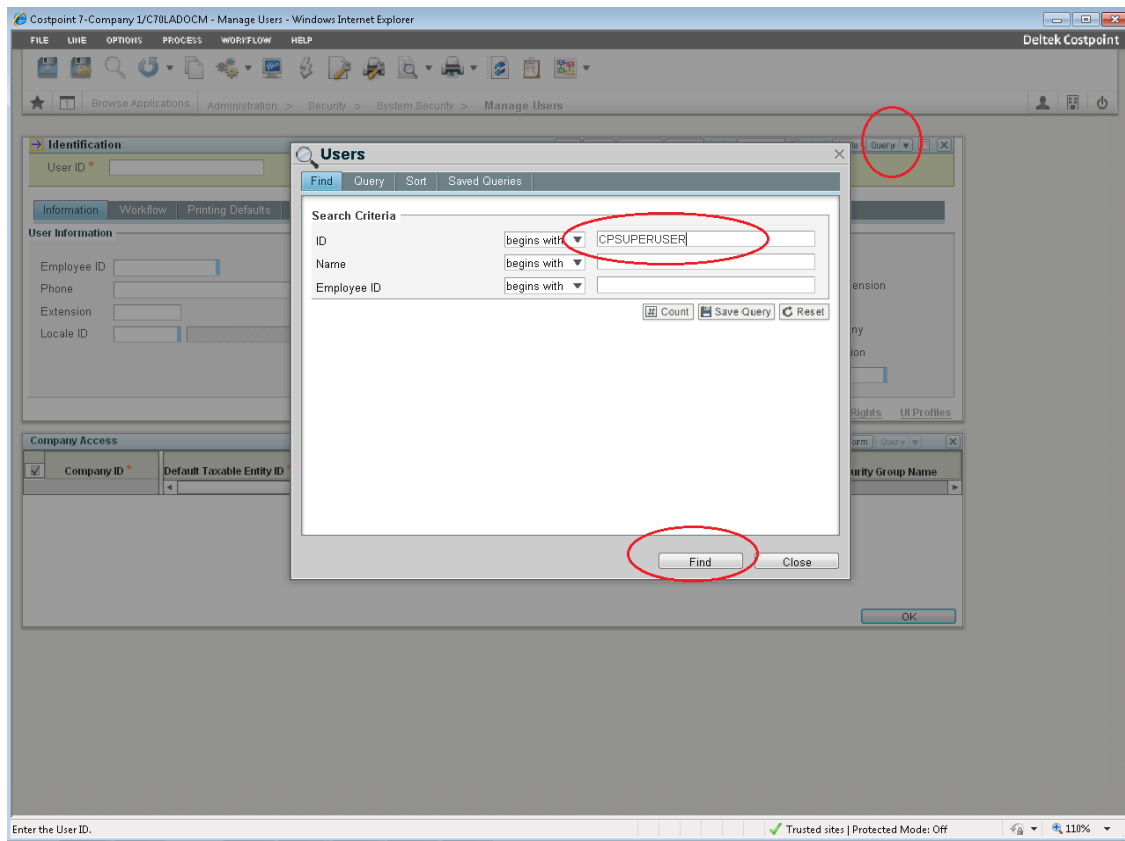
7. On the Users screen, enter **CPSUPERUSER** in the **ID** field, and click **Find**.

8. After the CPSUPERUSER user information loads in the Manage Users screen, click the **Authentication** tab, and complete the following fields.

Field Name	Action
Authentication Method	Accept the default value, **Costpoint Database,** from the drop-down list.
Costpoint Password	Enter a password for the CPSUPERUSER user. The password is case-sensitive and must be between 8 and 20 characters in length.
Verify Password	Re-enter the password for the CPSUPERUSER user.

9. Click **Save**.

10. After the confirmation message is displayed at the bottom of the screen, click **File** » **Close Application** to close the Enter/Manage Users screen.

11. Click **File** » **Log-out** to exit out of Costpoint 7.1.1.

12. Close your Web browser.

13. Open your Web browser, and enter one of the following URLs:

    http://<AppServerIPAddress or ComputerName>:<Port>

    http://<WebServerIPAddress or ComputerName>/cpweb

Where <AppServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 WebLogic application server and <Port> identifies the unique port number that your Costpoint 7.1.1 WebLogic application server uses to listen for connections. You specified this port value during the Costpoint 7.1.1 software installation. The default is **7009** (for example, **http://10.2.2.154:7009**).

Or where <WebServerIPAddress or ComputerName> identifies your Costpoint 7.1.1 IIS Web serve (for example, **http://10.2.2.156/cpweb**).

14. On the Deltek Costpoint 7 Welcome screen, complete the following fields.

Field Name	Action
Username	Enter **CPSUPERUSER**
Password	Enter the CPSUPERUSER user's password. The default is **password**.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Costpoint 7.1.1 system during the Application Server Installation process. Typically, customers use a system name that is identical to their Costpoint 7.1.1 Database name, DELTEKCP.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: ▪ **Application**: Accept the blank default value, or enter a specific Costpoint 7.1.1 application. For example, COSTPOINT **MENU**. ▪ **Company**: Enter your company ID. For example, **1**. ▪ **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Costpoint 7.1.1, review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. It is selected by default.

15. Click **Log In**.

16. Click **OK** if the following message displays:

"Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

A screen similar to the following displays. You may begin accessing and using the Costpoint 7.1.1 system:
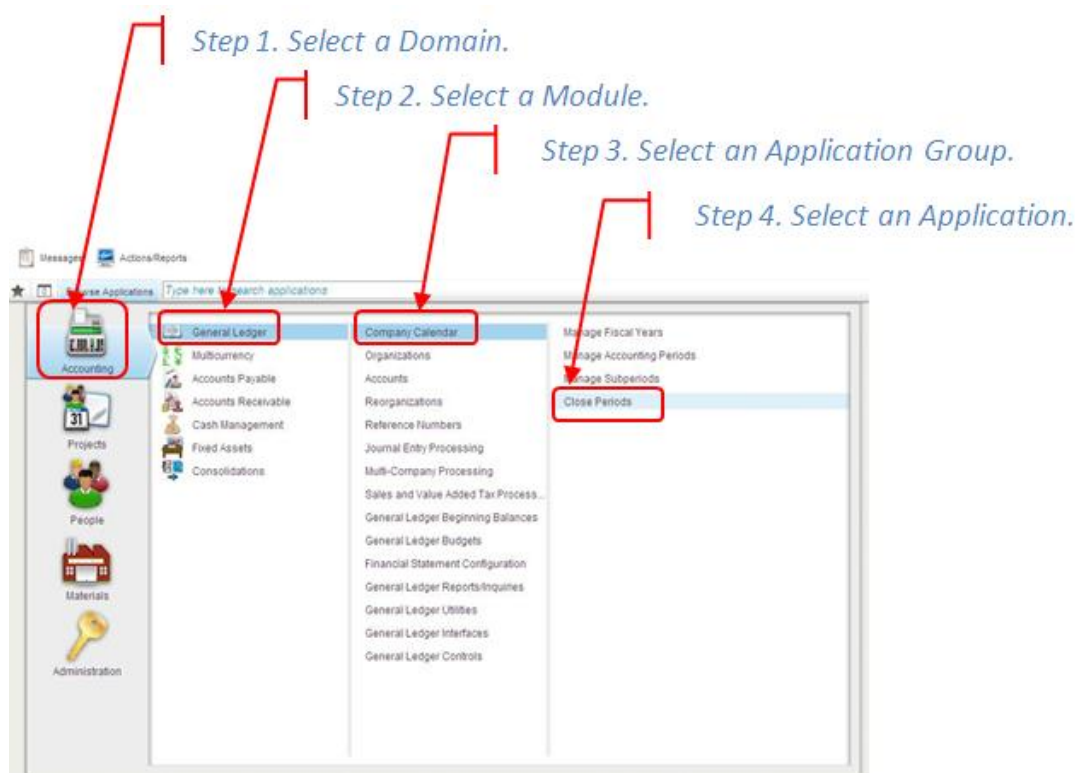
If you are unable to log in to Costpoint 7.1.1, contact Deltek Costpoint 7.1.1 Technical Support.

Secure Sockets Layer (SSL) Encryption with Costpoint 7.1.1 Implementation

Information regarding the Costpoint Web support for SSL encryption is detailed in this section. This section also provides references to additional resources that you can use to learn more about implementing SSL with Costpoint 7.1.1.

Costpoint Web's Support for SSL

Costpoint 7.1.1 was tested against and supports SSL implemented on its WebLogic Server and Microsoft Internet Information Server (IIS) components.

> **Note:** The IIS component is optional in the Costpoint Web environment. If you have chosen to deploy IIS with your Costpoint Web environment, you may implement SSL on both your IIS and WebLogic Server components.

SSL requirements will vary from customer to customer. Consequently, this section does not provide specific instructions for implementing SSL on either your WebLogic Server or IIS components. Instead, this section provides third-party informational resources that you can use to learn about and implement SSL with your Costpoint 7.1.1 environment.

Informational Resources for Implementing SSL

You can implement SSL on either or both of your Costpoint 7.1.1 system's IIS and WebLogic Server components. For help on implementing SSL, please refer to the following URLs:

- WebLogic Server

    - http://docs.oracle.com/cd/E24329_01/web.1211/e24422/ssl.htm#SECMG384: Oracle WebLogic Server documentation that provides an overview of WebLogic's domestic- and exportable-strength SSL licenses as well as step-by-step instructions for implementing SSL on your WebLogic Server.

- IIS

    - http://technet.microsoft.com/en-us/library/cc732230(WS.10).aspx: Microsoft TechNet article that provides an overview of using encryption with IIS 7.1.1 and specific instructions for configuring SSL.

    - http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/5e0119a8-deed-4056-9592-e721a4889a71.mspx?mfr=true: Microsoft TechNet article that provides an overview of using encryption with IIS 6.0 and specific instructions for configuring SSL.

In addition to consulting these informational resources, you may contact Deltek's Systems Solutions team to arrange assistance for implementing SSL with your Costpoint 7.1.1 system.

Troubleshooting Instructions

Troubleshooting instructions for problems with the Database Tier installation are detailed in this section.

How to Re-Run a Database Tier Installation that Failed

The steps to repair a Costpoint 7.1.1 Database Tier installation that has failed are detailed in this section.

If you encounter a failure during the Database Tier installation process:

1. Click **OK** if, during the Database Tier Installation, you receive the following error message:

    "Failed upgrading Costpoint (ADMIN, SYSTEM, or TRANSACTION) Database".

2. After the installation has completed and a failed installation error message displays on the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box.

    This opens the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Costpoint\7.1.1\logs directory).

3. Click **Finish** to exit the installation.

4. When the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file opens, run a search for the "**error**" search string. Report all errors found to Deltek Costpoint Technical Support.

5. **Only after you have fixed the error**, run the DeltekCostpoint711DatabaseTier.exe file to launch the Costpoint 7.1.1 Database Tier installation program again. You will then see the following message:
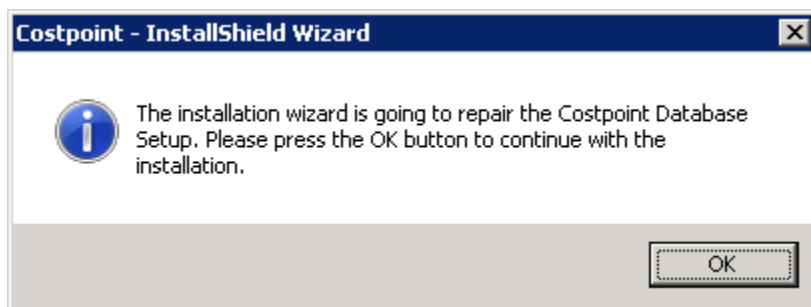
6. Click **OK** to begin re-running the installation.

    A message similar to the following displays.
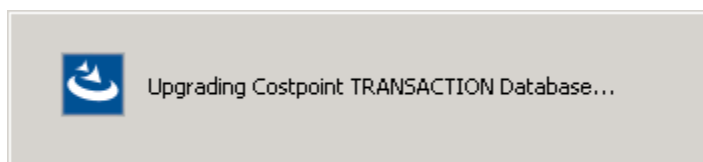
Repairing the installation will re-run the installation from the beginning of that particular database user (schema). In other words, if Transaction fails it will not re-run Admin or System, if System fails it will not re-run Admin, and so on.

Please do not interrupt the installation process.

7. After the installation has completed, select the **Yes, I want to view the log file** check box on the InstallShield Wizard Complete screen.

    This opens the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Costpoint\7.1.1\logs directory).

8. Click **Finish** to exit the installation.

9. When the DeltekCostpoint711DatabaseTierInstallLog_<date>_<time>.txt file opens, search for the following keywords:

    ▪ **"Error"** – Report any search results to Deltek Costpoint Technical Support. You can ignore "Warning: Procedure created with compilation errors" and "Warning: Package Body created with compilation errors." These errors will be fixed after Link Views are run during the Application Tier installation process.

    ▪ "**New User Database Creation For Costpoint 7.1.1 TRANSACTION Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    ▪ "**Database Installation For Costpoint 7.1.1 ADMIN Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    ▪ "**Database Installation For Costpoint 7.1.1 SYSTEM Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    Finding the three items listed above indicates that you have successfully installed the Costpoint 7.1.1 Database Tier software and that you have created all of your users (schemas).

    There will be a new log file created each time you have to repair the Database Tier install. You may need to look into multiple log files to find all of the above messages.

10. Return to the "Application Tier Install" section to continue with your Costpoint 7.1.1 installation.

Latest Installer Files Download Instructions

The Costpoint Database Tier installer provides certain command-line options that can be invoked in special circumstances. To display the currently supported switches:

- Open Command Prompt in Administrator Mode
- Navigate to the directory where the installer is located
- Type **DeltekCostpoint711DatabaseTier.exe /?**

The instructions to download the latest Costpoint 7.1.1 Database upgrade and DeltekCostpointRequirementsINI files are detailed in this section. Each installer will automatically download the applicable files if your servers have internet access. If your servers do not, you will need to run this step for each installer.

You must perform this step on any machine that has Internet access.

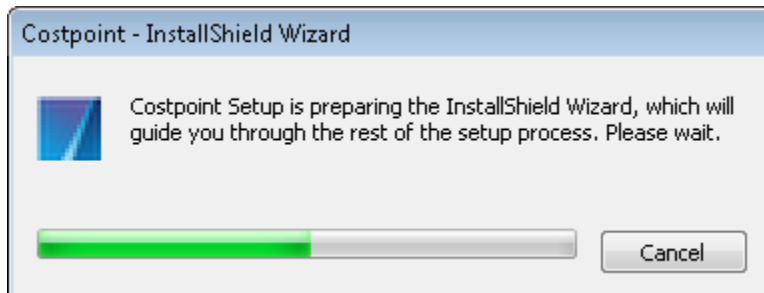**To download the required upgrade files:**

1. Run the applicable command to retrieve the files from DSM:

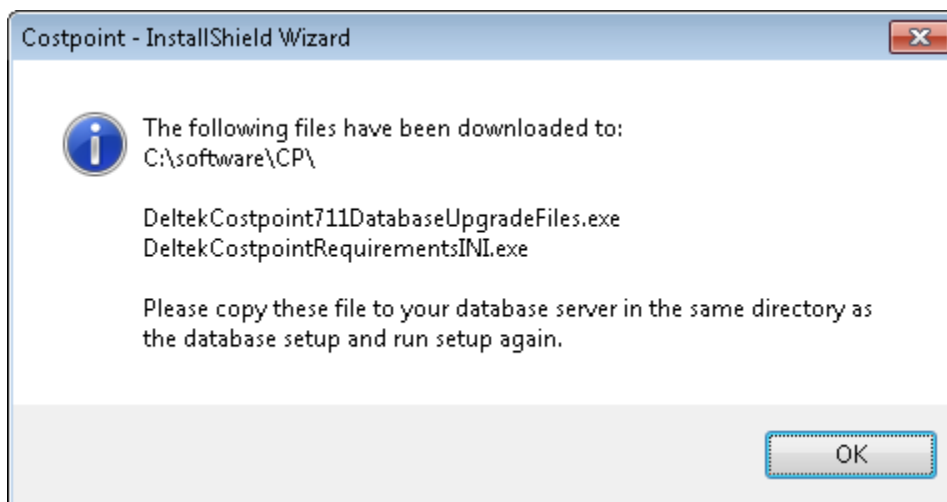   **DeltekCostpoint711DatabaseTier.exe /filedynamicdownload**

   DeltekCostpoint711ApplicationTier.exe /filedynamicdownload

   DeltekCostpoint711WebTier.exe /filedynamicdownload

   You will see the following screen.

2. After the file downloads a message similar to the following displays, click **OK**.

3. Copy the downloaded **DeltekCostpoint711DatabaseUpgradeFiles.exe**/
    DeltekCostpointRequirementsINI.exe file(s) to your server, in the same folder as your '.exe'
    installer file.

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