

IBM Cognos Express  
Version 10.2.1

*Managing IBM Cognos Express*



**Note**

Before using this information and the product it supports, read the information in "Notices" on page 191.

**Product Information**

This document applies to IBM Cognos Express Version 10.2.1 and may also apply to subsequent releases.

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# Contents

|  |           |
|--|-----------|
| <b>Introduction</b> . . . . .  | <b>ix</b> |
| <b>Chapter 1. What you need to know about IBM Cognos Express</b> . . . . .                     | <b>1</b>  |
| <b>Chapter 2. Components of IBM Cognos Express</b> . . . . .                                   | <b>5</b>  |
| Presentation tier . . . . .  | 5         |
| Web-based user interfaces . . . . .  | 6         |
| Windows-based user interfaces . . . . .  | 9         |
| Mobile device user interfaces . . . . .  | 10        |
| The application tier . . . . .   | 11        |
| IBM Cognos Express server . . . . .  | 11        |
| IBM Cognos Analytic Server (ICAS) . . . . .  | 12        |
| Report Server . . . . .  | 12        |
| Advisor Server . . . . .   | 12        |
| The data tier . . . . .  | 12        |
| Content Store . . . . .  | 12        |
| Relational data sources . . . . .  | 13        |
| ICAS cubes . . . . .   | 13        |
| <b>Chapter 3. Preparing to install</b> . . . . .   | <b>15</b> |
| Review the release notes before you install . . . . .  | 15        |
| Reviewing supported environments . . . . .   | 15        |
| Client prerequisites . . . . .   | 15        |
| Preparing for installation on a non-default drive . . . . .                                    | 16        |
| Setting up reporting connectivity for relational databases to use dynamic query mode . . . . . | 16        |
| Securing data sources . . . . .  | 16        |
| <b>Chapter 4. Upgrading your IBM Cognos Express content</b> . . . . .                          | <b>19</b> |
| Upgrading from Express 9.0 to Express 10.2.1 . . . . .   | 19        |
| Upgrading from Express 9.5 or 10.1 to Express 10.2.1 . . . . .                                 | 19        |
| Upgrading from Express to an Enterprise product . . . . .                                      | 20        |
| <b>Chapter 5. Installing and configuring IBM Cognos Express Manager</b> . . . . .              | <b>21</b> |
| Installing IBM Cognos Express Manager . . . . .  | 21        |
| The IBM Cognos Express Windows user account . . . . .  | 22        |
| Starting IBM Cognos Express Manager . . . . .  | 24        |
| Changing the configuration of IBM Cognos Express Manager . . . . .                             | 24        |
| Uninstalling Express Manager . . . . .   | 26        |
| <b>Chapter 6. Installing the IBM Cognos Express products</b> . . . . .                         | <b>29</b> |
| Configuring and starting the TM1 Operations Console . . . . .                                  | 30        |
| Second Admin user created on the Xcelerator server after installing Xcelerator . . . . .       | 31        |
| Configuring the preload settings for Express Advisor . . . . .                                 | 31        |
| <b>Chapter 7. Setting up the IBM Cognos Express samples</b> . . . . .                          | <b>33</b> |
| Extracting the samples . . . . .   | 33        |
| Setting up the Informix samples . . . . .  | 34        |
| Restoring the Informix database . . . . .  | 34        |
| Importing the report samples . . . . .   | 34        |
| Creating data source connections to the Informix databases . . . . .                           | 35        |
| Setting up the ICAS samples . . . . .  | 36        |
| Restoring the ICAS cubes . . . . .   | 36        |
| Importing the sample reports for ICAS . . . . .  | 36        |
| Creating an ICAS data source . . . . .   | 37        |

|   |           |
|---|-----------|
| Removing the samples packages from IBM Cognos Express . . . . .                           | 38        |
| <b>Chapter 8. Managing data sources . . . . .</b>   | <b>39</b> |
| Creating a data source . . . . .  | 40        |
| Connection parameters . . . . .   | 40        |
| Issues when creating a data source . . . . .  | 42        |
| Making ICAS data available for reporting and analysis . . . . .                           | 42        |
| Republishing or deleting a data source . . . . .  | 42        |
| Creating packages for Express Advisor users . . . . .                                     | 42        |
| Opening Advisor by entering a URL . . . . .   | 43        |
| Use Express Manager to create a package that can be selected by Advisor users . . . . .   | 43        |
| Use Framework Manager to create a package that can be selected by Advisor users . . . . . | 44        |
| <b>Chapter 9. Managing users and roles . . . . .</b>                                      | <b>45</b> |
| Default Express Manager roles . . . . .   | 45        |
| Roles that appear in Express Manager after you install an Express product . . . . .       | 46        |
| Adding users to IBM Cognos Express . . . . .  | 47        |
| Changing user information . . . . .   | 47        |
| Adding custom roles to IBM Cognos Express . . . . .                                       | 47        |
| Assigning roles to a user . . . . .   | 48        |
| Enabling users to download Performance Modeler . . . . .                                  | 49        |
| Assigning Express Performance Modeler privileges . . . . .                                | 49        |
| Assigning custom roles to an Active Directory user . . . . .                              | 50        |
| Assigning TM1 administrator privileges to an Active Directory user . . . . .              | 50        |
| Assigning TM1 cube access rights to Cognos Express roles . . . . .                        | 51        |
| Enabling Kerberos SSO in IBM Cognos Express . . . . .                                     | 52        |
| IBM Cognos Administration . . . . .   | 52        |
| <b>Chapter 10. Managing the distribution of client software . . . . .</b>                 | <b>55</b> |
| Distributing client software . . . . .  | 55        |
| Deploying Cognos TM1 Mobile Contributor . . . . .   | 57        |
| <b>Chapter 11. Managing Cognos Insight for Express users . . . . .</b>                    | <b>59</b> |
| Installing Cognos Insight from Cognos Express . . . . .                                   | 59        |
| Managing Cognos Insight access points . . . . .   | 60        |
| Sharing Cognos Insight workspaces . . . . .   | 61        |
| Uploading a Cognos Insight workspace to Cognos Connection . . . . .                       | 61        |
| Downloading a Cognos Insight workspace from Cognos Connection . . . . .                   | 61        |
| Using Cognos Insight in Connected mode . . . . .  | 62        |
| Connecting to an ICAS instance in Cognos Insight . . . . .                                | 62        |
| Opening an Express Planner application node in Cognos Insight . . . . .                   | 63        |
| Opening a Cognos Insight workspace that is connected with an ICAS instance . . . . .      | 63        |
| Publishing a Cognos Insight workspace . . . . .   | 63        |
| Publishing a Cognos Insight workspace . . . . .   | 63        |
| Publishing and distributing a Cognos Insight workspace . . . . .                          | 64        |
| Removing published content from the Express server . . . . .                              | 65        |
| Configuring ICAS instances . . . . .  | 67        |
| <b>Chapter 12. Managing IBM Cognos Mobile . . . . .</b>                                   | <b>69</b> |
| Cognos Mobile installation and configuration . . . . .                                    | 69        |
| BlackBerry MDS Connection Service . . . . .   | 69        |
| Methods of installing and configuring IBM Cognos Mobile client components . . . . .       | 70        |
| Background synchronization . . . . .  | 73        |
| Pre-configuring the Mobile iPad application for users . . . . .                           | 73        |
| Configuration of Apple push notifications for the iPad native application . . . . .       | 75        |
| Cognos Mobile components . . . . .  | 78        |
| Cognos Mobile service . . . . .   | 78        |
| IBM Cognos Mobile rich client . . . . .   | 79        |
| The BlackBerry Enterprise Server . . . . .  | 79        |
| Report management on a mobile device . . . . .  | 80        |

|  |            |
|--|------------|
| Accessing the server . . . . .   | 80         |
| Running reports based on location. . . . .   | 80         |
| Cognos Mobile shortcuts on a mobile device . . . . .   | 81         |
| Security . . . . .   | 81         |
| Mobile secured function . . . . .  | 82         |
| Password protection . . . . .  | 83         |
| HTML and HTTP support during logon. . . . .  | 83         |
| Apple iPad application security. . . . .   | 84         |
| Report data security on mobile devices . . . . .   | 84         |
| Erasing content from a device . . . . .  | 85         |
| Setting a lease key . . . . .  | 85         |
| Setting user authentication policies for a mobile device. . . . .                              | 85         |
| <b>Chapter 13. Backing up and restoring IBM Cognos Express content . . . . .</b>               | <b>89</b>  |
| Backing up your IBM Cognos Express 9.0 content . . . . .                                       | 89         |
| Backing up your Cognos Express 9.5, 10.1, or 10.2.1 content . . . . .                          | 89         |
| Scheduling a backup . . . . .  | 90         |
| Backing up ICAS data . . . . .   | 91         |
| Restoring your Express content. . . . .  | 92         |
| Restoring from Express 10.2.1 to Express 10.2.1 . . . . .                                      | 92         |
| <b>Chapter 14. Troubleshooting IBM Cognos Express . . . . .</b>                                | <b>95</b>  |
| Troubleshooting resources . . . . .  | 95         |
| Error messages . . . . .   | 95         |
| Log files . . . . .  | 95         |
| Windows Event Viewer . . . . .   | 96         |
| View the Report Definition in Query Studio . . . . .   | 96         |
| Calling IBM Cognos Resource Center. . . . .  | 97         |
| IBM Cognos diagnostic tools . . . . .  | 97         |
| IBM Cognos Express Manager error messages . . . . .  | 98         |
| Existing Informix installation detected . . . . .  | 98         |
| Unable to Connect to the Content Store . . . . .   | 98         |
| SDK-ERR-0088 The IBM Cognos Express service is currently unavailable. . . . .                  | 99         |
| MOD-ERR-0001 A version of TM1 server has already been installed on this machine. . . . .       | 99         |
| Express Manager window blank in Internet Explorer 10 . . . . .                                 | 99         |
| UDA-SQL-0031 error when connecting to a database server using a Japanese environment . . . . . | 99         |
| Planner application link broken after backup restored . . . . .                                | 100        |
| Troubleshooting IBM Cognos Mobile . . . . .  | 100        |
| IBM Cognos Mobile server problems . . . . .  | 100        |
| IBM Cognos Mobile service client problems . . . . .  | 102        |
| <b>Appendix A. Accessibility features . . . . .</b>  | <b>107</b> |
| Keyboard shortcuts . . . . .   | 107        |
| IBM and accessibility. . . . .   | 107        |
| <b>Appendix B. Set advanced IBM Cognos Mobile settings . . . . .</b>                           | <b>109</b> |
| Using the buildSettings tool . . . . .   | 109        |
| Specifying Cognos Mobile advanced settings . . . . .   | 110        |
| Advanced settings for Cognos Mobile . . . . .  | 110        |
| Finding the search path . . . . .  | 114        |
| <b>Appendix C. Enabling image browsing in Report Studio . . . . .</b>                          | <b>115</b> |
| Enabling WebDAV for IIS 6. . . . .   | 115        |
| Enabling WebDAV for IIS 7. . . . .   | 116        |
| Enabling WebDAV for Apache Tomcat . . . . .  | 116        |
| Enabling the default WebDAV servlet . . . . .  | 116        |
| Modify IBM Cognos Express Report Studio . . . . .  | 117        |

|   |            |
|---|------------|
| <b>Appendix D. Configuring SharePoint in IBM Cognos Express.</b>                                | <b>119</b> |
| Enabling single sign-on using shared secret   | 119        |
| Configuring the Active Directory namespace for single sign-on                                   | 119        |
| Creating and configuring the Custom Java Provider namespace                                     | 120        |
| Configuring single sign-on access to Portal Services  | 120        |
| Creating a package  | 120        |
| Deploying your IBM Cognos Express content to Sharepoint   | 121        |
| <br>  |            |
| <b>Appendix E. Advanced configuration tasks for IBM Cognos Express Advisor and Data Advisor</b> | <b>123</b> |
| Configuring the ODBC environment for Express Data Advisor                                       | 123        |
| Configuring for the client-based method   | 123        |
| Configuring for the server-based method   | 124        |
| Configuring the XML log provider  | 125        |
| XML Log provider  | 126        |
| Installing maps   | 126        |
| Understand the directory and library structure  | 127        |
| Adding maps for use by the IBM Cognos Express Advisor   | 127        |
| Understanding layers and shapes   | 127        |
| Understand the mapping file   | 127        |
| Installing images for use by IBM Cognos Express Advisor   | 132        |
| Configuring the maximum fact rows per cube for the Express Data Advisor                         | 132        |
| <br>  |            |
| <b>Appendix F. Installing and configuring the IBM Cognos Express gateway</b>                    | <b>135</b> |
| Install and configure the gateway   | 135        |
| Configure the web server  | 135        |
| Configure the IBM Cognos Express server for the gateway   | 136        |
| <br>  |            |
| <b>Appendix G. Installing translated product documentation</b>                                  | <b>137</b> |
| <br>  |            |
| <b>Appendix H. Manually backing up and restoring IBM Cognos Express.</b>                        | <b>139</b> |
| <br>  |            |
| <b>Appendix I. The Tm1s.cfg Server Configuration File.</b>                                      | <b>141</b> |
| Location of the Tm1s.cfg File   | 141        |
| Sample Tm1s.cfg File  | 141        |
| Parameters in the Tm1s.cfg File   | 142        |
| AdminHost   | 142        |
| AllowReadOnlyChore Reschedule   | 143        |
| AllowSeparateNandCRules   | 143        |
| AllRuleCalcStargateOptimization   | 144        |
| AuditLogMaxFileSize   | 144        |
| AuditLogMaxQueryMemory  | 145        |
| AuditLogMaxTempFileSize   | 145        |
| AuditLogOn  | 145        |
| AuditLogUpdateInterval  | 146        |
| CalculationThresholdForStorage  | 146        |
| CAMSSLCertificate   | 146        |
| CheckFeedersMaximumCells  | 146        |
| ClientCAMURI  | 147        |
| ClientPingCAMPassport   | 147        |
| CAMPortalVariableFile   | 147        |
| ClientMessagePortNumber   | 148        |
| ClientPropertiesSyncInterval  | 148        |
| ClientVersionMaximum  | 148        |
| ClientVersionMinimum  | 149        |
| ClientVersionPrecision  | 150        |
| DataBaseDirectory   | 151        |
| DefaultMeasuresDimension  | 151        |
| DisableMemoryCache  | 151        |

|   |     |
|---|-----|
| DisableSandboxing . . . . .                                 | 151 |
| Display_Info_DBType_R8 . . . . .                            | 152 |
| DistributedPlanningOutputDir . . . . .                      | 152 |
| DownTime . . . . .  | 153 |
| ExcelWebPublishEnabled . . . . .                            | 153 |
| ForceReevaluationOfFeedersForFedCellsOnDataChange . . . . . | 154 |
| GroupsCreationLimit . . . . .                               | 154 |
| IdleConnectionTimeOutSeconds . . . . .                      | 155 |
| IntegratedSecurityMode . . . . .                            | 155 |
| IPAddress . . . . .   | 156 |
| IPVersion . . . . .   | 157 |
| JobQueuing . . . . .  | 158 |
| JobQueueMaxWaitTime . . . . .                               | 158 |
| JobQueueThreadPoolSize . . . . .                            | 158 |
| JobQueueThreadSleepTime . . . . .                           | 159 |
| Language . . . . .  | 159 |
| LDAPUseServerAccount . . . . .                              | 160 |
| LDAPPasswordFile . . . . .                                  | 160 |
| LDAPPasswordKeyFile . . . . .                               | 160 |
| LockPagesInMemory . . . . .                                 | 160 |
| LoggingDirectory . . . . .                                  | 161 |
| LogReleaseLineCount . . . . .                               | 162 |
| MaskUserNameInServerTools . . . . .                         | 162 |
| MaximumCubeLoadThreads . . . . .                            | 162 |
| MaximumLoginAttempts . . . . .                              | 163 |
| MaximumMemoryForSubsetUndo . . . . .                        | 163 |
| MaximumSynchAttempts . . . . .                              | 163 |
| MaximumTILockObjects . . . . .                              | 164 |
| MaximumUserSandboxSize . . . . .                            | 165 |
| MaximumViewSize . . . . .                                   | 165 |
| MaxUndoHoldLineCount . . . . .                              | 165 |
| MessageCompression . . . . .                                | 166 |
| NetRecvBlockingWaitLimitSeconds . . . . .                   | 166 |
| NetRecvMaxClientIOWaitWithinAPIsSeconds . . . . .           | 166 |
| ParallelInteraction . . . . .                               | 166 |
| PasswordMinimumLength . . . . .                             | 167 |
| PasswordSource . . . . .                                    | 167 |
| PerformanceMonitorOn . . . . .                              | 167 |
| PersistentFeeders . . . . .                                 | 167 |
| PortNumber . . . . .  | 168 |
| PrivilegeGenerationOptimization . . . . .                   | 168 |
| ProgressMessage . . . . .                                   | 169 |
| ProportionSpreadToZeroCells . . . . .                       | 169 |
| RawStoreDirectory . . . . .                                 | 170 |
| ReceiveProgressResponseTimeoutSecs . . . . .                | 170 |
| RunningInBackground . . . . .                               | 171 |
| RulesOverwriteCellsOnLoad . . . . .                         | 171 |
| SAPLoggingEnabled . . . . .                                 | 172 |
| SAPLogFilePath . . . . .                                    | 172 |
| SaveTime . . . . .  | 172 |
| SecurityPackageName . . . . .                               | 173 |
| ServerCAMURI . . . . .                                      | 173 |
| ServerLogging . . . . .                                     | 173 |
| ServerName . . . . .  | 173 |
| ServicePrincipalName . . . . .                              | 173 |
| SkipLoadingAliases . . . . .                                | 174 |
| SkipSSLCAMHostCheck . . . . .                               | 174 |
| SpreadingPrecision . . . . .                                | 174 |
| SpreadingPrecision (Consolidated Holds) . . . . .           | 175 |
| SubsetElementBreatherCount . . . . .                        | 176 |
| StartupChores . . . . .                                     | 176 |

|   |     |
|---|-----|
| SyncUnitSize . . . . .                                      | 177 |
| UserDefinedCalculations . . . . .                           | 177 |
| UseLocalCopiesforPublicDynamicSubsets . . . . .             | 177 |
| UseSQLFetch UseSQLFetchScroll UseSQLExtendedFetch . . . . . | 177 |
| UseSSL . . . . .  | 178 |
| UseStargateForRules . . . . .                               | 178 |
| ViewConsolidationOptimization . . . . .                     | 179 |
| ViewConsolidationOptimizationMethod . . . . .               | 179 |

**Appendix J. The Tm1p.ini Client Configuration File . . . . . 181**

|  |     |
|--|-----|
| Location of the Tm1p.ini File . . . . .      | 181 |
| Parameters in the Tm1p.ini file . . . . .    | 181 |
| AdminHost . . . . .                          | 182 |
| AdminSvrSSLCertAuthority . . . . .           | 182 |
| AdminSvrSSLCertID . . . . .                  | 182 |
| AdminSvrSSLCertRevList . . . . .             | 182 |
| AdminSvrSSExportKeyID . . . . .              | 182 |
| AllowImportCamClients . . . . .              | 182 |
| BrowseDisplayReadsRightToLeft . . . . .      | 182 |
| ClassicSliceMode . . . . .                   | 183 |
| CognosGatewayURI . . . . .                   | 183 |
| ConnectLocalAtStartup . . . . .              | 183 |
| DataBaseDirectory . . . . .                  | 183 |
| DimensionDownloadMaxSize . . . . .           | 183 |
| DisplayApplications . . . . .                | 183 |
| DisplayChores . . . . .                      | 183 |
| DisplayControlCubes . . . . .                | 184 |
| DisplayCubes . . . . .                       | 184 |
| DisplayDimensions . . . . .                  | 184 |
| DisplayExplorerPropertiesWindow . . . . .    | 184 |
| DisplayProcesses . . . . .                   | 184 |
| DisplayReplications . . . . .                | 184 |
| ExpandRowHeaderWidth . . . . .               | 184 |
| ExportAdminSvrSSLCert . . . . .              | 184 |
| InSpreadsheetBrowser . . . . .               | 185 |
| IntegratedLogin . . . . .                    | 185 |
| Language . . . . .                           | 185 |
| LocalServerNetworkProtocol . . . . .         | 186 |
| MainWindowLayoutInfo . . . . .               | 186 |
| PreviousAdminHosts . . . . .                 | 186 |
| PreviousDataDirectories . . . . .            | 186 |
| SecurityAssignmentWindowLayoutInfo . . . . . | 186 |
| SentMsgsToServerCountWarning . . . . .       | 186 |
| ShowAdminHostChangeWarning . . . . .         | 186 |
| ShowAliasAttributeWarning . . . . .          | 187 |
| ShowChoresSchedulingWarning . . . . .        | 187 |
| ShowCubeReplicationWarning . . . . .         | 187 |
| ShowDimDeleteElementWarning . . . . .        | 187 |
| ShowDimensionAccessWarning . . . . .         | 187 |
| ShowDynamicSubsetWarning . . . . .           | 187 |
| ShowPickOperationWarning . . . . .           | 187 |
| ShowProcessUNASCIIFWarning . . . . .         | 187 |
| ShowProcessUNODBCWarning . . . . .           | 188 |
| SliceNewWorkbook . . . . .                   | 188 |
| SubsetWindowLayoutInfo . . . . .             | 188 |
| TM1RebuildDefault . . . . .                  | 188 |

**Notices . . . . . 191**

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## Introduction

This guide provides an overview of IBM® Cognos® Express®, its workflow, and its architecture. It also describes how to install and administer IBM Cognos Express Manager and its four products: IBM Cognos Express Advisor, IBM Cognos Express Reporter, IBM Cognos Express Planner, and IBM Cognos Express Xcelerator.

### Finding information

To find IBM Cognos product documentation on the web, including all translated documentation, access one of the IBM Cognos Information Centers (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>). Release Notes are published directly to Information Centers, and include links to the latest technotes and APARs.

You can also read PDF versions of the product release notes and installation guides directly from IBM Cognos product disks.

### Accessibility features

IBM Cognos Express does not currently support accessibility features that help users with a physical disability, such as restricted mobility or limited vision, to use this product.

IBM Cognos HTML documentation has accessibility features. PDF documents are supplemental and, as such, include no added accessibility features.

### Forward-looking statements

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

### Samples disclaimer

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## Chapter 1. What you need to know about IBM Cognos Express

IBM Cognos Express is a standalone application that provides you with everything you need to report, plan, and analyze your company's data.

### The IBM Cognos Express philosophy

IBM Cognos Express is designed for simplicity: we want to make your installation experience easy! After you've installed IBM Cognos Express, you'll find that you will rarely require IT support.

We've made design choices to give you optimal out-of-the-box performance. To accelerate the installation and configuration process, IBM Cognos Express is configured to run on a single server. Express includes everything you need to get your production environment up and running quickly.

Our design approach for IBM Cognos Express was to

- Keep things simple by choosing the right configuration settings, prompt you only if necessary, and make sure that the default choices work
- Allow you to install just the products you need, when you want
- Configure all components automatically during installation so that it starts and works with the other products
- Provide one place from which you can monitor and manage your system
- Minimize your need for custom configuration. But, if you like that sort of thing, you can still do advanced configuration using any of the IBM Cognos Express products.

### What you get with IBM Cognos Express

IBM Cognos Express comes with the following:

- IBM Cognos Express Reporter, featuring the Cognos BI server components IBM Cognos Report Studio, IBM Cognos Query Studio, IBM Cognos Workspace Advanced and the client product IBM Cognos Framework Manager
- IBM Cognos Express Advisor, harnessing the analytic power of IBM Cognos Executive Viewer
- IBM Cognos Express Planner, enabling automated planning, budgeting and forecasting and featuring IBM Cognos Performance Modeler.
- IBM Cognos Express Xcelerator, leveraging the Excel add-in Web application capabilities of IBM Cognos TM1®
- IBM Cognos Express Manager, providing you with an easy interface for installation and administration tasks, and including the IBM Cognos component IBM Cognos Administration
- IBM Cognos Insight, allowing you to analyze data, explore scenarios, and influence decisions by creating managed workspaces.
- IBM Cognos Analytic Server (ICAS), providing powerful in-memory analytics and write-back capabilities for Cognos Express users

- IBM Cognos Architect and IBM Cognos Express Data Advisor, client software that can be used to model data and manage cubes across the IBM Cognos Express products
- Cognos Connection, the portal for IBM Cognos Express
- Built-in authentication. However, if your company uses Active Directory, you can configure IBM Cognos Express to use your Active Directory system.

## What you need to do first

All you need to do before you install the software is the following:

- • Review the release notes.
- • Review the supported environments, including system requirements.

## The IBM Cognos Express workflow

As the IBM Cognos Express administrator, you have up to eight tasks to complete. You may need to complete some of these tasks only once. Depending on your environment, some of these tasks may not even be necessary.

1. Install IBM Cognos Express Manager
2. Configure IBM Cognos Express
3. Chapter 6, "Installing the IBM Cognos Express products," on page 29:
  - IBM Cognos Express Advisor
  - IBM Cognos Express Planner
  - IBM Cognos Express Reporter
  - IBM Cognos Express Xcelerator
4. Install one or more of the following desktop client applications to make sure that they work properly:
  - Cognos Insight  
For more information, see "Installing and launching IBM Cognos Insight" in *Getting Started with IBM Cognos Express*.
  - Data Advisor  
For more information, see "Installing and launching IBM Cognos Express Data Advisor" in *Getting Started with IBM Cognos Express*.
  - Architect  
For more information, see "Installing Architect" in *Getting Started with IBM Cognos Express*.
  - Xcelerator client  
For more information, see "Installing Xcelerator client" in *Getting Started with IBM Cognos Express*.
  - Framework Manager  
For more information, see "Installing Framework Manager" in *Getting Started with IBM Cognos Express*.
  - Performance Modeler  
For more information, see "Installing and launching Performance Modeler" in *Getting Started with IBM Cognos Express*.

These client applications are typically installed by users on their remote desktops. You can install them on the IBM Cognos Express server for testing purposes before rolling them out to users.
5. Install the IBM Cognos Express samples

6. Add data sources
7. Add users
8. Distribute the client software

Don't forget to support your users! Some IBM Cognos Express users may not be very technical. Some may have questions for you. You may want to assist some users to get up and running using the IBM Cognos Express server products. You are also responsible for making sure that users can access the client applications.

The workflow of the IBM Cognos Express administrator is illustrated in the following diagram.

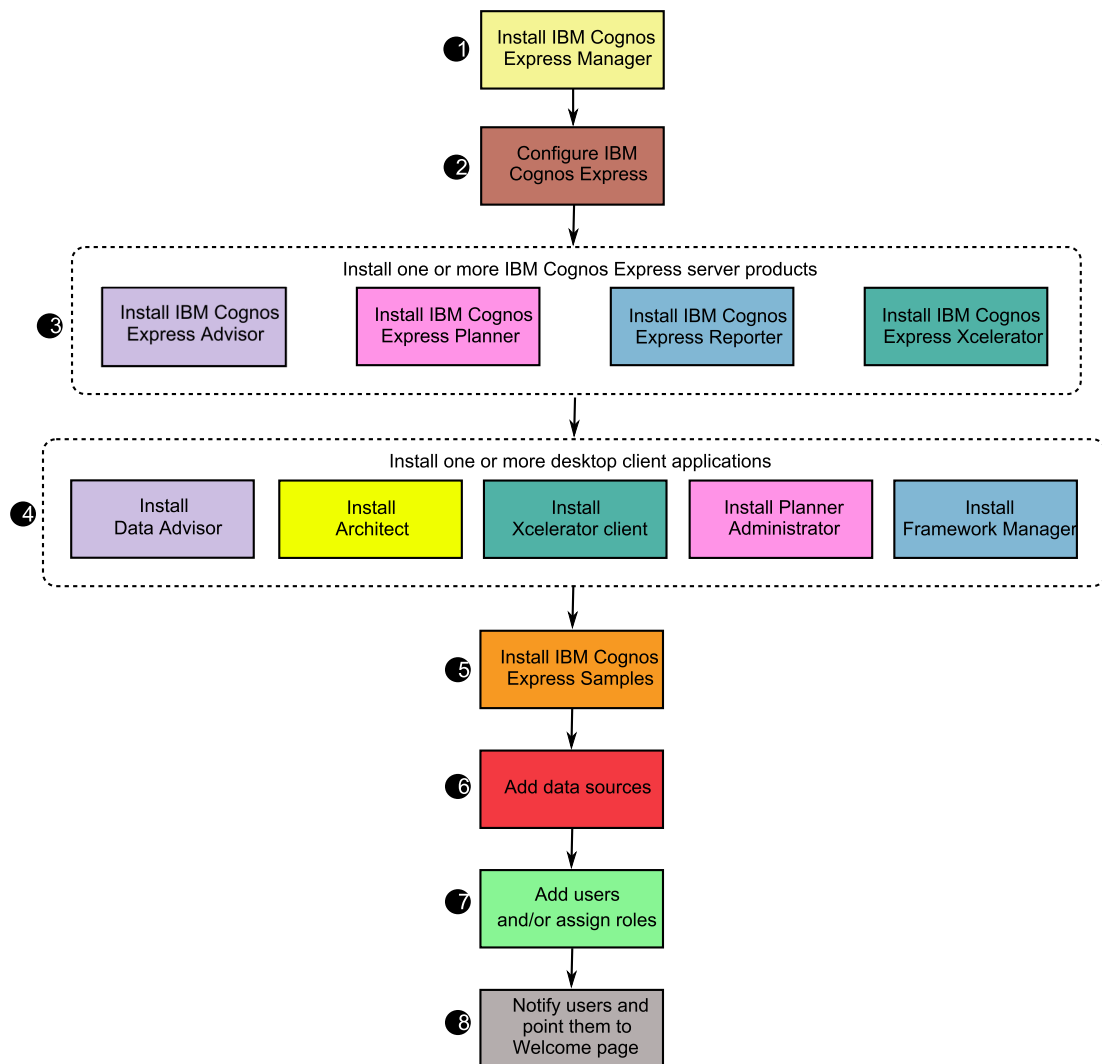


Figure 1. Workflow of an IBM Cognos Express administrator



## Chapter 2. Components of IBM Cognos Express

The following diagram shows the components of IBM Cognos Express.

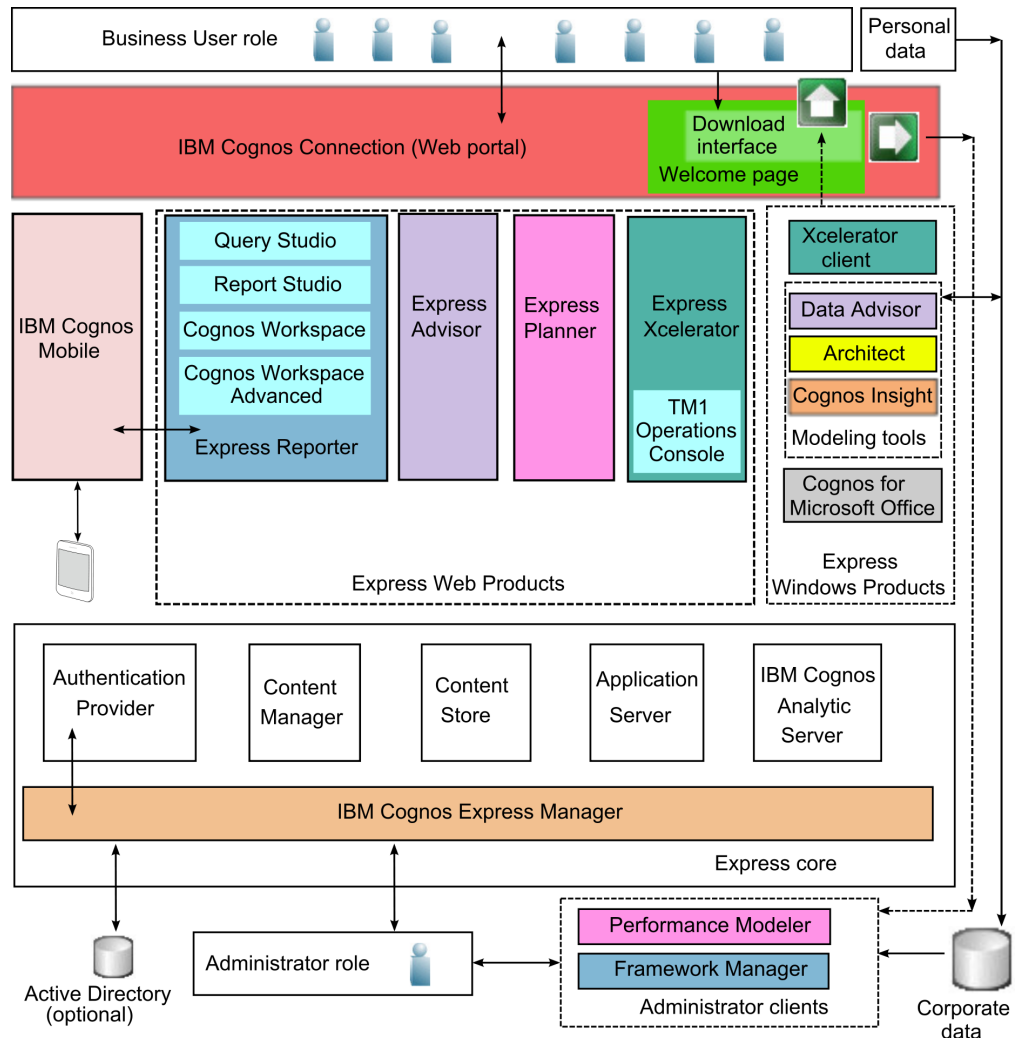


Figure 2. Components of IBM Cognos Express

### Presentation tier

IBM Cognos Express is installed and configured using IBM Cognos Express Manager by the person who is designated as the IBM Cognos Express administrator. IBM Cognos Express Manager is also used to manage content and security.

In addition to IBM Cognos Express Manager, IBM Cognos Express has Web-based interfaces and interfaces based on Microsoft Windows operating systems. Specific IBM Cognos Express content can also be accessed on mobile devices.

## Web-based user interfaces

The zero footprint, Web-based interfaces include

- Cognos Express Manager
- Cognos Connection
- Cognos Administration
- Query Studio
- Report Studio
- Cognos Workspace
- Cognos Workspace Advanced
- Express Advisor
- Planner Contributor
- Xcelerator
- Cognos TM1 Operations Console

The interfaces that are available to users depend on which IBM Cognos Express server products you install and whether you make the client products available.

### Cognos Express Manager

Using IBM Cognos Express Manager, administrators with little or no training can quickly install and manage IBM Cognos Express products.

### Cognos Connection

IBM Cognos Connection is a Web portal provided with IBM Cognos Express, providing a single access point to the corporate data available for its products. It provides a single point of entry for querying, analyzing, organizing data, and for creating reports. You can run all your Web-based IBM Cognos Express applications from IBM Cognos Connection. Other business intelligence applications, and URLs to other applications, can be integrated with IBM Cognos Connection.

Like the other Web browser interfaces in IBM Cognos Express, IBM Cognos Connection uses the default configurations of your browser. It does not require the use of Java™, ActiveX, or plug-ins, and does not install them.

In addition to selections for viewing data and creating objects, IBM Cognos Connection includes

- portal pages



The New Page icon opens a wizard where you can create a customizable page that uses portlets to show different types of content at the same time.

- Public Folders

Public Folders store shared IBM Cognos Express content, such as packages, reports, and Xcelerator cubes.

- My Folders

My Folders store personal IBM Cognos Express content, such as packages, reports, and Xcelerator cubes.

- User preferences



The My Area Options icon includes links to My Preferences, settings for format, language, time zone, contact information, and portal content; and My

Activities and Schedules, status windows where you can set priorities for and monitor your IBM Cognos such as packages, reports, and Xcelerator cubes activities.

- Link to tools and applications

The **Launch** button provides links to the IBM Cognos Express Reporter studios, Xcelerator Web Client, Advisor Web Client, and IBM Cognos Administration.

The open IBM Cognos Express architecture means that you can choose to integrate IBM Cognos Express into your organization's existing Web portal. You can use Portal Services, provided with IBM Cognos Express, to integrate IBM Cognos Express with a number of portals, including

- SAP Enterprise
- IBM WebSphere®
- Plumtree

For more information, see “Deploying Cognos Portlets to Other Portals” in the *IBM Cognos Express Cognos Connection Guide*.

## Cognos Administration

IBM Cognos Administration is a central management interface that contains the administrative tasks for IBM Cognos Express. It provides easy access to the overall management of the IBM Cognos environment and is accessible through IBM Cognos Connection.

IBM Cognos Administration is organized into three sections:

- Status

Use the links in this section to monitor activities, server status, and system metrics, and change some system settings.

- Security

Use the links in this section to define users, groups, and roles for security purposes, configure capabilities for the interfaces and studios, and set properties for the user interface profiles (professional and express) that are used in Report Studio.

- Configuration

Use the links in this section to set up data source connections, deploy IBM Cognos Express content from one content store to another, create distribution and contact lists, add printers, set styles, manage portlets and portal layout, start or stop dispatchers and services, and change system settings.

For information about using IBM Cognos Administration, see the *IBM Cognos Express Administration and Security Guide*.

## Query Studio

Using Query Studio with little or no training, you can quickly design, create and save reports to meet reporting needs not covered by the standard, professional reports created in Report Studio.

This component is available in IBM Cognos Express Reporter. For information about using Query Studio, see the *IBM Cognos Business Intelligence Query Studio User Guide*.

## Report Studio

Using Report Studio, report authors create, edit, and distribute a wide range of professional reports. They can also define corporate-standard report templates for use in Query Studio, and edit and modify reports created in Query Studio.

This component is available in IBM Cognos Express Reporter. For information about using Report Studio, see the *IBM Cognos Express Report Studio User Guide*.

## Cognos Workspace

IBM Cognos Workspace is a web-based tool that allows you to use IBM Cognos content and external data sources to build sophisticated interactive workspaces that provide insight and facilitate collaborative decision making.

This component is available in IBM Cognos Express Reporter. For more information, see the *IBM Cognos Business Intelligence Cognos Workspace User Guide*.

## Cognos Workspace Advanced

IBM Cognos Workspace Advanced is a web-based tool used to author reports and analyze data. The user interface allows business users to gain insight into their business.

Cognos Workspace Advanced allows you to create reports with relational or dimensional data sources, and show data in lists, crosstabs, and charts. You can also use your own external data source.

You can open Cognos Workspace Advanced two different ways:

- from a Cognos Workspace workspace to perform advanced editing or to create a new report (**Do More**).
- from either the **Launch** menu in IBM Cognos Connection or from the Welcome page (**Author Business Reports**) to create new reports or edit existing reports.

This component is available in IBM Cognos Express Reporter. For more information, see the *IBM Cognos Business Intelligence Cognos Workspace Advanced User Guide*.

## Advisor

Using IBM Cognos Express Advisor, you can analyze and visualize your company data using views created in an easy-to-use web interface. Simple analysis will allow you to spot trends, detect areas of your business that need attention and easily extend the underlying data with business calculations.

This component is available in IBM Cognos Express Advisor. For information about using IBM Cognos Express Advisor, see the *IBM Cognos Express Advisor User Guide*.

## Planner Applications

IBM Cognos Express Planner Applications streamlines data collection and workflow management. It eliminates problems with errors, version control, and timeliness that characterize decentralized planning processes.

This component is available in IBM Cognos Express Planner. For information about using Planner Applications, see the *IBM Cognos TM1 Applications User Guide*.

## **Xcelerator**

Using the Web client for IBM Cognos Express Xcelerator, you can perform analyses on Xcelerator cubes.

This component is available in IBM Cognos Express Xcelerator. For information about using IBM Cognos Express Xcelerator Web, see the *IBM Cognos TM1 User Guide*.

## **Cognos TM1 Operations Console**

The IBM Cognos TM1 Operations Console is a new way for administrators to monitor and take action on IBM Cognos Analytic Server activity.

The Cognos TM1 Operations Console provides a visual and effective way to understand how IBM Cognos Analytic Server instances and user loads are working. Server instances can be identified and various aspects of the monitoring can be managed using the IBM Cognos TM1 Operations Console. The console is a web-based client that is deployed and targeted to specific IBM Cognos Analytic Server instances to generate logs and provide a graphical display to help manage server loads.

This component is available in IBM Cognos Express Xcelerator. For information about using IBM Cognos TM1 Operations Console, see the *IBM Cognos TM1 Operations Console Guide*.

## **Windows-based user interfaces**

The IBM Cognos Express interfaces based on Microsoft Windows operating systems are Data Advisor, Architect, Framework Manager, Cognos Insight, and Performance Modeler.

### **Data Advisor**

Using IBM Cognos Express Data Advisor, you can create a model definition that is based on your relational tables.

For information about using IBM Cognos Express Advisor, see the *IBM Cognos Express Advisor User Guide*.

### **Architect**

Using IBM Cognos Express Architect, you can create and manage cubes, without installing Express Xcelerator.

For information about using IBM Cognos Express Architect, see the *IBM Cognos TM1 User Guide*.

## **Xcelerator client**

Using the client software that comes with IBM Cognos Express Xcelerator, you can integrate business planning, performance measurement and operational data to enable companies to optimize business effectiveness and customer interaction regardless of geography or structure.

For information about using IBM Cognos Express Xcelerator, see the *IBM Cognos TMI User Guide*.

## **Framework Manager**

Framework Manager is the IBM Cognos Express Reporter modeling tool for creating and managing business-related metadata for use in IBM Cognos Express analysis and reporting. Metadata is published for use by reporting tools as a package, providing a single, integrated business view of any number of heterogeneous data sources.

For information about using Framework Manager, see the *IBM Cognos Express Framework Manager User Guide*.

## **Cognos Insight**

Use IBM Cognos Insight to explore personal data or to contribute to a plan. Uncover trends and insights visually. Evaluate scenarios and plans, and contribute your analysis. You can then share your findings with others in your team or throughout the enterprise.

For information about using Cognos Insight, see the *IBM Cognos Insight User Guide*.

## **Performance Modeler**

Use IBM Cognos Express Performance Modeler to build models using dimensions, cubes, links, and rules. Create applications from cube views, assign workflow, and set up security. You can then deploy, administer, and maintain your applications.

For information about using Performance Modeler, see the *IBM Cognos TMI Performance Modeler User Guide*.

## **Cognos for Microsoft Office**

Use IBM Cognos for Microsoft Office as an add-in for retrieving content from IBM Cognos reporting products, such as IBM Cognos Business Intelligence and IBM Cognos PowerPlay® Studio, for use with the Microsoft Office system.

For more information, see the *IBM Cognos for Microsoft Office User Guide*.

## **Mobile device user interfaces**

The IBM Cognos Mobile provides an interface to Express products on mobile devices.

### **IBM Cognos Mobile**

IBM Cognos Mobile extends the functionality of your existing IBM Cognos Express installation so that users can interact with IBM Cognos Express on their tablet

computers or smartphone devices, including the Apple iPhone and the Research in Motion BlackBerry. Regardless of where they are located, IBM Cognos Mobile users can view Cognos Express reports, workspaces, and analyses produced by tools such as Report Studio, Query Studio, and Cognos Workspace.

For more information, see Chapter 12, “Managing IBM Cognos Mobile,” on page 69.

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## The application tier

The IBM Cognos Express application tier contains these servers:

- IBM Cognos Express server
- IBM Cognos Analytic Server (ICAS)
- Report server
- Advisor server

### IBM Cognos Express server

The IBM Cognos Express server includes

- The dispatcher
- Content Manager
- Apache Tomcat
- Express Manager

#### Content Manager

Content Manager is the IBM Cognos Express service that manages the storage of customer application data, including security, configuration data, models, report specifications, and report output. Content Manager is needed to publish packages, retrieve or store report specifications, manage scheduling information, and manage the Cognos namespace.

Content Manager stores information in a content store database, which is typically located in Tier 3 of the architecture.

The information stored by Content Manager includes

- reports  
Reports contain specifications, properties, security settings, and outputs. This includes queries created in Query Studio and reports created in Report Studio.
- report packages  
Packages contain metadata, reports, and folders.
- server configuration  
Server configuration contains directory information, the Cognos namespace, and information about contacts, distribution lists, data sources, and printers.
- personal user information  
Personal user information consists of My Folders and My Pages.
- language information  
Language information includes names, descriptions, and tool tips in different languages to support IBM Cognos Express multilingual capabilities.

Content Manager performs general functions, such as add, query, update, delete, move, and copy. It also performs content store management functions, such as export and import.

## **Apache Tomcat**

Apache Tomcat is the application server that is delivered with the IBM Cognos Express server. It contains a Web server and Gateway which are automatically configured when you install IBM Cognos Express.

## **IBM Cognos Express Manager**

IBM Cognos Express Manager is used to install and administer other IBM Cognos Express products, provide content management, and apply security.

## **IBM Cognos Analytic Server (ICAS)**

The IBM Cognos Analytic Server (ICAS) stores data that can be accessed by client software users. This allows users to model and manage data independently of the IBM Cognos Express server products that are installed.

## **Report Server**

The Report Server manages interactive requests to run reports and provides output for you in IBM Cognos Connection or IBM Cognos Express Web applications.

## **Advisor Server**

The Advisor Server generates an OLAP database and view for analysis of the data.

---

## **The data tier**

The IBM Cognos Express data tier contains the

- content store
- relational data sources
- Active Directory authentication store
- Xcelerator OLAP data sources

## **Content Store**

The content store is a relational database that contains data that IBM Cognos Express needs to operate, such as report specifications, published models, and the packages that contain them; connection information for data sources; information about the external namespace, and the Cognos namespace itself; and information about scheduling and bursting reports. The relational database is installed with IBM Cognos Express Manager.

Design models and log files are not stored in the content store.

The IBM Cognos Express service that uses the content store is named Content Manager.

IBM Cognos Express does not publish the content store schema, but updates the schema periodically, isolating changes from the user through stable user interfaces and APIs.

Much of the information in the content store, such as report results and XML report specifications, is stored as binary large object (BLOB) fields.

PDF results are compressed from creation. The PDF format does not allow the main body of a report to be compressed, but the page contents, fonts, and images are compressed. Adobe Acrobat Reader uncompresses PDF files at view time.

Report results in other formats, such as HTML, XML, and CSV (comma separated values), are stored in compressed form and are uncompressed by Content Manager before they are sent to a user.

## **IBM Cognos Express Content Database**

IBM Cognos Express Content Database is an instance of IBM Informix® IDS that is installed with IBM Cognos Express.

**Important:** IBM Cognos Express Content Database is for use as internal storage for IBM Cognos Express including the supplied samples. It must not be used to store company or production data.

## **Relational data sources**

Relational data sources, also known as query databases, are databases that can be accessed through IBM Cognos Express. Application Tier components use data source connections to access relational data sources.

## **ICAS cubes**

Cubes stored on the IBM Cognos Analytic Server (ICAS) are the only OLAP data sources that are supported by IBM Cognos Express. Application tier components use data source connections to access these cubes. ICAS cubes used by IBM Cognos Express are stored in a central database instance named CXMD.



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## Chapter 3. Preparing to install

Before you install IBM Cognos Express, ensure that your computer and your software environment meet all applicable requirements.

**Note:** You do not need to set up a database as a content store. The content store is created and configured when you install IBM Cognos Express.

Use the following checklist to review the requirements:

- • Review the release notes.
- • Review supported environments, including system requirements.

After you complete these tasks, continue with Installing and configuring IBM Cognos Express .

---

### Review the release notes before you install

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

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

You should review the release notes before you install IBM Cognos Express. The release notes contain late-breaking information about known issues. They are available from the product DVD or installation image if you downloaded the product from the IBM Web site.

---

### Reviewing supported environments

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

To review an up-to-date list of environments supported by IBM Cognos products, such as operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, see the IBM Software Compatibility reports ([www.ibm.com/support/docview.wss?uid=swg27038246](http://www.ibm.com/support/docview.wss?uid=swg27038246)).

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### Client prerequisites

Before users can install and use certain Express clients, some prerequisites must be met.

#### **Data Advisor and Architect prerequisites**

- Microsoft .NET Framework 4 Extended

#### **Xcelerator client/TM1 Perspectives prerequisites**

- Microsoft Visual C++ 2010 Redistributable Package (x86)
- Microsoft .NET Framework 4 Extended

- Microsoft Excel 2007/2010 32-bit plus Office Shared Features\Visual Basic for Applications

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## Preparing for installation on a non-default drive

If you plan to install IBM Cognos Express on a disk drive other than drive C, you must ensure that the drive is enabled for short names, also known as 8dot3 names.

### Procedure

1. Determine whether the drive in which you want to install Express is enabled for short names.
  - a. Open a command window.
  - b. Type `fsutil 8dot3name query drive`  
where *drive* is the drive letter, followed by a colon.  
If 8dot3 name creation is enabled on *drive* appears, the drive is ready for installation and you can skip the next step.  
If 8dot3 name creation is disabled on *drive* appears, go to the next step.
2. If required, enable the drive for short names. Type the following text:  
`fsutil 8dot3name set drive 0`  
where *drive* is the drive letter, followed by a colon.

---

## Setting up reporting connectivity for relational databases to use dynamic query mode

To allow the reporting engine to connect to supported relational databases using dynamic query mode, you must install the required Java Database Connectivity (JDBC) driver files, and then either copy them to the IBM Cognos Express installation directory or specify their location in a properties file.

**Important:** Dynamic query mode requires Java Runtime Environment (JRE) 1.5 or 1.6. You must use the driver files that are provided with the JRE that your relational database uses.

If you set up dynamic query mode, content that was created in a previous version of Express is not affected.

For information about how to set up connectivity to your relational data source provider, see the *IBM Cognos 10 Dynamic Query Cookbook* on the IBM developerWorks site (<http://www.ibm.com/developerworks>).

---

## Securing data sources

You can secure data sources using data source-specific security.

Depending on the data source, one or more of the following authentication methods are available:

- No authentication  
IBM Cognos Express logs on to the data source without providing any signon credentials.
- IBM Cognos Express service credentials

IBM Cognos Express logs on to the data source using the logon specified for the IBM Cognos Express service. Users do not require individual database signons. For production environments, however, individual database signons are generally more appropriate.

- Active Directory namespace

IBM Cognos Express logs on to the data source with the credentials used to authenticate to the specified Active Directory namespace. The namespace must be active, users must be logged on prior to accessing the data source, and the authentication credentials used for the namespace must be relevant for the data source authentication.

All data sources also support data source signons defined for the Everyone group or for individual users, groups, or roles. If the data source requires a signon, but you do not have access to a signon for this data source, you are prompted for authentication each time you access the data source.



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## Chapter 4. Upgrading your IBM Cognos Express content

If you are using an earlier version of IBM Cognos Express, you can upgrade to the latest version without losing your Express content. This saves you from having to replace cubes, recreate data source definitions, or define configuration settings.

If your company is growing, you may decide to upgrade your content to an IBM Cognos Enterprise environment.

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### Upgrading from Express 9.0 to Express 10.2.1

You can upgrade your Express content directly from IBM Cognos Express 9.0 to Express 10.2.1.

#### Procedure

1. On the computer where Express 9.0 is installed, back up the Express 9.0 content.
2. Copy the backup folder to a safe location outside of *Express\_9.0\_installation\_location*
3. If you are installing Express 10.2.1 on the same computer as your 9.0 installation, uninstall Express 9.0.
4. Install Express Manager 10.2.1.
5. Copy the backup folder that you stored in a safe location to C:\Program Files\IBM\Cognos Express Backups
6. Restore your Express 9.0 content to your Express 10.2.1 installation.
7. If you are restoring to a different computer, update all of your data source connections to point to the appropriate servers.

---

### Upgrading from Express 9.5 or 10.1 to Express 10.2.1

You can upgrade your Express content from IBM Cognos Express 9.5 or 10.1 to Express 10.2.1.

#### Procedure

1. On the computer where Express 9.5 or 10.1 is installed, back up your Express 9.5 content.
2. If you are installing Express 10.2.1 on the same computer as your old installation, uninstall Express your old installation.
3. Install Express Manager 10.2.1.
4. Install any of the Express products: Advisor, Reporter, Planner, and/or Xcelerator.
5. Restore your Express 9.5 or 10.1 content to your Express 10.2.1 installation.
6. If you are restoring to a different computer, update all of your data source connections to point to the appropriate servers.

---

## Upgrading from Express to an Enterprise product

You can upgrade your content from any version of IBM Cognos Express to an Enterprise product, such as IBM Cognos Business Intelligence (BI) or IBM Cognos TM1.

To upgrade to IBM Cognos BI, use IBM Cognos Administration to perform the following tasks:

1. Export your Express content.
2. Move the deployment archive to your BI target environment.
3. Import your Express content to the BI target environment.

For more information, see the Deployment chapter in the *IBM Cognos Express Administration and Security Guide*.

To upgrade to IBM Cognos TM1, back up and restore your Express content manually.

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## Chapter 5. Installing and configuring IBM Cognos Express Manager

When you install and configure IBM Cognos Express Manager, you

- • Copy the files for all of the IBM Cognos Express products to your computer
- • Enable IBM Cognos Express Manager, the tool that allows you to install and administer IBM Cognos Express Advisor, IBM Cognos Express Planner, IBM Cognos Express Reporter, and IBM Cognos Express Xcelerator.

### Notes

- You cannot install IBM Cognos Express if another version of IBM Cognos Express is already installed on your computer.
- You cannot install IBM Cognos Express if an instance of IBM Cognos TM1 is already installed on the computer.
- You cannot install IBM Cognos Express if IBM Informix IDS is installed on your computer.

---

## Installing IBM Cognos Express Manager

When you run the IBM Cognos Express installation wizard, you install IBM Cognos Express Manager. This allows you to install the IBM Cognos Express products, add users, add data sources, and perform other administrative tasks.

### Before you begin

**Important:** You must install IBM Cognos Express from a local disk. Installing from a mapped network drive or a network share will fail. In addition, the installation location must be on a local disk. You cannot install to a network or mapped drive.

- Disable your antivirus software.
- Do not remove the Express installation disk or move the downloaded Express installation files until you have finished both of the following:
  - installing Express Manager
  - using Express Manager to install all of your Express products

### Procedure

1. Insert the IBM Cognos Express DVD or go to the location where the installation files were downloaded.
2. Double click **issetup.exe** .
3. If you want the IBM Cognos Express Manager interface to display in a language other than English, select the language you want.
4. Click **Next**.
5. Read the license agreement, and if you find it acceptable, click **I agree** and then click **Next**.
6. If you want IBM Cognos Express to be installed in a location other than the one shown, browse to the location you want.

**Tip:** The folder structure IBM\Cognos Express will be created in the location you choose.
7. Click **Next**.

8. Choose a folder that will contain your start menu shortcuts and then click **Next**.
9. On the **Cognos Express Configuration** page, do the following:
  - a. If you want to change the port range used by IBM Cognos Express, select a range from the list of available port ranges that were detected on your system.

**Note:** You will not be able to change the port range after you finish this configuration. If you are unsure if the selected port range is already used by another application, click **Cancel**.

- b. Enter a name and password for the IBM Cognos Express administrator account, and then click **Next**.

**Important:** Remember your Express userid and password! You will be prompted for your userid and password every time you log on to Express

10. Enter a password for the icognosexpress Windows account, and then click **Next**.
11. Review the list of installation settings that you selected. If you want to change any settings, click **Back**.
12. Click **Next**.  
Installation begins, and may take a few minutes.
13. Read the information dialog about the installation location and how to obtain non-English product documentation, then click **OK**.

**Tip:** If you are prompted, create a valid password for the user icognosexpress.

14. If you want, select the appropriate check boxes to start IBM Cognos Express Manager and to view the Administrator documentation and the release notes.
15. Click **Finish** to complete the initial installation.
16. In the **Welcome to IBM Cognos Express** dialog, click **Finish** to install the remaining Express components.  
Express Manager starts and displays messages indicating that various components are being installed. This may take a few minutes.  
When installation is complete, the **log on** dialog displays.
17. If you want, change the password of the default Microsoft Windows operating system account that is used by your instance of Express.

**Important:** Change this password to minimize the security risk of multiple Express installations using the same Microsoft Windows userid and password.

## Results

You can now start IBM Cognos Express Manager.

## The IBM Cognos Express Windows user account

When you install IBM Cognos Express, a Microsoft Windows user account is created on your computer. The default username for this account is icognosexpress.

You are prompted to provide a password that meets the Windows system policy for passwords.

IBM Cognos Express requires the icognosexpress account for two purposes:

- to access the Informix database, which is the content store for IBM Cognos Express
- to run the Excel service in the IBM Cognos Express Xcelerator Web client

You can view the new user account in the Administrators group under Local Users and Groups on your Microsoft Windows system.

### **Security risks associated with a common Windows user id and password**

When you install IBM Cognos Express, a Microsoft Windows operating system user account is created for use by Express when accessing the content store. Each installation of Express creates the same account, `icognosexpress`, and uses the same password.

The security risks of using such a common account are as follows:

- Someone with access to a local IBM Cognos Express installation, for example a test server, could retrieve the username and password used to connect to the IBM Informix database. That person could then connect to another Express installation, for example, a production server.  
This risk increases if a customer forgets to block the Informix port number on the host firewall.
- The `icognosexpress` account has access not just to the content store database. It also has read access to the entire hard drive.

### **Changing the password of the Express Windows user account**

When you install Express Manager, you are prompted to provide a password for the `icognosexpress` account that meets the policy requirements of your Microsoft Windows environment. Should you need to change this password at a later date, use the following steps.

#### **Procedure**

1. Change the Windows system account password.
  - a. Log on as a user with administrative privileges.
  - b. Open a command prompt window and type the following text:  
`net user icognosexpress newPassword`

**Remember:** Ensure that the new password meets the policy requirements of your Windows system.

2. Change the content store password.
  - a. Launch the file `cogconfig.bat`, located in `express_installation_location\bin`

**Tip:** If you forgot to log in as a Windows administrator, you can right-click the file and select Run as administrator.

- b. In IBM Cognos Configuration, under **Data Access > Content Manager > IBM Cognos Content Store**, in the **User ID and password** field, change the password to the new password that you set for the system account.
- c. Save and apply the changes and exit IBM Cognos Configuration.

**Note:** Do not start the service when you exit.

- d. Open the Windows Services window, and restart the IBM Cognos Express service.
3. If Xcelerator is installed, change the Microsoft Excel service password.

- a. Open the Windows Services window.
- b. Right click the service name **IBM Cognos Express Xcelerator Excel Service** and select Properties.
- c. On the Log On tab, change the Password and Confirm password fields to the new icognosexpress user password.

---

## Starting IBM Cognos Express Manager

After you install IBM Cognos Express Manager, start it to administer IBM Cognos Express and to manage content and security.

### Procedure

1. Use one of the following methods:
  - In a browser window, type **http://servername:port\_number/cognos\_express/manager**, where *servername* is the name of the computer on which you installed IBM Cognos Express, and *port\_number* is the port number you chose. The default port number is 19300.
  - Use the start method you selected when you installed IBM Cognos Express Manager.

For example, if you chose the Start menu option, go to the **Start** menu and click **Programs > IBM Cognos Express > IBM Cognos Express Manager**
  - If you are already at a namespace dialog or the **log on** dialog, go to step 2 or 3.
2. If you configured an Active Directory namespace, do the following steps:
  - a. Select the namespace from the list and click **OK**.
  - b. Enter your user id and password for the namespace and click **OK**.
3. In the IBM Cognos Express Manager **Log on** dialog, enter the administrator name and password that you set when you installed IBM Cognos Express Manager. If you enter a user id and password that was not assigned to the Express Administrator role, the IBM Cognos Express **Welcome** page displays.
4. Click **OK**.

### Results

The IBM Cognos Express Manager window displays.

**Tip:** If you have problems logging on or if an error message displays, see the Troubleshooting section.

You can now use IBM Cognos Express Manager to do the following:

- • Change the configuration.
- • Add users
- • Manage Data Sources.
- • Install one of the IBM Cognos Express products: Advisor, Planner, Reporter, or Xcelerator.

---

## Changing the configuration of IBM Cognos Express Manager

You can configure IBM Cognos Express in the following ways.

- You can change the language displayed by the IBM Cognos Analytic Server (ICAS). This affects the language in log files and error messages provided by the server. The language that is displayed in the client software may be different

than the ICAS language. The web client language is determined by the locale setting of the browser. The desktop client software language is selected by the user during installation.

- You can change the location used for the Backup and Restore process. For more information, see Appendix H, “Manually backing up and restoring IBM Cognos Express,” on page 139.
- You can specify a mail server from which IBM Cognos Express can send emails. This is useful, for example, if you want to use IBM Cognos Reporter to send reports by email. For more information, see the *IBM Cognos Express Report Studio User Guide*.

When you install IBM Cognos Express, the mail server name and port is set automatically to mailserv:25.

- You can specify that IBM Cognos Express will use your company's existing Active Directory namespace. This is useful when you assign Express roles to existing user names.

When you install IBM Cognos Express, by default, Active Directory authentication is not enabled.

If you decide to use your company's mail server or Active Directory namespace, you can change the default IBM Cognos Express settings.

## Before you begin

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

For more information, see Chapter 8, “Managing data sources,” on page 39.

## Procedure

1. In IBM Cognos Express Manager, under **Products**, click **Manager**.
2. Click **Configure**.  
The **Manager Configuration Settings** dialog appears.
3. If you want to change the language in log files and error messages provided by the IBM Cognos Analytic Server (ICAS), in the **ICAS Service** list, select a language.
4. If you want to change the location where backup folders are stored when you back up your content, under **Backup and Restore**, enter the new path in the **Location** field.

**Tip:** If you want to save your backed up content to a disk, include your disk drive in the path.

For example, type D:\my\_express\_backups. When you back up your content, the following will occur:

- the folder my\_express\_backups is created on the disk, if it doesn't already exist
  - the backup folder is saved in the my\_express\_backups folder
5. If you want to configure IBM Cognos Express to use your company's mail server, specify the name of the mail server and a user name and password to be authenticated by the mail server.
  6. If you want to configure IBM Cognos Express to use your company's Active Directory namespace, do the following:

- Select the **Enable Active Directory authentication** checkbox.
- In the **Name** field, enter a name for the namespace.
- In the **Server** field, enter the fully qualified server name and port number of the Active Directory server.

**Tip:** To support Active Directory Server failover, you can specify the domain name instead of a specific domain controller. For example, type *mydomain.com:389* instead of *dc1.mydomain.com:389*.

- Specify the domains whose users can access IBM Cognos Express by selecting an option from the following table:

Table 1. Domain access options

| Option                     | User access  |
|----------------------------|--|
| One domain                 | Users from only one domain can log in.<br><b>Note:</b> This is the default setting   |
| One domain tree            | Users in the original authenticated domain and all child domains of the domain tree can log in to IBM Cognos Express. Users above the original authenticated domain or in a different domain tree cannot log in. |
| All domain trees in forest | Users in all domain trees in the forest can log in to IBM Cognos Express.  |

7. Click **OK** to save the configuration and to exit from the **Manager Configuration Settings** dialog.

In the **Products** section, the word **Configuring** displays on the **Manager** tab. When configuration is complete, the **log on** dialog displays. You can now start IBM Cognos Express Manager.

**Tip:** If the **log on** dialog does not appear, do one of the following:

- Click **View logs** to see what events occurred.
- Restart the IBM Cognos Express service.

---

## Uninstalling Express Manager

You can uninstall IBM Cognos Express Manager from the server where you installed it.

**Important:** When you uninstall IBM Cognos Express Manager, all of the IBM Cognos Express server components related to the products that you have installed are also removed. If you want to uninstall one or more IBM Cognos Express products that you no longer require, but still want to use other IBM Cognos Express products, you can uninstall them individually from Express Manager. For more information, see the uninstallation sections for IBM Cognos Advisor, Reporter, Planner or Xcelerator.

Before you uninstall, ensure that you back up your content.

### Procedure

1. From the **Start** menu, click **Settings > Control Panel**.
2. On the Microsoft Windows XP operating system (for evaluation versions of IBM Cognos Express), click **Add or Remove Programs**.

OR

On the Microsoft Windows 2008 operating system, under **Programs**, click **Uninstall a program**.

3. In the list of currently installed programs, click **IBM Cognos Express**.
4. On Windows XP, click **Remove** and follow the instructions in the **Uninstall IBM Cognos Express** wizard.

OR

On Windows 2008, click **Uninstall/Change** and follow the instructions in the **Uninstall IBM Cognos Express** wizard.

5. Delete any remaining folders in the *express\_installation\_location*.



---

## Chapter 6. Installing the IBM Cognos Express products

Install an IBM Cognos Express product so that designated users can access the product and download any associated client applications.

Use Express Manager to install one or more of these Express products:

- **Express Advisor** - allows you to launch Express Advisor Web and to download Express Data Advisor
- **Express Reporter** - allows you to launch Report Studio, Query Studio, Cognos Workspace Advanced and to download Framework Manager
- **Express Planner** - allows you to launch Express Contributor and to download IBM Cognos Insight and IBM Cognos Performance Modeler
- **Express Xcelerator** - allows you to launch Express Xcelerator Web and to download IBM Cognos Architect and IBM Cognos Express Xcelerator Client

You can start the installation for each of the products at the same time, however, each installation will complete before the next installation in the sequence starts.

**Important:** Do not remove the Express installation disk or move the downloaded Express installation files until you have finished **BOTH** of the following:

- installing Express Manager
- using Express Manager to install ALL of your Express products

### Before you begin

Before you install an Express product, you must complete these tasks:

- \_\_\_ • Ensure that your software environment meets the Express software requirements. For more information, see the IBM Software Compatibility reports ([www.ibm.com/support/docview.wss?uid=swg27038246](http://www.ibm.com/support/docview.wss?uid=swg27038246)).

**Important:** If you are installing IBM Cognos Express Advisor, you must first install Microsoft .NET Framework version 3.5 Extended.

- \_\_\_ • Install IBM Cognos Express Manager.
- \_\_\_ • Ensure that the configuration of IBM Cognos Express Manager was successfully completed.



**Tip:** The IBM Cognos Express Manager icon contains a green checkmark when the configuration is complete.

- \_\_\_ • Ensure that no other versions of the product are installed on your computer.

### Procedure

1. In IBM Cognos Express Manager, under **Products**, click the name of the product.
2. On the **Products - productName** page, click **Install**.  
Messages in the **Event Messages** pane indicate the progress of the installation.
3. If you want to see details about installation events as they occur, click the **View Logs** button.

4. When the installation is complete, the server is restarted, as indicated by the following changes:
  - A **Connecting** dialog displays with the message: Waiting for server response.
  - The IBM Cognos Express Manager **Log on** dialog displays.
5. Enter the administrator name and password that you set when you installed IBM Cognos Express Manager.
6. Click **OK**.  
The IBM Cognos Express Manager window displays with the following changes:
  - A green checkmark displays on the product icon.
  - In the **Event Messages** pane, this message displays:  
*product\_name* has been successfully installed.  
**Tip:** If this message does not appear, click **Restart** to restart the product service. You can also click **View Logs** and examine the installation log files.
7. If applicable, you can click **Configure** to adjust product settings.

## Results

Applications available with the product can now be launched by designated IBM Cognos Express users from the **Welcome to IBM Cognos Express** page and from the **Launch** menu in IBM Cognos Connection.

---

## Configuring and starting the TM1 Operations Console

Configure the IBM Cognos TM1 Operations Console so that Express administrators can monitor the activity of the IBM Cognos Analytic Server (ICAS).

### Before you begin

Before you configure the TM1 Operations Console, you must complete these tasks:

- \_\_\_ • Install Express Manager
- \_\_\_ • Install Express Xcelerator

### Procedure

1. In a browser, enter the URL of the Express Planner Administration and Configuration page:  
`http://express_server_name:19300/pmhub/pm/admin`
2. In the **Services** pane, expand the folder  
**com.ibm.ba.pm.opsconsole.monitor.tm1.TM1OpsConsoleMonitor**.
3. Select the child element  
**com.ibm.ba.pm.opsconsole.monitor.tm1.TM1OpsConsoleMonitor.dictionary**.
4. In the **DefaultAdminHost** field, type the following value:  
localhost
5. In the **DefaultGroup** field, type the following value:  
CAMID(" :Express Administrators")
6. In the **DefaultServer** field, type the following value:  
CXMD
7. Select another folder and child element and then return to the element you just edited and ensure that your changes were saved.
8. Configure the login information and start the TM1 Operations Console.

**Tip:** After you configure the login information, the values that you entered in the first three fields become selectable in subsequent login sessions.

- a. Enter the URL of the TM1 Operations Console portal:  
`http://express_server_name:19300/pmhub/pm/opsconsole`
- b. In the **Adminhost** field, type the following value:  
`localhost`
- c. In the **Servename** field, type the following value:  
`CXMD`
- d. In the **Group** field, type the following value:  
`CAMID(":Express Administrators")`
- e. In the **User name** field, type the following value:  
`CognosExpress\username`  
where *username* is your Express administrator userid.
- f. In the **Password** field, enter your Express administrator password.
- g. Click **Login**. The Operations Console appears.

## Results

You can now start the Operations Console anytime by following step 8 in the previous procedure.

For more information, see the *IBM Cognos TM1 Operations Console Guide*.

---

## Second Admin user created on the Xcelerator server after installing Xcelerator

After IBM Cognos Express Xcelerator is installed, a second Admin user is created by default on the Xcelerator server in addition to the IBM Cognos Express Administrator user that is installed with IBM Cognos Express Manager. You can see this second Admin user from the Xcelerator client when you log in as the Administrator and when you view the Security properties of CXMD.

You can delete this Admin user or you can remove it from the Admin group if you do not need a second administrator account.

---

## Configuring the preload settings for Express Advisor

You can adjust the preload setting of the IBM Cognos Express Advisor server. When one or more databases is marked for preload, the Advisor server pre-loads the outline of each database into the cache. The preload setting specifies the Advisor databases in the content store that the Advisor server should preload.

The preload settings offers you a faster response time when you open a view. The Advisor Server loads the outline on startup. When users open a View to a cached outline view, the response time is short. Preloading is recommended for views that are linked to databases with large outlines, as these take more time to load. Preloading results in memory consumption by Advisor Server. The outline is loaded in memory when the Advisor Server service is started and stays loaded until the service is stopped.

## Procedure

1. Under **Products**, click **Advisor**.
2. On the **Products - Advisor** page, click **Configure**.
3. Select **Edit** from **What you can do**.  
The available cubes that can be preloaded are listed.
4. Specify which cubes have the preload setting.

---

## Chapter 7. Setting up the IBM Cognos Express samples

The IBM Cognos Express samples illustrate product features and technical and business best practices. You can also use them for experimenting with and sharing report design techniques and for troubleshooting.

**Important:** A file called `samples_variables.txt` is included in `express_installation_location\express_samples`. When you create the data source connections to IBM Informix and ICAS that are required to run the samples as described in this section, use the values in this file to fill in the fields as indicated.

The IBM Cognos Express samples are comprised of data that is deployed on two databases:

- **Informix samples**

The Informix samples are comprised of relational database and predefined packages, queries and reports that are viewable from Cognos Connection. Use the Informix samples if you want to use IBM Cognos Express Reporter to view sample data. You can also use IBM Cognos Express Data Advisor with the sample database to create multidimensional or relational models.

**Important: Before you set up the Informix samples, you must extract them.**

For more information, see “Setting up the Informix samples” on page 34.

- **ICAS samples**

Use the IBM Cognos Analytic Server (ICAS) samples if you want to analyze sample data which is stored on the IBM Cognos Analytic Server that is installed with Cognos Express. The ICAS samples are cubes that you deploy to the CXMD database instance and these cubes can be accessed with client applications such as Architect, Xcelerator client and the Xcelerator and Advisor web clients.

Before users can complete many of the tutorials in the guide *Getting Started with IBM Cognos Express*, you must install the samples that are provided with IBM Cognos Express. *Getting Started with IBM Cognos Express* is intended to help users become familiar with the various features and applications that are available to them. So be sure to inform your users once you have installed the samples so that they can begin using them to try out the IBM Cognos Express products.

**Important: Before you set up the ICAS samples, you must extract them.**

For more information, see “Setting up the ICAS samples” on page 36.

After you extract the data from these sample databases, you import the data into the IBM Cognos Express content store.

### Before you begin

To set up the samples, you must be an IBM Cognos Express administrator.

---

## Extracting the samples

Before you set up the report samples or the ICAS samples, extract the sample files to use with IBM Cognos Express.

## Before you begin

You should back up all of your data before extracting the samples. Extracting the samples should not overwrite any existing files. However, a backup is a wise precaution should you encounter problems with setting up the samples.

### Procedure

1. Go to the location of the file `install.exe` that you used to install IBM Cognos Express, and double-click the **Samples** folder.
2. Extract the file `samples.zip` to the *express\_installation\_location*, such as `C:\Program Files\IBM\Cognos Express`.  
Specify to extract all the files and folders and to use the folder names from the `.zip` file. You do not need to create any folders.

---

## Setting up the Informix samples

IBM Cognos Express provides a samples package that contains predefined Framework Manager models, Query Studio and Report Studio reports and a supporting IBM Informix database.

## Restoring the Informix database

Restore the Informix database so that the database recognizes the sample names and is able to interact with IBM Cognos Express.

### Before you begin

Before you restore the Informix database, you must install IBM Cognos Express Manager. You must log on as the Microsoft Windows operating system administrator who installed IBM Cognos Express and you should not have an installed version of Informix Client on your computer.

### Procedure

1. Ensure that you have extracted the Informix samples.
2. Open the *express\_installation\_location*\`express_samples` folder.
3. Double-click the file `restoreIDS_Samples.bat`.

**Tip:** If you forgot to log in as a Windows administrator, you can right-click on the file and select Run as administrator.

A command line window appears and messages describe the progress of the restore operation. This operation may take a few minutes.

When the restore operation is finished, the following message appears:

Sample databases imported successfully.

Press any key to continue.

4. Restart your computer.
  - Close all open windows.
  - From the **Start** menu, click **Shut down**, and then select **Restart**.

This ensures that all changes to the system environment variables are applied.

## Importing the report samples

Import the report samples to add them to the IBM Cognos Express content store and make them available in Cognos Connection.

## Before you begin

Before you import the report samples, you must install IBM Cognos Express Manager and IBM Cognos Express Reporter.

### Procedure

1. Start IBM Cognos Express Manager.
2. From the **Launch** menu, click **IBM Cognos Administration**.
3. Click the **Configuration** tab.
4. Click **Content Administration**.
5. On the toolbar, click the new import button .  
The **New Import** wizard displays.
6. Select **IBM\_Cognos\_Samples** as the deployment archive and click **Next** twice.
7. On the **Select the public folders and directory content** page, select the check boxes next to the package name, and then click **Next** three times.
8. Click **Finish**, then click **Run**, then click **OK**.  
The **IBM\_Cognos\_Samples** package is added to your content store.

## Creating data source connections to the Informix databases


You must create data source connections to the samples databases that you restored. IBM Cognos Express uses this information to connect to the samples databases and run the sample reports or use the sample package.

### Before you begin

Before you create the data source connections to the Informix database, you must perform the following tasks:

- extract the samples
- restore the Informix database
- install IBM Cognos Express Manager
- install IBM Cognos Express Reporter
- import the report samples

### Procedure

1. In IBM Cognos Express Manager, from the **Launch** menu, click **IBM Cognos Administration**.
2. Click the **Configuration** tab.
3. Click **Data Source Connections**.
4. Click the new data source button .
5. In the **Name** box, type **great\_outdoors\_sales** and then click **Next**.
6. In the connection page, select **IBM Informix Dynamic Server** as the database type, and then click **Next**.
7. Specify the connection string:
  - Open in Notepad the file `samples_variables.txt`, located in `express_installation_location\express_samples`.

**Tip:** You can refer to this file in some of the following steps.

  - In the **Informix database name** field, type **gosales**.

- In the **Host Name** field, enter the *Host\_Name* value indicated in the file `samples_variables.txt`.
- In the **Server Name** field, enter the *Server\_Name* value indicated in the file `samples_variables.txt`.
- In the **Service** field, enter the *Service\_Name* value indicated in the file `samples_variables.txt`.
- Click the **User ID** check box and, in the **User ID** field, enter the *User\_Name* value indicated in the file `samples_variables.txt`.
- Click the **Password** check box and, in the **Password** and **Confirm password** fields, enter the *Password* value indicated in the file `samples_variables.txt`.

**Tip:** To test whether the parameters are correct, click **Test the connection**.

8. Click **Finish**.
9. Repeat steps 4 to 8 for the GOSALESDW samples database, but type **great\_outdoors\_warehouse** in step 5 and in step 7, type **gosalesdw** in the **Informix database name** field.

---

## Setting up the ICAS samples

IBM Cognos Express also provides samples that were created to be stored on the IBM Cognos Analytic Server (ICAS).

After you install the ICAS samples, IBM Cognos Express Advisor views and a canvas will be available in Cognos Connection. These views are located in the Sales Plan package under the Advisor Samples folder. You can use these views as a starting point for exploring the capabilities of Advisor.

## Restoring the ICAS cubes

Restore the ICAS cubes so that the database recognizes the sample names and is able to interact with IBM Cognos Express.

### Before you begin

Before you restore the ICAS cubes, you must install IBM Cognos Express Manager and IBM Cognos Express Reporter.

To restore the ICAS cubes, you must refresh ICAS in IBM Cognos Express Manager.

### Refreshing ICAS in IBM Cognos Express Manager

To refresh IBM Cognos Analytic Server (ICAS), do the following.

#### Procedure

1. Start IBM Cognos Express Manager.
2. In the IBM Cognos Express Manager **Log on** dialog, enter an administrator name and password.
3. In IBM Cognos Express Manager, under **Products**, click **Manager**.
4. On the **Products - Manager** page, click **Restart All**.


## Importing the sample reports for ICAS

Import the report samples that have been created to report on the data in the ICAS samples to add them to the IBM Cognos Express content store.

## Before you begin

Before you import the ICAS samples, you must install IBM Cognos Express Manager and IBM Cognos Express Reporter.

### Procedure

1. Ensure that you have extracted the ICAS samples.
2. Start IBM Cognos Express Manager.
3. From the **Launch** menu, click **IBM Cognos Administration**.
4. Click the **Configuration** tab.
5. Click **Content Administration**.
6. On the toolbar, click the new import button .  
The **New Import** wizard displays.
7. Select **Sales\_plan** as the deployment archive and click **Next** twice.
8. On the **Select the public folders content** page, select the check boxes you want, and then click **Next** three times.
9. Click **Finish**, then click **Run**, then click **OK**.  
The ICAS sample kit that you selected is added to your IBM Cognos Express content store.
10. Repeat steps 7-10 for Sales\_plan\_TC and FinanceFacts.


## Creating an ICAS data source

You must create data source connections to the sample cubes that you restored. IBM Cognos Express uses this information to connect to the sample cubes and run the sample reports or use the sample package.

### Before you begin

Before you create the data source connections to the Xcelerator database, you must restore the ICAS cubes and install IBM Cognos Express Manager, and IBM Cognos Express Reporter.

### Procedure

1. In IBM Cognos Express Manager, from the **Launch** menu, click **IBM Cognos Administration**.
  2. Click the **Configuration** tab.
  3. Click **Data Source Connections**.
  4. Click the new data source button .
  5. In the **Name** box, type **TM1\_SalesPlan** and then click **Next**.
  6. In the connection page, select **IBM Cognos TM1** as the database type, and then click **Next**.  
The connection string page for the selected database displays.
  7. When prompted, do the following:
    - In the **Administration Host** field, enter the *Host\_Name* value indicated in the file samples\_variables.txt.
    - In the **Server Name** field, type **CXMD**.
    - In the **External Namespace** field, select **Cognos Express**.
- Tip:** To test whether the parameters are correct, click **Test the connection...**
- Note:** Leave the username and password blank.

8. Repeat steps 4-7, specifying **TM1\_FinanceFact** as the data source name.
9. Click **Finish**.

---

## Removing the samples packages from IBM Cognos Express

After you finish using the sample reports and cubes to learn about the IBM Cognos Express products, you can delete the packages on which the samples are based. This action permanently removes the samples from the content store.

### Procedure

1. In IBM Cognos Express Manager, from the **Launch** menu, click **IBM Cognos Connection**.
2. Click the **Public Folders** tab.
3. Select the check box for the sample package you want to delete.
4. Click the delete button on the toolbar, and click **OK**.

To use the samples again, you must create data source connections.

---

## Chapter 8. Managing data sources

A data source defines the physical connection to a database. A data source connection specifies the parameters needed to connect to a database, such as the location of the database. These parameters form a connection string for the data source.

You can create data sources in IBM Cognos Express Manager, in IBM Cognos Connection, or in IBM Cognos Framework Manager.

- If you create a data source in IBM Cognos Express Manager, you can add, delete, or republish it later using IBM Cognos Express Manager. This type of data source is called a Managed data source.
- If a data source is created in IBM Cognos Administration, there is no corresponding entry in IBM Cognos Express Manager. However, if a package from that data source is deployed, it displays in IBM Cognos Express Manager as an unmanaged data source.

For more information, see the *IBM Cognos Express Administration and Security Guide*.

- If a data source is created in Framework Manager, and then published to IBM Cognos Connection, you can view it in IBM Cognos Express Manager. However, you cannot modify the data source. This type of data source is called an unmanaged data source.

Data sources are stored in the Cognos namespace and must have unique names. For example, you cannot use the same name for a data source and a group.

When more than one data source is available in a package, users are prompted to select a data source connection and a signon when they run a report. For information about creating and publishing packages, see the *IBM Cognos Express Framework Manager User Guide*.

You can use IBM Cognos Express Manager to perform most of your administrative tasks. However, to supplement these tasks, you can take advantage of the advanced features that are available in IBM Cognos Administration.

### Supported data source types

IBM Cognos Express supports the following types of data sources:

- IBM DB2®
- IBM Informix Dynamic Server
- Microsoft SQL Server (ODBC)
- Microsoft SQL Server (OLE DB)
- Microsoft SQL Server (SQL 2005 Native Client)
- Microsoft SQL Server (SQL 2008 Native Client)
- Microsoft SQL Server (SQL 2012 Native Client)
- Microsoft Analysis Services 2008 (ODBO)
- Microsoft Analysis Services 2012 (ODBO)
- Netezza®
- ODBC

- Oracle
- Progress OpenEdge (ODBC)
- IBM Red Bric (ODBC)
- Sybase Adaptive Server Enterprises (CT-Lib)
- Sybase Adaptive Server Enterprises (CT-15)
- Teradata
- IBM Cognos TM1
- XML

---

## Creating a data source

Add data sources after you install the samples, but before you add users or assign roles.

### Before you begin

Before you create a data source, you must install IBM Cognos Express Reporter. This is because one of Reporter's components, BMT script player, is used to publish packages to IBM Cognos Connection.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Data**.
2. On the **Administration - Data** page, click **Add**.
3. Click the **Data Source Type** button and then select an item from the list.
4. In the **Enter Data Source Information** dialog, specify the connection parameters for the database type.
5. Click **OK**.
6. If you want to use IBM Cognos Express Manager for other tasks while the data source is being added, click **Perform in Background**.

### Results

The data source you created displays as a row on the **Administration - Data** page. Because you added the data source using IBM Cognos Express Manager, **Managed** displays in the **Managed State** column. The new data source is now available to IBM Cognos Express users in IBM Cognos Connection.

**Note:** If the package was not generated, yet no errors were returned to IBM Cognos Express Manager, **Deleted** displays in the **Managed State** column.

## Connection parameters

When you create a database, you set connection parameters that are specific to the database type.

The connection parameters that you need to specify vary with the database type. The following table describes each connection parameter.

*Table 2. Connection parameters for creating a data source*

| Connection Parameter | Description  |
|----------------------|--|
| Name                 | Enter the name of the computer on which the database is installed. |

Table 2. Connection parameters for creating a data source (continued)

| Connection Parameter  | Description   |
|---|---|
| <b>Host Name</b> (Informix only)<br><b>Database Name</b><br><b>ODBC Data Source</b> (ODBC, Teradata, Netezza) | Enter the name (alias) of the database that was used when the database client was configured.<br><br><b>Note:</b> This value is case sensitive  |
| <b>Server Name</b>  | Enter the name of the database server.<br><br><b>Note:</b> This value is case sensitive   |
| <b>Service</b> (Informix only)  | Select or enter the service name that the remote database server uses for incoming requests.  |
| <b>User ID</b>  | If the database is secured, enter the user id to access the database.<br><br><b>Note:</b> This value is case sensitive  |
| <b>Password</b>   | If the database is secured, enter the password to access the database.<br><br><b>Note:</b> This value is case sensitive   |
| <b>Database Object</b>  | Click the <b>Retrieve Database Objects</b> button to discover and retrieve the database objects.<br><br>From the drop-down list, select the database object that you want to use as your data source. |
| <b>Administration Host</b> (IBM Cognos TM1 only)  | Enter the name of the Administration server.<br><br><b>Note:</b> This value is case sensitive   |
| <b>ICAS Server Name</b> (IBM Cognos TM1 only)   | Enter the server name as configured in the TM1S.cfg file. For more information, see your IBM Cognos TM1 documentation.<br><br><b>Note:</b> This value is case sensitive                               |
| <b>Cube Name</b> (IBM Cognos TM1 only)  | Enter the name of the cube defined in TM1.<br><br><b>Note:</b> This value is case sensitive   |
| <b>Namespace</b> (IBM Cognos TM1 only)  | By default, this is set to IBM Cognos Express.<br><br>If you are using Active Directory, change this value to the name of the Active Directory namespace.   |

## Issues when creating a data source

If you experience issues when creating a data source using IBM Cognos Express Manager, try one or more of the following possible solutions:

- Ensure that you have the correct drivers installed to connect to the data source.
- Try to create a data source in either Cognos Administration or Cognos Express Manager and gather diagnostics.
- Use Framework Manager to provide additional information about the issue. Install Framework Manager on the Cognos Express server and create a model to provide additional diagnostics.

---

## Making ICAS data available for reporting and analysis

You can analyze or report on IBM Cognos Express Xcelerator data in Express Advisor, Express Report Studio, Express Query Studio, or Express Cognos Workspace Advanced.

### About this task

If you want to analyze your data and perform data entry, then you should use Express Advisor. If you need to create reports, then you can use Express Query Studio, Express Report Studio, or Express Cognos Workspace Advanced.

### Procedure

1. Create a TM1 data source.  
This will also publish a package - with the same name as the data source - to the Public Folders in Cognos Connection
2. Open the package with Express Advisor, Express Report Studio, Express Query Studio, or Express Cognos Workspace Advanced.

---

## Republishing or deleting a data source

As the IBM Cognos Express administrator, you can republish or delete only data sources that you created in IBM Cognos Express Manager. In IBM Cognos Express, these data sources are called Managed data sources. To modify a data source that was created in IBM Cognos BI, you must run IBM Cognos Administration.

For more information, see the *IBM Cognos Express Administration and Security Guide*.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Data**.
2. On the **Administration - Data** page, click one of the Managed data sources.
3. Do one of the following:
  - a. To overwrite the data source using the current data, click **Republish**.
  - b. To remove the data source from the **Data** page and from IBM Cognos Connection, click **Delete**.
4. Click **OK**.

---

## Creating packages for Express Advisor users

There are three ways that packages published by Cognos Insight can be made available to Express Advisor users.

The packages created through the Publish & Distribute option of Cognos Insight can be used by Express Advisor. However, you cannot select these packages in the package selector that is displayed when you open Express Advisor from the Launch menu or from the Welcome Page.

ICAS instances published by Cognos Insight can be made available to Express Advisor users in three ways:

- by opening Express Advisor directly from the web browser
- by creating a cube in Express Manager
- by creating a package in Framework Manager

## Opening Advisor by entering a URL

If you enter a URL in your browser to open Express Advisor, you can access an ICAS instance.

You can also open an existing view or canvas. You can access the distributed package from the Views dialog or from the Connection dialog.

### Procedure

1. Open your web browser.
2. Enter the URL as `http://express_server_name:port_number/p2pd/servlet/dispatch?b_action=EVService` where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port.

## Use Express Manager to create a package that can be selected by Advisor users

In Express Manager, you can convert an ICAS instance into a cube that can be accessed by Advisor users.

**Note:** A package created with Express Manager only references a single cube on the ICAS instance.

### Procedure

1. Open Express Manager and log on as Express Administrator.
2. Go to the **Data** tab.
3. Click **Add**.
4. Select **TM1** as Data Source Type.
5. Enter a unique Name.
6. Enter the name of the Express Server as Administration Host.
7. Enter the name of the ICAS instance as ICAS Server Name.
8. Enter the name of a cube as Cube Name.

**Note:** This cube should exist in the ICAS instance and should have a measures dimension assigned in its cube properties.

9. Leave CognosExpress as Name Space.
10. Click **OK**.

## Use Framework Manager to create a package that can be selected by Advisor users

In Framework Manager, you can convert an ICAS instance into a package that can be accessed by Advisor users.

**Note:** A package created with Framework Manager can reference multiple cubes.

### Procedure

1. Open Framework Manager.
2. Click **Create a new project**.
3. Enter a Project name and click **OK**.
4. Log on as Express Administrator.
5. Select a language and click **OK**.
6. Select **Data Sources** and click **Next**.
7. Select the published data source and click **Next**.
8. Select a cube.

**Tip:** This cube should have a measures dimension assigned in its cube properties.

9. Click **Next** twice and then click **Finish**.
10. In the **Create Package – Provide Name** dialog click **Cancel**.
11. To include additional cubes in the package, right-click **Model** in the **Project Viewer** panel, select **Run Metadata Wizard** and then repeat steps 6 to 10 for each additional cube.
12. Right-click **Packages** in the **Project Viewer** panel and select **Create -> Package**.
13. Enter a unique Name for the package, click **Next** twice and then click **Finish**.
14. Click **Yes** when asked to open the Publish Wizard.
15. Click **Next** twice, click **Publish** and then click **Finish**.
16. Close Framework Manager.

**Tip:** Save the project if you want to add cubes to the package in the future.

---

## Chapter 9. Managing users and roles

You can ensure that each IBM Cognos Express user has access only to the job functions that they need to perform. This helps to ensure that data security is not compromised. It also helps to simplify tasks by reducing the amount of information that users must read.

### Roles managed with Express Manager

To achieve the above, use Express Manager to track user names and assign roles to them. You can administer three types of roles using Express Manager:

- roles that appear in Express Manager by default
- roles that appear in Express Manager after you install an Express product
- custom roles that you import into Express Manager from IBM Cognos Administration

### The role of the Express Planner administrator

There is an additional Express role, that of administrator for Express Planner, that you do not administer using Express Manager. Instead, you use the Express Planner Web client and Express Architect. This role is assigned to Express administrators who need to use the Express Performance Modeler client software. For more information, see “Enabling users to download Performance Modeler” on page 49.

---

## Default Express Manager roles

You can assign pre-defined IBM Cognos Express roles to users.

By default, four roles are available in IBM Cognos Express:

- Express Users
- Express Administrators
- Express Data Advisor Users
- Express Architect Users

You can administer these default roles as soon as you install Express Manager and assign roles to a user. The default Express roles are available even if you have not installed any additional IBM Cognos Express products on the server.

### The Express Users role

Users who have the Express Users role assigned to them can do the following:

- Launch IBM Cognos Connection from the **Welcome to IBM Cognos Express** page
- Launch the web-based reporting, planning, and analysis applications that were installed by the administrator

## The Express Administrators role

Users assigned to the Express Administrators role can perform all the same tasks as those assigned to the Express Users role. In addition, IBM Cognos Express Administrators can do the following:

- Install IBM Cognos Express products and manage the configuration of IBM Cognos Express
- Add and manage users
- Manage data (content)

By default, one IBM Cognos Express administrator is automatically created with the installation. You can add more administrators, depending on the licences that you purchased.



**Important:** Do not delete the Express Administrators role. Doing so may disable some IBM Cognos Express products and prevent you from accessing IBM Cognos Express Manager.

## The Express Data Advisor Users role

If the administrator has enabled Data Advisor for download, users who are assigned the Express Data Advisor Users role can view a link on the **Welcome to IBM Cognos Express** page to download Data Advisor to their computer.

## The Express Architect Users role

If the administrator has enabled Architect for download, users assigned to the Express Architect Users role can view a link on the **Welcome to IBM Cognos Express** page to download Architect to their computer.

---

## Roles that appear in Express Manager after you install an Express product

Some Express client applications can be downloaded by a user from the Welcome page only after you install the associated IBM Cognos Express product and then assign the client role to the user name.

The following table shows the roles that appear in the **Add User** or **Edit User** dialog after you install each server product.

| Express product installed | Express role that appears on Add User or Edit   |
|---------------------------|---|
| Express Reporter          | Express Framework Manager Users role<br><b>Note:</b> Ensure that any user who will be using Framework Manager has an administrator license. |
| Express Xcelerator        | Express Xcelerator client Users role  |

---

## Adding users to IBM Cognos Express

Add users to IBM Cognos Express so that each IBM Cognos Express user can be authenticated.

Each user can password protect their signon either by using the default authentication provided with IBM Cognos Express or by using their company's existing Active Directory namespace. By assigning each person to a unique user ID, you can assign different roles to each user.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Users**.
2. Click **Add**.
3. In the **Add User** dialog, enter a username and the given name for the new user.
4. If required, enter the surname and the email address of the new user.
5. Enter a password and then confirm the password.
6. If you do not want to force the user to change their password when they first log on, deselect the **Force PW Change** check box.
7. Assign one or more roles to the new user:
  - In the **Available Entries** box, double-click a role to copy it into the **Selected Entries** box.
  - To assign additional roles, repeat the previous step.

**Tip:** By default, two roles are available in IBM Cognos Express: **Express Administrators** and **Express Users**. You can add more roles using IBM Cognos Administration.

8. Click **OK**.

---

## Changing user information

As the IBM Cognos Express administrator, you can edit information about existing IBM Cognos Express users. For example, if a user forgets their password, you can reset it. You can also change the roles that are assigned to a user.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Users**.
2. Click the user whose information you want to change.
3. Click **Edit**.
4. In the **Edit User** dialog, edit any of the fields, except the **Username** field, that appeared when you added the user.

**Tip:** If you want to change a user name, you must remove it and then add a new user name. To remove a user name, on the **Users** page, click the name and then click **Remove**.


---

## Adding custom roles to IBM Cognos Express

By assigning roles to IBM Cognos Express, you can specify that only the users in a particular role have the access required to perform certain tasks.

In addition, you can add users to roles that you create in IBM Cognos Administration.

## Procedure

1. In IBM Cognos Express Manager, in the upper-right corner, click **Launch > IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.
4. On the toolbar, click the new role button .
5. In the **Specify a name and description** page, type a name and, if you want, a description for the new group or role, and then select a destination folder and click **Next**.
6. If you want to add members to the new group or role, click **Add** and choose how to select the users, groups, or roles:
  - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
  - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
  - To name the entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon separates each entry: namespace/group\_name;namespace/role\_name;namespace/user\_name;  
Here is an example:Cognos/Express Data Advisor User;
7. Use the arrow button to move entries to the **Selected entries** box.  
**Tip:** To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
8. Click **Finish**.

---

## Assigning roles to a user

By assigning roles to a user, you can specify that the user has access only to role functions that they are required to perform.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Users**.
2. Click the user whose information you want to change.
3. Click **Edit**.
4. In the **Available Entries** box, double click a role to copy it into the **Selected Entries** box.  
**Tip:** For information about the roles, see “Default Express Manager roles” on page 45.
5. To assign additional roles, repeat the previous step.  
**Tip:** By default, five roles are available in IBM Cognos Express. Another three roles become available after you install the Express products. You can add more roles using IBM Cognos Administration. For more information, see the *IBM Cognos Express Administration and Security Guide*.
6. Click **OK**.

---

## Enabling users to download Performance Modeler

Depending on your company's structure, you may be an administrator of both IBM Cognos Express and IBM Cognos Express Planner. Initially, only the Express administrator has access to Performance Modeler, the Planner administration tool.

If you perform both Express administrative tasks and Planner administrative tasks, you are already enabled to install Performance Modeler.

If you want other Express users to be the Planner administrators, you must

- ensure that each additional user has an Express administrator license
- assign Express Performance Modeler privileges to each additional user

## Assigning Express Performance Modeler privileges

Assign IBM Cognos Express Performance Modeler privileges to people who need to administer Express Planner.

To allow other Express users to function as an administrator for Express Planner, follow the steps below.

### Before you begin

Before you can assign Express Performance Modeler privileges, you must install Architect. For more information, see *Getting Started with IBM Cognos Express* .

### Procedure

1. Log in to Architect as an IBM Cognos Express user with TM1 administrative privileges.  
**Tip:** The IBM Cognos Express administrator is a member of the TM1 Admin group. As the IBM Cognos Express administrator, you can assign users to TM1 groups or import other groups or user names into TM1.
2. From the Server Explorer, click **Server**, then click **Security**, and then click **Clients/Groups**.  
If the user appears as a client in the **Client/Groups** window, go to step 8.
3. Click **Clients**, and then click **Add New Client**.
4. Select the namespace for the user you want to add from the **Available entries** list. For example, select Cognos Express.
5. Select the **Show users in the list** check box, and then, in the **Available entries** list, select the check box for the user that you want to add.  
  
**Tip:** You can select multiple users.
6. Click the arrow button to move the users to the **Selected entries** list.
7. Click **OK**. The user name is listed in the **Client/Groups** window.
8. Select the **ADMIN** check box to assign the new user to the TM1 ADMIN group.

**Tip:** You can also assign the user to other groups or roles, and then click **OK** in the **Clients/Groups** window.

## Results

The assigned users can now use Performance Modeler to perform Planner administrative tasks.

---

## Assigning custom roles to an Active Directory user

If you are authenticating IBM Cognos Express users using your company's Active Directory server, you can add custom roles created in IBM Cognos Administration to those users.

### Procedure

1. Start IBM Cognos Express Manager.
2. Log in to your Active Directory namespace:
  - Select the namespace from the list and click **OK**.
  - Enter your user id and password for the namespace and click **OK**.

**Tip:** Your active directory userid will not have administrator privileges.

3. On the **Welcome to IBM Cognos Express** page, click **IBM Cognos Content** to launch IBM Cognos Connection.
4. From the **Log On** menu, click **Log On**.
5. In the IBM Cognos Express Manager **Log on** dialog, enter the administrator name and password that you set when you installed IBM Cognos Express Manager.

## Results

You are logged in as both an Active Directory user and an IBM Cognos Express administrator. You can now access IBM Cognos Administration to assign custom roles to these users. For more information, see the *IBM Cognos Express Administration and Security Guide*.

---

## Assigning TM1 administrator privileges to an Active Directory user

When logging in to the IBM Cognos Express Analytic server, any client with a valid passport is accepted. Therefore, if you enabled Active Directory in IBM Cognos Express, you can log in to the IBM Cognos Express Analytic server with an Active Directory user name. This user name is automatically added to the IBM Cognos TM1 Client list. However, the user name is not part of any TM1 group.

**Note:** You can assign IBM Cognos Express roles to an Active directory user. For more information, see "Assigning custom roles to an Active Directory user."

To allow an Active Directory user to function as a TM1 Administrator, follow the steps below.

### Procedure

1. Log in to Architect as an IBM Cognos Express user with TM1 administrative privileges.

**Tip:** The IBM Cognos Express administrator is a member of the TM1 Admin group. As the IBM Cognos Express administrator, you can assign users to TM1 groups or import other groups or user names into TM1.

2. From the Server Explorer, with CXMD selected, click **Server**, then click **Security**, and then click **Clients/Groups**.  
If the Active Directory user appears as a client in the **Client/Groups** window, go to step 8.
3. Click **Clients**, and then click **Add New Client**.
4. Select the **Active Directory** namespace from the **Available entries** list.
5. Select the **Show users in the list** check box and then select the check box beside the user that you want to add to the **Available entries** list.

**Tip:** You can select multiple users.

6. Click the arrow button to move items to the **Selected entries** list.
7. Click **OK**.

The user name is listed in the **Client/Groups** window.

8. Select the **ADMIN** check box to assign the new Active Directory user to the TM1 ADMIN group.

**Tip:** You can also assign the user to other groups and/or roles, then click **OK** in the **Clients/Groups** dialog.

## Results

The assigned users can now perform TM1 administrative tasks.

---

## Assigning TM1 cube access rights to Cognos Express roles

When running reports against a TM1 cube stored in the IBM Cognos Analytic server, a user must have Read rights to that cube.

Whenever a new cube is created in ICAS, by default, a user does not have read access to that cube unless they have been assigned ADMIN or DataAdmin access rights in Architect.

For more information, see "Assigning Express Performance Modeler privileges" on page 49.

### About this task

If a user runs a report against a TM1 cube that they do not have Read rights to, an error message similar to the following is displayed:

A cube with the specified name ("Cube\_Name") cannot be found on the TM1 server.

If you want to provide to a set of users (whether they belong to an Active Directory or to the Cognos Express namespace), the ability to run reports on a specific cube, you should add these users to an existing Cognos role (for example, IBM Cognos Express Administrators) or to a custom role that you have created under the Cognos namespace. After doing so, you can assign that role Read rights to a specific cube.

To assign a Cognos Express role TM1 cube Read rights, follow the steps below.

## Procedure

1. Log in to Architect as an IBM Cognos Express user with TM1 administrative privileges.

**Tip:** The IBM Cognos Express administrator is a member of the TM1 Admin group. As the IBM Cognos Express administrator, you can assign users to TM1 groups or import other groups or user names into TM1.

2. From the Server Explorer, with **CXMD** selected, click **Server > Security > Clients/Groups**.
3. Click **Groups > Add New Group**.
4. Select the Cognos namespace from the Available entries list.
5. Select the check box beside the role that you want to add in the **Available entries** list.

**Tip:** You can select multiple roles.

6. Click the green arrow button that points to the right at the **Selected entries** list.
7. Click **OK**.

The role name is listed in the right most column of the **Client/Groups** window under **User Group Assignment**.

8. Click **OK** in the **Client/Groups** dialog.
9. From the Server Explorer, with **CXMD** expanded and **Cubes** selected, click **Cubes > Security Assignments**.

The Cognos role should show up under the **User Groups** column.

10. Select the cell that corresponds to the cube you want to assign the role access rights to and, under the **Access Privileges** section at the bottom of the dialog, select the **Read** radio button.
11. Click **OK** in the **Security Assignments** dialog.

The users belonging to that role can now run reports against that cube.

## Results

The users belonging to that role can now run reports against that cube.

---

## Enabling Kerberos SSO in IBM Cognos Express

You can enable Kerberos Single Sign On (SSO) by using Active Directory in IBM Cognos Express using the Microsoft IIS 6 or IIS 7 Web server.

For more information, visit the following URL:

<http://www.ibm.com/developerworks/data/library/cognos/page442.html>

---

## IBM Cognos Administration

IBM Cognos Administration is a powerful administration tool that is a component of IBM Cognos BI, a Business Intelligence solution used by large companies.

Although IBM Cognos Express is intended primarily for smaller companies, IBM Cognos Administration is integrated with IBM Cognos Express. This integration allows you to take advantage of both the Administration features of IBM Cognos Express Manager and the advanced features of IBM Cognos Administration.

For more information, see the *IBM Cognos Express Administration and Security Guide*.

### **Procedure**

1. Start IBM Cognos Express Manager, and log on as a user assigned to the Express Administrators role.
2. From the **Launch** menu, click **IBM Cognos Administration**.



---

## Chapter 10. Managing the distribution of client software

Manage the distribution of client software by notifying users and pointing them to the Welcome page.

As the IBM Cognos Express administrator, you are responsible for distributing Express client software to users. You do this by making it available on the **Welcome to IBM Cognos Express** page. Users can download only the software that their assigned roles permit and then install it on their own computers.

**Important:** The Express Welcome page is where all IBM Cognos Express users must go to access the applications that come with each product. Be sure to tell users to bookmark the Welcome page so that they can easily access it.

### Default client software

When you install Express Manager, two client applications are immediately available from the Welcome page.

- Data Advisor can be downloaded by users to whom you have assigned the Express Data Advisor Users role.
- Architect can be downloaded by users to whom you have assigned the Express Architect Users role.

### Client software available after you install Express products

Some client software can be downloaded from the Welcome page only after you install an Express product. For more information, see the steps to distribute Express Cognos Insight, Express Performance Modeler, Express Framework Manager, and Express Xcelerator client.

**Note:** By default, client software for an installed product is usually available to users from the Welcome page only after you have assigned them to the corresponding user role. The exception to this is Express Cognos Insight; users who have installed Express Advisor can download Cognos Insight from the Welcome page without being assigned an Express role. Alternatively, users who have installed Express Planner can download Cognos Insight from Applications Web without being assigned an Express role.

If an Express product is not yet installed, the client software is not mentioned on the **Administration - Software** page.

---

## Distributing client software

To manage the distribution of client software to IBM Cognos Express users, you should perform the following tasks:

### — • Make the software available and assign user roles

Data Advisor and Architect are available as soon as you install Express Manager. To make the other clients available, you must first install their corresponding server products.

You can grant permission to users to install and use specific client software. You do this by assigning user roles.

A user must be assigned a role before they can view the **Download Express software to my computer** link on the **Welcome to IBM Cognos Express** page. The Express products that are installed and the roles assigned by the Express administrator and the resulting user capabilities are shown in the following table.

Table 3. Product-Role-Capability matrix

| Express Product Installed by administrator | Role assigned to user           | Download capability for user  |
|--|---------------------------------|---|
| Express Xcelerator                         | Express Architect Users         | Download Architect from the Welcome page.   |
| Express Advisor                            | Express Data Advisor Users      | Download Data Advisor from the Welcome page.  |
| Express Reporter                           | Express Framework Manager Users | Download Framework Manager from the Welcome page.   |
| Express Advisor or Express Planner         | No role required.               | Download Cognos Insight from the Welcome page, the IBM Cognos Applications portal, or Cognos Express Advisor. |
| Express Planner                            | No role required.               | Download Performance Modeler from the IBM Cognos Applications portal.   |
| Express Xcelerator                         | Express Xcelerator client Users | Download Xcelerator client from the Welcome page.   |

— • **Decide whether to enable or disable client downloads**

For example, you may want to disable access to the Express Architect download link on the **Welcome to IBM Cognos Express** page until you test the software yourself.

To disable user access to one of the client software downloads, under **Administration**, click the **Software** tab, and then click the **Disable** button under the software name.

To enable user access to a disabled client software download, under **Administration**, click the **Software** tab, and then click the **Enable** button under the software name.

— • **Install it yourself**

Install the client software yourself to ensure that there are no problems with your environment.

For information about installing the client software, see *Getting Started with IBM Cognos Express* .

— • **Inform your users**

Ensure that you answer the following questions for IBM Cognos Express users:

– **When is an IBM Cognos Express client application available for users to download?**

Let users know when you make an application available. It is also good practice for users to read the messages in the **Daily News** section regularly. For example, users will know that they can install Express Xcelerator client when they see this message:

The Express Xcelerator client download for IBM Cognos Express Xcelerator is now available.

- **Where do users go to download an IBM Cognos Express client application?**

Tell users to click the **Download Express software to my computer** link on the **Welcome to IBM Cognos Express** page.

- **Where can users find documentation about how to install the client applications?**

Tell users to click the **Read "Getting Started with IBM Cognos Express"** link on the **Welcome to IBM Cognos Express** page.

- **Where are the client applications installed on a user's hard drive?**

Tell users that, by default, their 64-bit client applications will be installed to C:\Program Files (x86)\IBM\Cognos Express Clients

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## Deploying Cognos TM1 Mobile Contributor

IBM Cognos TM1 Mobile Contributor is a new mobile application for the Apple iPad that connects to an IBM Cognos Analytic Server (ICAS) and coexists with other desktop and web applications that connect to the same server.

Mobile users can access all their planning applications from IBM Cognos TM1 Applications, view submission status for all approval nodes, and interact with cube views in a grid or chart format right in the iPad app. Users can also change values on the iPad and submit them back to the plan where the data is updated on the IBM Cognos TM1 server.

### System overview

The mobile application connects to and interacts with an ICAS server and Cognos TM1 Application Server. Submissions that are begun on one client (web browser, desktop application, or mobile) can be continued or completed on another.

For users, the concepts of Cognos TM1 Mobile Contributor are consistent with other contribution user interfaces except that the gestures are consistent with a touch-based, mobile device.

The main components of the system include:

- Cognos TM1 Mobile Contributor for iPad
- Cognos TM1 Server
- Cognos TM1 Application Server

A wireless network connection is required on the iPad to allow TM1 Mobile Contributor to connect with remote TM1 data.

### Deployment, installation, and configuration

You must have Express Xcelerator and Express Planner installed and running before you can use Cognos TM1 Mobile Contributor.

#### **Cognos TM1 Server, Cognos TM1 Application Server (for TM1 Administrators)**

The support system for TM1 Mobile Contributor requires that you install Cognos TM1 Applications on a system that is available on your wireless network.

1. Install and run Cognos TM1 Applications.
  - Use IBM Cognos Configuration to make sure that the TM1 Application Server and TM1 Server are running.
  - Deploy and activate a planning application with Cognos TM1 Applications.
  - Ensure that Cognos TM1 Application Server is accessible on your wireless network.
2. Provide the host name and port numbers for the Cognos TM1 Application Server to the users of the app. Users must enter this information in the app on their iPads to connect to Cognos TM1.  
The default port number for the standard Cognos TM1 installation is 9510.

#### **TM1 Mobile Contributor for iPad**

As an iPad user, you install TM1 Mobile Contributor on your iPad from the Apple App Store. You then must enter the host name and port numbers to connect to the Cognos TM1 Application Server. The default port number for the standard Cognos TM1 installation is 9510.

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## Chapter 11. Managing Cognos Insight for Express users

You can administer and use Cognos Insight in your Express environment.

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### Installing Cognos Insight from Cognos Express

IBM Cognos Express users can install IBM Cognos Insight on their computers in several ways, but each way leads to a single installation of Cognos Insight on a user's computer.

Cognos Express users can install Cognos Insight from the following locations:

- From the Cognos Express Welcome page
- From IBM Cognos Connection
- From Cognos Express Planner

**Note:** Some web browser settings can affect whether your computer can provision Cognos Insight from Cognos Express. If provisioning Cognos Insight fails, check the following settings:


- Enable JavaScript.
- Enable file downloads.
- Enable pop-ups from the Cognos Connection URL.
- Allow script initiated downloads without prompting.
- If you are using the Microsoft Internet Explorer web browser, enable MIME-sniffing.

For information about finding and changing these settings, see your web browser documentation.

#### Before you begin

Before you can download and install Cognos Insight, the Cognos Express administrator must assign Cognos Insight privileges to you.

#### Procedure

1. Do one of the following depending on where you want to install Cognos Insight from:
  - From the Cognos Express Welcome page, click **Create desktop workspaces with Cognos Insight**.
  - **Remember:** The default URL is `http://server_name:19300/cognos_express/manager/welcome.html`
  - From Cognos Express Planner, click the open IBM Cognos Insight icon .
  - From Cognos Express Planner, open a shared application node with Cognos Insight.
  - From Cognos Connection, on the Launch menu, click Cognos Insight.
  - From Cognos Connection, open a shared Cognos Insight workspace.
2. If this is the first time you have used Cognos Insight, perform the following steps:

- a. Click **Install Now**. The installer file, CognosInsight.msi, is downloaded to your computer. This may take a few minutes.
- b. If the file CognosInsight.msi does not run automatically after being downloaded, click **Run** if prompted, or double-click the file to run it.
- c. If prompted, open the provagent.cogr\_cp\_insight file.

## Results

Cognos Insight is installed on your computer and then starts.

---

## Managing Cognos Insight access points

As the IBM Cognos Express administrator, you determine the locations from which Express users can access Cognos Insight.

If you installed either Express Planner or Express Advisor, Express users can access Cognos Insight from either the Express Welcome page or from the Cognos Connection Launch menu. If you assigned the Express Administrators role to any of those users, they can access Cognos Insight from additional locations.

In the following table, the letter X indicates Cognos Insight access points if you installed Express Planner but not Express Advisor.

*Table 4. Cognos Insight access points when Express Planner is installed*

| Location                          | If you are a member of the Express Administrators group | If you are a member of the Express Users group |
|-----------------------------------|---|--|
| Express Welcome page              | X   | X  |
| Express Manager Launch menu       | X   | Menu not available                             |
| Cognos Connection Launch menu     | X   | X  |
| Express Planner Administration    | X   | Menu not available                             |
| Cognos Administration Launch menu | X   | Menu not available                             |

In the following table, the letter X indicates Cognos Insight access points if you installed Express Advisor but not Express Planner.

*Table 5. Cognos Insight access points when Express Advisor is installed*

| Location                       | If you are a member of the Express Administrators group | If you are a member of the Express Users group |
|--------------------------------|---|--|
| Express Welcome page           | X   | X  |
| Express Manager Launch menu    | X   | Menu not available                             |
| Cognos Connection Launch menu  | X   | X  |
| Express Planner Administration | Menu not available                                      | Menu not available                             |

Table 5. Cognos Insight access points when Express Advisor is installed (continued)

| Location                          | If you are a member of the Express Administrators group | If you are a member of the Express Users group |
|-----------------------------------|---|--|
| Cognos Administration Launch menu | X   | Menu not available                             |

## Sharing Cognos Insight workspaces

In Cognos Insight, a workspace can be shared through Cognos Express by uploading the workspace document, the .cdd file, to Cognos Connection to make it available for downloading.

### Uploading a Cognos Insight workspace to Cognos Connection

You can share a Cognos Insight workspace by uploading it to Cognos connection.

#### Procedure

1. Open a workspace document in Cognos Insight.
2. Select **Share** from the main menu.

**Note:** Selecting this option will automatically, without warning, save any changes you have made since opening the workspace.

3. Enter the IBM Cognos system URL for Cognos Express as `http://express_server_name:port_number/p2pd/servlet/dispatch`, where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port.

For example, type `http://cx_server:19300/p2pd/servlet/dispatch`

4. Click **Log on as** and enter your Cognos Express credentials.
5. Enter a workspace document name.

**Note:** If you provide the name of a workspace that was already shared to the same location, the existing document will be replaced.

6. Select a Location where you want to upload the workspace to (click on the current location to change it) – make sure you select a location to which you have write access.
7. Click **Next** to review the summary.
8. Click **Finish** to complete sharing.

### Downloading a Cognos Insight workspace from Cognos Connection

Download a Cognos Insight workspace when you no longer want to share it.

#### Procedure

1. Log on to Cognos Express and go to Cognos Connection.
2. Browse to the location of the uploaded Cognos Insight workspace document.
3. Open the workspace document to download a copy of it to your client.
4. The downloaded document is opened in Cognos Connection.

**Note:** Changes will only be saved to the downloaded copy; if you want to update the workspace document in Cognos Connection, you need to upload it again.

---

## Using Cognos Insight in Connected mode

You can use Cognos Insight in Connected mode, meaning that the workspace is connected to model that resides in an ICAS instance on the Cognos Express server.

A Cognos Insight workspace document can be self-contained. That is, the analytic model can be stored in the .cdd file itself. A workspace document can also be used in connected mode. In connected mode, the analytic model resides on a remote TM1 server. In the case of Cognos Express, the model resides in an ICAS instance on the Cognos Express server.

If Cognos Insight is in connected mode, this is indicated by the - **Connected** suffix in the title bar and by the icon of a globe on the main toolbar.

You can use Cognos Insight in connected mode in three ways:

- Connect to an ICAS instance on the Cognos Express server.
- Open an Express Planner application node with Cognos Insight.
- Open a Cognos Insight workspace that is connected to an ICAS instance on the Cognos Express server.

## Connecting to an ICAS instance in Cognos Insight

You can connect to an ICAS instance on the Cognos Express server.

### Before you begin

To use this option, you must have access to an Express Planner application or be an Administrator on the ICAS instance that you want to connect to.

### Procedure

1. Start Cognos Insight.
2. Select **Connect to IBM Cognos TM1** from the main menu.
3. Enter the IBM Cognos TM1 system URL for Cognos Express as `http://express_server_name:port_number/pmpsvc/services/`, where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port.  
For example, type `http://cx_server:19300/pmpsvc/services/`
4. Click **Log on as** and enter your Cognos Express credentials.
5. Click **Next**, select a Planning Server (that is, the ICAS instance where the Express Planner application resides or to which you want to connect) and then select whether you want to see all views on the server or access a specific Express Planner application.
6. Click **Finish** to connect to the selected ICAS instance.

**Note:** You can make structural modifications only if the application type is Central.

## Opening an Express Planner application node in Cognos Insight

You can open an Express Planner application node in Cognos Insight.

### Procedure

1. Log on to Cognos Express and go to the Express Planner Applications page.
2. Open an Express Planner application that is configured to use Cognos Insight.
3. Open a node with Cognos Insight.

## Opening a Cognos Insight workspace that is connected with an ICAS instance

You can open a Cognos Insight workspace that is already connected to an ICAS instance on the Cognos Express server.

### Procedure

1. Open a workspace document that was created using either of the two ways described above.
2. Enter your Cognos Express credentials when prompted.

---

## Publishing a Cognos Insight workspace

You can publish a Cognos Insight workspace to the Cognos Express server and distribute the data source, package, and reports to Cognos Connection.

When you publish the contents of a Cognos Insight workspace to Cognos Express, the following results occur:

- creating a new ICAS instance on the Cognos Express server
- copying the model and data from the workspace to the new ICAS instance
- deploying and activating an Express Planner application

In addition to publishing, you can distribute the following objects to Cognos Connection:

- a data source pointing to the new ICAS instance
- a package referencing the new data source
- standard reports based on the new package

Publishing Cognos Insight workspace content to Cognos Express can only be done by Cognos Express Administrators.

**Important:** Additional ICAS instances will increase the load on the processor and memory resources of the Cognos Express server. Specifically, memory resources can become critical due to the in-memory aspect of ICAS. As there is only a single pool of resources that is shared among all Cognos Express services, adding ICAS instances may impact the performance and stability of the server. Therefore, the size of the Cognos Insight workspace in relation to the available (memory) resources should be taken into account before publishing its content.

## Publishing a Cognos Insight workspace

You can publish the content of a Cognos Insight workspace to the Cognos Express server.

## Before you begin

Publishing Cognos Insight workspace content to Cognos Express can only be done by Cognos Express Administrators.

### Procedure

1. Open a workspace document in Cognos Insight.
2. Select **Publish** from the main menu.

**Tip:** Selecting this option will automatically, without warning, save any changes you have made since opening the workspace.

3. In the Publish wizard click **Publish**.
4. Enter the IBM Cognos TM1 system URL for Cognos Express as `http://express_server_name:port_number/pmpsvc/services/`, where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port. For example, type `http://cx_server:19300/pmpsvc/services`
5. Click **Log on as** and enter your Cognos Express Administrator credentials.
6. Enter an Application name.

**Tip:** This name cannot be the same as an existing ICAS instance or Express Planner application name.

7. Optionally, choose **Use a dimension to control access to data** and select the appropriate dimension.
8. Click **Next** to review the summary.
9. Click **Finish** to complete publishing.

## Publishing and distributing a Cognos Insight workspace

You can publish a Cognos Insight workspace to the Cognos Express server and distribute the data source, package, and reports to Cognos Connection.

### Before you begin

Publishing Cognos Insight workspace content to Cognos Express can only be done by Cognos Express Administrators.

### Procedure

1. Open a workspace document in Cognos Insight.
2. Select **Publish** from the main menu.

**Tip:** Selecting this option will automatically, without warning, save any changes you have made since opening the workspace.

3. In the Publish wizard, click **Publish & Distribute**.
4. Enter the IBM Cognos TM1 system URL for Cognos Express as `http://express_server_name:port_number/pmpsvc/services/`, where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port. For example, type `http://cx_server:19300/pmpsvc/services`
5. Click **Log on as** and enter your Cognos Express Administrator credentials.
6. Enter an Application name.

**Tip:** This name cannot be the same as an existing ICAS instance or Express Planner application name.

7. Optionally, choose **Use a dimension to control access to data** and select the appropriate dimension.
8. Click **Next**.
9. Enter the IBM Cognos system URL for Cognos Express as `http://express_server_name:port_number/p2pd/servlet/dispatch`, where *express\_server\_name* is the name of your Cognos Express server and *port\_number* is the number of the port. For example, type `http://cx_server:19300/p2pd/servlet/dispatch`
10. Click **Log on as** and enter your Cognos Express Administrator credentials.
11. Click **Next**.
12. Enter a Package.

**Tip:** If you provide the name of a package that was already shared to the same location, the existing package will be updated.

13. Select a Location where you want to create the package.

**Tip:** Click on the current location to change it.

14. Select the individual Reports you want to include in the package.

**Tip:** A separate default report can be created for each crosstab widget in the workspace.

15. Click **Next** to review the summary.
16. Click **Finish** to complete publishing and distributing.

## Results

When the publishing (and distribution) finishes successfully, a new ICAS instance is created on the Cognos Express server and a new Express Planner application is deployed and activated. The type of the application is Central, unless during publishing a dimension to control access to data was selected. In that case, the type is Responsibility and the initial access rights to all the elements of the corresponding dimension will be set to None for the Cognos\Everyone group.

Any TI processes that were created when data was imported into Cognos Workspace are also copied to the new ICAS instance on the Cognos Express server. However, the data sources used in a copied TI process may not be accessible from within the new ICAS instance. In that case, the TI process in the ICAS instance needs to be reconnected to an accessible data source before it can be executed.

## Removing published content from the Express server

You can remove content that you have published to the Cognos Express server.

You can remove the following published content:

- ICAS instances
- Express Planner applications
- data sources
- packages
- reports

The objects are created in the order shown above. If you are removing objects, you should follow the reverse order. If you remove objects that are referenced by other objects, including ones created manually, broken links may result. If you remove a package, all the objects it contains will also be removed, including reports.

### Removing reports

You can remove published reports from the Cognos Express server.

#### Procedure

1. Open the package in Cognos Connection.
2. Select the reports you want to remove and click **Delete**.
3. Click **OK** to confirm the deletion.

### Removing packages

You can remove published packages from the Cognos Express server.

#### Procedure

1. Start Cognos Connection.
2. Select the package you want to remove and click **Delete**.
3. Click **OK** to confirm the deletion.

### Removing a data source

You can remove published data sources from the Cognos Express server.

#### Procedure

1. Launch IBM Cognos Administration and click the **Configuration** tab.
2. Click **Data Source Connections**.
3. Select the data source you want to remove and click **Delete**.
4. Click **OK** to confirm the deletion.

### Removing an Express Planner application

You can remove published Planner applications from the Cognos Express server.

#### Procedure

1. Open the Express Planner applications page.
2. Select the application you want to remove and click **Delete IBM Cognos Express Applications**.
3. Click **Yes** to confirm removing the application.

### Removing an ICAS instance

You can remove published ICAS instances from the Cognos Express server.

#### Procedure

1. Open the Express Planner applications page.
2. On the toolbar, click **Administer IBM Cognos Express Planner Application**.
3. Select the Server Name of the ICAS instance that you want to remove and, under the **Server Names** box, click **Remove**.
4. Read the warning and click **Close**.
5. Click **OK** to perform the deletion.

## Configuring ICAS instances

IBM Cognos Analytic Server (ICAS) instances have default security settings. You can configure ICAS instances to be accessible by Xcelerator Web and by IBM Cognos Workspace.

### Default security settings for ICAS instances

ICAS instances published from Cognos Insight have default security settings.

An ICAS instance created through Cognos Insight is configured for CAM security and initially will have the following security defined:

- Clients (that is, users): the Cognos Express administrator that published the workspace content – this user is assigned (TM1) Admin rights
- Groups: Cognos\Everyone
- access to all cubes and dimensions is set to Read for all groups
- if, during publishing, a dimension to control access to data was selected, access to all members (elements) of this dimension will be set to None for the Cognos\Everyone group

Other members of the Express Administrators role will not be automatically assigned Admin rights for the new ICAS instance when they log on. This must be done manually by someone who does have Admin rights.

The initial access to cubes and dimensions is set by rules attached to the }CubeSecurity and }DimensionSecurity control cubes. If you want to change these settings, you must first modify or delete the rules.

A published report filters on the context members that were selected in the crosstab when the publish & distribute action was performed. Users who do not have access to the originally selected member of a context dimension will be unable to run the report. To remedy this, the report can be changed – for example, in Report Studio or Cognos Workspace Advanced – by modifying or removing the context filter for the restricted dimensions.

### Configuring the connections available to Xcelerator Web users

Xcelerator Web is, by default, configured to connect to the standard Cognos Express ICAS instance called CXMD. However, you can configure Xcelerator Web to also connect to other ICAS instances on the Cognos Express server.

#### Procedure

1. Edit the Web.config file in the *express\_installation\_location*\TM1Web directory.
2. Change the value of the "TM1ServerName" key from "cxmd" to ""
3. Save the file.

**Note:** You do not need to restart any services.

Users are now prompted to select an ICAS instance when launching Xcelerator Web.

### Configuring ICAS instances for access by Cognos Workspace users

If Express Planner or Express Xcelerator is installed, you can configure IBM Cognos Workspace to include direct access to ICAS views and websheets.

## Procedure

1. In Windows Explorer, go to *express\_installation\_location*\configuration\icd\contributions\contrib
2. Rename the `tm1_contribution.atom.sample` file to `tm1_contribution.atom`
3. Edit the `tm1_contribution.atom` file:
  - a. Search for and replace the values for "TM1WebHostName" and "TM1HostName" with the name of your Cognos Express server.  
  
**Tip:** If the instance name contains spaces, you must replace each space by "%2520". For example, "My ICAS" becomes "My%2520ICAS".
  - b. Search for and replace the value for "CamAuthenticatedTM1ServerHost" with the name of the ICAS instance.
  - c. Search for and replace the value for "TM1WebPort" with the port number of Cognos Express.
  - d. You can access additional ICAS instances by duplicating the modified entry.  
  
**Tip:** Make sure the atom id, title, and summary of each entry are unique.
  - e. Save the file.
4. Edit the `tm1_en.properties` file:
  - a. Provide appropriate title and summary descriptions that correspond to the atom entries in the `tm1_contribution.atom` file.
  - b. Save the file.
5. In Express Manager, click **Restart All**.
6. When the Cognos Express restart is finished, open Cognos Workspace, expand the Content panel on the right, and verify that one or more ICAS entries are available.

---

## Chapter 12. Managing IBM Cognos Mobile

You can use IBM Cognos Express to set up and manage schedules related to the delivery of IBM Cognos content to mobile devices.

**Note:** You must install IBM Cognos Express Reporter before Express users can receive content on their mobile devices.

You can also use IBM Cognos Express to manage users. IBM Cognos Mobile uses the same set of users as IBM Cognos Express.

Using IBM Cognos Connection, you can also set advanced settings. For more information, see Appendix B, “Set advanced IBM Cognos Mobile settings,” on page 109.

---

### Cognos Mobile installation and configuration

You must plan in advance how to install and configure IBM Cognos Mobile to provide the best integration with the existing IBM Cognos Business Intelligence environment. The options that you choose depend on your reporting requirements, resources, and preferences.

When installing Cognos Mobile, use the following guidelines:

- Install the IBM Cognos Mobile application tier component in the same location where Cognos Business Intelligence is installed. In a distributed installation, the Cognos Mobile application tier components must be installed on the systems that will run the IBM Cognos Mobile service.
- Install the gateway and Cognos Mobile client components on your gateway systems. The gateway and Cognos Mobile client components include the sample Cognos Mobile over-the-air installation pages and the Cognos Mobile client components.
- For BlackBerry devices, the user must install the Cognos Mobile rich client components on the mobile device or push it over-the-air to Cognos Mobile users.
- For the iPad that supports the Cognos Mobile native application, users download the application from the Apple App Store.
- For the iPad (web version), Android, BlackBerry PlayBook, and iPhone, users must configure Cognos Mobile using a web application that they access using a URL.

For more information, see the *IBM Cognos Business Intelligence Architecture and Deployment Guide*.

### BlackBerry MDS Connection Service

Before Research in Motion BlackBerry devices can communicate with the IBM Cognos Mobile service, the BlackBerry MDS Connection Service component of BlackBerry MDS Services must be enabled.

If NTLM is used, HTTP authentication support must also be enabled. This instructs the BlackBerry Enterprise Server to help the BlackBerry mobile devices navigate the security exchange needed by Microsoft Internet Information Services (IIS).

Additionally, Cognos Mobile can use the BlackBerry MDS Connection Service capabilities to push reports to BlackBerry device users and to synchronize the reports. The push notifications that allow the IBM Cognos server to notify a BlackBerry device that new content is available for it on the server, are very small messages that do not impact the server in any significant way. The IBM Cognos administrator must work with the BlackBerry administrator to ensure that this functionality is configured correctly.

If you have multiple BlackBerry MDS Connection Service servers and you have users across these servers who need to connect to the same IBM Cognos Business Intelligence server, you must designate one of the servers as the primary Connection Service push server. Then, you must set IBM Cognos Mobile to use that server, which will in turn pass connection requests to the appropriate Connection Service server.

You can have multiple primary servers. For example, if your organization has a Sales department and a Finance department, each with multiple BlackBerry Enterprise Servers, you would designate one server in each department as the primary server.

After the BlackBerry MDS Connection Service is enabled, BlackBerry device users can browse the web using the BlackBerry browser on their devices. Browsing increases the load on the BlackBerry Enterprise Server. If this is a concern, it is possible to configure the BES to restrict MDS-CS data services to only the IBM Cognos Mobile application. An alternative would be to have a firewall on the BES server to allow access only to the IBM Cognos Mobile server.

IBM Cognos Mobile uses data in the same way that the browser on the BlackBerry does. Push notifications are very small messages that don't impact the server in a significant way.

For information about enabling Connection Service and primary push servers, see the Research In Motion BlackBerry Enterprise Server documentation.

## **Methods of installing and configuring IBM Cognos Mobile client components**

After you install and configure IBM Cognos Mobile server components, with the exception of the iPad, Android, BlackBerry PlayBook, and iPhone, you must install the IBM Cognos Mobile client components on each mobile device that must access IBM Cognos Business Intelligence reports or analyses.

With the iPad (native version), users download IBM Cognos Mobile from the Apple App Store.

With the iPad (web version), Android, BlackBerry PlayBook, and iPhone, you do not install the client components. Instead, you configure IBM Cognos Mobile using a web application that you access using a URL.

IBM Cognos Mobile client components can be installed in one of the following ways:

- Using a push deployment

For Research in Motion BlackBerry installations, the BlackBerry administrator can use the BlackBerry Handheld Configuration tool and then push the configured software over-the-air to users.

- Installing from the device
  - Users of BlackBerry devices can download the client from the web.
- Using a desktop deployment.
- Downloading from the Apple App Store (iPad native application)
- Using a web application (iPad, Android, BlackBerry PlayBook, and iPhone)
  - With the web application, the IBM Cognos Mobile client components are not installed on the tablet or device. Instead, users configure and run IBM Cognos Mobile using a web application which they access using one of the following URLs.
    - For the default IBM Cognos BI location, type `http://servername/ibmcognos` and, when prompted, select the Mobile portal or the desktop portal
    - For the CGI gateway, type `http://servername/ibmcognos/m`
    - For an ISAPI gateway, type `http://servername/ibmcognos/m/isapi`

**Tip:** After opening the web application in the browser, add this page to your home screen.

For BlackBerry device installations, BlackBerry Enterprise Server must have the BlackBerry MDS Connection Service component enabled for each BlackBerry account that needs access to IBM Cognos Mobile. For more information, see the Research In Motion BlackBerry Enterprise Server documentation.

### **Installing IBM Cognos Mobile client using the BlackBerry handheld configuration tool**

An IBM Cognos Mobile installation includes all the files needed for a Research in Motion BlackBerry administrator to package and push the rich client to mobile device users.

This is done by copying the rich client files to a shared location. Using a tool available with the BlackBerry Enterprise Server, BlackBerry administrators package the application that will be pushed to the mobile device users.

Typically, the BlackBerry administrator pushes the IBM Cognos Mobile client components to the BlackBerry device users. The BlackBerry administrator should perform this type of installation during off-peak hours.

The user is not involved but may notice some background activity and server communication during the installation. For most first time installations or upgrades, no reboot is needed. If a reboot is needed, the BlackBerry device prompts the user before it reboots the device.

#### **Procedure**

1. Use the BlackBerry Handheld Configuration tool to generate a software configuration that specifies the base operating system software for a BlackBerry device, and includes the IBM Cognos Mobile client application.
  - For more information, see the Research In Motion BlackBerry Enterprise Server documentation.
2. Push the configuration to the BlackBerry device users.

## Install and configure IBM Cognos Mobile client so that users can install from the web

You can configure IBM Cognos Mobile so that users can install the client over-the-air from their mobile devices. This type of installation is useful for remote users who must upgrade their installation without intervention by the device administrator.

The IBM Cognos Mobile rich client program files are located in the *c10\_location\webcontent\mobile* directory.

For mobile device browsers to recognize the file extensions that are used to install mobile applications wirelessly, you must also register additional files or MIME types with your web server. You must register MIME types for the BlackBerry devices.

You must register the following MIME types on your web server:

Table 6. MIME types

| File extension | MIME type                        |
|----------------|----------------------------------|
| .cod           | application/vnd.rim.cod          |
| .jad           | text/vnd.sun.j2me.app-descriptor |

Only the steps for IIS web server versions 5.x and 6.0 are included here. If you are creating MIME types for a different web server, see the documentation for that web server.

### Before you begin

Before installing IBM Cognos Mobile client on the mobile device, ensure that the user has access to the web browser application on the device and that the browser can access the IBM Cognos BI server through its regular webpage address, *c10\_location*.

### Procedure

1. From the Windows **Control Panel**, click **Administrative Tools, Internet Information Services**.
2. Right-click the IBM Cognos BI web site, and click **Properties**.
3. On the **HTTP Headers** tab
  - for IIS 5.x, click **File Types**
  - for IIS 6.0, click **MIME Types**
4. Click **New Type**.
5. For a BlackBerry installation, do the following:
  - In the **Associated extension** box, type **.cod**.
  - In the **Context type (MIME)** box, type **application/vnd.rim.cod**.
  - Click **OK**.
  - Click **New Type**.
6. For a BlackBerry do the following:
  - In the **Associated extension** box, type **.jad**
  - In the **Context type (MIME)** box, type **text/vnd.sun.j2me.app-descriptor**

- Click **OK**.
7. Click **OK**.
  8. Stop and restart your IIS service. From the Windows **Control Panel**, click **Administrative Tools, Services**. Click **World Wide Web Publishing** to stop the service and click it again to start the service.

## Results

After you install the IBM Cognos Mobile server components and configure your web server as needed to support an over-the-air installation by users, mobile device users can install the IBM Cognos Mobile client.

The default URL for the web installation is `http://c10_location/mobile/index.html`

## Installing IBM Cognos Mobile client components using a desktop deployment

Device users can install IBM Cognos Mobile and manage synchronization settings for their devices using a desktop deployment.

### BlackBerry devices

For a desktop deployment using a BlackBerry device, users can use the Research in Motion BlackBerry Desktop Manager.

The files are located in the `c10_location\webcontent\mobile\rim_desktop` directory.

For information about installing client components using a desktop deployment, see the BlackBerry Desktop Application Loader documentation.

## Background synchronization

With a default installation of the IBM Cognos Mobile service, users can run and view all supported reports. With background synchronization, which uses the Research in Motion Blackberry push feature, you can automatically push reports to a device as they become available.

To support background synchronization, the BlackBerry MDS host names and port numbers must be configured, as described in “BlackBerry MDS Connection Service” on page 69.

After configuration, background synchronization is always available on the server for BlackBerry.

Clients automatically use background synchronization by default.

## Pre-configuring the Mobile iPad application for users

Configure the IBM Cognos Mobile application to streamline the setup for users and control how the Mobile iPad application works.

### About this task

You can encode and generate configuration settings in a URL to distribute to Cognos Mobile application users in an email message, a chat, or by other methods. With this URL, the users can automatically configure the application on their iPad devices.

The Cognos server URL is included in the configuration so that users do not need to type the URL on their iPad devices when configuring the application.

As an additional security measure, a password can also be included in the configuration. The mobile configuration password provides a tamper-evident seal to ensure integrity of the configuration URL and confirms that the source of the URL is valid. The configuration URL and password should never be transmitted together using the same medium, such as email or chat, at the same time. Users need to enter this password only once when they open the configuration URL.

## Procedure

1. From a desktop browser, log on to IBM Cognos Connection with administrator privileges.
2. Go to **IBM Cognos Administration**, and click the **Mobile** tab.
3. For **IBM Cognos Server URL**, type your IBM Cognos BI server URL, such as `http://cognos_bi_server/ibmcognos`.
4. Turn on or off the following settings:

### Pass-Through Authentication

By default, IBM Cognos Mobile requires direct connectivity with the IBM Cognos BI server. If direct connectivity is not possible because of intervening security products or third-party portals, this setting must be enabled. The intervening products could include CA SiteMinder, Tivoli® Access Manager, Microsoft ISA Server, or landing pages in public WiFi networks. With pass-through authentication enabled, users can navigate to the Cognos BI server through the different web pages that are displayed to them.

### Automatic Downloads

If this setting is enabled, the Cognos Mobile iPad application automatically downloads new report outputs from the user's inbox, as well as reports pushed to the user. This setting should be enabled, unless bandwidth is a concern.

### Display Sample Server

If this setting is enabled, the Cognos Mobile sample server is accessible from the iPad application. The sample server contains sample IBM Cognos reports that illustrate the capabilities of IBM Cognos software. The sample reports are optimized for use on mobile devices.

5. Optional: Select the **Mobile Configuration Password** check box and type a password of your choice. The password can contain a maximum of 20 alphanumeric characters, and cannot contain spaces.

**Tip:** If you decide to specify this password, ensure that you provide it to the users separately from the configuration URL.

6. Click **Generate Mobile Configuration Code**. A base64-encoded URL is generated that includes the specified configuration settings.

The following is an example of the generated URL:

```
cmug://aHR0cDovL3ZvdHRtb2IxL2NzcDI-dmVyc21vbj0xLjAmcGFzcz1vZmYmYXV0b2R3bj1vZmYmZG1zcHNhbXA9b24mcHdkPW9uJnNhbHQ9UW1zQVJoTTNPaFVfJmhhc2g9QVFuQUFBQk1iV0ZqVTBoQk1iV2U3SEJiUjhhkzJBV2wrKzI0Y2d6cWxLMi8.
```

7. Copy the configuration URL and provide it to the Cognos Mobile iPad application users by email, chat, or by other methods.

Ensure that the following conditions are met when copying and transmitting the URL:

- All characters in the URL, including underscores (\_), are selected when copying the URL.
- The application that you use to transmit the configuration URL maintains the case of the URL. The URL is case-sensitive.

## Results

When users tap on the configuration URL from the administrator, the Cognos Mobile application is opened on their iPad devices. The users must confirm if they want to proceed with automatic configuration. If the mobile configuration password was specified in step 5, the users must enter the password when prompted. The application is then configured with the settings specified in the URL.

If the users enter an incorrect password or tap on the **Cancel** button, the application opens without applying any configuration settings.

**Tip:** Some email applications deliver the configuration URL to users as plain text. In this situation, the users can copy and paste the URL into the browser and open it from there.

## Configuration of Apple push notifications for the iPad native application

Apple push notifications notify the iPad native application users about the availability of new IBM Cognos BI reports.

To send push notifications, the Cognos Mobile server requires an SSL certificate from Apple. The SSL certificate is included with each released version of IBM Cognos Mobile, and it is valid for 12 months from the date when it was issued by Apple. The administrator must monitor the certificate expiry date and update the certificate before it expires. Otherwise, the users stop receiving push notifications. For more information, see “Managing the SSL certificate for Apple push notifications.”

The following TCP ports are used for communication between the Cognos Mobile server, the Apple iPad device, and the Apple Push Notification Service (APNS):

- Port 2195 is used by Cognos Mobile server to send notifications to APNS.
- Port 2196 is used by Cognos Mobile server to reach the APNS feedback service.
- Port 5223 is used by the iPad device connecting to APNS using Wi-Fi.

Keep these ports open in the internet connection firewall.

### Managing the SSL certificate for Apple push notifications

The administrator monitors the log files and emails for messages about the approaching certificate expiry date, and updates the certificate when needed.

### About this task

The SSL certificate for Apple push notifications is valid for 12 months from the date when it was issued by Apple. Fourteen days before the certificate expiry date, the Cognos Mobile server starts logging warnings in the `c10_location\logs\mob.log` file about the approaching certificate expiry date. To ensure that the

warnings about the certificate expiry date are logged, server logging must be set to the Warn level at minimum. When the logging level is set to Error, the certificate expiry messages are not logged.

In addition to the log file warnings, the Cognos Mobile server can also be configured to send emails to administrators about the approaching certificate expiry date.

The text of the warning in the log file or in the email body, in English only, specifies the certificate expiry date and the URL of the IBM Support website (<http://www.ibm.com/support/>) where the latest IBM Cognos Mobile fix pack with updated Apple SSL certificate is available.

### Procedure

1. Ensure that the following advanced settings are configured in IBM Cognos Administration. These settings are used to configure the Cognos Mobile server to send email messages to administrators about the certificate expiry date.
  - `ApplePushNotification.NotificationEmail`
  - `ApplePushNotification.CheckFrequencyHours`
  - `ApplePushNotification.ExpiredThresholdDays`For more information, see “Enabling Apple push notifications.”
2. Monitor the log messages and emails for information about the certificate expiry date.
3. To update the certificate, go to the IBM Support website (<http://www.ibm.com/support/>), and download the latest Cognos Mobile fix pack that includes a valid certificate for Apple push notifications.
4. Install the new certificate on all affected servers.

### Enabling Apple push notifications

The administrator must configure the advanced settings associated with Apple push notifications before users are able to receive push notifications.

### About this task

The first time that a push-enabled application registers for push notifications, the users receive an alert asking them if they want to receive notifications. After responding to this alert, the users do not see the alert again unless their device is restored or the application was uninstalled for at least a day.

### Procedure

In IBM Cognos Administration, configure the following advanced settings. For detailed information about accessing the advanced settings in Cognos Administration, see “Specifying Cognos Mobile advanced settings” on page 110.

#### **ApplePushNotification.Level**

Enables Apple push notifications for the iPad native application, and specifies the wording of the message that is displayed to iPad users.

The values are:

- None - Apple push notifications are disabled and messages are not sent from the server to the Apple Push Notification Service.
- Name - Apple push notifications are enabled. The messages sent from the server to the Apple Push Notification Service include the report name.

- Generic - Apple push notifications are enabled. The messages sent from the server to the Apple Push Notification Service do not include the report name. Instead, a generic message is displayed.

Default: Name

#### **ApplePushNotification.FeedBackIntervalHours**

Specifies the time interval, in hours, for the Cognos Mobile server to check the Apple push notifications feedback service for failed notifications. The feedback service maintains a list of devices for which there were repeated, failed attempts to deliver notifications. The Cognos Mobile server will stop sending notifications to the devices that it obtained from the feedback service.

Values: 1 to 720

Default: 24

#### **Database.DeviceExpiryIntervalDays**

Specifies the time interval, in days, after which the client iPad devices that have not connected to the Cognos Mobile server are marked as inactive. The devices no longer receive push notifications, and any existing device data might no longer be usable.

Value: 1 to 365

Default: 45

#### **ApplePushNotification.NotificationEmail**

Specifies the email address or addresses of administrators that are notified about the Apple push notifications certificate expiry date.

The value for this setting is an email address in the following format: *admin@domain.com*. Multiple email addresses must be separated with a semicolon (;). For example, *admin1@domain.com;admin2@domain.com*

#### **ApplePushNotification.CheckFrequencyHours**

Specifies, in hours, the frequency with which the Cognos Mobile service checks for the Apple push notifications certificate expiry date. The first check is done when the Cognos Mobile service is started.

Value: 1 to 8760

Default: 24

#### **ApplePushNotification.ExpiredThresholdDays**

Specifies the number of days before the Apple push notifications certificate expiry date when the administrators start receiving emails about the approaching expiry date.

Value: 1 to 365

Default: 14

### **Push notifications on the user's iPad device**

A text alert notifies the iPad user when a new report is available and the application icon is updated with the number of new reports. The user can open the application from the notification.

The IBM Cognos Mobile native iPad application can receive push notifications from multiple Cognos BI servers. If users no longer want notifications to be displayed, they must turn off notification settings for the application in iOS settings.

## Cognos Mobile components

To implement IBM Cognos Mobile, you add components to the application tier and the gateway where IBM Cognos Business Intelligence is installed.

Cognos Mobile includes Cognos Mobile service and Cognos Mobile rich client. On Research in Motion BlackBerry devices, Cognos Mobile also interacts with BlackBerry Enterprise Server and the BlackBerry MDS Connection Service component.

The following diagram shows how the components interact within the Cognos BI environment. The mobile devices connect to the content store through the internet and wireless carriers, a firewall, BES, and the Cognos Mobile service.

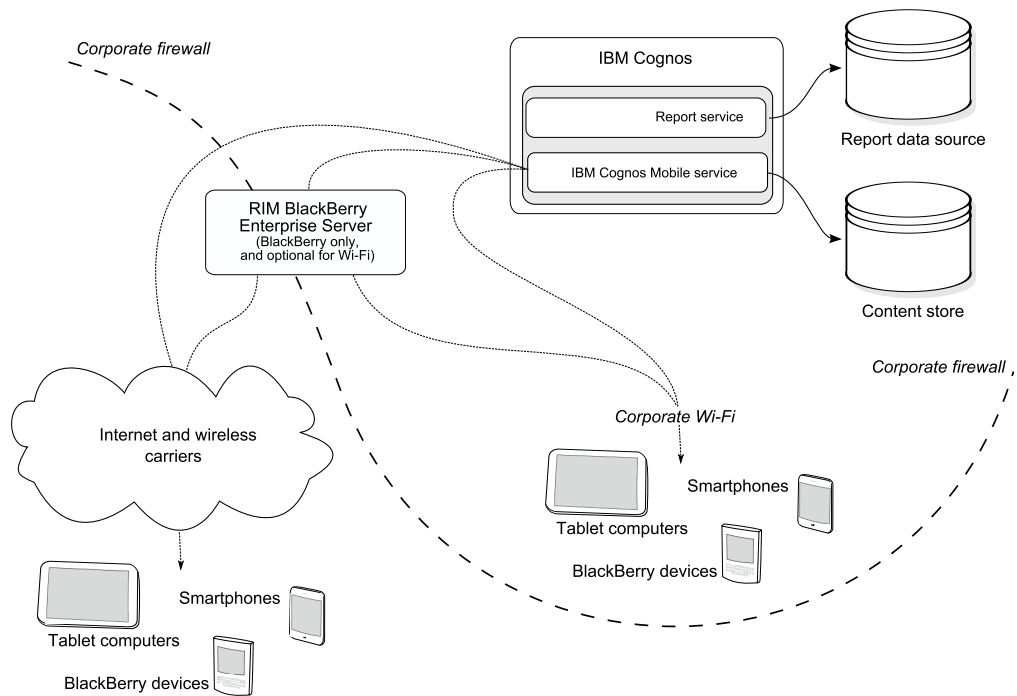


Figure 3. Cognos Mobile components within the Cognos BI environment

Before you install the Cognos Mobile components, you should understand the architecture of your existing Cognos BI environment. For more information, see the *IBM Cognos Business Intelligence Architecture and Deployment Guide*.

## Cognos Mobile service

The IBM Cognos Mobile service manages the activities related to the IBM Cognos Mobile client.

The service handles the following operations:

- Transforms Cognos Business Intelligence reports and analyses for mobile consumption.
- Compresses Cognos BI report and analysis content for fast distribution over-the-air to the mobile devices and access from those devices.
- Pushes report and analysis content to the mobile devices.

- Facilitates incoming and outgoing report-related and analysis-related requests between the mobile device and the environment to search, browse, or run reports.
- Synchronizes the mobile content store on the server with the mobile database on the mobile device.
- Translates Cognos BI Simple Object Access Protocol (SOAP) messages into wireless-friendly messages.
- Communicates with the mobile device.

## **IBM Cognos Mobile rich client**

The mobile device contains the IBM Cognos Mobile rich client and the compressed and encrypted mobile content store. These components provide the functionality that the mobile device user needs to work with IBM Cognos Business Intelligence reports, dashboards, and analyses.

## **The BlackBerry Enterprise Server**

Research In Motion's BlackBerry Enterprise Server manages security, devices, content, and data flow between BlackBerry devices and resources that are internal to an organization.

BlackBerry Enterprise Server is installed and maintained by your organization. The Cognos BI administrator must work with the BlackBerry administrator to validate required settings and configuration options to support IBM Cognos Mobile functionality.

### **BlackBerry MDS Connection Service**

BlackBerry MDS Connection Service is a component of BlackBerry MDS Services.

BlackBerry Enterprise Server provides BlackBerry MDS Services support to enable secure connections behind the corporate firewall. Through the existing secure connection, BlackBerry devices and BlackBerry applications can communicate easily with resources throughout the corporate infrastructure.

BlackBerry MDS Connection Service allows BlackBerry device users to communicate with the Cognos BI server. BlackBerry MDS Connection Service must be enabled for Cognos Mobile to function correctly.

Cognos BI uses the BlackBerry MDS Connection Service to install the Cognos Mobile rich client remotely, either by pushing the installation to the BlackBerry device or by providing an over-the-air installation for the user.

Cognos BI also uses the BlackBerry MDS Connection Service to deliver reports, dashboards, and analyses to BlackBerry devices. To enable Cognos BI to deliver reports, dashboards, and analyses, you must provide the location of BlackBerry MDS Connection Service and its web listen port number during configuration.

For more information about BlackBerry Enterprise Server and BlackBerry MDS Connection Service, see the Research In Motion BlackBerry Enterprise Server documentation.

---

## Report management on a mobile device

IBM Cognos Mobile users can run IBM Cognos Business Intelligence reports on their mobile devices.

Users access a report in the following ways:

- Browse and navigate to a report and then run it.
- Search for a report, choose one from the list of search results, and then run that report.

Reports can also be delivered in other ways:

- You can schedule reports to be delivered to users at specified intervals on their devices.
- You can send users bursted reports.
- You can run a number of different reports as a job and send them to the users' devices.
- Defined events can trigger a report to run and then be delivered to the users' devices.

If your organization provides reports based on current location, users can turn on the GPS capability on their phones and have these customized reports delivered to their devices.

Users can delete reports from their devices. If they do this, they delete only the copy on the device, not the actual report.

## Accessing the server

Users can use the standard IBM Cognos URL that desktop users use to access the server.

Users using the IBM Cognos URL, <http://servername/alias> see a page describing a set of options based on their device type.

BlackBerry users can go to the desktop web portal, or to the native client installation page.

iPhone or Android users can go to the desktop web portal, or to the mobile-optimized portal.

Users can use the URL <http://servername/alias/m> to go directly to the mobile-optimized web portal, but it is best to use the standard IBM Cognos URL.

## Running reports based on location

Your organization may have location aware reports that are customized according to the geographical locations of the users. The contents of these reports are determined automatically by the device, without any user input.

After IBM Cognos Mobile is installed on a device, users can select one of the following preferences to control how the device handles reports that have location prompts:

- **Always**

When users runs a location aware report, location prompts are completed automatically using the GPS data on the device.

- **Ask**  
When users run a location aware report, they are prompted about whether they want to complete the location prompt using the GPS data.
- **Never**  
When users run a location aware report, they are prompted to complete the location information manually. They are not prompted to use the GPS data.

For this feature to work, the GPS must be enabled on the device. Users should refer to the documentation for the device to find out how to enable the GPS.

## Cognos Mobile shortcuts on a mobile device

While you are working with IBM Cognos Mobile on your device, you can use a number of shortcuts for navigation and to perform other actions.

*Table 7. Cognos Mobile shortcuts on a mobile device*

| Action    | Shortcut |
|-----------|----------|
| Home      | 1        |
| End       | 9        |
| Up        | 2        |
| Down      | 8        |
| Left      | 4        |
| Right     | 6        |
| Enter     | Open     |
| Zoom In   | Q        |
| Zoom Out  | A        |
| Zoom      | Z        |
| Page      | P        |
| Mark Cell | 5        |

---

## Security

IBM Cognos Mobile combines the security measures of IBM Cognos Business Intelligence with the extra measures needed for mobile devices.

The security measures offer protection against loss and theft and against unauthorized access to the wireless network. The security applies whether the device is used in connected or disconnected mode.

The Cognos Mobile solution includes the following security measures that are implemented in the IBM Cognos and device-specific environments:

- Standard IBM Cognos data encryption
- Standard IBM Cognos authentication, including support for custom IBM Cognos authentication providers
- Lease key technology
- Device user authentication policies
- Device-based mobile encrypted database
- Standard device-specific secure data transmission and encryption
- Device-based password protection

- Remote device wiping

For information about Cognos BI security, see the *IBM Cognos Business Intelligence Administration and Security Guide*. For information about device security, see the documentation for that device.

Cognos Mobile supports web servers that are configured to use basic authentication. Research in Motion BlackBerry devices support Integrated Microsoft Windows authentication (NTLM) and Microsoft Active Directory.

Cognos Mobile supports single signon security configurations. However, typically, mobile device users are not preauthenticated to the security domain in the same way that desktop users are. Therefore, mobile device users usually have to provide their single signon credentials the first time they access the Cognos BI server.

**Important:** The IBM Cognos Mobile iPad application also supports single signon security configurations. Users can enable single signon from their iPad **Settings** by turning on the **Pass-through authentication** setting for the IBM Cognos application. When this setting is enabled, the iPad users are prompted for signon credentials the first time they access the Cognos BI server.

Optionally, logon credentials can be cached on the mobile device so that the user must log on only once to access both the device and Cognos Mobile. Cognos Mobile offers encrypted database technology as the content store on the device. Access to local device storage is controlled by a centrally-granted lease key that must be renewed periodically. You can configure the length of the lease, so that if the device is lost or stolen, the data will be inaccessible.

You can have different levels of security, depending on the needs of your organization. In addition to storing logon credentials on the device, you can allow anonymous logon or rely on the network security features of the mobile device.

For a higher level of security, you can use Cognos security for all communication or use lease key technology to control access to data.

## Mobile secured function

The Mobile secured function in IBM Cognos Administration is used to restrict access to IBM Cognos Mobile. Only users, groups, or roles who have execute permissions for this secured function can log on to Cognos Mobile.

**Tip:** The IBM Cognos secured functions are also referred to as capabilities.

To simplify the process of setting access permissions for the **Mobile** secured function, you can use a predefined role named **Mobile Users**. This role exists in the **Cognos** namespace in Cognos Administration and contains the permissions needed for access to Cognos Mobile. You can add users, groups, or roles from your organization's directory to this role and include this role in your Cognos BI security policies. You can also ignore this role, or delete it, and create your own security groups or roles to use for setting access permissions for the **Mobile** secured function.

Setting access permissions for this function is one of the initial tasks that an administrator must perform when configuring Cognos Mobile. When users who do not have the required permissions try to log on to Cognos Mobile, they see an error message asking them to contact a Cognos BI administrator.

For more information, see the section about secured functions and features, and the section about initial security in the *IBM Cognos Business Intelligence Administration and Security Guide*.

## Password protection

Typically, organizations want to have password protection on mobile devices.

After a specified period of inactivity, users are prompted to reenter their device password and there may be a limit on the number of times they can try to enter a password. For example, by default, a BlackBerry user can try up to 10 times to enter the correct password. After that, the mobile device is reset, removing all data from the device. The user must reregister the device with the BlackBerry Enterprise Server. The data will then be restored to the device.

You can store IBM Cognos credentials for users on their mobile devices so that they need to enter their credentials only the first time they access Cognos Mobile. After that, they are still asked for their credentials each time they log on, but Cognos Mobile automatically enters their passwords for them. Only when the time limit is reached on the stored credentials do users need to reenter their credentials.

For information about how to enable or set password policies for a mobile device, see the product documentation for the device.

## HTML and HTTP support during logon

The IBM Cognos Mobile product used on mobile devices is a native application, as opposed to a web application. It does not use a web browser, and does not use HTML to display reports on mobile devices.

However, IBM Cognos Mobile does use HTTP to communicate with the IBM Cognos BI server, and so it must interoperate with any web-based security mechanisms that govern access to the Cognos BI server.

To allow users to authenticate and to navigate through these security mechanisms, IBM Cognos Mobile shows basic HTML form elements and allows the user to perform the actions associated with them.

The following table shows the HTTP and HTML functions that are supported by IBM Cognos Mobile.

*Table 8. HTTP and HTML functions supported by Cognos Mobile*

| Function            | Description   |
|---------------------|---|
| HTTP Redirects      | Supports HTTP 301 Moved Permanently and HTTP 302 Moved Temporarily. It will follow both relative and absolute URLs given in the Location header.  |
| HTML Redirects      | Supports the HTML equivalent of an HTTP redirect, for example <code>&lt;meta http-equiv="Refresh" content="3;URL=http://..."&gt;</code> .   |
| HTTP Authentication | Supports HTTP 401 Unauthorized both with the basic scheme and with NTLM. NTLM is predominantly a Microsoft authentication scheme, known also as Windows Integrated Authentication. Support for NTLM is present on BlackBerry devices if the HTTP Authentication Assistance setting is enabled on the BES. |

Table 8. HTTP and HTML functions supported by Cognos Mobile (continued)

| Function   | Description  |
|------------|--|
| HTML Forms | Shows the text of an HTML page (including text with anchor tags), buttons, and the input field types text, password, and hidden. It also shows the select input type, which is used to show a list of items that you can choose from, such as a list of security namespaces. |

## Apple iPad application security

A security code can be used to restrict access to the IBM Cognos Mobile app for iPad users.

The Cognos administrator can specify that an iPad user must enter a security code to access the IBM Cognos Mobile app, and the amount of time that the Mobile app can remain inactive before the user must reenter the code to use the app. This functionality is controlled by the SecurityCode.SessionTimeoutSeconds advanced setting in IBM Cognos Administration.

If the value of this setting indicates that the user needs a security code, this value also represents the number of seconds that the Mobile app can remain inactive before the user is prompted to reenter the security code to access the Mobile app.

In addition to this setting, there is also a default timeout value that is included with the Mobile iPad app. The value that you specify for the server setting overrides the default value in the app.

The users can turn off the server setting on the iPad, but they cannot change its value. If the setting is off, but the server setting requires the user to use a security code, the next time the user tries to run the app, he or she needs to re-authenticate with the server and is prompted to create a security code. Without this code, the users cannot see any local content.

The Cognos administrator can also set a limit on the number of failed attempts to enter the security code when logging on to the Mobile iPad app. This is controlled by the SecurityCode.MaxLoginAttempts advanced setting. If the user exceeds the maximum number of attempts, all Cognos content on their iPad is destroyed. If the user needs a PIN to access the server, the number of retries specified by the server overrides the retry value on the iPad.

For information about accessing the advanced settings in Cognos Administration, see “Specifying Cognos Mobile advanced settings” on page 110.

## Report data security on mobile devices

All compiled and compressed versions of IBM Cognos BI reports are encrypted and stored locally in the mobile encrypted database of the mobile device. These reports can be read or otherwise interpreted only by the IBM Cognos Mobile client application.

You can use lease key technology to set an expiry time for report data that is stored on the mobile device. After the expiry time, the report data cannot be accessed on the device until the device can reestablish communications with the server, and the user is able to re-authenticate with the server.

## Erasing content from a device

You may need to erase all content from a mobile device.

This may be necessary if a device is lost or stolen or an employee changes roles or leaves the company. Device passwords and lease key technology ensure that content is available only to authorized users.

For all devices, security and management is handled by third-party mobile device management solutions. For example, BlackBerry devices are managed through the BlackBerry Enterprise Server console.


If the mobile device is not connected to the BI server for a predetermined period of time, based on the hours specified in the Lease.DurationHours advanced setting, IBM Cognos data becomes inaccessible from the device.

## Setting a lease key

IBM Cognos Mobile uses the concept of a lease to govern access to data stored on mobile devices.

Data is leased from the server for a length of time controlled by the IBM Cognos administrator through the advanced setting. The device renews its lease whenever it communicates with the server, so the Lease.DurationHours setting indicates the maximum amount of time that a user can access data on a device that is not in contact with the server, for example, offline, or out of wireless range. If a device is unable to renew its lease within the specified period of time, the data on the device becomes inaccessible.

### Procedure

1. Start IBM Cognos Connection.
2. Click **Launch, IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Under **Name**, click the dispatcher.
5. For **MobileService**, in the **Actions** column, click the **Set properties** icon .
6. Click the **Settings** tab.
7. For **Advanced settings**, click the **Edit** link.
8. For **Lease.DurationHours**, type a value in hours.  
Valid settings are 0 to 8760. The default is 36 hours.

## Setting user authentication policies for a mobile device

IBM Cognos Mobile device user authentication policies define whether IBM Cognos Business Intelligence authentication credentials are cached on the mobile device and how often users must reenter these credentials. Users must enter their credentials at least once.

All IBM Cognos BI timeouts apply to the mobile device user. The device user authentication policies are on top of timeouts associated with IBM Cognos BI.

There are one or two timeouts that affect the duration of a user session, depending on the device. The first is the CAM (security control mechanism) passport setting in IBM Cognos BI, which applies to all devices. The second is the Research in Motion BlackBerry MDS HTTP authentication cache, which applies only to


BlackBerry devices and is used for any HTTP authentication, including Microsoft Windows Integrated Authentication (NTLM).

If your IBM Cognos BI logons are based on NTLM, you can cache this information on your BlackBerry MDS Services server and prevent the logon window from appearing for the duration of this cache timeout. You can enable the BlackBerry MDS Services HTTP authentication cache time limit, or increase it on the BlackBerry Enterprise Server.

When the passport setting limit expires or, in the case of BlackBerry devices, when the lower of the two time limits is reached, the user session ends. However, if the device authorization time limit exceeds the timeout that ended the session, the device authorization time limit remains in effect after the user session ends. Only when the device authentication time limit is reached do users need to reenter their credentials.

To simplify the authentication process for the user, the IBM Cognos administrator can allow credentials to be cached on the mobile device.

### Procedure

1. Start IBM Cognos Connection.
2. Click **Launch, IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Under **Name**, click the dispatcher.
5. For **MobileService**, in the **Actions** column, click the **Set properties** icon .
6. Click the **Settings** tab.
7. For **Advanced settings**, click the **Edit** link.
8. For **CredentialCache.DurationHours**, type a value in hours.  
Valid settings are 0 to 8760. The default is 0.

### Setting the timeout for the CAM passport setting

You can set the CAM timeout on the computer where Content Manager is installed.

### Procedure

1. From the **Start** menu, click **Programs, IBM Cognos component, IBM Cognos Configuration**.
2. In the **Explorer** window, click **Security, Authentication**.
3. In the **Properties** window, for **Inactivity timeout in seconds**, type the value you want.

For more information about IBM Cognos Configuration, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

### Setting the timeout for the NTLM-based BlackBerry MDS HTTP authentication cache

If your IBM Cognos Business Intelligence logons are based on NTLM, you can cache this information on your Research in Motion BlackBerry MDS Services server and prevent the logon window from appearing for the duration of this cache timeout.

On the BlackBerry Enterprise Server, you can enable the BlackBerry MDS HTTP authentication cache time limit, or increase it.

### **Procedure**

1. In the BlackBerry MDS Services Connection Service properties window, on the BlackBerry administration page, click the **HTTP** tab.
2. Click the **Allow the Mobile Data Service to support HTTP Authentication** check box.
3. For **HTTP Authentication timeout (milliseconds)**, enter a value.  
The higher the value, the less often users will need to log on.



---

## Chapter 13. Backing up and restoring IBM Cognos Express content

Use the Backup and Restore feature to perform the following tasks.

- Back up your IBM Cognos Express content to make a copy of your Express data. This ensures that your data is preserved if, for example, a hardware problem or some other issue corrupts your Express installation.
- Restore your Express content to continue working in a new Express environment with no loss of data.
- Upgrade your IBM Cognos Express content to migrate your Express data from one Express version to a later version. For more information, see Chapter 4, “Upgrading your IBM Cognos Express content,” on page 19.

---

### Backing up your IBM Cognos Express 9.0 content

When you back up your IBM Cognos Express 9.0 content, you achieve the same result as when you back up your Express 10.2.1 content: a backup folder is created and added to the configured backup location. The only difference is that, for Express 9.0 content, you perform the steps manually.

#### Procedure

1. Insert the IBM Cognos Express 10.2.1 DVD or go to the location where the IBM Cognos Express 10.2.1 installation files were downloaded.
2. Copy the folder `backup90-jar-exe` to `Express_9.0_installation_location\bin`.
3. Open a command window and go to the `Cognos Express\bin\backup90-jar-exe` folder.
4. Type the following command: `ce_backup.bat`

**Tip:** If you forgot to log in as a Windows administrator, you can right-click on the file and select Run as administrator.

A new folder is created, for example, `C:\Program Files\IBM\Cognos Express Backups\cx20131024_143754`.

5. Copy the backup folder to a location outside of `Express_9.0_installation_location`.
6. Close the command window.

---

### Backing up your Cognos Express 9.5, 10.1, or 10.2.1 content

When you back up your Express 9.5, 10.1, or 10.2.1 content, a folder is created that contains the following information:

- all of your data source definitions
- all of your user information
- all cubes that are stored on the IBM Cognos Analytic Server (ICAS)
- some of the configuration settings for your currently installed IBM Cognos Express products

Cognos Insight workspaces (.cdd files) are not backed up when you use the automatic backup feature. To retain Cognos Insight workspaces, you must back them up manually.

**Tip:** To back up Express 9.0 content, you must follow a manual process.

By default, the backup folder location is C:\Program Files\IBM\Cognos Express Backups. However, you can change the backup location when you configure Cognos Express Manager.

The name of the backup folder is generated by Cognos Express in this format: *cxyearmonthday\_time*. For example, a backup folder could have the following name: cx20131024\_143754.

**Tip:** The default naming format allows you to sort the previous backup names by date in Cognos Express Manager. However, if you want to rename the backup, you can go to the backup location and rename the backup folder. Cognos Express Manager will update the new name in the list of previous backups.

## Before you begin

Before you back up, ensure that your backup location contains adequate free space. Take into account the size of your cubes and the number of products that you installed. Also, ensure that you have write access to the backup location.

## Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Backup & Restore**.
2. Click **Backup Now**.
3. If you want, enter a description. For example, describe the reason you are backing up your data.
4. Click **Backup**.

Backup details appear in the **Event Messages** pane. When the backup is complete, the name of the backup file appears in the **Previous Backups** dialog with a green check mark, indicating that the backup was successful.

**Tip:** An unsuccessful backup is indicated by a red X beside the backup name. Click **View Logs** for more details.

## Results

You can now migrate your content to another Cognos Express environment.

## Scheduling a backup

You can schedule backups to occur automatically at the time of day that you want and at the frequency that you want. IBM Cognos Express provides a file, *schedule.xml*, for this purpose.

To enable automatic backups, copy *schedule.xml* to the folder *Express\_installation\_location\express*

By default, *schedule.xml* is set to run backups on your Express content every night at 11:00 p.m. Here is the default content:

```
<?xml version="1.0" encoding="UTF-8"?>
<Schedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="ce_schedule.xsd">
<Tasks>
```

```

<Task Type="Backup" Description="Scheduled Backup"
When="every day at 23:00"/>
</Tasks>
</Schedule>

```

In the default version of schedule.xml, the value of the *when\_attribute* is “every day at 23:00”. You can edit the backup schedule by changing the value of *when\_attribute*, where *when\_attribute* is one of the following:

- every *n* seconds  
where *n* is a valid number from 1 to 999999
- every day at 24 *\_hour\_clock\_time*  
where 24 *\_hour\_clock\_time* is in the form of *hour:minute*; *hour* is a value from 0 to 23 and *minute* is a value from 0:59
- every *day* at 24 *\_hour\_clock\_time*  
where *day* is one of the following values: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday  
where 24 *\_hour\_clock\_time* is in the form of *hour:minute*; *hour* is a value from 0 to 23 and *minute* is a value from 0:59

## Procedure

1. If you want a backup schedule other than every night at 11:00 p.m. do the following steps:
  - a. Open the file schedule.xml, located in *Express\_installation\_location*\express\schemas.
  - b. Change the value of the *when\_attribute* to the value that you want.
2. Copy the file schedule.xml to *Express\_installation\_location*\express.
3. If you want to enable or change the backup schedule while Express Manager is running, under **Products**, click the **Manager** tab and then click **Restart All**.
4. If you want to disable the backup schedule, remove the file schedule.xml from *Express\_installation\_location*\express.

## Backing up ICAS data

After you install IBM Cognos Express, an IBM Cognos Analytic Server (ICAS) chore is scheduled to run, by default, each day at 10:00 pm.

This chore is run by the executable file CXTM1SaveDataA11.cho, and backs up all ICAS data that is loaded in memory onto disk. The CXTM1SaveDataA11.cho file is located at *express\_installation\_location*\Xcelerator\Custom\TM1Data\CXMD

The CXTM1SaveDataA11 chore may take a few minutes to run, depending on the volume of the ICAS data. During this period, the ICAS server is locked. Therefore, all IBM Cognos Express users who are connected to ICAS will be affected.

Note the following information:

- Ensure that you notify all IBM Cognos Express users of the time of day when the ICAS chore will run.
- Ensure that the ICAS chore is not scheduled to run at the same time as IBM Cognos Express or system backups. If you do so, the instance of the ICAS data backup may be inaccurate. If you schedule nightly backups, you should run them at least an hour after the ICAS chore has finished running.

- The time scheduled for the ICAS chore is not synchronized with the clock on your ICAS server. Therefore, if the clock on your ICAS server switches to Daylight Savings Time, you should edit the file CXTM1SaveDataAll.chc and update the start time of the chore accordingly.

---

## Restoring your Express content

When you restore content from a backup folder, all of the information that you backed up is applied to your current Express installation. Therefore, all of the content in your current Express installation will be overwritten.

### Before you begin

Back up your Express 9.0, 9.5, or 10.1 content. Ensure that the backup folder that you want to restore is located in the backup location specified when you configured IBM Cognos Express Manager.

### Procedure

1. In IBM Cognos Express Manager, under **Administration**, click **Backup & Restore**.
2. Under **Previous Backups**, select a backup from the list.  
**Tip:** To help you decide which backup to restore, view the details to the right of the selected backup.
3. Click **Restore**.
4. Read the **Confirm** dialog.  
**Important:** Understand that, if you restore, all of the content in your current Express installation will be lost.
5. If you do not want to lose your current Express content, click **Cancel**.
6. If you do want to replace your current content with the backed up content, click **Restore**.  
**Note:** If the products that were installed when you backed up don't match the products that were installed when you restored, a message lists the differences.
7. When the restore is complete, the server is restarted, as indicated by the following changes:
  - The **Connecting** dialog displays with the message: Waiting for server response.
  - The IBM Cognos Express Manager **Log on** dialog displays.
8. Enter the administrator name and password that you set when you installed IBM Cognos Express Manager.
9. Click **OK**.  
At the bottom of the **Administration - Backup & Restore** page, the **Restored on** field indicates
  - the date of the restore
  - the name of the backup
  - a green checkmark if the restore was successful.**Tip:** An unsuccessful restore is indicated by a red X beside the backup name. Click **View Logs** for more details.

## Restoring from Express 10.2.1 to Express 10.2.1

You can restore your Express content from one IBM Cognos Express 10.2.1 installation to another 10.2.1 installation.

By restoring content to another installation of the same version, you can achieve the following goals:

- restore from a 10.2.1 trial version of Express to the 10.2.1 production version
- restore from one server to another

### **Procedure**

1. Back up your Express 10.2.1 content.
2. If you are installing Express 10.2.1 on the same computer as your source 10.2.1 installation, uninstall Express 10.2.1.
3. Install Express Manager 10.2.1.
4. Install any of the Express products: Advisor, Reporter, Planner, and/or Xcelerator.
5. Restore your Express 10.2.1 content to your Express 10.2.1 installation.
6. If you are restoring to a different computer, update all of your data source connections to point to the appropriate servers.



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## Chapter 14. Troubleshooting IBM Cognos Express

This section describes some of the resources available to you if you run into problems with IBM Cognos Express. It also provides explanations of error messages that you may encounter, along with suggestions about how you can resolve these problems.

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### Troubleshooting resources

Troubleshooting resources are sources of information that can help you resolve a problem that you are having with a product.

Generally, sources of troubleshooting information include logs, debugging modes, documentation, and technical support. In addition to this document, the following troubleshooting resources are available when you work with IBM Cognos Express:

- Error messages
- Log files
- Microsoft Windows Event Viewer
- Report Definition in IBM Cognos Query Studio
- IBM Cognos Resource Center
- IBM Cognos diagnostic tools

By learning what troubleshooting resources are available, you are better able to resolve problems while using IBM Cognos Express.

### Error messages

The first indication of a problem is often an error message. Error messages contain information that can be helpful in determining the cause of a problem.

For more information, see “IBM Cognos Express Manager error messages” on page 98.

### Log files

Log files can help you troubleshoot problems by recording the activities that take place when you work with a product. Operations performed in IBM Cognos Express are recorded in various log files for tracking purposes.

There are three log files that store information about IBM Cognos Express Manager:

- **The events.log file**

The events.log file, located in the *Express\_installation\_location/logs/express* folder, records milestone information that you can view in the **Event Messages** pane in IBM Cognos Express Manager.

- **The express.log file**

The express.log file, located in the *Express\_installation\_location/logs/express* folder, records information that you can see when you press the **View Logs**

button  on the **Products - Manager** page.

- **The ExpressDiagnostic.xml.# file**

The `ExpressDiagnostic.xml.n` file, located in the `Express_installation_location/logs/express` folder, records events according to their severity. By default, this file contains only information assigned with the level SEVERE. However, you can change this logging level.

### Changing the logging level of the ExpressDiagnostic file

You can change the logging level of the `ExpressDiagnostic.xml.n` file by editing the file `cx.prop`. The `cx.prop` file is located in the `Express_installation_location/bin` folder.

#### Procedure

1. Go to `Express_installation_location/bin` and open `cx.prop` in a text editor.
2. Add the following line:  
`LoggingLevel=level`  
where *level* is one of the following values, shown in descending order:
  - SEVERE (default value)
  - WARNING
  - INFO
  - CONFIG
  - FINE
  - FINER
  - FINEST
  - OFF (turns off logging)
  - ALL (enables logging of all messages)
3. Save the file.

## Windows Event Viewer

Microsoft Windows Event Viewer provides information about program, security, and system events. For example, if an IBM Cognos Express service fails to start, this fact is recorded in the event log.

Windows Event Viewer does not record information that is specific to operations or tasks performed in IBM Cognos Express. Consult the IBM Cognos Express log files for these problems.

For information about how to use Windows Event Viewer, see the Windows help.

## View the Report Definition in Query Studio

You can use the Report Definition command on the Manage File menu or the Query Information command in the Report Definition box to troubleshoot problems with your reports.

The **Report Definition** command shows the expression for each report item. The **Query Information** command shows the query information for each report item.

**Note:** You cannot change the report properties using these commands.

#### Procedure

1. In Query Studio, open the report that you want.
2. From the **Manage File** menu, click **Report Definition**.

The **Report Properties** dialog box displays. It contains a table that lists every filter, report item, and corresponding expression in the report.

**Tip:** Click **Query Information** to bring up a text box containing information about the query.

## Calling IBM Cognos Resource Center

If you are unable to resolve a problem using all other troubleshooting resources, call IBM Cognos Resource Center to receive immediate help.

For information about locations and programs, see the IBM Cognos Resource Center Web site ([http://www.ibm.com/software/data/support/cognos\\_crc.html](http://www.ibm.com/software/data/support/cognos_crc.html)) (opens in a new window).

To contact IBM Cognos Resource Center, you must have a current support agreement.

Before you call, do the following:

- Ensure that the problem is related to IBM Cognos software and results in an error message.
- Attempt to reproduce the problem to ensure that it is not just a simple error.
- Check common problem areas like file locations, directories, paths, and access.
- Review all relevant documentation, including any release notes or readme files.
- Check to see if any recent changes in your computing environment may be responsible for the problem.

**Tip:** You can also use the IBM Cognos diagnostic tools.

### Procedure

1. Have the following information at hand:

- Your customer identification number
- Your service request number, if it is an ongoing service request
- The phone number where you can be reached
- The version of the software you use
- The version of the operating environment you use
- A description of what you were doing when the problem occurred
- The exact wording of any error messages that appear
- Any steps you took to attempt to solve the problem

2. Contact the IBM Cognos Resource Center nearest you.

You are asked whether this is a new or ongoing service request. If it is an ongoing service request, provide your service request number or, if appropriate, your customer identification number.

If you don't have support on the software about which you are calling, you will be directed to a support renewal representative.

## IBM Cognos diagnostic tools

IBM Cognos Customer Center provides diagnostic tools.

These tools can help you:

- Verify your environment
- Identify and troubleshoot issues
- Supply the details and systems information needed to log a case with IBM Cognos Customer Center

The diagnostic tools were developed in Java. Each contains a JAR file, a batch file, and a PDF that explains what the diagnostic tool does and the results you can expect. IBM Cognos diagnostic tools are read-only and do not make changes to your environment or to your IBM Cognos products.

New diagnostic tools are continually being developed. To check for the most recent updates, as well as for more information about IBM Cognos diagnostic tools, see the IBM Cognos Customer Center Web site ([http://www.ibm.com/software/data/support/cognos\\_diagnostictools.html](http://www.ibm.com/software/data/support/cognos_diagnostictools.html)).

---

## IBM Cognos Express Manager error messages

Each of the following topics describes a situation when a specific error message displays and explains how you can resolve the problem.

### Existing Informix installation detected

When you are installing IBM Cognos Express, you encounter the following error message:

Detected an existing Informix installation. Please uninstall the existing Informix installation in order to continue.

This message appears because Informix server was previously installed on your computer. To prevent this error, do the following:

1. Uninstall Informix server and then try again to install IBM Cognos Express.
2. If the error message still appears, follow these steps:
  - a. Click **Start > Run**.
  - b. In the **Run** dialog, type `regedit` and click **OK**.

**CAUTION:**

**Incorrectly editing the registry may severely damage your system. Before making changes to the registry, back up your computer data.**

- c. Search for and delete the following keys, if they exist:
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Informix\DBMS
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Informix\DBMS
- d. Close the **Registry Editor** window.
- e. On your Windows computer, go to **Computer Management > System Tools > Local Users and Groups > Users**.
- f. Delete the user `informix`, if it exists.
- g. Install IBM Cognos Express.

The installation should now complete successfully.

### Unable to Connect to the Content Store

You are running IBM Cognos Express Reporter and the following messages appear.

Waiting for server response displays in IBM Cognos Express Manager.

This error occurs if IBM Cognos Express Manager is unable to communicate to the dispatcher.

CM-SYS-5003 Content Manager is unable to access the content store. Verify your database connection parameters and then contact your database administrator.

This error occurs if your database is not running and Content Manager attempts to connect to the content store.

To resolve this problem, follow these steps:

### **Procedure**

1. Open the **Services** window in Microsoft Windows.
2. Restart the service Informix IDS - cm\_ids\_svr\_custom.
3. Restart the service IBM Cognos Express.

## **SDK-ERR-0088 The IBM Cognos Express service is currently unavailable**

You try to access IBM Cognos Express Manager or the **Welcome to IBM Cognos Express** page from the Start menu or by entering a URL and the following message displays:

SDK-ERR-0088 The IBM Cognos Express service is currently unavailable.

This message occurs if either the dispatcher or Informix is not running.

To resolve this problem, open the Services window in the Microsoft Windows operating system and restart the IBM Cognos Express service.

## **MOD-ERR-0001 A version of TM1 server has already been installed on this machine**

You are installing either IBM Cognos Express Advisor or IBM Cognos Express Xcelerator and the following message displays:

MOD-ERR-0001 A version of TM1 server has already been installed on this machine

IBM Cognos TM1 is the name of the IBM Cognos product that is integrated with IBM Cognos Express as Xcelerator. Because of a dependency between Advisor and the Xcelerator Server, you cannot install either Advisor or Xcelerator if an instance of TM1 is already installed on your computer.

To resolve this problem, uninstall the TM1 instance and then try the installation again.

## **Express Manager window blank in Internet Explorer 10**

After you start IBM Cognos Express Manager, the Express Manager window appears, but is blank.

This error occurs if you are running Microsoft Internet Explorer 10.

To resolve this problem in Internet Explorer 10, click the Compatibility View button.

## **UDA-SQL-0031 error when connecting to a database server using a Japanese environment**

When you use a Japanese environment and you attempt to connect to a database server from IBM Cognos Express Manager, you encounter the following errors:

UDA-SQL-0031 Unable to access the "cxdbinfo" database.

UDA-SQL-0107 A general exception has occurred during the operation "attach".

[IBM][CLI Driver] SQL0332N Character conversion from the source code page "897" to the target code page "UNKNOWN" is not supported. SQLSTATE=57017

To avoid this problem, ensure that the environment variable that specifies the code page on the database client matches the code page of the database server.

## Planner application link broken after backup restored

After you restore a IBM Cognos Express Planner application on a computer different than the one on which you created the backup, the application link in IBM Cognos Connection is broken.

This error occurs because the Cognos Connection link still contains the name of the computer on which you created the backup file.

To resolve this problem, follow these steps:

### Procedure

1. Start Cognos Connection and click **Public Folders > IBM Cognos TM1 Contributor Applications**.
2. Beside the application you restored, click **Actions > More > Set properties**.
3. Click the **General** tab.
4. Edit the **URL** field by replacing the name of the server where the backup file was created with the name of the server where it was restored.
5. Click **OK**.

---

## Troubleshooting IBM Cognos Mobile

This section describes some common problems you might encounter while using IBM Cognos Mobile. Problems might occur on the server or on the client.

For troubleshooting problems related to IBM Cognos Business Intelligence, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.

### IBM Cognos Mobile server problems

You may encounter server problems while working with IBM Cognos Mobile.

#### Charts and images not appearing

Charts and other images do not appear in reports on a mobile device if IBM Cognos Business Intelligence and IBM Cognos Mobile have been installed on a UNIX operating system that does not have X server software installed.

To resolve this problem, configure IBM Cognos BI to run with X server software.

#### Procedure

1. Find the `bootstrap_*.xml` file located in the `c10_location\bin` directory or in the `c10_location\bin64` directory.

The exact `bootstrap_*.xml` filename depends on the version of UNIX that you are using.

2. Add the line `<param>-Djava.awt.headless=true</param>` as shown below to the `bootstrap_*.xml` file to add the following startup parameter:

```
<process name="catalina">
  <start>
    <spawn sync="1" wait_time="5">
      <path>${java_home}/bin/java</path>
      <param>-d64</param>
      <param>-Djava.awt.headless=true</param>
      <param condName="{ip_protocol}"
condValue="IPv6">-Djava.net.preferIPv6Addresses=true</param>
      <param>-Xmx${dispatcherMaxMemory}m</param>
      <param>-XX:MaxNewSize=${dispatcherMaxMemoryBy2}m</param>
```

3. Save the modified file, and then restart the IBM Cognos BI server from the IBM Cognos Configuration tool.

For more information, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

### List prompt items consisting of only a single space are not supported

While running a report, a user chooses an item from a list prompt that consists of only a single space and the report generates an error and fails to run.

To resolve this problem, either do not include single space items in list prompts or, if you do include the single space then ensure that the user does not select it when running the report.

### IBM Cognos Mobile Server advanced settings are reset to the defaults after upgrading

The IBM Cognos Mobile advanced settings may be reset to their defaults after IBM Cognos Business Intelligence is upgraded.

To resolve this problem, reapply the settings.

### MOB-SVR-1164 (HTTP error 413 (Too large)) the server was not configured correctly (BlackBerry 4.2, 4.3, 4.5 only)

The Research in Motion BlackBerry Enterprise Server MDS Connection Service stops transferring data to the mobile device. This happens when reports are sent in packet sizes that are larger than the packet sizes that are acceptable to the BlackBerry Enterprise Server.

To resolve this problem, ensure that the packet size in the advanced setting `Reports.BlackBerryMaxMessageSizeBytes` on the IBM Cognos Mobile server is equal to or less than the Connection Service packet size on the BlackBerry Enterprise Server.

### Advanced HTML functionality is not supported

Some advanced HTML functionality, such as JavaScript and HTML tables, cannot be viewed in IBM Cognos Mobile.

To obtain table functionality, you can use IBM Cognos Report Studio to create a table.

### java.lang.NoClassDefFoundError

This error can occur while a report is running on a UNIX operating system if the server is running in headless mode.

To resolve this problem, in the *c10\_location/bin* directory, in the IBM Cognos Business Intelligence *startup.sh* file, add the following parameter:

```
JAVA_OPTS=-Djava.awt.headless=true
```

### **java.lang.InternalError: Can't connect to X11 Windows server using ':0.0' as the value of the DISPLAY variable**

The server cannot run a report because the `DISPLAY` environment variable was not set or was set incorrectly.

To render a report to a `.png` file, IBM Cognos Mobile invokes graphics routines. As part of this process, IBM Cognos Mobile must also invoke the Java Abstract Windows Toolkit (AWT) libraries. This error occurs when the `DISPLAY` environment variable was not set or was set incorrectly and IBM Cognos Mobile cannot find the AWT libraries.

To resolve this problem, ensure that the `DISPLAY` environment variable is set to `X11`.

### **IBM Cognos Mobile service starts but then stops**

IBM Cognos Mobile service fails during system startup. This means that the service has encountered a fatal error, such as being unable to create database tables.

Check the logs for additional information, take the appropriate action to correct the problem, and restart the service.

### **Cognos Mobile database tables are not created**

After IBM Cognos Mobile was installed, the scripts to create the `MOB_*` tables were not run.

Under normal circumstances, the Cognos Mobile tables are created automatically after the Mobile service starts for the first time.

This problem might occur when Cognos Mobile application tier components and Cognos BI Content Manager are installed in different locations, and the Cognos Mobile database is not configured properly.

Ensure that the Cognos Mobile database is configured as documented in “Cognos Mobile installation and configuration” on page 69.

## **IBM Cognos Mobile service client problems**

Users might encounter problems when working with IBM Cognos Mobile on their mobile devices.

### **Images do not appear on mobile devices**

Report images do not appear on the mobile devices. This happens when users use their own SSL certificates, which are not trusted by the Java virtual machine (JVM).

To resolve this problem, users need to use the Sun `keytool` utility to import their SSL certificate into their JVM. For more information, see the Sun software documentation.

### **IBM Cognos Mobile does not filter downstream prompts for cascading prompts using reprompt**

Users do not see the expected results in reports that have been set up with cascading prompts that require reprompting, that is where the user must click **Reprompt** in Cognos Viewer.

IBM Cognos Mobile does not apply the filters correctly downstream for the cascading prompts.

To resolve this problem, change the report's prompt options to Auto-Submit. With this option, IBM Cognos Business Intelligence will apply the filters to the downstream prompts as expected.

### **IBM Cognos Mobile client should not be installed over a previous client (BlackBerry devices only)**

The IBM Cognos Mobile icon does not appear on the mobile device, so you cannot launch the application.

This may happen when the IBM Cognos Mobile client is installed on top of an older version of the client application.

To resolve this problem, delete the old client application from the Research in Motion BlackBerry device before installing a new version of the client application.

### **Repeater tables render incorrectly**

A report that includes a repeater table that is within a block or table element does not render correctly on a mobile device.

To resolve this problem, rewrite the report so that repeater tables are not within blocks or table elements.

### **IBM Cognos Mobile does not support multi-select range prompts for BlackBerry 4.2, 4.3, and 4.5**

Multi-select range prompts, which allow users to select more than one range of values, (for example, both January 1-15 and June 1-15 for a multi-select range date prompt) do not behave correctly in reports on mobile devices.

Users will experience one of the following situations, depending on whether the prompt is mandatory or optional:

- For a mandatory prompt, the user sees an error on the prompt page when trying to run the report and the report does not run.
- For an optional prompt, the user sees a warning on the prompt summary page when trying to run the report and cannot enter values in that prompt. However, the report will run using other prompt values, if there are any.

### **Calendar prompts show only the Gregorian calendar**

When a report with a non-Gregorian calendar date prompt is displayed in IBM Cognos Mobile, the prompt appears in the Gregorian calendar format. The report runs after the user enters values in the prompt, but the results may be empty or inaccurate.

### **Two To fields appear on the email form (BlackBerry 4.2 and 4.3 only)**

Two To fields appear on the email form that users use to email an IBM Cognos Mobile report. One of the To fields can be edited. Users can complete this field, ignore the other To field, and email the report.

To resolve this problem, users must upgrade to a Research in Motion BlackBerry version 4.5 or 4.6 device.

## **IBM Cognos Mobile fails to connect to the database**

IBM Cognos Mobile accesses Microsoft SQL Server through the Java Database Connectivity (JDBC) driver, which uses a TCP socket to connect to the database.

If Microsoft SQL Server is not configured to allow TCP connections, then IBM Cognos Mobile will not connect to the database and will report errors in the logs.

To resolve this problem, enable TCP connectivity in Microsoft SQL Server.

## **Long text messages may be truncated**

Long text messages may appear truncated on some parts of the device user interface for some languages.

For example, the user may observe that report long names and some translated text messages are truncated.

## **907 invalid cod error message (BlackBerry 4.2, 4.3, 4.5 only)**

This error can occur while the user is installing the client application on a Research in Motion BlackBerry device that runs out of space and stops the installation.

To resolve this problem, the user should increase the available space on the device by deleting applications or emails, clear the browser cache, and restart the download.

## **BlackBerry browser does not pick up configuration changes during over the air installations (BlackBerry 4.2, 4.3, 4.5)**

The first time a Research in Motion BlackBerry user uses the link <http://server/cognos10/mobile/index.html> to install IBM Cognos Mobile client over the air, the BlackBerry browser caches the content by default.

Because it does not clear the cache automatically, subsequent attempts to install the product by using this link may not include the file or server configuration changes.

From the BlackBerry browser, the user must clear the cache and then click the link again.

## **User cannot log on from the mobile device**

A user cannot log on to the server from the mobile device.

For a Research in Motion BlackBerry device, the user must check device connectivity to ensure that Connection Service is enabled for the device and for the user's BlackBerry account and that the connection to the IBM Cognos Business Intelligence server is valid.

## **Procedure**

1. Run the device browser program.
2. Use the browser to open the main web page of your IBM Cognos BI server, for example, <http://myserver/ibmcognos>

Note that you may need to enter the full URL to the IBM Cognos BI gateway.

- On the Options page of the mobile device, ensure that the server URL shows the correct, fully-qualified path to the IBM Cognos BI gateway, for example, <http://server/cognos10/cgi-bin/cognos.cgi> or <http://server:5999/c10/cgi-bin/cognosisapi.dll>.
- If necessary, navigate to the IBM Cognos BI installation in a browser and copy the full path from the browser's address field.

## Results

If the main web page does not appear, it might be because the user has a connectivity issue that the mobile device administrator needs to resolve.

### **No reports available when logged on from the Cognos Mobile client**

The user is logged on to IBM Cognos Mobile, but cannot access any reports.

Reports need to be run before they appear in the mobile device inbox.

### **Procedure**

1. On the mobile device, click **Browse**.
2. Click a report.
3. Click **Run Report**.  
The report runs on the server.
4. Click **Refresh inbox** to refresh the inbox.  
The report appears in the list.

### **Some Mobile users do not receive burst reports**

All IBM Cognos Mobile users specified as recipients of a burst report should receive the report on their mobile devices as scheduled. If some users do not receive the report, the report might not be properly scheduled.

In IBM Cognos Connection, click the schedule icon for the report and ensure that the following check boxes are selected:

- **Burst the report** under **Bursting**.
- **Send the report to mobile recipients** under **Delivery**.

Do not select recipients for this option because burst reports are delivered to users defined in the burst specification. Any recipients selected here are ignored.

Next time when the report is run, all Mobile users should receive it.

Only those reports for which the report author defined burst options can be distributed by bursting. For more information about burst reports, see the *IBM Cognos Report Studio User Guide* and the *IBM Cognos Business Intelligence Administration and Security Guide*.



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## Appendix A. Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products.

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### Keyboard shortcuts

You can use standard Microsoft Windows keyboard shortcuts to navigate and perform tasks in Express Manager and the Welcome to IBM Cognos Express page.

If you are using a screen reader, you can maximize your window so the keyboard shortcut table is completely expanded and accessible.

**Note:** The following keyboard shortcuts are based on U.S. standard keyboards.

| Applies to       | Description  | Keyboard shortcut       |
|------------------|--|-------------------------|
| General          | Perform the default action for an active command button. | Enter or Spacebar       |
| General controls | Move forward to the next control at the same level.      | Tab                     |
| General controls | Move backward to the previous control at the same level. | Shift+Tab               |
| Drop-down lists  | Open and display the drop-down list contents.            | Alt+Down arrow          |
| Menus            | Move to and select the next available menu item.         | Down arrow              |
| Menus            | Move to and select the previous available menu item.     | Up arrow                |
| Scrolling        | Scroll down.   | Down arrow<br>Page down |
| Scrolling        | Scroll up.   | Up arrow<br>Page up     |

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### IBM and accessibility

See the IBM Accessibility Center (<http://www.ibm.com/able>) for more information about the commitment that IBM has to accessibility.



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## Appendix B. Set advanced IBM Cognos Mobile settings

After IBM Cognos Mobile is installed and configured, you can use IBM Cognos Business Intelligence to manage the delivery of IBM Cognos content to mobile devices.

Cognos Mobile uses the same set of users as Cognos BI.

For information about administering IBM Cognos BI, see the *IBM Cognos Express Administration and Security Guide*.

For information about IBM Cognos Connection, see the *IBM Cognos Express Cognos Connection User Guide*.

You can also use the buildSettings tool to embed a specified Cognos BI server URL so that users do not need to enter it when they first start Cognos Mobile client.

---

### Using the buildSettings tool

Use the buildSettings tool to generate a deployment package that embeds a specified IBM Cognos Business Intelligence server URL so that users do not need to enter the URL.

The buildSettings tool preconfigures the list of available server URLs in the IBM Cognos Mobile client. The client configurations are created and stored in the *c10\_location/configuration/mobile* directory. You can have a maximum of four server URLs.

Run the buildSettings tool from the command line using the following syntax:

```
buildSettings "url1" ["url2" "url3" "url4"]
```

Here is an example of a command:

```
buildSettings "http://server1/c10/cgi-bin/cognos.cgi"  
            "http://server2/c10/cgi-bin/cognos.cgi"
```

To configure the BlackBerry clients, the rapc.exe Research in Motion BlackBerry compiler is required. The compiler runs only on the Windows operating system. To use the rapc.exe BlackBerry compiler, a JDK must be installed.

**Important:** Back up any existing build settings before continuing.

#### Procedure

For a BlackBerry configuration, overwrite the *rim\_desktop/\*/cognos\_mobile\_settings.cod* file and the *rim\_ota/\*/cognos\_mobile\_settings.cod* file.

#### Results

You must modify the *index.html* file before users can install the client application.

---

## Specifying Cognos Mobile advanced settings

Use the following procedure to specify the IBM Cognos Mobile advanced settings.

For a description of the settings, see “Advanced settings for Cognos Mobile”.

### Procedure

1. In IBM Cognos Connection, click **Launch, IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher for which you want specify the advanced settings.
4. Next to **MobileService**, in the **Actions** column, click the **Set properties** icon



5. Click the **Settings** tab.
6. For **Advanced settings**, click **Edit**.
7. If the parameter is not listed, type its name.
8. Type the appropriate value for the parameter.

---

## Advanced settings for Cognos Mobile

You can use advanced settings in IBM Cognos Administration to manage various functions related to IBM Cognos Mobile.

Some settings are optional. They do not appear in the list of settings for a new installation, but if you add them, the Mobile service retains and uses them, even if you upgrade your installation. To reset the value of any setting to its default, delete the setting.

For information about accessing the advanced settings, see “Specifying Cognos Mobile advanced settings.”

**Important:** Do not change or remove the advanced setting `_internal`.

### **ApplePushNotification.CheckFrequencyHours**

Specifies, in hours, the frequency with which the Cognos Mobile service checks for the Apple push notifications certificate expiry date. The first check is done when the Cognos Mobile service is started.

Value: 1 to 8760

Default: 24

### **ApplePushNotification.ExpiredThresholdDays**

Specifies the number of days before the Apple push notifications certificate expiry date when the administrators start receiving emails about the approaching expiry date.

Value: 1 to 365

Default: 14

### **ApplePushNotification.NotificationEmail**

Specifies the email address or addresses of administrators that are notified about the Apple push notifications certificate expiry date.

The value for this setting is an email address in the following format: *admin@domain.com*. Multiple email addresses must be separated with a semicolon (;). For example, *admin1@domain.com;admin2@domain.com*

#### **ApplePushNotification.FeedBackIntervalHours**

Specifies the time interval, in hours, for the Cognos Mobile server to check the Apple push notifications feedback service for failed notifications. The feedback service maintains a list of devices for which there were repeated, failed attempts to deliver notifications. The Cognos Mobile server will stop sending notifications to the devices that it obtained from the feedback service.

Values: 1 to 720

Default: 24

#### **ApplePushNotification.Level**

Enables Apple push notifications for the iPad native application, and specifies the wording of the message that is displayed to iPad users.

The values are:

- None - Apple push notifications are disabled and messages are not sent from the server to the Apple Push Notification Service.
- Name - Apple push notifications are enabled. The messages sent from the server to the Apple Push Notification Service include the report name.
- Generic - Apple push notifications are enabled. The messages sent from the server to the Apple Push Notification Service do not include the report name. Instead, a generic message is displayed.

Default: Name

#### **Cache.IOSStorageEncryption**

Specifies the method by which data stored on an iPad is encrypted.

Values: AES128, AES192, AES256

Default: AES128

BlackBerry device storage is also encrypted, but you cannot configure it.

#### **Client.EnableScreenCapture**

Allows or disallows the users of iPad native client to email screenshots of the reports that they are viewing.

Value: True or False

Default: True

This setting applies to iPad native client only.

#### **CredentialCache.DurationHours**

Specifies the maximum number of hours that credentials can be stored on a device.

Value: 0 to 8760

Default: 0

If you do not want to store credentials on a device, type 0. To store credentials on a device, type any value that is greater than the current timeout setting for Cognos Business Intelligence. As long as users are logged on, they will have access to their cached credentials.

**Database.DeviceExpiryIntervalDays**

Specifies the time interval, in days, after which the client iPad devices that have not connected to the Cognos Mobile server are marked as inactive. The devices no longer receive push notifications, and any existing device data might no longer be usable.

Value: 1 to 365

Default: 45

**Database.MaxConnectionPoolSize**

Specifies the maximum number of connections allowed for the Cognos Mobile service to communicate with the content store database.

Value: 1 to 999

Default: 5

You can change connection pool settings to increase performance. This setting is hidden by default with a new installation. If you want to use the setting, you must add it to the list of advanced settings.

**DrillTarget.AgeDifferenceReRunThresholdHours**

Specifies, in hours, the maximum amount of time allowed between the runs of the source and the target reports. When the difference between the two runs exceeds this amount, the drill-through target is re-run.

Default: 1

The default of 1 means that as long as the target report was run within 1 hour after the source report was run, the target report is not refreshed on the mobile device. When a new version of the source report is either delivered to the iPad device or run manually, and the time exceeds the 1 hour limit, the target is re-run.

When using the value of 1, the users who have the source report scheduled daily, receive a new drill-through report every day. When using a higher value, the decision to re-run the drill-through report is left up to the user.

The value of 0 means that all drill-through target reports are re-run. When this value is used and the iPad device is not connected to the server, the drill-through functionality does not function.

**Lease.DurationHours**

Specifies the maximum number of hours when users of mobile devices can access the Cognos Mobile local data stored on a device.

Value: 0 to 8760

Default: 36

The value of 0 disables the lease key mechanism.

**Portal.ConsumerRoot**

Specifies the name of the root folder that Cognos Mobile users must start from when browsing or searching content from a mobile device.

Default: blank

The value for this setting must be a Content Manager search path in the following format: /content/package[@name='<root\_folder\_name>']. You can find the search path in IBM Cognos Connection. For more information, see "Finding the search path" on page 114.

If the setting is blank, Cognos Mobile uses the root content folder or the root folder that is specified in the portal system.xml file stored in the *c10\_location/templates/ps* directory. If you add a root folder, use the syntax of the consumer-root setting in the system.xml file.

**Reports.BlackBerryMaxMessageSizeBytes**

Specifies in KB the maximum packet size for reports that are sent from the Cognos Mobile server to a mobile device.

Value: 0 to 1000000000

Default: 128 KB

The packet size must be equal to or less than the corresponding maximum packet size setting on the BlackBerry Enterprise Server. A value of 0 means that there is no size restriction.

**Reports.MaxAgeDays**

Specifies the maximum time in days that a report is stored in the database. Reports that exceed this limit are automatically removed from the device.

Value: 1 to 999

Default: 30

**Reports.MaxPages**

Specifies the maximum number of pages to store for each report. Pages over the specified limit are automatically discarded from the device.

Default: 5

**Tip:** If your Cognos Mobile environment includes only iPad native clients, set up the default to 50 pages. Otherwise, use the suggested default of 5.

**SecurityCode.MaxLoginAttempts**

Specifies the maximum number of times that users can try to enter their security code when accessing the Mobile iPad app.

Value: 1 to 99

Default: 10

**SecurityCode.SessionTimeoutSeconds**

Specifies the need for a security code when accessing the Mobile iPad app and the maximum number of seconds that the app can remain inactive.

Value: 1 to 8760

Default: -1

A value of -1 means that no security code is needed. A value of 0 means that the iPad user must create a security code and enter it every time to access the app.

A value greater than 0 indicates that the iPad user must create a security code and can leave the app inactive for the number of seconds specified in the setting before needing to reenter the code to use the app. For example, if the value is set to 60, the user must enter a security code and can leave the Mobile app inactive for 60 seconds.

The security code cannot contain consecutive or repeated numbers.

**Scheduler.ClientToleranceHours**

Specifies the maximum number of hours that the client can remain out of date with scheduled reports.

Value: 0 to 999

Default: 24

This setting applies to cases where an administrator schedules reports for a user on the server and the user does not otherwise communicate with the server before the time expires, for example, to retrieve other reports or to browse the IBM Cognos Business Intelligence portal. In the majority of cases, such as when reports originate from existing schedules or from user-initiated actions, this setting will not come into play because, typically, the device lags behind the server by only seconds.

The value of 0 pushes reports to be downloaded on devices immediately.

#### **ThreadPool.MaxSize**

Specifies the maximum size of the thread pool on the server that is used to manage IBM Cognos Mobile operations.

Value: 1 to 999

Default: 20

This setting is hidden by default with a new installation. If you want to use the setting, you must add it to the list of advanced settings.

## **Finding the search path**

The search path is required when specifying the `Portal.ConsumerRoot` advanced setting.

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

### **Procedure**

1. Connect to the IBM Cognos Business Intelligence portal, and click IBM Cognos Content on the Welcome page.
2. Click the **Public Folders** tab.
3. For the package or folder that you want to use as the Cognos Mobile root folder, click the **Set properties** icon.
4. Click **View the search path, ID and URL**.
5. Copy the **Search path** into the `Portal.ConsumerRoot` field on the Mobile advanced settings page.

---

## Appendix C. Enabling image browsing in Report Studio

Enable the WebDAV web extension so that IBM Cognos Express Report Studio authors can browse for images to include in their reports.

Web-based Distributed Authoring and Versioning (WebDAV) is a type of extension to the Hypertext Transfer Protocol (HTTP) that allows you to manage files collaboratively on remote web servers. These web servers include Microsoft Internet Information Services (IIS) and the Apache Tomcat application server.

After the Express administrator enables WebDAV extensions on an application server or web server, Report Studio authors can browse for images to include in their reports just as they would browse their local file system. This removes the need for them to specify paths that may be quite long.

By default, you enable WebDAV extensions on the Express core dispatcher. However, you can also enable the extensions on a web server if you require Single Sign-On (SSO) integration with Active Directory server.

---

### Enabling WebDAV for IIS 6

You can use Microsoft Internet Information Services (IIS) 6 to enable WebDAV extensions for image browsing in Report Studio.

#### Before you begin

The steps below explain what you need to do to enable WebDAV extensions in IIS 6. If you require details about how to use the IIS interface to perform this task, see the IIS 6 documentation.

#### Procedure

1. Set up the IBM Cognos Express gateway.
2. If you have the IBM Cognos Express Samples installed, copy the *express\_installation\_location/webapps/p2pd/samples/images* folder to the *express\_gateway\_location/webcontent/samples* folder. Otherwise, create an empty *express\_gateway\_location/webcontent/samples* folder.
3. In IIS Manager, create a new virtual directory under the IBM Cognos Express virtual directory that you created when you set up the gateway.
4. Configure the new virtual directory as follows:
  - Set the alias to *samples*.
  - Set the path to *express\_gateway\_location/webcontent/samples*
  - Ensure that users can read and browse the virtual directory.
5. Ensure that WebDAV service extensions are allowed.

#### Results

In IBM Cognos Express Report Studio, you can now browse for images by entering the following URI in the Image Browser dialog box:

`http://express_gateway_location/IBMCognosExpress/samples/images`

---

## Enabling WebDAV for IIS 7

You can use Microsoft Internet Information Services (IIS) 7 to enable WebDAV extensions for image browsing in Report Studio.

### Before you begin

The steps below explain what you need to do to enable WebDAV extensions in IIS 7. If you require details about how to use the IIS interface to perform this task, see the IIS 7 documentation.

### Procedure

1. Set up the IBM Cognos Express gateway.
2. If you have the IBM Cognos Express Samples installed, copy the *express\_installation\_location/webapps/p2pd/samples/images* folder to the *express\_gateway\_location/webcontent/samples* folder. Otherwise, create an empty *express\_gateway\_location/webcontent/samples* folder.
3. In IIS Manager, create a new virtual directory under the IBM Cognos Express virtual directory that you created when you set up the gateway.
4. Configure the new virtual directory:
  - Set the alias to *samples*.
  - Set the path to *express\_gateway\_location/webcontent/samples*
5. In Microsoft Windows Server Manager, ensure that WebDAV Publishing and Directory Browsing roles are installed.
6. In IIS Manager, enable directory browsing for the *samples* virtual directory.
7. Enable WebDAV authoring rules for the default web site.
8. Add authoring rules, for the *samples* virtual directory and any subdirectories, that give all users read access to all content.

### Results

In IBM Cognos Express Report Studio, you can now browse for images by entering the following URI in the Image Browser dialog box:

`http://express_gateway_location/IBMCognosExpress/samples/images`

---

## Enabling WebDAV for Apache Tomcat

If you are running the Apache Tomcat server that is packaged with IBM Cognos Express, you can enable Report Studio authors to browse for images.

You must complete two tasks to complete the process:

1. Enable the Apache Tomcat application server in IBM Cognos Express to respond to WebDAV HTTP requests by default.
2. Modify IBM Cognos Express Report Studio to work with the servlet.

### Enabling the default WebDAV servlet

Enable the Apache Tomcat application server in IBM Cognos Express to respond to WebDAV HTTP requests by default.

## Procedure

1. Ensure that this folder exists:  
*express\_installation\_location/webapps/p2pd/samples*
2. Navigate to this folder:  
*express\_installation\_location/webapps/p2pd/WEB-INF*
3. Make a backup copy of the web.xml file located in this folder.
4. Open the original web.xml file and search for the first <servlet-mapping> tag.
5. On the line preceding the <servlet-mapping> tag, add the following XML code:

```
<!--WebDAV enable the app -->
<servlet>
  <servlet-name>webdav</servlet-name>
  <servlet-class>org.apache.catalina.servlets.WebdavServlet</servlet-class>
  <init-param>
    <param-name>debug</param-name>
    <param-value>0</param-value>
  </init-param>
  <init-param>
    <param-name>listings</param-name>
    <param-value>true</param-value>
  </init-param>
  <init-param>
    <param-name>readonly</param-name>
    <param-value>true</param-value>
  </init-param>
  <!--load-on-startup>1</load-on-startup-->
</servlet>
<!--The mapping for the WebDAV servlet -->
<servlet-mapping>
  <servlet-name>webdav</servlet-name>
  <url-pattern>/samples/images</url-pattern>
</servlet-mapping>
```

6. Save the changes and restart the IBM Cognos Express service.

## Results

If the mapping was successful, you can list the contents of the samples folder as in your browser using the following URL:

[http://express\\_server:express\\_port/p2pd/samples/images](http://express_server:express_port/p2pd/samples/images)

## Modify IBM Cognos Express Report Studio

Modify IBM Cognos Express Report Studio to work with the Apache Tomcat application server in response to WebDAV HTTP requests.

### Procedure

1. Navigate to the folder *express\_installation\_location/webapps/p2pd/pat/ha1*
2. Make a backup of the following file:  
\_NK1.js
3. Open the original file NK1.js , and replace this text:

```
var _NI9='<D:propfind xmlns:D="DAV:">';if(_IE6){for(var i=0;
i<_IE6.length;i++){_NI9 += '<D:prop><D:' + _IE6[i] +
' /></D:prop>';}}else{_NI9+= '<D:allprop/>';
```

with the following text:

```
var _NI9='<D:propfind xmlns:D="DAV:"><D:prop>';if(_IE6){for(var i=0;
i<_IE6.length;i++){_NI9 += '<D:' + _IE6[i] +
' />';}}else{_NI9+= '</D:prop><D:allprop/>';
```

4. Save the file and restart IBM Cognos Express Report Studio.

## Results

In IBM Cognos Express Report Studio, you can now browse for images using the following URI in the **Browse for Images** dialog box:

[http://express\\_server:express\\_port/p2pd/samples/images](http://express_server:express_port/p2pd/samples/images)

---

## Appendix D. Configuring SharePoint in IBM Cognos Express

These tasks give you instructions to enable IBM Cognos Express to integrate with the Microsoft SharePoint portal.

The procedures outlined in these tasks apply to IBM Cognos Express 10.2.1 and Microsoft SharePoint Portal 2010.

Integrating IBM Cognos express into a Microsoft SharePoint Server takes place in three stages:

1. "Enabling single sign-on using shared secret."
2. "Creating a package" on page 120.
3. "Deploying your IBM Cognos Express content to Sharepoint" on page 121.

---

### Enabling single sign-on using shared secret

A single sign-on should be enabled between the IBM Cognos portlets in Sharepoint and IBM Cognos Express.

### Configuring the Active Directory namespace for single sign-on Before you begin

You must configure IBM Cognos Express to use your Active Directory system for authentication. Refer to "Changing the configuration of IBM Cognos Express Manager" on page 24 for details.

#### Procedure

1. On the IBM Cognos Express server, stop the IBM Cognos Express service from Windows Services.
2. Start IBM Cognos Configuration by launching `cogconfig.bat`, located under `express_installation_location\bin64`.
3. In the Explorer window, under **Security > Authentication**, click the Active Directory namespace you configured.
4. Click in the **Value** column for **Advanced properties** and then click the **edit** button.
5. In the **Value - Advanced properties** dialog, click **Add**.
6. In the **Name** column, type `singleSignOnOption`.
7. In the **Value** column, type `IdentityMapping`.
8. Click **OK** in the **Value - Advanced properties** dialog.
9. Click in the **Value** column cell for **Binding credentials**, and then click the **edit** button.
10. In the **Value - Binding credentials** dialog, specify a valid user ID and password in that Active Directory namespace and then click **OK**.  
  
**Tip:** You should use the UPN format (for example, `user@domain.com`) when filling out the user ID.
11. Click **File > Save**. Do not close IBM Cognos Configuration, as you will use it in subsequent tasks.

## Creating and configuring the Custom Java Provider namespace

You must create a Custom Java Provider namespace to add the Custom Java authentication provider that is provided with IBM Cognos Express.

### Procedure

1. In the Explorer window of IBM Cognos Configuration, right-click **Security > Authentication** and select **New Resource > Namespace**.
2. Specify a name (for example, cpstrusted\_name) and set the type to be Cognos Express, which is a Custom Java Provider. Click **OK**.
3. Click in the **Value** column cell for Namespace ID, and specify a new ID (for example, cpstrusted to be consistent with the value set before).

**Remember:** This value should match what you configured on the Sharepoint server previously.

4. Click in the Value column cell for **Java class name**, and type:  
com.cognos.cps.auth.CPSTrustedSignon
5. Click **File > Save**. Do not close IBM Cognos Configuration, as you will use it in subsequent tasks.

## Configuring single sign-on access to Portal Services

### Procedure

1. In the Explorer window of IBM Cognos Configuration, under **Environment > Portal Services** configure the following properties:
  - For **Trusted Sign-on Namespace ID**, type the Namespace ID of the Active Directory that you configured previously, which is CognosExpressActiveDirectoryID by default.
  - For **Shared secret**, type the key to be used for single sign-on (for example, mySharedKeyHere to be consistent with the value that you set up previously).
  - Configure access to the Portal Services web content. Set the value for **Web Content URI** by specifying the host name and port number of the IBM Cognos Express dispatcher in the following format: `http://express_server_name:port/p2pd`
2. Click **File > Save**.
3. Close IBM Cognos Configuration and click **No**, when prompted, to start the service before exiting.
4. Open the file `express_installation_location\configuration\cogstartup.xml` in a text editor.
5. Search for the following xml entry and make sure the values are set as follows.

```
<crn:parameter name="overrideNamespace" disabled="false">  
  <crn:value xsi:type="xsd:boolean">true</crn:value>;  
</crn:parameter>
```
6. Save the file if any changes were made and exit the editor.
7. Start the IBM Cognos Express service.

---

## Creating a package

You can define the default content and appearance for Cognos Web Parts.

## Procedure

1. Edit the file `express_installation_location/cps/sharepoint/solution/build.properties`.
2. Add a line after this line:  
`# gateway.wsd1.url - url used to query the wsd1#`
3. Type the following text:  
`gateway.wsd1.url=http://express_server_name:port/p2pd/servlet/dispatch`
4. Add a line after this line:  
`# shared secret to user single signon. can be empty or any string.#`
5. Type the following text:  
`authentication.sharedSecret=admin1234`
6. Add a line after this line:  
`# Authentication namespace ID.#`
7. Type the following text:  
`authentication.namespace=cpstrusted`
8. Add a line after this line:  
`# URL to Cognos 8 webcontent.#`
9. Type the following text:  
`webcontent.url=http://express_server_name:port/p2pd`
10. Add a line after this line:  
`# URL to Cognos 8 CGI.#>`
11. Type the following text:  
`gateway.url=http://express_server_name:port/p2pd/servlet/dispatch`
12. Save and close the file.
13. Run the build batch file.
14. Open the package folder `installation_location/cps/sharepoint/solution/package`.
15. The file `ibmcognos_webparts.wsp` is ready to be deployed by your SharePoint Administrator.

---

## Deploying your IBM Cognos Express content to Sharepoint

An administrator can add the Cognos web parts to a SharePoint page.

### About this task

You can use the Cognos Web Parts to add the IBM Cognos Express content to your pages in SharePoint Portal Server. You can add or remove the Web Parts from the shared view, or from the personal view of the page. Ensure that you are in edit mode before you make changes to the page.

The following steps provide only basic instructions for adding the Cognos Web Parts to SharePoint pages. For more information, see the SharePoint Portal Server help.

### Procedure

1. Log on to your SharePoint Portal Server with administrative permissions.

2. Copy *installation\_location/cps/sharepoint/solution/package/ibmcognos\_webparts.wspto* a directory that is accessible by Sharepoint. For example, C:\Inetpub\wwwroot\wss\VirtualDirectories\wpcatalog
3. Go to the page where you want to add the Cognos Web Parts.
4. From the **Site Actions** menu in the upper-right corner, click **Edit Page**.
5. Click **Insert**.
6. In the **Add Web Parts** dialog box, click **All Web Parts,Miscellaneous**.
7. From the list of available Cognos Web Parts, click the Web Part you want (Cognos Viewer, Cognos Navigator and/or Cognos Search).
8. At the bottom of the tool pane, from the **Add to** menu, select the location on the page where you want the Web Part to appear, and click the **Add** button.
9. Repeat steps 7 and 8 for each Cognos Web Part you want to add to the page
10. Click **Exit Edit Mode**.
11. You can now customize the content of the Cognos Web Parts.

---

## Appendix E. Advanced configuration tasks for IBM Cognos Express Advisor and Data Advisor

You can use IBM Cognos Express Advisor server for increased capabilities. You can perform the following tasks:

- configure the ODBC Data Source for the Advisor server
- configure the XML log provider
- install maps
- install images

---

### Configuring the ODBC environment for Express Data Advisor

This section describes how the administrator must configure the client system and the server for the ODBC environment.

Two methods of generating multi-dimensional cubes are available:

- **Client-based.** The administrator must only configure the client. IBM Cognos Express Data Advisor generates data files and sends the model definition with the data files to the server. The server uses the data files and the model specification to generate the data files that generate the multi-dimensional cube. An ODBC data source is required for the client system.
- **Server-based.** The administrator must configure both the client and the server. The Express Data Advisor sends the model definition to the server that accesses the ODBC data source, generates the data files for IBM Cognos TM1 that generates the multi-dimensional cube. An ODBC data source is required for both the client and the server systems.

### Configuring for the client-based method

You can configure the ODBC data source on the client system.

#### Procedure

1. Click **Start > Control Panel**.
2. Double-click **Administrative tools > Data Sources (ODBC)**.

**Note:** A 64-bit client system requires that the ODBC data sources are 32-bit. Use the 32-bit data sources application. Click **Start> Run** and type:

```
%WINDIR%\SysWOW64\odbcad32.exe
```

3. On the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab and click **Add**.
4. In the **Create New Data Source** dialog box, from the menu, select the data source driver, and click **finish**.
5. In the **Create New Data Source** dialog box, complete the on-screen instructions for the driver type. The required fields depend on the data source type. Ensure that you use the same naming convention that the system administrator uses on the server.

The data source name must be identical on both the server and the client system.

6. Click **OK** until all dialog boxes close.

## Configuring for the server-based method

The server-based method requires other configuration. You must configure both the server and the client for a particular ODBC database.

You must configure the ODBC data source identically both on the IBM Cognos Express Data Advisor Server system and on an Express Data Advisor client system. The ODBC data source for both the Express Advisor server and the Data Advisor client must have the same name and link to the same relational database.

### Configuring the server

A 64-bit server requires 32-bit ODBC data sources. To ensure this, use the 32-bit data sources application.

**Important:** Ensure that the Express administrator follows the steps below to configure the ODBC data source for Express Data Advisor on the server. The procedure on the server is slightly different than the procedure on the client.

#### Procedure

1. Click **Start > Run**.
2. In the **open** field, type: %WINDIR%\SysWOW64\odbcad32.exe
3. Click **OK** to launch the 32-bit data sources application.
4. On the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab, and click **Add**.
5. In the **Create New Data Source** dialog box, from the menu, select the data source driver, and click **Finish**.
6. In the **Create New Data Source** dialog box, complete the on-screen instructions for the driver type. The required fields depend on data source type, but may include
  - Data source name - Required
  - Data source description
  - Data source server
  - Data source address

**Note:** The data source name must be identical on both the server and the client system.

7. Click **OK** until all dialog boxes close.

### Configuring the client

The server-based method requires you to configure the ODBC for Express Data Advisor on both the server and client systems.

To configure the ODBC data source for Express Data Advisor on the client system follow these steps:

#### Procedure

1. Ensure that you have configured the Express Data Advisor Server before configuring the client system.
2. Click **Start > Control Panel**.
3. Double-click **Administrative tools > Data Sources (ODBC)**.

**Note:** A 64-bit client system requires 32-bit ODBC data sources. To ensure this, use the 32-bit data sources application. Click **Start> Run** and type:

%WINDIR%\SysWOW64\odbcad32.exe

4. On the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab and click **Add**.
5. In the **Create New Data Source** dialog box, from the menu, select the data source driver and click **Finish**.
6. In the **Create New Data Source** dialog box, complete the on-screen instructions for the driver type. The required fields depend on the data source type. Ensure that you use the naming convention that the system administrator uses on the server.  
The data source name must be identical on both the server and the client system.
7. Click **OK** until all dialog boxes close.

---

## Configuring the XML log provider

The Log Provider used by IBM Cognos Express Advisor stores the Express Advisor Server log entries to the IBM Cognos Express log location.

The file `EVServer.exe.config` contains the reference to the Log Provider.

Express Advisor Server generates different levels of log entries. The log levels entries are:

- **Severe**  
The highest level of detail. Only server errors are logged. Gives you information about errors that occur in Advisor Server. These are errors that may cause a situation where Express Advisor Server is unusable.
- **Error**  
All errors are logged. Gives you information about errors that occur in Advisor Server. The server can run, but for example a Provider cannot be started.
- **Warning**  
Gives you status and information about warnings that occur in Advisor Server. Warnings are logged, for example when a Provider is not correctly configured.
- **Info**  
Gives you status information. The information is logged, for example the start and stop of the Express Advisor service.
- **Verbose**  
Gives you status and more detailed information, for example the loading of the Catalog Items.
- **Trace**  
Gives you status and the same information as in 'Verbose' is logged, only more detailed. Recommended if you experience problems with Advisor Server and you want to see all detailed information.
- **Debug**  
The lowest level detail. All possible information is logged. Recommended if you experience problems with Advisor Server and you want to see all detailed information.

The possible categories for the log level entries are:

- **General**
- **Session**
- **Security**

- Configuration
- InternalError
- .MDX
- UnsupportedType
- ParameterValidation

The components of the Express Advisor that can be logged are:

- SecurityProviders.CAM
- Server
- Default Command
- LogProviders.XML
- TM1

**Note:** All log levels, categories, and components can be logged by the use of an asterisk (\*) in place of the log level, category and component.

## XML Log provider

The XML Log Provider sends log entries to a specified file. The name of this specified file can be changed during configuration of the server.

### System Requirements

If the IBM Cognos Express Advisor service runs on an account, this account needs to have write and modify permissions on the location specified in the *file path* tag.

### Configuration

The following lines must be present in the <logProviders> tag of the EVServer.exe.config file:

```
<logProviders>
  <provider type="XML">
    <properties>
      <file name="Advisor" createEvery="day"/>
    </properties>
    <logLevelTable>
      <logLevels>
        <logLevel logLevel="<LOGLEVEL>"
                  category="<LOGCATEGORY>"
                  component="<LOGCOMPONENT>" />
      </logLevels>
    </logLevelTable>
  </provider>
</logProviders>
```

**Note:** The tags are case sensitive.

---

## Installing maps

A map is a chart component that adds the support of geographic or structural topography in relation to the database information. A map has to be setup and configured for a specific database model before the graphical feature can be used with a database view.

This section describes how to set up and configure the map feature.

## Understand the directory and library structure

The database server has one directory for maps. The organization of maps into libraries and layers is done by copying the shape file into the correct subdirectories.

Inside this maps directory, there is one subdirectory for each library. Each library directory contains all the shape files and database files which together make up the layers for that library.

Go to the directory that you have for maps.

Copy the library you want to this directory.

## Adding maps for use by the IBM Cognos Express Advisor

Customer maps can be added for use by the IBM Cognos Express Advisor. These maps are made available on the server for the client systems to use.

The customer maps should be put into the directory:

```
C:\Program Files (x86)\IBM\Cognos Express\webapps\p2pd\Advisor\Maps
```

**Note:** If maps are put in a location other than the specified locations, they will not be available for use.

## Understanding layers and shapes

The concepts of layers and shapes must be understood before you arrange the geographic maps for your organization.

Each map is represented by a shape file (.shp) and a corresponding database file (.dbf). The shape file contains vectors that define the map. The database file contains data associated to the map, the regions on the map, the short name of the map or any statistical data.

The shape file and associated database file is called a layer.

Layers can be classified according to hierarchy. For example, all continents can be given the classification of layer 1, and countries and regions the classification layer 2. The order of layers is important. Layers with the lowest level of detail are lowest in the layer hierarchy, followed by layers with a higher detail. This ensures that states are drawn on top of countries and regions. Also, it ensures that countries and regions are drawn on top of continents.

All layers that share the same coordinate system and are to be used together either geographically or topographically must be grouped into one library. Therefore, the definition of a library is a collection of layers that share the same coordinate system and together make up one geographic area.

## Understand the mapping file

In order to develop the map feature, one of the most important processes is to link members in your OLAP database to the shape and database files for a specific layer.

This is important to ensure that the data for the members are placed in the correct map and at the correct location. For example, the member California in the OLAP database should be mapped to the shape called California in the layer USA.

An intermediary mapping file is used to match members in the OLAP database to the layers in the map library. The name of this file is `libinfo.xml`. This file is a read/write XML file, and it contains the names of all the layers in the map library. The following example describes a `libinfo.xml` file.

```
<?xml version="1.0"?>
<LIBRARY NAME="World Library">
  <LAYER FILE="Asia" LEVEL="0">
    <MAPPING COL="CNTRY_NAME" ALIASTABLE="Default"/>
  </LAYER>
  <LAYER FILE="Europe" LEVEL="0">
    <MAPPING COL="CNTRY_NAME" ALIASTABLE="Default"/>
  </LAYER>
  <LAYER FILE="Austria" LEVEL="1">
    <MAPPING COL="ADMIN_NAME" ALIASTABLE="Default"/>
  </LAYER>
  <LAYER FILE="France" LEVEL="1">
    <MAPPING COL="ADMIN_NAME" ALIASTABLE="Default"/>
  </LAYER>
  <LAYER FILE="Germany" LEVEL="1">
    <MAPPING COL="ADMIN_NAME" ALIASTABLE="Default"/>
  </LAYER>
</LIBRARY>
```

The file has three element types LIBRARY, LAYER, and MAPPING. The element LIBRARY is the container for all the LAYER elements.

## Library

### Syntax

```
<LIBRARY>
</LIBRARY>
```

### Description

The LIBRARY element is the first element to be defined in the `libinfo.xml` file. The element is used only once to hold the collection of layer elements. This element can also be used to give the library a different name from the directory name.

### Attributes

NAME

NAME is an optional attribute to give the library a different name from the library directory. If this attribute is omitted, the library is referenced by the directory name.

### Examples

The library is called World Maps. If the NAME attribute is removed, the library is called by the directory name.

```

<LIBRARY NAME="World Maps">
  <LAYER FILE="Asia" LEVEL="0">
    <MAPPING COL="CNTRY_NAME" ALIASTABLE="Default"/>
  </LAYER>
</LIBRARY>

```

## Layer

### Syntax

```

<LAYER>
</LAYER>

```

### Description

The LAYER element is a child of the LIBRARY element. The element is used to define the behavior of a single layer in the Map library. The element is used to give the layer a name, specify the level of detail, and specify one or more mappings.

### Attributes

NAME, FILE, LEVEL

NAME is an optional attribute to give the layer a name that is different from the file name. This is convenient where layers have file names that are not easy to understand. If this attribute is omitted, the layer is referenced by the file name from the shape and database files.

FILE is a mandatory attribute and defines the layer files that are used, the shape file and database file, that make up the layer. The name is specified without a file extension.

LEVEL is an optional attribute and defines the level of detail of a layer. The attribute is a number in the range 0-9999, where 0 indicates the lowest level of detail and 9999 indicates the highest level. Layers that have the same level of detail, such as all continent Maps, have the same level number.

### Examples

The name Australia is mapped to the database file au.dbf. Australia has a level 2 set. Level 1 could be Australasia and Level 0 Southern Hemisphere.

```

<LIBRARY>
  <LAYER NAME="Australia" FILE="au" LEVEL="2">
    <MAPPING COL="CNTRY_NAME" ALIASTABLE="Default"/>
  </LAYER>
</LIBRARY>

```

## Mapping

### Description

The MAPPING element is a child of the LAYER element. The element is used to link a member in the OLAP database to a specific layer.

## Syntax

```
<MAPPING>  
</MAPPING>
```

## Attributes

COL, QUERY, LEVEL, GENERATION, MEMBERNAME, DIMENSION, ANCESTER, PARENT, ALIASTABLE,

COL is a mandatory attribute and defines the field type in the layer database file that the members in the OLAP database should link to. The field type must be specified by name. This attribute is not case-sensitive.

QUERY is an optional attribute that works with the MEMBERNAME attributes. The QUERY attribute defines the record in the layer database file to which a member should be mapped.

MEMBERNAME is an optional attribute that works with the QUERY attribute. This attribute limits the query process to the member in the OLAP database that should be mapped to the QUERY attribute.

PARENT is an optional attribute. This attribute limits the query process to the children of the specified member.

ANCESTOR is an optional attribute. This attribute limits the query process to all descendants of the specified member.

LEVEL is an optional attribute that specifies the level that a member in the OLAP database must be before it is matched to the records in the layer database file. This makes it easy to map, for example, all level 0 members of an outline to layer 0. Level 0 is the lowest leaf in the database.

GENERATION is an optional attribute that specifies the generation that member in the OLAP database must be before it is matched against the records in the layer database file. Generation 0 is the highest leaf in the database.

DIMENSION is an optional attribute. To increase the speed of a search in the OLAP database, you can define this attribute with the specific dimension in the view. Only the specified dimension is searched for a possible match.

ALIASTABLE is an optional attribute and is added to the default libinfo.xml.

The Advisor Server can use unique member names for members of an OLAP database. The member names shown in Advisor do not have to be the same as these unique member names. To tell Advisor Server to match the member names in the .dbf files to the member names shown in Advisor, the attribute 'ALIASTABLE=default' is used. If this Attribute is not added, not all Maps may show.

- Essbase - The ALIASTABLE attribute is used to match your database files with an Alias Table in your Essbase outline.
- Other OLAP Servers - Advisor Server may use unique member names for members of an OLAP database. The member names shown in Advisor may not be the same as these unique member names. To tell Advisor Server to match the member names in the .dbf files to the member names shown in Advisor, the attribute 'ALIASTABLE=default' is used. If this Attribute is not added, not all

Maps may show. Therefore, this attribute tag is recommended when connecting to other OLAP Servers, even if the alias table is not a feature of these OLAP Servers.

## Examples

Example 1: The minimum attributes that the element MAPPING can have. The mandatory attribute COL is set to the field type CNTRY\_NAME that is in the Europe.dbf file. The OLAP database does not have an alias table, therefore the alias table is set to default.

```
<LIBRARY>
  <LAYER NAME="Europe">
    <MAPPING COL="CNTRY_NAME" ALIASTABLE="Default"/>
  </LAYER>
</LIBRARY>
```

Example 2: The name Germany in the Europe database file is mapped to the member name GM in the OLAP database. The ALIASTABLE is not used because a mapping is specified in the element.

```
<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="CNTRY_NAME" QUERY="CNTRY_NAME='Germany' "
MEMBERNAME="GM"/>
  </LAYER>
</LIBRARY>
```

Example 3: The field FIPS\_CNTRY in the Europe database file is mapped to the member name EUROPE in the OLAP database and to the children of the member EUROPE.

```
<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="FIPS_CNTRY" PARENT="EUROPE"/>
  </LAYER>
</LIBRARY>
```

Example 4: The field FIPS\_CNTRY in the Europe database file is mapped to the member name EUROPE in the OLAP database and to all ancestors of the member EUROPE.

```
<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="CNTRY_NAME" EUROPE="GM"/>>
  </LAYER>
</LIBRARY>
```

Example 5: The query is limited to the Market dimension in the OLAP database.

```
<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="CNTRY_NAME" DIMENSION="Market"/>>
  </LAYER>
</LIBRARY>
```

Example 6: The query is limited to the lowest leaves of the members.

```

<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="CNTRY_NAME" LEVEL="0"/>>
  </LAYER>
</LIBRARY>

```

Example 7: The query is limited to the highest leaves of the members.

```

<LIBRARY>
  <LAYER FILE="Europe">
    <MAPPING COL="CNTRY_NAME" GENERATION="0"/>>
  </LAYER>
</LIBRARY>

```

---

## Installing images for use by IBM Cognos Express Advisor

An image can be used as a background in a chart or canvas in IBM Cognos Express Advisor.

After the installation of Express Advisor, sample images are available. You can add your own images for use by Express Advisor. These images are made available on the server for the client systems to use.

Copy your images in the following directory: C:\Program Files (x86)\IBM\Cognos Express\webapps\p2pd\Advisor\Images

**Note:** If you copy images in a location other than the specified location, they will not be available for use in Express Advisor client.

---

## Configuring the maximum fact rows per cube for the Express Data Advisor

A cube generated by IBM Cognos Express Data Advisor can become very large. To set a limit for the maximum number of fact rows that is allowed, an administrator can adjust the Data Advisor Server configuration file.

This file can be found at C:\Program Files (x86)\IBM\Cognos Express\webapps\p2pd\WEB-INF\services\dataAdvisorService.xml. Change the following settings to specify the Maximum fact rows per cube:

- MaxFactRowsPerCubeError
 

Specifies the maximum number of fact rows, in thousands, that are allowed. If the number of fact rows exceeds this value, the Data Advisor user receives an error message and the analysis does not continue.

Default Value: 10000k rows
- MaxFactRowsPerCubeWarning
 

Specifies the number of fact rows (in thousands) before the Data Advisor user receives a warning message. The user can decide either to continue or cancel the analysis.

Default Value: 5000k rows

A clean installation does not set these two values, the Data Advisor Server uses the default values.

## Configuration example

To set limits of 15000k and 10000k rows for MaxFactRowsPerCubeError and MaxFactRowsPerCubeWarning respectively, adjust the following lines of the DataAdvisorServer tag:

```
<DataAdvisorServer>
  <CubeBuilder>
    ...
    <MaxFactRowsPerCubeError>15000</MaxFactRowsPerCubeError>
    <MaxFactRowsPerCubeWarning>10000</MaxFactRowsPerCubeWarning>
  </CubeBuilder>
</DataAdvisorServer>
```

**Note:** The tags are case sensitive. Please note that the cubebuilder tag is commented out by default. A restart of the Express Service is needed after changing this file.



---

## Appendix F. Installing and configuring the IBM Cognos Express gateway

If you want to install and configure the IBM Cognos Express gateway in your environment, you can do so using the following steps.

If you are using a gateway, you cannot disable the IBM Cognos Express Welcome page.

**Note:** The installation package described below is not an overlay on the Cognos Express server installation. It is a separate installation package meant for the server computer.

---

### Install and configure the gateway

You can install and configure the gateway on your computer.

#### Procedure

1. Locate the Gateway folder in the directory where the IBM Cognos Express installation files are kept. In this folder, locate the archive containing the gateway instance CognosExpressGateway.zip.
2. Open and expand the CognosExpressGateway.zip file to a folder (either on the local IBM Cognos Express Server or on a standalone Web Server).
3. In the location where you expanded CognosExpressGateway.zip, in the bin directory, locate the file cogconfig.bat and run it.  
For example, the location is *express\_installation\_location\bin\cogconfig.bat*.  
This file launches IBM Cognos Configuration.
4. In IBM Cognos Configuration, in the **Explorer** window, click the **Environment** section.
5. On the right pane, in the **Environment - Group Properties** section, locate the **Dispatcher URIs for gateway** property and edit the value **http://localhost:9300/p2pd/servlet/dispatch/ext** to include the IBM Cognos Express server name and port number, such as **http://express\_server\_name:19300/p2pd/servlet/dispatch/ext**
6. Save the configuration and exit IBM Cognos Configuration.

---

### Configure the web server

Create three virtual directories to configure the web server.

#### Procedure

1. Create the following three virtual directories in the Web server.

| Alias            | Location   | Permission |
|------------------|--|------------|
| IBMCognosExpress | <i>express_gateway_location/</i><br>Cognos Express<br>Gateway/webcontent | Read       |

| Alias                    | Location  | Permission |
|--------------------------|---|------------|
| IBMCognosExpress/cgi-bin | <i>express_gateway_location</i> /<br>Cognos Express<br>Gateway/cgi-bin        | Execute    |
| cognos_express           | <i>express_gateway_location</i> /<br>Cognos Express<br>Gateway/cognos_express | Read       |

2. If you are using Microsoft Internet Information Services, ensure that the directory security of the default web site is enabled for Integrated Windows authentication. Also, ensure that web service extensions allow all unknown CGI extensions.

**Tip:** For details about how to configure your web server, see the documentation for the web server product that you are using.

---

## Configure the IBM Cognos Express server for the gateway

### Procedure

1. On the server where IBM Cognos Express is installed, locate the file *express\_installation\_location*/templates/ps/system.xml.
2. Edit this file. Change the following line  

```
<param name = "welcomeURLOverride" > /cognos_express/manager/welcome.html < /param >
```

to add the URL information where IBM Cognos Express is installed, such as  

```
<param name = "welcomeURLOverride" > http://myhost:19300/cognos_express/manager/welcome.html < /param >
```
3. Save this file and restart the IBM Cognos Express service.

### Results

You can now access IBM Cognos Express using the URL `http://gateway_host/IBMCognosExpress`.

---

## Appendix G. Installing translated product documentation

To access a complete set of translated documentation, you must install it from IBM Cognos Express Supplementary Language Documentation.

### Before you begin

Before installing the Supplementary Language Documentation, ensure that:

- IBM Cognos Express is installed and configured correctly
- adequate disk space is available to install supplementary language documentation
- your software environment is supported

### Procedure

1. Insert the IBM Supplementary Language Documentation disc or go to the directory where the installation files were downloaded and extracted.

The installation wizard starts automatically from the product disk.

2. To manually start the installation wizard, go to the operating system directory and, if no Welcome page appears, double-click the `issetup.exe` file.

3. Follow the instructions in the installation wizard to copy the required files to the same location where you installed IBM Cognos Express.

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

Some web servers do not support non-ASCII characters in directory names.

The supplementary languages documentation component is selected by default.

4. Choose the option you want on the **Finish** page of the installation wizard.



---

## Appendix H. Manually backing up and restoring IBM Cognos Express

The backup and restore procedure has changed for the IBM Cognos Express 9.5 release and can only be performed using Express Manager. However, it is possible that a previous restore using Express Manager failed. This failure could corrupt the database so that you can no longer log in to perform another restore.

If an Express Manager restore failed, there is a workaround to perform the restore using a batch script on your computer.

The backup folder name you want to restore from is located in the configured backups directory. The default location is C:\Program Files\IBM\Cognos Express Backups. Backups are stored in this directory and restore operations will restore from the backup folders there.

### Tip:

If you changed the location of the Cognos Express Backups Directory, but cannot remember the location, open the file *Express\_installation\_location*\express\properties\systemproperties.xml and find the value of the backup\_folder property.

### Procedure

1. Open a command prompt window and navigate to *Express\_installation\_location*\bin. For example, the default location is C:\Program Files (x86)\IBM\Cognos Express\bin.
2. Run the restore batch script, using the backup folder name as an argument. For example, type `cx_restore.bat cx_backup_20130205_142459`

**Tip:** If you forgot to log in as a Windows administrator, you can right-click on the file and select Run as administrator.

A message at the end indicates whether the restore was successful.



---

## Appendix I. The Tm1s.cfg Server Configuration File

The Tm1s.cfg file is an ASCII file that specifies environment information for an IBM Cognos ICAS server.

A default Tm1s.cfg file is created in the Cognos ICAS server data directory when you install a copy of the Cognos ICAS server. Most of the available parameters are documented in the configuration file. If a parameter is not installed by default, the parameter is commented out in the configuration file. You can edit the Tm1s.cfg file to reflect the environment of the associated remote server by un-commenting the parameter you want to use and setting the correct value.

For an alphabetical listing of all the parameters in the server configuration file, see "Parameters in the Tm1s.cfg File" on page 142.

---

### Location of the Tm1s.cfg File

The location of the Tm1s.cfg file depends on the type of server you are using.

- If you are using the IBM Cognos Configuration tool to start and stop your IBM Cognos TM1 servers, you can view the configuration path for a Cognos TM1 server by clicking the server name in the Explorer tree of Cognos Configuration.
- If you are running the Cognos ICAS remote server as a Microsoft Windows service (Tm1sd.exe), and you used the Cognos Express Xcelerator installation program to install the server, the system uses the Tm1s.cfg file that is located in the server data directory you specified during installation.
- If you are running the Cognos ICAS remote server as a Windows application (Tm1s.exe), you specify the location of the Tm1s.cfg file by using the -z parameter in the command line when you start the server, either from a shortcut or from a command prompt.

For example, this command specifies that Cognos Xcelerator will use the Tm1s.cfg file located in the c:\salesdata directory:

```
c:\Program  
Files\Cognos\TM1\bin\tm1s.exe -z c:\salesdata
```

If the -z parameter points to a directory containing spaces, you must enclose the directory in double quotes. For example, -z "c:\sales data".

---

### Sample Tm1s.cfg File

This is a sample Tm1s.cfg file.

Your tm1s.cfg file may also include comments that describe the parameters.

```
#Security mode  
#(there are typically some information comments here.)  
[TM1S]  
ServerLogging=F  
SecurityPackageName=Kerberos  
IntegratedSecurityMode=1  
UseSSL=T  
ServerName=Planning Sample  
DataBaseDirectory=C:\Program Files\Cognos\TM1\Custom\TM1Data\PlanSamp\
```

```
AdminHost=xxxxxxx
PortNumber=12345
ClientMessagePortNumber= 5433
Language=ENG
SaveTime=
DownTime=
ProgressMessage=True
AuditLogOn=F
AuditLogMaxFileSize= 100 MB
AuditLogUpdateInterval=60
#ServerCAMURI=http://L3L0833-6457A26:9300/p2pd/servlet/dispatch
#ClientCAMURI=http://L3L0833-6457A26/cognos8/cgi-bin/cognos.cgi
#ClientPingCAMPassport=900
#Optional CAM parameters
#CAMSSLCertificate=
#CAMSSLCertRevList=
#SkipSSLCAMHostCheck=TRUE
#SkipSSLCAMHostCheck=TRUE
```

---

## Parameters in the Tm1s.cfg File

The parameters in the Tm1s.cfg file are described here.

### Dynamic parameter

Dynamic parameter values can be edited while the IBM Cognos ICAS server is running.

The Cognos ICAS server continuously polls the Tm1s.cfg file at 60 second intervals to determine if any dynamic parameter values have changed. If the server detects a parameter value change, the new value is applied immediately. Dynamic parameters are identified with a statement describing them as "dynamic" in this list.

### Static parameter

Static parameter values are read from the Tm1s.cfg file only when the IBM Cognos ICAS server starts. If you want to change a static parameter value, you must shut down the Cognos ICAS server, edit the value in the Tm1s.cfg file, and then restart the server.

Most parameters in the Tm1s.cfg file are static.

### Spaces in values

If a parameter value contains spaces, enclose the parameter values within double quotes.

## AdminHost

Specifies the computer name or IP address of the Admin Host on which an Admin Server is running.

Parameter type: required, static

To specify multiple Admin Hosts, separate each host name with a semicolon when running on Microsoft Windows or with a colon when running on a UNIX. For example:

- Use the format `AdminHost=hostname1;hostname2` on a Windows Cognos ICAS server.
- Use the format `AdminHost=hostname1:hostname2` on a UNIX ICAS server.

Some other examples include:

- `AdminHost=boston;newyork`
- `AdminHost=192.168.1.17;192.168.1.22`
- `AdminHost=boston;192.168.1.17;192.168.1.22;myserver;192.168.1.40`

**Note:** The string specifying the admin host or hosts is limited to 1020 characters or bytes.

## AllowReadOnlyChore Reschedule

Provides users with READ access to a chore, and the ability to activate, deactivate, and reschedule chores.

Parameter type: optional, static

When the line `AllowReadOnlyChoreReschedule=T` is added to the `Tm1s.cfg` file for a server, users with READ access to a chore can right-click a chore in Server Explorer, and toggle the Activate Schedule option or choose the Edit Chore option. The Edit Chore option is available only when a chore is not activated.

When a user with READ access to a chore selects the Edit Chore option, only the scheduling screen of the Chore Setup Wizard opens.

The scheduling screen lets the user set scheduling parameters for the chore, but does not allow the user to edit the list of processes that compose the chore.

## AllowSeparateNandCRules

When enabled, this parameter lets you specify rule expressions for N: and C: levels on separate lines using identical AREA definitions.

Parameter type: optional, static

For example,

```
['Budget', 'Argentina']=N:Expression;  
['Budget', 'Argentina']=C:Expression;
```

are both valid rules statements when you include the `AllowSeparateNandCRules` parameter in the `Tm1s.cfg` file and set to T.

This parameter also effects how numeric and string rules are applied to cells. Without this parameter, the first rule statement that is encountered for a given AREA definition is applied to the cells within the scope of that definition. If any cell within the AREA definition is numeric and the rule is a string rule, then the cell is considered not rule-derived because there was a match that did not apply to the cell.

For example, consider the statements:

```
['1 Quarter']=s:'str_value';Not following.  
['1 Quarter']=n:77;
```

If the AllowSeparateNandCRules parameter is not set (or is set to F), then the first rule statement will match any cell that uses '1 Quarter' as one of its elements. If the cell is a string cell, the value of the cell will be set to 'str\_value'. If the cell is a numeric cell, the cell will not be considered rule derived, since a match was found (the first rule) but the rule itself did not apply.

If the AllowSeparateNandCRules parameter is set to T, then string cells which use '1 Quarter' will be set to 'str\_value' and numeric cells which use '1 Quarter' will be set to 77.

To set the parameter to T, add the following line to Tm1s.cfg:

```
AllowSeparateNandCRules=T
```

## AllRuleCalcStargateOptimization

The AllRuleCalcStargateOptimization parameter can improve performance in calculating views that contain only rule-calculated values.

Parameter type: optional, static

Typically, Cognos Xcelerator performs calculations for standard consolidations and then calculates values for rule-based consolidations, which may end up overriding values in the standard consolidations. The AllRuleCalcStargateOptimization parameter provides optimization that first checks if every value in the view is rule-calculated and then proceeds as follows:

- If every value in the view is rule-calculated, then Cognos Xcelerator skips the unnecessary calculations for standard consolidations and just performs the rule-calculated consolidations.
- If the view contains even a single value which is not rule-calculated, then this optimization parameter will have no effect.

When this parameter is set to True, some additional processing will take place for every view that is requested to first check if the view contains only rule-calculated values. For most views, this additional processing is minimal since the optimization is stopped after the first value in the view is found to be not rule-calculated.

To enable this parameter, set the parameter's value to T in the Cognos ICAS server configuration file, Tm1s.cfg, as follows:

```
AllRuleCalcStargateOptimization=T
```

The default setting is disabled (F).

## AuditLogMaxFileSize

Indicates the maximum file size that an audit log file can grow to before it is closed and a new file is created.

Parameter type: optional, dynamic

This value must include units of KB (kilobytes), MB (megabytes), or GB (gigabytes). For example, to limit the log file size to 100 MB, enter the following text

`AuditLogMaxFileSize=100 MB`

The range of values include:

- Default value: 100 MB
- Minimum value: 1 KB
- Maximum value: 2 GB

## **AuditLogMaxQueryMemory**

Indicates the maximum amount of memory that IBM Cognos Xcelerator can use when running an audit log query and retrieving the set of results.

Parameter type: optional, dynamic

This value must include units of KB (kilobytes), MB (megabytes), or GB (gigabytes). For example:

`AuditLogMaxQueryMemory=100 MB`

The range of values include:

- Default value: 100 MB
- Minimum value: 1 KB
- Maximum value: 2 GB

## **AuditLogMaxTempFileSize**

Indicates the maximum file size that the temporary audit log file can grow to before Cognos Xcelerator moves the file's data into the final audit log.

Parameter type: optional, dynamic

This value must include units of KB (kilobytes), MB (megabytes), or GB (gigabytes). For example:

`AuditLogMaxTempFileSize=100MB`

The range of values include:

- Default value: 100 MB
- Minimum value: 1 KB
- Maximum value: 2 GB

## **AuditLogOn**

Turns audit logging on (T) or off (F).

Parameter type: optional, static

For example:

- To enable audit logging, set `AuditLogOn=T`
- To disable audit logging, set `AuditLogOn=F`

The default setting is F.

## AuditLogUpdateInterval

Indicates the maximum amount of time, in minutes, that IBM Cognos Xcelerator waits before moving the events from the temporary audit file into the final audit log.

Parameter type: optional, dynamic

For example:

```
AuditLogUpdateInterval=60
```

The default value is 60 (sixty minutes).

The minimum value is 1 (one minute).

**Note:** You can manually update the audit log with the latest events anytime you want by using the Process Audit Log Events command in Server Explorer. For details, see “Updating the Audit Log with the Latest Events” in the *IBM Cognos TM1 Operation Guide*.

## CalculationThresholdForStorage

Defines a minimum number of rule calculations required for a single cell or Stargate view, beyond which the IBM Cognos ICAS server stores the calculations for use during the current server session.

Parameter type: optional, dynamic

For example, when a user requests rule-derived values from the Cognos ICAS server, either from a single cell or a Stargate view, the server usually has to perform multiple rule calculations to arrive at the requested rule-derived values.

CalculationThresholdForStorage has a direct effect on memory consumption and performance. A high parameter value results in decreased memory consumption and slower performance. A low parameter value results in increased memory consumption and faster performance.

If you do not include CalculationThresholdForStorage in Tm1s.cfg, the default calculation threshold is 50.

## CAMSSLCertificate

The full path and name of the SSL certificate to be used when connecting to the internal dispatcher.

For example, C:\AxTM1\Install\_Dir\ssl\CognosCert.cer.

Parameter type: static

Required only when CAM server is configured to use SSL.

## CheckFeedersMaximumCells

Limits the number of cells checked by the Check Feeders option in the Cube Viewer.

The CheckFeedersMaximumCells is an optional parameter that you can add to Tm1s.cfg. If you do not include this parameter in Tm1s.cfg, Check Feeders checks 3,000,000 cells, by default.

Parameter type: optional, dynamic

When Cognos Xcelerator checks feeders from a highly consolidated cell, it must check all intersections that apply to the cell. In large applications, the Cognos ICAS server will be unavailable for a significant amount of time while Cognos Xcelerator is checking all intersections.

To limit the number of cells checked when using Check Feeders (which in turn limits the amount of time the Cognos ICAS server is unavailable), add CheckFeedersMaximumCells to Tm1s.cfg and set the parameter to the number of cells you want to check.

For example, to limit Check Feeders to 1,000,000 cells, enter the following line:

```
CheckFeedersMaximumCells=1,000,000
```

## ClientCAMURI

The URI for the IBM Cognos Server IBM Cognos Connection used to authenticate Cognos Xcelerator clients.

Parameter type: optional, static

The URI is specified in the form `http[s]://<host>/cognos8/cgi-bin/cognos.cgi`.

For example, `http://10.121.25.121/cognos8/cgi-bin/cognos.cgi`

## ClientPingCAMPassport

Indicates the interval, in seconds, that a client should ping the CAM server to keep their passport alive.

Parameter type: optional, static

If an error occurs or the passport expires the user will be disconnected from the Cognos ICAS server.

## CAMPortalVariableFile

The path to the `variables_TM1.xml` file in your IBM Cognos installation.

Parameter type: Required for IBM Cognos interoperability, static.

The CAMPortalVariableField parameter is required only when using IBM Cognos Business Intelligence (BI) with Cognos TM1 Web and the Cognos TM1 Server.

Set this parameter with a relative path as follows:

```
CAMPortalVariableFile=portal\variables_TM1.xml
```

**Note:** The exact file location on the IBM Cognos BI server is: `Cognos_location\templates\ps\portal\variables_TM1.xml`.

## ClientMessagePortNumber

Identifies a secondary port used to accept client messages concerning the progress and ultimate cancellation of a lengthy operation without tying up thread reserves.

Parameter type: optional, static for changes/dynamically set

If no port number is specified in the configuration file, the port number is dynamically chosen and set at server startup. However, it cannot be changed while the server is running.

This additional port ensures that other server requests can continue to process while waiting for a cancellation from the user.

By default, this port number is automatically and dynamically assigned when the Cognos ICAS server starts. You do not have to set ClientMessagePortNumber to a specific number unless firewalls or other network issues require the listener port to be a well-known number.

### CAUTION:

**Be sure to assign unique port numbers for the server and client message ports. If you have two servers running on the same machine with the same port number, the message activity may cause a system failure.**

See also, "PortNumber" on page 168 and "ProgressMessage" on page 169.

## ClientPropertiesSyncInterval

Specifies the frequency (in seconds) at which client properties are updated in the }ClientProperties control cube. Set to 1800 seconds to update cube every 30 minutes.

Frequent updating can cause unnecessary consumption of CPU time and may cause users from connecting/disconnecting until operation completes.

Parameter type: optional, dynamic

## ClientVersionMaximum

Specifies the maximum client version that can connect to the ICAS server.

Parameter type: optional, dynamic

The ClientVersionMaximum parameter value is expressed as a version string using the following format:

*m.n.tffh*

*m* = major release number,

*n* = minor release number

*t* = maintenance release number

*ff* = fix pack number

*hh* = hot fix number

Using this format, setting `ClientVersionMaximum = 9.4.10305` specifies that the maximum client version that can connect to the server is 9.4.1.

If your `Tm1s.cfg` file does not include a `ClientVersionPrecision` parameter value, only the major release number, minor release number, and maintenance release number are used to enforce compatibility between client and server. Using the previous example,

If `ClientVersionMaximum` is not explicitly set, the default value is equal to the currently installed server version.

Valid parameter values fall within the range `x00` - currently installed server version, where `x` is the base version of the currently installed ICAS server. For example, valid parameter values for ICAS server 9.0 SP3 fall within the range 900 - 903.

You cannot set `ClientVersionMaximum` to a value greater than the currently installed server version. You cannot connect newer client versions to older server versions.

## ClientVersionMinimum

Specifies the minimum client version that can connect to the IBM Cognos ICAS server.

Parameter type: optional, dynamic

The `ClientVersionMinimum` parameter value is expressed as a version string using the following format:

*m.n.tffh*

*m* = major release number,

*n* = minor release number

*t* = maintenance release number

*ff* = fix pack number

*hh* = hot fix number

Using this format, setting `ClientVersionMinimum = 9.4.10305` specifies that the minimum client version that can connect to the server is 9.4.1.

If your `Tm1s.cfg` file does not include a `ClientVersionPrecision` parameter value, only the major release number, minor release number, and maintenance release number are used to enforce compatibility between client and server.

If the `ClientVersionMinimum` parameter is not explicitly set, the default value is 8.4.00000, which corresponds to version 8.4.

You should not set `ClientVersionMinimum` to a value lower than the base version of the currently installed Cognos ICAS server. There is no upper limit for `ClientVersionMinimum`. However, if `ClientVersionMinimum` is larger than

ClientVersionMaximum, only clients with a version number equal to ClientVersionMaximum can connect to the server.

## ClientVersionPrecision

This parameter lets you more precisely identify the minimum and maximum versions of clients that can connect to the IBM Cognos ICAS server.

Parameter type: optional, dynamic

The ClientVersionMinimum and ClientVersionMaximum parameter values are expressed as a version string using the following format:

*m.n.tffh*

*m* = major release number,

*n* = minor release number

*t* = maintenance release number

*ff* = fix pack number

*hh* = hot fix number

Using this format, the version string 9.4.10305 indicates major release 9, minor release 4, maintenance release 1, fix pack 3, and hot fix 5.

If ClientVersionPrecision is not set in Tm1s.cfg or if it is set to 0, only the major release number, minor release number, and maintenance release number are used to enforce compatibility between client and server. In this case, any client from major release 9, minor release 4, maintenance release 1 and more recent can connect to the server.

You can enforce more precise server and client version compatibility by adding ClientVersionPrecision to the Tm1s.cfg file and setting the parameter to one of the following values.

- 1 - Indicates that the fix pack number will be enforced, but not the hot fix number.
- 2 - Indicates that both the fix pack number and hot fix number will be enforced.

### Examples

If ClientVersionMinimum = 9.4.10305 and ClientVersionPrecision = 1, only clients from major release 9, minor release 4, maintenance pack 1, fix pack 3 or later can connect to the server. In this case, the hot fix number is not enforced when determining server/client compatibility.

If ClientVersionMinimum = 9.4.10305 and ClientVersionPrecision = 2, only clients from major release 9, minor release 4, maintenance pack 1, fix pack 3, hot fix 5 or later can connect to the server. In this case, both the fix pack and hot fix numbers are enforced when determining server/client compatibility.

## DataBaseDirectory

Specifies the data directory from which the server loads cubes, dimensions, and other objects.

You can list multiple data directories by separating them with semicolons.

Parameter type: required, static

## DefaultMeasuresDimension

Identifies if a measures dimension is created. IBM Cognos Xcelerator does not require that a measures dimension be defined for a cube. You can optionally define a measures dimension by modifying the cube properties.

For more information, see the topic, "CubeProperties", in the *IBM Cognos TM1 Operation Guide*.

Parameter type: optional but some OLAP applications may require this parameter (see description below for details),static

Some OLAP applications do require that a measures dimension be present in all cubes, and may fail if such a dimension is not present. To accommodate these applications, set `DefaultMeasureDimension=T` to instruct the Cognos ICAS server to automatically define the last dimension in a cube as the measures dimension when a new cube is created on the Cognos ICAS server.

If `DefaultMeasureDimension` is set to `F` or is omitted from `Tm1s.cfg`, a measures dimension is not defined for when a cube is created.

## DisableMemoryCache

Disables the memory cache used by IBM Cognos Xcelerator memory manager.

Parameter type: optional, static

Enable this parameter only to debug memory leaks. When you enable this parameter, there might be a decrease in server performance.

For example, when `DisableMemoryCache=T` is set it disables the memory cache used by IBM Cognos Xcelerator memory manager. The default setting is `DisableMemoryCache=F`.

## DisableSandboxing

Determines if users have the ability to use sandboxes across the server.

Parameter type: optional, dynamic

By default, this parameter is not present in the configuration file which enables the sandbox capability for all users.

`DisableSandboxing=F`

When sandboxing is turned on in this way, administrators can Deny or Grant the use of Personal Workspaces or multiple sandboxes on a per usergroup basis using Capability Assignments. For more details, see "Capability Assignments" in the *IBM Cognos TM1 Operation Guide*.

To put all usergroups into Direct Writeback mode, add the following line to Tm1s.cfg:  
DisableSandboxing=T

When DisableSandboxing=T, the Capability Assignments are ignored.

## Display\_Info\_DBType\_R8

Display\_Info\_DBType\_R8 instructs the IBM Cognos ICAS server to store DISPLAY\_INFO column data as DBTYPE\_R8.

Parameter type: optional, static

**Please contact customer support to determine if this parameter is applicable to your Cognos Xcelerator system.**

By default, Cognos Xcelerator stores the DISPLAY\_INFO as DBTYPE\_UI4. When the Cognos TM1 OLE DB provider processes a request from ADO 2.7 for the DISPLAY\_INFO column data, the provider has to convert Cognos Xcelerator column data from DBTYPE\_UI4 to a DBTYPE\_R8. The Cognos TM1 OLE DB provider then returns the converted column data to the OLE DB client (ADO in this case).

ADO 2.7 expects IRowset::GetData to return an integer, and uses only the first 4 bytes of the converted column data. However, the returned data is an 8-byte real number, and as a result, all information in the last 4 bytes is lost. This causes ADO 2.7 to return zeroes for all the items of the DISPLAY\_INFO column.

When you include the Display\_Info\_DBType\_R8 parameter in the Tm1s.cfg file and set the parameter to T, the Cognos ICAS server stores DISPLAY\_INFO column data as DBTYPE\_R8 with the relevant 4 bytes of information in the first 4 bytes. The Display\_Info\_DBType\_R8 parameter ensures that the information is not lost when ADO converts the data back to an integer of 4 bytes. The parameter also ensures that ADO 2.7 returns the correct values for the properties of an axis rowset member. Additionally, the parameter ensures that any OLE DB client (such as ADO 2.6) requesting the DISPLAY\_INFO property as a 4 byte value, gets the correct values.

## DistributedPlanningOutputDir

DistributedPlanningOutputDir defines the directory to which TUnits are written when a Cognos Insight distributed application is deployed.

Parameter type: optional, static

Cognos Insight distributed clients need information called "tunits". This data is created when an application is deployed and is updated as the Cognos TM1 server runs. The location of the directory used for this purpose is set using this parameter.

In order to deploy Cognos Insight distributed client applications using this database, uncomment or add this parameter as  
DistributedPlanningOutputDir=<location of the tunit directory>.

The pathname specified can be absolute, or relative to the Cognos TM1 server data directory.

For example:

| Sample setting   | Action  |
|--|---|
| DistributedPlanningOutputDir=tunit   | Creates a directory tunit under the Cognos TM1 server data directory.           |
| DistributedPlanningOutputDir=./tunit   | Creates a directory tunit as a sibling to the Cognos TM1 server data directory. |
| DistributedPlanningOutputDir=C:\Program Files\IBM\cognos\tm1\samples\tm1\GO_New_Stores\tunit | Creates a directory tunit at the specified location.                            |

## DownTime

Specifies a time when the server will come down automatically.

Parameter type: optional, dynamic

The format of the DownTime parameter is *dd:hh:mm* where:

- *dd* is the number of days from today. (For example, 00 is today, and 01 is tomorrow.)
- *hhmm* is the time of day in 24-hour format.

For example, DownTime = 01:03:30 specifies that you want to bring the server down on the following day at 3:30 in the morning.

The DownTime parameter is not available when you run the Cognos ICAS server as a Windows service.

When you use the DownTime parameter on the UNIX ICAS server, you must set the RunningInBackground parameter to T. If RunningInBackground=F, the server prompts for confirmation before shutting down and cannot shut down without manual confirmation from an administrator.

## ExcelWebPublishEnabled

Enables the publication of Microsoft Excel files to IBM Cognos CXL Web, as well as the export of Excel files from Cognos CXL Web, when Excel is not installed on the Web Server.

Parameter type: optional, static

If ExcelWebPublishEnabled=T, Excel files in Cognos Xcelerator Applications can be published to Cognos CXL Web without using Excel on the Web server. Similarly, Websheets and Cubeviewers can be exported from Cognos CXL Web without using Excel on the Web server.

When Excel is not available on the Web server, Excel files in Cognos Xcelerator Applications must be explicitly published to Cognos CXL Web.

For details about the procedure required to publish Excel files, see the *IBM Cognos TM1 Developer Guide*.

For details about limitations exporting from Cognos CXL Web without using Excel on the Web server, see the *IBM Cognos TM1 User Guide*.

**Restriction:** You cannot publish Excel 2007 .xlsx files to Cognos CXL Web when Excel is not available on the Web server. These files must be saved in Excel 2003 .xls format if you want to publish them to Cognos CXL Web.

## ForceReevaluationOfFeedersForFedCellsOnDataChange

When this parameter is set, a feeder statement is forced to be re-evaluated when data changes.

Parameter type: optional, static

When the IBM Cognos TM1 server computes feeders, the process can be a "chain" of feeders, where cell A feeds cell B, and there is a feeder rule for cell B, so that rule runs and feeds cell C, etc. Feeders for numeric cells are only evaluated when a cell goes from empty to some non-zero value since any non-zero value in the cell would already have set any feeders.

There is no need to re-evaluate the feeders when a cell changes from one non-zero value to another.

Normally, when evaluating feeders, if a feeder rule is evaluated and the target cell is already fed, the feeding process stops.

Feeder rules are not processed any further since the presence of the feeder in the target cell indicates that the feeder rules for the target cell have already been run, and there is no need to run them again.

Consider the following feeder rules:

```
['A']=>['B'];
```

The feeder rule for cell B depends on some cube data value:

```
['B']=>DB(cube-name,!dim1,DB(cube2-name,...),!dim2);['C']=>['D'];['X']=>['B'];
```

When the feeder rule for B is initially evaluated, the DB(cube2-name,...) is evaluated to produce an element name, such as C. Therefore B feeds C and then C feeds D. When that cell X goes from zero to non-zero. This change also feeds B. But B is already fed, so the feeding process stops, and the feeder rule for B never evaluates, so any "change" in the output of the rule, which may come about because of an underlying data change targeted by the DB(...) statement will not be evaluated. If the config parameter ForceReevaluationOfFeedersForFedCellsOnDataChange is set, then the presence of a feeder in cell B will not terminate feeder processing. Rather, the feeder rule for B will run. Because the feeder rule for B is data dependent, the target for the feeder may be the former C, or may be some other cell, and that cell will be fed. Note that setting this parameter will force more feeder evaluations, which may have a performance impact.

To turn on this parameter set

**ForceReevaluationOfFeedersForFedCellsOnDataChange=T.**

In an earlier release, this parameter was named ReevaluateConditionalFeeders

## GroupsCreationLimit

Sets the maximum number of groups that can be created in one IBM Cognos ICAS server session.

Parameter type: optional, static

The `GroupsCreationLimit` parameter accepts a value of any positive integer. The maximum number of groups for `GroupsCreationLimit` is 65535. The maximum number of groups that can exist on a server is 65535. If you do not use the parameter, the default number of groups is 20.

For example, to create 50 groups per server session, enter the following line:

```
GroupsCreationLimit=50
```

**Tip:** When Cognos Xcelerator allocates memory to store security information, the server calculates the amount of memory required based in part on the value of `GroupsCreationLimit`. In some circumstances when your Cognos Xcelerator model is large and the `GroupsCreationLimit` parameter is set to an exceptionally high value, the server will attempt to allocate memory beyond the available capacity on the server. The Cognos ICAS server will fail to load and will issue a Server Out of Memory message. To avoid this situation, set `GroupsCreationLimit` to a value that accurately reflects the maximum number of user groups you may need to create during a server session.

The `GroupsCreationLimit` value is not enforced when you create groups with the `AddGroup` function in `TurboIntegrator`.

## IdleConnectionTimeoutSeconds

Specifies a timeout limit for idle client connections, in seconds.

Parameter type: optional, dynamic

For example, if you include the following line in `Tm1s.cfg`, the server disconnects idle client connections after 900 seconds.

```
IdleConnectionTimeoutSeconds=900
```

## IntegratedSecurityMode

This parameter sets the user authentication mode to be used by the IBM Cognos ICAS server.

Parameter type: optional, static

Although the parameter name focuses on Integrated Security Mode, the 2, 3 and 4 settings are used to set other kinds of security.

Use the following format to set this parameter:

```
IntegratedSecurityMode=x
```

where *x* can be a value for one of the following security modes.

Cognos Business Intelligence 8 and 10 are supported.

| Security Mode | Description  |
|---------------|--|
| 1             | <p>The server uses secure mode (standard Cognos Xcelerator security).</p> <p>With this authentication, the Cognos ICAS server checks the user name and password against the user names and passwords in the Cognos ICAS database.</p>  |
| 2             | <p>This mode allows you to switch back and forth between integrated login and native Cognos TM1 security.</p>  |
| 3             | <p>The server uses Integrated Login.</p> <p>Integrated Login uses Microsoft Windows network authentication to control access to Cognos Xcelerator data.</p> <p>If you use this security mode, you must also set the “SecurityPackageName” on page 173 parameter.</p>   |
| 4             | <p>The server uses IBM Cognos BI security authentication.</p> <p>Considerations when using this mode:</p> <p>In Cognos Xcelerator, Cognos BI users can belong only to Cognos BI groups and any of the three internal Cognos Xcelerator administrator groups (ADMIN, DataAdmin and SecurityAdmin). Membership in Cognos Xcelerator user (non-administrator) groups is not supported for Cognos BI users when they log in to Xcelerator.</p> <p>You can not use Cognos Xcelerator to permanently assign a Cognos BI user to another Cognos BI group. Any user assignment you make in Cognos Xcelerator to a Cognos BI group is not saved back to Cognos BI. When a Cognos BI user logs in to Cognos Xcelerator, the group assignments in Cognos BI override any Cognos BI group assignments made in Cognos Xcelerator.</p>                 |
| 5             | <p>The server uses IBM Cognos BI security authentication and supports user groups from both Cognos Xcelerator and Cognos BI.</p> <p>Use security mode 5 when you are running IBM Cognos Express Planner Applications with IBM Cognos BI security.</p> <p>Considerations when using this mode:</p> <ul style="list-style-type: none"> <li>• In Cognos Xcelerator, Cognos BI users can belong to both Cognos BI and Cognos Xcelerator groups.</li> <li>• You can not use Cognos Xcelerator to permanently assign a Cognos BI user to another Cognos BI group. Any user assignment you make in Cognos Xcelerator to a Cognos BI group is not saved back to Cognos BI. When a Cognos BI user logs in to Cognos Xcelerator, the group assignments in Cognos BI override any Cognos BI group assignments made in Cognos Xcelerator.</li> </ul> |

## IPAddress

This parameter lets you specify multiple IP addresses for an individual IBM Cognos ICAS server.

For example, a server can use one IP address for clients within a firewall and a different IP address for clients outside the firewall.

Parameter type: optional, static

**Note:** When this parameter is used in the Tm1s.cfg file, both the Cognos ICAS Server and Admin Server must run on the same computer. If this parameter is used in the Tm1s.cfg file, but the Cognos ICAS Server and Admin Server reside on different computers, Cognos Xcelerator clients will receive an error when they attempt to log in to the Cognos ICAS Server.

If the Cognos ICAS Server and Admin Server reside on different computers, you can configure the Admin Server to use multiple IP addresses for an individual Cognos ICAS Server by adding an initialization file named Tm1admsrv.ini to the directory where the Admin Server executable resides.

The syntax for Microsoft Windows uses as element separator a semicolon, for example the following setting specifies two IP addresses for the ICAS server:

```
IPAddress="130.5.32.0; 130.5.64.0"
```

**Attention:** The addresses must be enclosed in a single set of quotation marks and separated by a semicolon.

When you specify multiple IP addresses for a server, the associated Admin Server recognizes all addresses but displays only the first IP address in the Admin Server window.

The syntax for UNIX uses as element separator a colon. For example

```
IPAddress=130.5.32.0: 130.5.64.0
```

## IPVersion

This parameter indicates the Internet protocol used by the IBM Cognos ICAS server to identify IP addresses on the network.

For example, to specify that your network uses the IPV6 protocol, add the parameter `IPVersion=ipv6` to the `tm1s.cfg` file.

Parameter type: optional, static

Valid settings are:

- `ipv4`  
Default setting. Used for IPv4 networks.
- `dual`  
Used to transition from IPv4 to IPv6. Both protocols are supported.
- `ipv6`  
Used for IPv6 networks.

### Configuration notes

If you set this parameter to `ipv6` or `dual`, use the Cognos Configuration tool to change the **TM1 Admin Server IP support** option to reflect the change.

To allow clients to recognize this change, add and set the **TM1\_IPVersion** environment variable in the operating system to `ipv6` or `dual`.

Setting this parameter to dual or IPV6 without having the appropriate network running can result in performance degradation.

**Note:** In some cases, depending on your network environment and DNS configuration, you may need to also add the IPv6 address to the `/etc/hosts` operating system file on UNIX and Microsoft Windows to successfully run the Cognos TM1 Admin Server and Cognos TM1 Server in IPv6 mode.

## JobQueuing

Turns on queuing for Personal Workspace or Sandbox submissions.

Parameter type: optional, static

Set this parameter to `JobQueuing=T` to have all sandbox submissions to process using the Job Queue. When this parameter is set to `F` or not in the configuration file, sandbox submissions do not process in a queue.

When this parameter is turned on, the submission icon displays on the toolbar.

See the Job Queuing description in the Sandbox and Writeback chapter of the *IBM Cognos TM1 User Guide* for details.

## JobQueueMaxWaitTime

When the queue thread runs, it blocks all incoming requests to ensure it can get the locks necessary to process a job on the queue.

New requests are blocked for the amount of time set in the `JobQueueMaxWaitTime` parameter.

Parameter type: optional, static

Defaults to 100ms.

If the currently executing requests have not completed in this time, the queue thread goes back to sleep for `JobQueueThreadSleepTime` and incoming requests are allowed to proceed.

To give the queue thread higher priority, set the `JobQueueMaxWaitTime` to a larger number.

If the `JobQueueMaxWaitTime` parameter is set to zero in the configuration file and Job Queuing is turned on, the queue will keep trying until it can process, effectively locking out any other activity until it is complete.

See Job Queuing in the *IBM Cognos TM1 User Guide* for more details.

## JobQueueThreadPoolSize

The `JobQueueThreadPoolSize` parameter enables IBM Cognos TM1 to use multiple threads to process the Cognos TM1 Job Queue, providing greater thru-put and processing of sandbox requests when the Cognos TM1 server is configured to use Parallel Interaction. When the server is not running in Parallel Interaction mode, this parameter has no effect, and only a single thread is used to process requests in the Job Queue.

Parameter type: optional, static

By default, if this parameter is not set when the Cognos TM1 server is running in Parallel Interaction mode, then Cognos TM1 uses a value of 1 and the Cognos TM1 server uses only a single thread to process requests in the Job Queue.

Configure this parameter in the Tm1s.cfg file using the following format:

```
JobQueueThreadPoolSize=x
```

where x represents the number of threads you want to use for processing Cognos TM1 Job Queue requests.

For example:

```
JobQueueThreadPoolSize=3
```

By default, if this parameter is not set, then Cognos TM1 uses a value of 1.

## JobQueueThreadSleepTime

JobQueueThreadSleepTime determines the frequency with which the thread processing the queue runs when there are queued jobs.

Parameter type: optional, static

Defaults to 10 seconds.

## Language

Sets the language used for the IBM Cognos ICAS server. This parameter applies to messages generated by the server and is also used in the user interface of the server dialog box when you run the server as an application instead of a Windows service.

Parameter type: optional, static

Valid values currently are:

| Language              | Code |
|-----------------------|------|
| Brazilian Portuguese  | bra  |
| Croatian              | hrv  |
| Czech                 | csy  |
| Chinese (Simplified)  | sch  |
| Chinese (Traditional) | tch  |
| Danish                | dan  |
| German                | deu  |
| Spanish               | esp  |
| Finnish               | fin  |
| French                | fra  |
| Hungarian             | hun  |
| Italian               | ita  |

| Language  | Code |
|-----------|------|
| Japanese  | jpn  |
| Kazakh    | kaz  |
| Korean    | kor  |
| Norwegian | nor  |
| Polish    | pol  |
| Romanian  | rom  |
| Russian   | rus  |
| Swedish   | sve  |
| Turkish   | trk  |

## LDAPUseServerAccount

Determines if a password is required to connect to the server when using LDAP authentication.

Parameter type: optional, static

- To connect directly to the LDAP server using integrated authentication, set this parameter to T. Set this parameter to T whenever the IBM Cognos Analytic Server (ICAS) and LDAP server exist on the same domain.
- To use a password before connecting, set this parameter to F. When LDAPUseServerAccount is set to F, you must also set the “LDAPPasswordFile” and “LDAPPasswordKeyFile” to successfully connect to the LDAP server using SSL.

## LDAPPasswordFile

Defines the password file used when LDAPUseServerAccount is not used. This is the full path of the .dat file that contains the encrypted password for the IBM Cognos ICAS Admin Server's private key.

Parameter type: optional unless “LDAPUseServerAccount”=F, static

This parameter uses the full path to a .dat file.

## LDAPPasswordKeyFile

Defines the password key used when LDAPUseServerAccount is not used.

Parameter type: optional unless “LDAPUseServerAccount”=F, static

This parameter uses the full path of the .dat file that contains the key used to encrypt and decrypt the password for the private key.

## LockPagesInMemory

When this parameter is enabled, Windows trims pages from the IBM Cognos Xcelerator process space, but does not page them to disk.

Parameter type: optional, static

This parameter is applicable only to IBM Cognos ICAS servers running on a Microsoft® Windows® 64-bit operating system. When this parameter is enabled

(LockPagesInMemory=T), memory pages used by the TM1 process are held in memory ('locked') and do not page out to disk under any circumstances. This retains the pages in memory over an idle period, making access to ICAS data faster after the idle period. This parameter will have no effect on performance for an actively running ICAS system, in which data is regularly accessed.

When LockPagesInMemory is not present in Tm1s.cfg, or if the parameter is set to F, the following behavior is expected:

When a ICAS server running on a Windows 64-bit operating system is idle for a period of time, physical memory taken up by the TM1 server is paged out to disk. This paging to disk happens even if there are no other processes contending for the memory pages. Essentially, Windows leaves the memory pages vacant and available. This is a function of the Windows 64-bit operating system and not ICAS. This background paging by the Windows operating system can cause initial performance degradation in large ICAS databases when trying to access data after an idle period.

For example, when the ICAS system has been inactive overnight the first access in the morning will take longer, as the required memory pages containing ICAS data are read from disk back into memory. Also, if the model is such that there are large cube data areas that are accessed infrequently, the memory holding that cube information may page out to disk. When a request is made for that cube data the request will take longer, as these infrequently used pages must be read back into memory.

When LockPagesInMemory=T in Tm1s.cfg, the memory pages containing ICAS data are locked into memory and are not available for use at any time by any other process. This can make the overall system perform poorly if there are other tasks that need to run on the ICAS machine. For example, if the machine has 48 GB of physical memory, and the ICAS server takes 38 GB to fully load, then there are only 10 GB of physical memory to run any and all other processes, including system processes. These other processes may perform poorly because they may force extensive paging activity as the system tries to run them all in what would then essentially be a 10 GB machine. If a second ICAS server is started with the same LockPagesInMemory=T configuration setting, and that second ICAS instance would normally take 12 GB to load, the load will fail since that TM1 server can not lock 12 GB of memory, as there is only 10 GB available.

## LoggingDirectory

Specifies the directory to which the server saves its log files.

If you do not supply this parameter, the log files are saved to the first data directory specified by the DataBaseDirectory parameter.

Parameter type: optional,static

**Note:** The value of parameter LoggingDirectory must be encapsulated by quotes if it uses spaces, for example LoggingDirectory="C:/Data Files/Logfiles". The Cognos ICAS Server startup will fail if quotes are not used in that case. Note also that other parameters, such as DataBaseDirectory, do not necessarily require quotes when a value contains spaces.

## LogReleaseLineCount

Sets the number of lines that a search of the Transaction Log will accumulate in a locked state before releasing temporarily so that other Transaction Log activity can proceed.

Parameter type: optional, static

By default this value is set at 5000 lines.

## MaskUserNameInServerTools

Determines whether or not user names in server administration tools are masked until a user is explicitly verified as having administrator access.

Parameter type: optional, static

When MaskUserNameInServerTools is set to TRUE, user names are masked in server administration tools until the user who is working in the administration tool is explicitly verified as an administrator. See the IBM Cognos TM1 Operations Console Guide for details on verifying administrator access to the Operations Console.

When MaskUserNameInServerTools is set to FALSE, user names are displayed in server administration tools to all users regardless of administrator status.

If MaskUserNameInServerTools is not present in Tm1s.cfg, the default behavior is to display user names in server administration tools to all users regardless of administrator status.

## MaximumCubeLoadThreads

Specifies whether the cube load and feeder calculation phases of server loading are multi-threaded, so multiple processor cores can be used in parallel.

This results in decreased server load times.

Parameter type: optional, static

To run in multi-threaded mode, you should set MaximumCubeLoadThreads to the number of processor cores on the Cognos ICAS server that you want to dedicate to cube loading and feeder processing.

Generally, the best performance is achieved when the parameter is set to a value equal to (*number of available processor cores*) - 1. For example, if the Cognos ICAS server is running on a computer with four processor cores, MaximumCubeLoadThreads should be set to 3. This ensures that one processor core is available to run other applications while the Cognos ICAS server is loading.

When MaximumCubeLoadThreads is set to 0, cube loading and feeder processing is NOT multi-threaded. This is the default behavior when MaximumCubeLoadThreads is not explicitly set in the Tm1s.cfg file.

**Note:** When MaximumCubeLoadThreads is enabled, Cognos Xcelerator cannot manage the order in which feeders are calculated. There may be cases where processing order has an adverse effect on your application due to some order-of-evaluation dependencies in the multi-threaded environment.

If your Cognos Xcelerator model uses conditional feeders where the condition clause contains a fed value, you should set `MaximumCubeLoadThreads=0` or exclude the parameter from the `Tm1s.cfg` file to disable the use of multiple threads at load time.

## MaximumLoginAttempts

Sets the maximum number of failed user login attempts permissible on the server.

If you do not include `MaximumLoginAttempts` in `Tm1s.cfg`, by default, the server allows three login attempts.

Parameter type: optional, dynamic

For example, if you add the line `MaximumLoginAttempts=5` to `Tm1s.cfg`, the server enforces a limit of five failed login attempts per user. If a user does not successfully log in to the Cognos ICAS server within the specified number of attempts, the server issues an error.

After a user has exceeded the specified maximum number of failed login attempts, the Cognos ICAS server rejects any subsequent login attempts by the user.

The `MaximumLoginAttempts` parameter is enforced per server session. If a user exceeds the maximum number of attempts, he cannot log in to the current Cognos ICAS server session, unless the Cognos Xcelerator administrator changes his password. However, after the Cognos ICAS server recycles, the user can log in with his existing password.

## MaximumMemoryForSubsetUndo

Sets the maximum amount of memory, in kilobytes, to be dedicated to storing the Undo/Redo stack for the Subset Editor.

For example, adding the line `MaximumMemoryForSubsetUndo=20480` to the configuration file instructs the server to allot 20480 kilobytes (20 MB) of memory for the Undo/Redo stack.

Parameter type: optional, dynamic

Generally, larger subsets require greater amounts of memory to store a usable Undo/Redo stack. If you find that the Cognos ICAS server is not storing a sufficient number of Undo/Redo steps for your subsets, increase the value of `MaximumMemoryForSubsetUndo`.

If this parameter is not explicitly set in the `Tm1s.cfg` file, the maximum amount of memory dedicated to the Undo/Redo feature of the Subset Editor is 10240 kilobytes (10 MB).

## MaximumSynchAttempts

Sets the maximum number of times a synchronization process on a planet server will attempt to reconnect to a network before the process fails.

Parameter type: optional, static

You can use the `MaximumSynchAttempts` parameter to improve the stability of a synchronization process that is running over an unstable network connection such as a long distance wide area network (WAN) with high latency, poor bandwidth and poor transmission quality.

To specify the maximum number of times a synchronization process should attempt to make a network connection, add the following line to `Tm1s.cfg` for the planet server:

```
MaximumSynchAttempts=n
```

where *n* represents the number of network connection attempts that the synchronization process should make a before the process fails.

The default value is 1 which means the synchronization process will only attempt to connect once and will not attempt to reconnect if the connection is lost. This default behavior is the same behavior as Cognos Xcelerator versions prior to 9.5.1 where a synchronization process would fail if the network connection was lost.

A value of 0 means unlimited network connection attempts.

You can configure this parameter to work with the `SyncUnitSize` parameter. For more information, see “`SyncUnitSize`” on page 177.

The following example shows how to use the `MaximumSynchAttempts` parameter with the `SyncUnitSize` parameter:

```
SyncUnitSize=2000  
MaximumSynchAttempts=100
```

## MaximumTILockObjects

A server configuration parameter that sets the maximum lock objects for a TurboIntegrator process. Used by the `synchronized()` TurboIntegrator function.

The server maintains a list of created TurboIntegrator lock objects. Every time the user calls the `synchronized()` function on a lock object, the server first checks to see if the lock object is already in the list. If not, the server creates a new lock object and inserts it into the list.

For more details, see the topic “Serializing TurboIntegrator processes using `synchronized()`” in the *IBM Cognos TM1 TurboIntegrator Guide*.

Even after all the TurboIntegrator processes that have referenced a lock object have exited, the lock object may not be removed from the list to free the memory immediately. This is because it is likely that sometime later, either the same process or some other process may call the `synchronized()` function on that same lock object.

The server configuration parameter `MaximumTILockObjects` in `tm1s.cfg` controls the growth of the list of created TurboIntegrator lock objects. When the number of lock objects in the list has reached `MaximumTILockObjects`, the server starts a cleanup operation. It removes some lock objects from the list if they are not used by any TurboIntegrator process at that moment.

If the `MaximumTILockObjects` parameter is not explicitly set in `tm1s.cfg`, a default value of 2000 is assumed.

Parameter type: optional, static

## MaximumUserSandboxSize

Sets the maximum amount of RAM memory (in MB) to be allocated per user for personal workspaces or sandboxes.

If you do not set the MaximumUserSandboxSize parameter, the default maximum size is 500 MB.

Parameter type: optional, dynamic

To specify a maximum amount of memory allocation for personal workspaces or sandboxes, add the following line to Tm1s.cfg:

```
MaximumUserSandboxSize=n
```

where *n* represents the amount of memory in MB to be allocated.

## MaximumViewSize

Sets the maximum amount of memory (in MB) to be allocated when a user accesses a view.

If you do not set the MaximumViewSize parameter, the default maximum view size is 500 MB.

Parameter type: optional, dynamic

To specify a maximum amount of memory allocation for views, add the following line to Tm1s.cfg:

```
MaximumViewSize=n
```

where *n* represents the amount of memory in MB to be allocated.

The limit for MaximumViewSize is 18,446,744,073,709,551,615.

## MaxUndoHoldLineCount

MaxUndoHoldLineCount determines how long an Undo or Redo operation locks the Tm1s.log file.

Parameter type: optional, dynamic

When the Tm1s.log file grows to sizes of 1 GB or larger, an Undo or Redo operation can lock the Tm1s.log file for an unacceptably long period, preventing other threads from accessing the log file. MaxUndoHoldLineCount lets you specify the interval, expressed as the number of records to be processed between lock releases, at which an Undo or Redo operation allows other threads to access the Tm1s.log file.

To specify the interval at which the Cognos ICAS server should release the lock on the Tm1s.log file, add the following line to Tm1s.cfg:

```
MaxUndoHoldLineCount=n
```

where *n* represents the number of records to be processed before an Undo/Redo operation relinquishes and reacquires the lock on Tm1s.log. When

MaxUndoHoldLineCount is set, an Undo/Redo operation processes the number of records specified by the parameter value, then releases the lock, allows other threads to access the log file, and reacquires the lock.

If MaxUndoHoldLineCount is not explicitly set, the default value is 5000.

## MessageCompression

Enables message compression for large messages that significantly reduces network traffic.

The parameter is enabled by default.

Parameter type: optional, static

To disable message compression, add the following line to Tm1s.cfg:

```
MessageCompression=F
```

## NetRecvBlockingWaitLimitSeconds

Changes the way the maximum time the server waits for a client to send the next request from one long wait to shorter wait periods so a thread may be cancelled if needed.

The parameter is enabled by default.

Parameter type: optional, static

By default the server can wait for a long time for input, which can result in long-held threads and other problems.

This parameter instructs the Cognos TM1 server to perform the wait as a series of repeated shorter waits and gives the server the opportunity to cancel or pause the thread. When set to zero (the default) the legacy behavior of one long wait is used.

## NetRecvMaxClientIOWaitWithinAPIsSeconds

Maximum time for a client to do I/O within the time interval between arrival of the first packet of data for a set of APIs through processing until response has been sent.

Parameter type: optional, static

Requires the client to handle I/O in a reasonably timely fashion after initiating API requests. This parameter is designed to protect against connections that go dead but do not raise a socket error or create other possibilities such as a hung client.

Default value is 0 which means no time limit.

## ParallelInteraction

Turns Parallel Interaction on or off for all of the user-created and control cubes in an IBM Cognos TM1 server.

Parallel Interaction is a Cognos TM1 server-related feature that allows for greater concurrency of read and write operations on the same cube object. For more details, see "Using Parallel Interaction with a Cognos(r) TM1(r) server" in the *IBM Cognos TM1 Operation Guide*.

Parameter type: optional, static

As of Cognos TM1 version 10.1, Parallel Interaction is enabled by default which uses Parallel Interaction for all cubes in the Xcelerator server.

To manually disable Parallel Interaction for all cubes, set `ParallelInteraction=F`.

## PasswordMinimumLength

Specifies a minimum password length for clients accessing the server.

Parameter type: optional, dynamic

For example, set `PasswordMinimumLength=8` to enforce a minimum password length of 8 characters.

**Note:** This parameter only affects passwords set or changed after the parameter had been set. It has no effect on old, unchanged passwords having less characters as enforced by `PasswordMinimumLength`

## PasswordSource

Compares user-entered password to the stored password.

Parameter type: optional, static

Cognos TM1 (Default): Compares the user-entered password to the password in the Cognos Xcelerator database.

LDAP: Compares the user-entered password to the password stored in on the LDAP server.

## PerformanceMonitorOn

Automatically starts populating the }Stats control cubes when a server starts.

The control cubes contain statistics that you can review to monitor the system performance. For details on control cubes, see "Control Cubes" in the *IBM Cognos TM1 Operation Guide*.

Parameter type: optional, static

For example, to enable Performance Monitor set `PerformanceMonitorOn=T`. To disable the Performance Monitor set `PerformanceMonitorOn=F`

## PersistentFeeders

To improve reload time of cubes with feeders, set the `PersistentFeeders` configuration parameter to true (T) to store the calculated feeders to a .feeders file.

Any installation with server load times of over 5 minutes can probably improve their performance using this parameter.

Parameter type: optional, static

When this parameter is set to T and the server encounters a persistent feeder file, it loads the saved feeders which reduces the time normally taken to recalculate those feeders. Feeders are saved when the data is saved or rules are edited. You do not explicitly save the feeders

For installations with many complex feeder calculations persisting feeders and then re-loading them at server startup will improve performance. For simple feeders, the time taken to read feeders from disk may exceed the time to re-calculate the feeders but most installations will benefit.

Using the Persistent Feeders feature will increase your system size on disk only. Memory size is not affected by the use of this parameter.

PersistentFeeders=T

For more information, see "Using Persistent Feeders" in the *IBM Cognos TM1 Operation Guide*.

## PortNumber

Sets the server port number used to distinguish between multiple servers running on the same computer.

When multiple IBM Cognos ICAS servers are installed on a single computer, each server must use a unique port number.

Parameter type: optional, static

When you install a Cognos ICAS server, the default port number is 12345. Valid port numbers are between 5001 and 49151.

If the Tm1s.cfg file does not contain the PortNumber parameter, the Cognos ICAS server uses port 5000. Local Cognos ICAS servers use port 5000. The port used for Client Messages must also be a unique port number and is set to 5001 by default when the ClientMessagePortNumberparameter is used.

## PrivilegeGenerationOptimization

When the ICAS server generates security privileges from a security control cube, it reads every cell from that cube.

If the security control cube is sparsely populated, this results in unnecessary processing and a longer loading time. An example of a sparsely populated security cube would be one that has a greater ratio of default security settings compared to defined security settings.

Parameter type: optional, static

To address this issue, the PrivilegeGenerationOptimization parameter can be added to the Tm1s.cfg file as follows:

PrivilegeGenerationOptimization=T

When this parameter is set to T, the Cognos ICAS server will read only the populated cells in security cubes. In the case of a sparsely populated security cube, this will dramatically shorten the Cognos ICAS server's load time.

**Note:** If you populate the security settings via rules and want to use this parameter, you must write feeders for the rules that populate your security cubes. Because security settings are stored as strings, the rules that populate your security cubes must include the FeedStrings function.

## ProgressMessage

This parameter determines whether users have the option to cancel lengthy view calculations.

When a user opens a view that takes a significant amount of time to calculate (usually a view with high levels of consolidation or complex rules), IBM Cognos Xcelerator monitors the progress of the process. When ProgressMessage=T a dialog box opens that allows the user to Stop Building View.

Parameter type: optional, static

If the user clicks Stop Building View, the view is discarded on the client, but view calculation continues on the server. In some instances, this can tie up the server.

- If ProgressMessage=F, the Stop Building View option is not offered and the user cannot cancel lengthy operations. This setting helps avoid potential server tie ups in versions 9.1 SP3 through 9.4.
- When ProgressMessage=T or is not present in the Tm1s.cfg file, the Stop Building View option opens during lengthy view calculations so the user can cancel the process if necessary. For versions 9.4 or later, the user can assign a unique Port Number using ClientMessagePortNumber. This additional port allows these progress messages to travel via a secondary port so that server processing can continue without tying up thread reserves.

**Note:** To avoid potentially tying up servers, Cognos Xcelerator9.1 SP3 through 9.4 have ProgressMessage=F inserted into the Tm1s.cfg file during server installation. As of Cognos Xcelerator9.4, progress messages can travel via the secondary port assigned by ClientMessagePortNumber so Cognos Xcelerator9.4 and later have ProgressMessage=T set by default.

## ProportionSpreadToZeroCells

Allows you to perform a proportional spread from a consolidation without generating an error when all the leaf cells contain zero values.

In this case, Cognos TM1 applies an equal spread to the empty cells when the ProportionSpreadToZeroCells parameter is enabled. This functionality is enabled by default in Cognos TM1 9.5.2 and later.

Parameter type: optional, static

### Behavior when ProportionSpreadToZeroCells is enabled

This parameter and functionality are enabled by default, allowing you to complete a spread operation without an error when you perform a proportional spread on a consolidation where all the leaf cells are zero. In this scenario, Cognos TM1 converts the typed entry of "P####" to "LS\*####" and applies the spread as an equal spread.

When this parameter is enabled *and data exists* in any of the leaf cells, the behavior is the same as previous versions of Cognos TM1 when performing a proportional spread.

This parameter is on by default and it is not necessary to enable it. However, if you want to explicitly configure it, set the `ProportionSpreadToZeroCells` parameter to T (True) in the `Tm1s.cfg` configuration file as follows.

```
ProportionSpreadToZeroCells=T
```

### **Behavior when ProportionSpreadToZeroCells is disabled**

Setting this parameter to F (False) disables this feature and provides the same behavior as pre-9.5.2 versions of Cognos TM1. An error displays when you try to perform one of the following proportional spreading operations:

- In TM1 Contributor - Enter a number in a consolidated cell where all of the leaf cells for that consolidation contain zeros.
- In TM1 Contributor and other TM1 clients - Perform a proportional spread operation by either entering a spreading code and number such as "P###" in a cell, or access a proportional spread from the right-click menu or TM1 menu (TM1 Perspectives only) when the leaf cells for that consolidation all contain zeros.

These operations make the TM1 server perform a proportional spread, but the operation fails because all of the leaf cells contain zeros.

To disable this new functionality, set the `ProportionSpreadToZeroCells` parameter to F (False) in the `Tm1s.cfg` configuration file as follows.

```
ProportionSpreadToZeroCells=F
```

## **RawStoreDirectory**

Indicates the location of the temporary, unprocessed log file for audit logging if logging takes place in a directory other than the data directory.

Parameter type: optional, dynamic.

If this parameter is not entered, by default the unprocessed audit log file is saved in the directory listed in the `DataBaseDirectory` parameter.

For details on other audit logging parameters, see "AuditLogMaxFileSize" on page 144, "AuditLogMaxQueryMemory" on page 145, "AuditLogMaxTempFileSize" on page 145, "AuditLogOn" on page 145, and "AuditLogUpdateInterval" on page 146.

## **ReceiveProgressResponseTimeoutSecs**

The `ReceiveProgressResponseTimeoutSecs` parameter configures the server to sever the client connection and release resources during a long wait for a Cancel action.

Parameter type: optional, dynamic

When the Cognos ICAS server is performing lengthy operations for a client, periodic "progress" messages are sent to the Cognos Xcelerator client application. The client responds to these messages with an indication of whether the user has pressed the Cancel button, in which case the lengthy operation is terminated.

These responses are generated automatically by the network code in the client application; there is no user interaction involved. After sending the progress message the server waits for a response from the client application. As the server is waiting, the client's thread will continue to hold resource locks on the Cognos ICAS server, preventing other users from making other server requests which require the same resource locks.

In some particular situations, most notably running Cognos Xcelerator clients under a Citrix environment, the response from the client application never arrives back at the Cognos ICAS server, causing the server to wait for an infinite amount of time. This results in a system lockup, because the client's thread holds resource locks that are never released.

The `ReceiveProgressResponseTimeoutSecs` parameter lets you configure your server to detect this situation and to sever the client connection, releasing the resources. When the parameter is set to a valid interval (in seconds), the server process will terminate the client connection, releasing any resource locks, if the server does not detect the client application's response within the specified interval.

For example, if `ReceiveProgressResponseTimeoutSecs=20` and the client application does not respond to the progress message sent from the server within 20 seconds, the client connection is terminated. Again, no user action is required to generate this response. The response is automatically generated by the client application, so that if the response does not arrive within 20 seconds, it is an indication that there is something seriously wrong with the client or the underlying network.

`ReceiveProgressResponseTimeoutSecs` is an optional `Tm1s.cfg` parameter. If the parameter is not present in the `Tm1s.cfg` file, processes are not terminated when a client does not respond to a progress message from the Cognos ICAS server.

For some Cognos Xcelerator installations (version 9.4 or later), the `ClientMessagePortNumber` defines a separate thread to use for cancellation messages without tying up reserves. When `ClientMessagePortNumber` is available, `ReceiveProgressResponseTimeoutSecs` is not used.

## RunningInBackground

When you add the line `RunningInBackground=T` to `Tm1s.cfg`, the UNIX IBM Cognos ICAS server runs in background mode.

Parameter type: optional, static

## RulesOverwriteCellsOnLoad

Prevents cells from being overwritten on server load in rule-derived data.

Parameter type: optional, static

During the processing of feeders for a cube, a cube's value can be wiped out if there is a rule for that cell. Once the cube which had a cell wiped out is saved, the value is gone so the action has no effect on the cube. However, if the rule is edited but the cube is not subsequently modified, the cube is not saved to disk. In that case, real cell values may be wiped out when the rules run.

The `RulesOverwriteCellsOnLoad` parameter can be used to prevent the zeroing out action after a rule is edited.

If you are changing rules and the rules may, due to various edits, cause some cells which have data to become rule-derived, add `RulesOverwriteCellsOnLoad=F` to the configuration file.

If this parameter is set to `True` or is not present, whenever the server loads, rule-derived cells are wiped to zero. The data value in those cells is lost even if the rule is subsequently changed so that the cell is no longer rule-derived.

By default this parameter is not present in the configuration file or is set to `True`.  
`RulesOverwriteCellsOnLoad=F`

## SAPLoggingEnabled

When a TurboIntegrator process imports objects and/or data from SAP RFC, you can configure your IBM Cognos ICAS server to log all activity between Cognos Xcelerator and SAP.

Parameter type: optional/used only in 9.0 software. Use a property to set this value in 9.1 and higher versions; static

When a TurboIntegrator process imports objects and/or data from SAP RFC, you can configure your Cognos ICAS server to log all activity between Cognos Xcelerator and SAP.

Add the line `SapLoggingEnabled=T` to your `Tm1s.cfg` file to enable SAP logging. If this parameter is not present in the `Tm1s.cfg` file, or if the parameter is set to `F`, SAP activity is not logged.

If `SapLoggingEnabled=T` you must also set the `SapLogFilePath` parameter.

## SAPLogFilePath

This parameter sets the log file to receive SAP logging information.

Parameter type: optional/used only in 9.0 software. Use a property to set this value in 9.1 and higher versions; static

Specify the full path to the log file, for example, `SapLogFilePath=c:\SAPdata\tm1_sap.log`.

## SaveTime

Sets the time of day to execute an automatic save of server data; saves the cubes every succeeding day at the same time. As with a regular shutdown, `SaveTime` renames the log file, opens a new log file, and continues to run after the save.

Parameter type: optional, dynamic

The `SaveTime` parameter is not available when running the Cognos ICAS server as a Windows service.

The format of the `SaveTime` parameter is `dd:hh:mm` where:

- `dd` is the number of days from today that the system will start automatically saving data. For example, `00` is today, `01` is tomorrow.
- `hh:mm` is the time of day in 24-hour format.

## SecurityPackageName

If you configure the IBM Cognos ICAS server to use Integrated Login, the SecurityPackageName parameter defines the security package that authenticates your user name and password in Microsoft Windows.

Parameter type: optional, static

Valid values are:

- Kerberos (default) - supported versions Microsoft Windows.
- NTLM - Older Microsoft Windows installations, such as Microsoft Windows NT.

For complete descriptions of all login security modes, including Integrated Login, see Integrated Login.

## ServerCAMURI

Specifies the URI for the internal dispatcher that the IBM Cognos ICAS server should use to connect to CAM.

The URI is specified in the form `http[s]://host IP address:port/p2pd/servlet/dispatch`.

Parameter type: optional, static

For example,

```
http://10.121.25.121:9300/p2pd/servlet/dispatch
```

or

```
https://10.121.25.121:9300/p2pd/servlet/dispatch
```

## ServerLogging

Generates a log with the security activity details on the IBM Cognos ICAS server that are associated with Integrated Login.

The log file, named `Tm1server.log`, is saved to the Cognos ICAS server data directory. The ServerLogging parameter is useful only if your Cognos ICAS server is configured to use Integrated Login.

Parameter type: optional, static

Set ServerLogging to T in `Tm1s.cfg`. Note also that if `ServerLogging=T` is set, you must rename the Cognos ICAS server message logfile `tm1server.log` by editing the corresponding parameter in the logger configuration file `tm1s-log.properties` file.

## ServerName

Sets the name of the IBM Cognos ICAS server. If you do not supply this parameter, Cognos Xcelerator names the server Local and treats it as a local server.

Parameter type: optional, static

## ServicePrincipalName

Specifies the service principal name (SPN) when using Integrated Login with CXL Web and constrained delegation.

Parameter type:

- Optional
- Static

If you change this parameter value, restart the ICAS server to apply the new value.

Use the following format to add the parameter to the Tm1s.cfg file:

```
ServicePrincipalName=SPN
```

The value you set here must match the service name that has also been mapped to a domain account on the Active Directory domain controller using the Microsoft command-line tool, setspn.exe.

For example, if you use setspn.exe to add an SPN as follows:

```
setspn -a FPM/TM1 WbSvr_Account
```

then you need to set the ServicePrincipalName parameter like this:

```
ServicePrincipalName=FPM/TM1
```

For more information about constrained delegation and SPN configuration, search the Microsoft Web site for the topic “Kerberos Technical Supplement for Windows”.

## SkipLoadingAliases

Use SkipLoadingAliases to speed up the loading of the server and updating of views by skipping the loading of aliases.

Parameter type: optional, static

**Please contact customer support to determine if this parameter is applicable to your Cognos Xcelerator system.**

Valid values are:

- T - Aliases skipped
- F - Aliases loaded

## SkipSSLCAMHostCheck

Indicates whether the SSL certificate ID confirmation process can be skipped.

The default is False.

Parameter type: optional, static

**Important:** This parameter should be set to True only if using a generic certificate for demonstration purposes.

## SpreadingPrecision

Use the SpreadingPrecision parameter to increase or decrease the margin of error for spreading calculations.

Parameter type: optional, dynamic

Floating point arithmetic on computers is not 100% precise. When a computer calculates very small numbers, a margin of error is applied to the calculation. If the computer adds a set of numbers, and the resulting sum is close to the target value within the margin of error, the sum is considered accurate.

The margin of error for certain Cognos Xcelerator calculations is controlled through the SpreadingPrecision parameter. The default value is SpreadingPrecision=1e-8. This value is used in the following spreading scenarios:

- Spreading from a consolidated cell.
- Spreading in leaf cells whose consolidated value has a hold applied.

## Spreading from a Consolidation

When you execute a proportional data spread from a consolidated cell, Cognos Xcelerator writes the numbers to each cell in the range, and rolls up the total to recalculate the consolidation. The total of all cells in the consolidation is then compared to the original value you provided for the spread function. The total might be different from the target value because of the rules applied to the n-level elements or the consolidated cell itself.

If the rules are such that the resultant value does not match the spread desired value, an error will be generated and the spread operation will not be done.

If SpreadingPrecision=1e-8, the total calculated by Cognos Xcelerator for the consolidation must be within 0.000001% of the target value (99.999999% accurate), or Cognos Xcelerator displays an error. An error of more than US\$0.01 on a consolidated spread of US\$1,000,000 results in an error.

You can increase or decrease the margin of error for these types of calculations using the SpreadingPrecisionparameter.

The following examples include valid values for the SpreadingPrecision parameter:

- SpreadingPrecision=1e-4
- SpreadingPrecision=1e-8
- SpreadingPrecision=1e-10
- SpreadingPrecision=1e-12

## SpreadingPrecision (Consolidated Holds)

Specifies the margin of error for spreading consolidated hold calculations.

Parameter type: optional, dynamic

The SpreadingPrecision parameter also has an effect under these conditions:

- When you spread values to some leaf cells that roll up into a consolidation
- A consolidation with a hold applied to it

For example, suppose you have the consolidation Q1 with values Jan, Feb, and Mar.

If Q1- has a consolidated hold applied, and you spread values to Jan and Feb, Cognos Xcelerator does the following:

- Applies the spreading to Jan and Feb.
- Adjusts Mar.
- Adds the three n-level elements together.
- Compares the sum of the n-level elements to the value of Q1.

If the sum is accurate to within the margin of error specified by the SpreadingPrecision parameter, the spread succeeds. If the sum falls outside the margin of error specified by the SpreadingPrecision parameter, Cognos Xcelerator generates an error.

## SubsetElementBreatherCount

This parameter manages the way IBM Cognos Xcelerator handles locking behavior for subsets.

Parameter type: optional, dynamic

When

SubsetElementBreatherCount=-1

The Cognos ICAS server never releases the lock on subsets when other requests for the subset are pending. This setting is the default. It can optimize view performance for a single user, but at the cost of multi-user concurrency.

When

SubsetElementBreatherCount>0

the Cognos ICAS server releases the lock on subsets when other requests for the subset are pending, then reacquires the lock after pending requests are processed. This setting improves performance when multiple users attempt to access the same subset, particularly when the subset contain more than 100 elements.

## StartupChores

StartupChores is a configuration parameter that identifies a list of chores that run at server startup.

Parameter type: optional, static

To run a chore at startup before users login or other scheduled chores run, add this parameter with the names of the chores to run separated by a colon, for example:  
StartupChores=ChoreName1:ChoreName2:ChoreName3:ChoreNameN

If this parameter is not specified, then no Chores will be run. If the name specified does not match an existing Chore then an error is written to the server log and execution continues to the next Chore.

The value of the configuration parameter can be retrieved by a client application as a Server property called StartupChores using the existing TM1ObjectPropertyGet call.

This is a read-only property and set operations are rejected. The value of the property can be changed only by editing the configuration file and restarting the server.

## SyncUnitSize

Sets the frequency of saving a check point during a synchronization process in case there is a network connection failure.

Parameter type: optional, static

**Note:** When you use SyncUnitSize, you must also configure the MaximumSynchAttempts parameter. For more information, see “MaximumSynchAttempts” on page 163.

If you configure both the SyncUnitSize and MaximumSynchAttempts parameters and a synchronization process is interrupted by a network connection failure, the process will attempt to reconnect and complete the synchronization starting from the last check point.

To set this parameter, add the following line to the Tm1s.cfg file for the planet server:

```
SyncUnitSize=n
```

where n represents the number of synchronization records written to the transaction log file, Tm1s.log, after which a check point will be saved.

The default value is 1000.

The minimum recommended value is 500.

## UserDefinedCalculations

Enables user-defined consolidations on an IBM Cognos ICAS server.

Parameter type: optional, dynamic

By default, UserDefinedCalculations is enabled.

To disable user-defined consolidations on a server, add the following line to Tm1s.cfg:

```
UserDefinedCalculations=F
```

## UseLocalCopiesforPublicDynamicSubsets

Allows public dynamic subsets to improve performance and reduce locking by using local copies of the subset when possible.

By default, or if the parameter is not present in the tm1s.cfg file, UseLocalCopiesforPublicDynamicSubsets is enabled. To restore the earlier method of saving Dynamic Subsets, set this parameter to F.

Parameter type: optional, static

## UseSQLFetch UseSQLFetchScroll UseSQLExtendedFetch

These parameters instruct IBM Cognos Xcelerator to use a particular fetch call.

Parameter type: optional, dynamic

When you run TurboIntegrator process that extracts information from an ODBC data source, Cognos Xcelerator tries to use the most efficient SQL fetch call

possible. Cognos Xcelerator queries the ODBC driver to determine which of the following SQL Fetch calls to use to extract the data:

SQLFetch(), an ODBC 1 function

SQLExtendedFetch(), an ODBC 2 function

SQLFetchScroll(), an ODBC 3 function

These parameters are all dynamic.

If Cognos Xcelerator receives no response when it queries the ODBC driver, your Cognos Xcelerator process returns an error unless one of the following parameters is set to T in your Tm1s.cfg file:

UseSQLFetch

UseSQLFetchScroll

UseSQLExtendedFetch

These parameters instruct Cognos Xcelerator to use a particular fetch call. You must ensure that the call specified in Tm1s.cfg is appropriate for the ODBC driver being accessed, and you can specify only one of these parameters in Tm1s.cfg.

For example, to instruct the Cognos ICAS server to use the SQLExtendedFetch() call to extract data from an ODBC source, add the following line to Tm1s.cfg:

```
UseSQLExtendedFetch=T
```

## UseSSL

Enables or disables SSL on the Cognos IBM ICAS server.

Parameter type: optional/required to use SSL; static

Set UseSSL=T to enable SSL. With this setting, only Cognos Xcelerator 9.1 and later clients will be able to securely connect to the server.

Set UseSSL=F to disable SSL. With this setting, all Cognos Xcelerator clients, including older clients that do not support SSL, will be able to connect to the server in insecure mode.

## UseStargateForRules

Indicates if a rule uses the Stargate view.

Parameter type: optional, static

By default, any time a rule references a calculated value, the value is retrieved from a Stargate view stored in memory (if available). Using the Stargate view for rules, in most cases, results in a significant improvement in performance. It is more efficient to retrieve a calculated value from memory than to request and retrieve a calculation from the server.

In some unique instances that are difficult, if not impossible, to determine in advance and can only be determined through trial and error, retrieving a calculated value from a Stargate view is actually slower than requesting and retrieving the

value from the server. In these instances, add the following line to Tm1s.cfg to instruct the Cognos Xcelerator rules to always retrieve the calculated values from the server and improve performance.

```
UseStargateForRules=F
```

**Important:** Please contact customer support before adding the UseStargateForRules parameter.

## ViewConsolidationOptimization

Enables or disables view consolidation optimization on the IBM Cognos ICAS server.

Parameter type: optional, static

Using this parameter improves the performance of calculating consolidated elements. By default, ViewConsolidationOptimization is enabled on the Cognos ICAS server.

View consolidation optimization stores the consolidated values that use leaf element components on either the row or column axis. For example, consider the dimension structure Year, 1Quarter with values Jan, Feb, and Mar.

When either a row or column subset uses the Jan element, both the 1 Quarter and Year consolidations are calculated and stored for future reference. This improves performance but increases the amount of memory required for a given view.

To disable view consolidation optimization, add the following line to Tm1s.cfg:

```
ViewConsolidationOptimization=F
```

## ViewConsolidationOptimizationMethod

This parameter defines the method used to achieve view consolidation optimization when the ViewConsolidationOptimization parameter is enabled on the IBM Cognos ICAS server.

Parameter type: optional, static

There are two methods that ViewConsolidationOptimization can use to calculate and store consolidations: ARRAY or TREE. The ARRAY method stores consolidations in a temporary array. The TREE method stores consolidations in a tree.

ViewConsolidationOptimizationMethod should be set to TREE in most circumstances. This setting provides the best performance in normal operations and when data is sparse along the view axes.

In the uncommon circumstance when axes dimensions have just a few leaf elements rolling up to many consolidations, ViewConsolidationOptimizationMethod should be set to ARRAY.

To set this parameter, add the appropriate line to your configuration file:

```
ViewConsolidationOptimizationMethod=TREE
```

```
ViewConsolidationOptimizationMethod=ARRAY
```

If ViewConsolidationOptimizationMethod is not explicitly set in the Tm1s.cfg file, the ARRAY method is used by default.

---

## Appendix J. The Tm1p.ini Client Configuration File

The Tm1p.ini file specifies the environment information for the IBM Cognos Xcelerator clients (Xcelerator and Architect).

---

### Location of the Tm1p.ini File

IBM Cognos TM1 installs a system default version of the Tm1p.ini file and also creates a user-specific version of the file.

The two versions of the Tm1p.ini file are stored in different locations.

#### System default Tm1p.ini file

When you install IBM Cognos Xcelerator, the installation location for the system default version of the Tm1p.ini file is;

`%ALLUSERSPROFILES%\Application Data\Applix\TM1\Tm1p.ini.`

In most cases, the full path to this version of the Tm1p.ini file is:

`C:\Documents and Settings\All Users\Application Data\Applix\TM1\Tm1p.ini.`

The system default version of Tm1p.ini allows multiple users to use Cognos Xcelerator on a given computer. Tm1p.ini must be present the first time a user starts Cognos Xcelerator on the computer, as the parameters in the system default version govern the behavior of the initial startup of the Cognos Xcelerator client for each user.

#### User-specific Tm1p.ini file

After a user starts Cognos Xcelerator on the computer, a user-specific copy of Tm1p.ini is created in:

`%APPDATA%\Applix\TM1\Tm1p.ini`

In most cases, the full path to the user-specific version of the Tm1p.ini file is:

`C:\Documents and Settings\user name\ApplicationData\Applix\TM1\Tm1p.ini.`

The user-specific copy of Tm1p.ini accepts all parameters settings and changes for the user and governs the behavior of the Cognos Xcelerator client for all subsequent user sessions of the Cognos Xcelerator client.

The Cognos Xcelerator Options dialog box also stores many of these settings. You can change these settings using either the Xcelerator Options dialog box or by editing the Tm1p.ini file. The Tm1p.ini parameters and Xcelerator Options are described here.

---

### Parameters in the Tm1p.ini file

The following parameters can be used in the Tm1p.ini file.

## AdminHost

Displays the Admin Host name on which an Admin Server is running. On IBM Cognos Xcelerator Options, use Login Parameters Admin Host.

## AdminSvrSSLCertAuthority

The full path of the certificate authority file that issued the IBM Cognos ICAS Admin Server's certificate.

On Cognos Xcelerator Options, use Certificate Authority.

## AdminSvrSSLCertID

The name of the principal to whom the IBM Cognos ICAS Admin Server's certificate is issued.

**Note:** The value of this parameter should be identical to the **SSLCertificateIDparameter** for the Cognos TM1 Admin Server as set in IBM Cognos Configuration.

This parameter can also be set for clients in the Cognos Xcelerator Options window > **Certificate ID** field.

## AdminSvrSSLCertRevList

The full path of the certificate revocation file issued by the certificate authority that issued the IBM Cognos ICAS Admin Server's certificate.

A certificate revocation file will only exist in the event a certificate had been revoked. On Cognos Xcelerator Options, use Certificate Revocation List.

## AdminSvrSSLExportKeyID

The identity key used to export the certificate authority certificate, which originally issued the IBM Cognos ICAS Admin Server's certificate, from the certificate store.

This parameter is required only if you choose to use the certificate store by setting `ExportAdminSvrSSLCert=T`.

On Cognos Xcelerator Options, use Export Certificate ID.

## AllowImportCamClients

This parameter is required only when configuring IBM Cognos Xcelerator to use CAM authentication.

It must be set to T when importing an administrative user from CAM into Cognos Xcelerator.

If your Cognos ICAS server is not configured to use CAM authentication, this parameter should be set to F or omitted from the `Tm1p.ini` file.

## BrowseDisplayReadsRightToLeft

Indicates how data is oriented in the Cube Viewer.

Data can display right to left or left to right.

- T - Data is oriented right to left.

- F (Default) - Data is oriented left to right.

## ClassicSliceMode

Indicates whether the Slice option in the Cube Viewer generates classic slices or dynamic slices.

- T - Slice option generates classic slices.
- F - Slice option generates dynamic slices.

## CognosGatewayURI

This parameter is required only when configuring IBM Cognos Xcelerator to use IBM Cognos security (CAM) authentication.

It must be set to the URI of your IBM Cognos gateway. The URI is specified in the form `http[s]://<host>/cognosx/cgi-bin/cognos.cgi` or `http[s]://<host>/ibmcognos/cgi-bin/cognos.cgi`.

For example, `http://win2003test/ibmcognos/cgi-bin/cognos.cgi`.

If your Cognos ICAS server is not configured to use CAM authentication, this parameter should be omitted from the `Tm1p.ini` file.

## ConnectLocalAtStartup

Indicates whether IBM Cognos Architect or Xcelerator automatically connects to the local server at startup.

- T (Default) - Cognos Xcelerator connects to the local server at startup.
- F - Xcelerator does not connect to the local server at startup.

## DataBaseDirectory

Uses the full path to the local server data directory.

You can specify multiple data directories by separating the directory names with semicolons.

## DimensionDownloadMaxSize

A threshold value of the number of elements in a dimension, beyond which the dimension is downloaded and cached on the IBM Cognos Xcelerator client.

To improve performance when you work with large dimensions, add `DimensionDownloadMaxSize` so that large dimensions will cache on the client.

## DisplayApplications

Indicates whether the Applications group is visible in Server Explorer on startup.

- T - Applications group is visible in Server Explorer.
- F - Applications group does not appear in Server Explorer.

## DisplayChores

Indicates whether the Chores group is visible in Server Explorer on startup.

- T - Chores group is visible in Server Explorer.
- F - Chores group does not appear in Server Explorer.

## DisplayControlCubes

Indicates whether the Control Cube group is visible in Server Explorer on startup.

- T - ControlCube group is visible in Server Explorer.
- F - ControlCube group does not appear in Server Explorer.

## DisplayCubes

Indicates whether the Cubes group is visible in Server Explorer on startup.

- T - Cubes group is visible in Server Explorer.
- F - Cubes group does not appear in Server Explorer.

## DisplayDimensions

Indicates whether the Dimensions group is visible in Server Explorer on startup.

- T - Dimensions group is visible in Server Explorer.
- F - Dimensions group does not appear in Server Explorer.

## DisplayExplorerPropertiesWindow

Indicates whether the Properties pane is visible in Server Explorer on startup.

- T - Properties pane is visible.
- F (Default) - Properties pane does not appear.

## DisplayProcesses

Indicates whether the Processes group is visible in Server Explorer at startup.

- T - Processes group is visible in Server Explorer.
- F - Processes group does not appear in Server Explorer.

## DisplayReplications

Indicates whether the Replications group is visible in Server Explorer at startup.

- T - Replications group is visible in Server Explorer.
- F - Replications group does not appear in Server Explorer.

## ExpandRowHeaderWidth

Indicates if the Row Headers will automatically expand to accommodate the width of the longest entry in the column.

- T(Default) - Row headers auto-expand.
- F - Row header must be manually expanded when necessary.

## ExportAdminSvrSSLCert

Select this option if you want the certificate authority certificate which originally issued the IBM Cognos ICAS Admin Server's certificate to be exported from the Microsoft Windows certificate store at runtime.

- T (Default) - Original certificate is exported from the Windows certificate store.
- F - Original certificate is not exported.

In Cognos Xcelerator Options, select Use Certificate Store.

When this option is selected, you must also set a value for Export Certificate ID in the Cognos Xcelerator Options dialog box or AdminSvrSSLExportKeyID.

## InSpreadsheetBrowser

Indicates if the In-Spreadsheet Browser or the Cube Viewer is the default browser.

- T - In-Spreadsheet Browser is the default browser. When you double-click a cube or view, it opens in an Excel document.
- F (Default) - Cube Viewer is the default browser. When you double-click a cube or view, it opens in the Cube Viewer.

## IntegratedLogin

Indicates if your IBM Cognos Xcelerator client uses Integrated Login or the standard Cognos Xcelerator security to log in to the Cognos ICAS server and other Cognos Xcelerator components.

- T - Client uses Integrated login, where your Microsoft Windows login username and password are used to access the Cognos ICAS server and other components.
- F (Default) - Client uses standard Cognos Xcelerator security, where a username and password must be explicitly provided, when logging in to the Cognos ICAS server and other components.

Before you enable this parameter, consult with your Cognos Xcelerator administrator to determine if Integrated Login is implemented on your Cognos ICAS server.

On Cognos Xcelerator Options, use Integrated Login.

## Language

Indicates the language used in the IBM Cognos Xcelerator client interface.

Clients will try to read from the locale and use that to set the language. That language will be used if it matches one of the supported languages. If the language entered does not match a supported language, English is used.

To override the default you can set the Language explicitly in the tm1p.ini using the following codes:

| Language              | Code |
|-----------------------|------|
| Brazilian Portuguese  | bra  |
| Croatian              | hrv  |
| Czech                 | csy  |
| Chinese (Simplified)  | sch  |
| Chinese (Traditional) | tch  |
| Danish                | dan  |
| German                | deu  |
| Spanish               | esp  |
| Finnish               | fin  |
| French                | fra  |
| Hungarian             | hun  |
| Italian               | ita  |
| Japanese              | jpn  |
| Kazakh                | kaz  |

| Language  | Code |
|-----------|------|
| Korean    | kor  |
| Norwegian | nor  |
| Polish    | pol  |
| Romanian  | rom  |
| Russian   | rus  |
| Swedish   | sve  |
| Turkish   | trk  |

## LocalServerNetworkProtocol

Determines the protocol that the local IBM Cognos ICAS server uses to communicate with clients. Currently, the only valid setting is TCP.

## MainWindowLayoutInfo

Generates dimension and position coordinates for the Server Explorer window; allows Server Explorer dimensions and position to be maintained between sessions.

The coordinates are automatically generated when you move or resize the Server Explorer window.

## PreviousAdminHosts

Lists up to six of the most recently accessed Admin Hosts from the IBM Cognos Xcelerator Options Admin Host list.

## PreviousDataDirectories

Lists up to six of the most recently accessed data directories in the Local Server Data Directory list from the IBM Cognos Xcelerator Options window.

The directories accessed within a single session are separated by semicolons. The directories accessed in different sessions are separated by commas.

## SecurityAssignmentWindowLayoutInfo

Generates dimension and position coordinates for the Clients/Groups window; allows Clients/Groups dimensions and position to be maintained between sessions.

The coordinates are automatically generated when you move or resize the Clients/Groups window.

## SentMsgsToServerCountWarning

The SentMsgsToServerCountWarning parameter is for development use only. The parameter is set to F by default.

Be sure not to change the default setting.

## ShowAdminHostChangeWarning

Between session storage of whether to display or suppress a warning when the AdminHost is changed.

- T (Default)- When an AdminHost is changed, a warning message displays.

- F - No message is displayed when the AdminHost is changed.

### **ShowAliasAttributeWarning**

Between session storage of whether to display or suppress a warning when the Alias Attribute is changed.

- T (Default)- When an Alias Attribute is changed, a warning message displays.
- F - No message is displayed when the Alias Attribute is changed.

### **ShowChoresSchedulingWarning**

Between session storage of whether to display or suppress a warning when a chore schedule is changed.

- T (Default)- When a chore schedule is changed, a warning message displays.
- F - No message is displayed when a chore schedule is changed.

### **ShowCubeReplicationWarning**

Between session storage of whether to display or suppress a warning when a cube is replicated.

- T (Default)- When a cube is replicated, a warning message displays.
- F - No message is displayed when a cube is replicated.

### **ShowDimDeleteElementWarning**

Between session storage of whether to display or suppress a warning when a dimension element is deleted.

- T (Default)- When a dimension element is deleted, a warning message displays.
- F - No message is displayed when a dimension element is deleted.

### **ShowDimensionAccessWarning**

Between session storage of whether to display or suppress a warning when a dimension is accessed.

- T (Default)- When a dimension is accessed, a warning message displays.
- F - No message is displayed when a dimension is accessed.

### **ShowDynamicSubsetWarning**

Between session storage of whether to display or suppress a warning when a Dynamic Subset is changed.

- T (Default)- When a Dynamic Subset is changed, a warning message displays.
- F - No message is displayed when a Dynamic Subset is changed.

### **ShowPickOperationWarning**

Between session storage of whether to display or suppress a warning when data is copied using the Pick Elements option.

- T (Default)- A warning message displays any time data is copied using the Pick Elements option.
- F - No message displays when data is copied using the Pick Elements option.

### **ShowProcessUNASCIIWarning**

Between session storage of whether to display or suppress a warning when an ASCII datasource is processed.

- T (Default)- When an ASCII datasource is processed, a warning message displays.
- F - No message is displayed when an ASCII datasource is processed.

## ShowProcessUNODBCWarning

Between session storage of whether to display or suppress a warning when an ODBC datasource is processed.

- T (Default)- Any time an ODBC datasource is processed, a warning message displays.
- F - No message displays when an ODBC datasource is processed.

## SliceNewWorkbook

Determines how slices are generated from the Cube Viewer.

- T - Inserts slices in a new workbook.
- F (Default) - Inserts slices in a new sheet of the current workbook.

## SubsetWindowLayoutInfo

Generates dimension and position coordinates for the Subset Editor window; allows Subset Editor dimensions and position to be maintained between sessions.

The coordinates are automatically generated when you move or resize the Subset Editor window.

## TM1RebuildDefault

Determines if worksheets recalculate on opening by default

By default, when you slice a view into Microsoft Excel from IBM Cognos TM1, the workbook contains a workbook level named variable, `TM1RebuildOption`, that is set to 1 by default. This causes the worksheets in the book to be rebuilt on opening (which forces a recalculation to happen on each sheet in the book). This action is necessary if the sheets contain Active Forms. If you are not working with Active Forms, you may not want all workbooks to use this default behavior.

All worksheets recalculate when a Cognos TM1 workbook is opened. The workbook was created by slicing from Cognos TM1 Perspectives and contains the workbook level named variable `TM1RebuildOption = 1`.

By default, as of Cognos TM1 9.4.1 all new books created by slicing have a workbook level named variable `TM1RebuildOption=1` in them. This makes the workbook rebuild on open, causing a recalculation of all sheets, which is important for Active Forms but may not be the desired behavior if you are primarily working with non-Active Form worksheets.

To prevent sheets from using the default to always rebuild when slicing, change `TM1RebuildDefault` from T to F (or add `TM1RebuildDefault=F` if it doesn't already exist) in your `tm1p.ini` file. When `TM1RebuildDefault=F` the books get the workbook level named variable set to `TM1RebuildOption=0` on slicing. This is equivalent to how Cognos TM1 worked prior to the introduction of Active Forms.

If this option is set to T or doesn't exist, slicing from a view in Cognos TM1 Perspectives sets the `TM1RebuildOption` workbook level named variable to 1 which forces a rebuild on open. If this option is F, the name variable

TM1RebuildOption is set to 0, which does not rebuild. For a particular report, for example, an Active Form, you can set the name variable to 1 instead of the default 0.

By default, a new installation does not have the TM1RebuildDefault parameter at all which provides the default behavior of slicing with TM1RebuildOption=1.



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