



Proven Practice

Upgrading to IBM Cognos Controller 10.2.1 from a previous Controller version

Product(s): IBM Cognos Controller

Area of Interest: Infrastructure

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1 Introduction

1.1 Purpose

This document is designed to be a simple/basic guide (complete with screenshots) for how to upgrade "standard/basic" Controller 8.x or 10.1 system to Controller 10.2.1 (released March 2015).

This document is intended to be utilised by customer's I.T. departments, consultants and partners to help perform upgrades of Controller in '**simple / standard**' environments. For example, it is **ideal** for use in upgrading:

- a development ('test') server
- a pre-sales local laptop installation
- a test VMWare environment.

It is also **suitable** to be used for upgrading **production** systems, **so long as**:

- The system is a simple/standard implementation of Controller
- **The customer accepts responsibility** for any problems that may arise from the use of this document
 - In other words, the customer accepts that IBM's recommendation is always to employ an experienced IBM Cognos Technical Consultant to help them upgrade to later versions of Controller.
 - Employing an experienced IBM technical consultant will ensure that the risk is minimised of unexpected issues arising from an upgrade.

By following these "best practices" the intention is to make Controller upgrades as easy as possible, with the minimum of possibility for errors/issues.

The author suggests that experienced technical consultants can **also** use this document as an 'aide-memoir', i.e. a concise set of instructions for upgrading the software as per current best practices, for typical situations.

1.2 General Assumptions

This document assumes:

- There is only one (single) Controller application server
- Controller has been installed in a standard/simple/"default" way, with no special customization
- The only IBM Cognos application on the APP server is Controller
 - For example you have **not** got the full "IBM Cognos BI" software suite installed on it, and/or Cognos Planning etc.
- You have already got a suitable backup of the server (for example a full "Ghost" image or VMWare/ESX image), and you are happy that you have a fallback plan in place should anything unexpected happen during the upgrade
 - This is purely as a precaution, in case of unexpected problems.

In other words, this document is designed to be a simple/basic guide for how to upgrade "standard/basic" Controller 8.x/10.x system to Controller 10.2.1.

1.3 Applicability

This document is based on upgrading to Controller 10.2.1 (released April 2015).

The document assumes you are upgrading from an existing (old) 8.5.x or 10.1.x system.

1.4 Exclusions and Exceptions

This document is **not** intended to entirely replace the official 'standard' documentation, which can be found on the Controller application server (default location for Controller 10.2.1 is C:\Program Files\ibm\cognos\ccr_64\webcontent\documentation\en) such as:

- ctrl_arch.pdf – Architecture and Deployment guide
- ctrl_inst.pdf – Installation and Configuration guide
- nfg_ctrl.pdf – New Features guide
- grc_ctrl_inst.pdf – Getting Started Installation guide

TIP: You can also find this documentation on the internet here: http://www-01.ibm.com/support/knowledgecenter/SS9S6B_10.2.1/com.ibm.swg.ba.cognos.ctrl.doc/welcome.html?cp=SS9S6B_10.2.1%2F0&lang=en

Instead you can use this guide as a concise summary companion to the official documentation. In any event of overlap, the standard documentation takes precedence.

1.5 Warning – Please read before continuing

There are an infinite variety of possible customer I.T. environments/needs/specialist requirements. Therefore, IBM has intentionally made Controller flexible to give the customer many different ways to upgrade to Controller 10.2.1. Therefore the advice in this document may have to be modified by the reader to fit in with their specific needs/environment.

Although this document demonstrates proven practices suitable for most environments, it is not necessarily perfect for all environments.

Employing an experienced IBM Cognos technical consultant to upgrade your Controller server(s) is always the recommended & ideal scenario.

Controller is an important product/system to its users. Therefore, care should be taken over upgrading a Controller system. Therefore:

- In an ideal world, upgrading should **only** to be done by experienced IBM Cognos technical consultants
- However, less experienced people may wish to use this document (for example for upgrading 'test' systems - or "demo" VMWare images).

However, this document may *also* be used by the I.T. administrators of IBM Cognos Controller customers to upgrade their 'live' systems, but *only at their own risk*.

IMPORTANT: IBM Cognos 100% recommends that all upgrades are done on-site by an experienced IBM Cognos technical consultant, who can ensure that the upgrade goes smoothly. However, if you feel confident that you have taken appropriate safeguards (e.g. have plenty of downtime, and have made adequate server and database backups) then (*against IBM Cognos' ideal best practices*) customers can use this document to help themselves perform the upgrade on their own.

1.6 Be aware that different methods are available to upgrade/migrate the Cognos BI reporting environment

Each version of Controller is delivered with a cut-down 'runtime' version of the Cognos BI reporting engine (for example, Controller 8.5.1 was delivered with a cut-down version of Cognos 8.4.1 BI).

This document shall assume that the customer is **only** using this **built-in** 'cut-down' version of the Cognos BI engine, and therefore gives recommendations based on this assumption.

Of course it is **possible** that the customer has (instead) integrated Controller with a '**full**' version of Cognos BI, and therefore may want to upgrade the version of BI to a later compatible version (for example Cognos 10.2.2.0 BI). In this scenario:

- The customer must take into account the needs of the Cognos BI **reporting** system (not just the Controller system)
- Therefore, they should review the Cognos BI 'best practice' tips
 - At the time of writing, such tips can be found here: <http://www-01.ibm.com/software/data/cognos/customercenter/upgrade.html>

1.7 IBM Technote knowledgebase

Many of the author's tips and recommendations (inside this document) refer to our excellent knowledgebase, which contain our IBM "Technotes":

http://www-947.ibm.com/support/entry/portal/Overview/Software/Information_Management/Cognos_Controller

Almost all technical errors/problems are explained inside this knowledgebase – simply type in the error/topic inside 'Search' box.

NOTE: This document was last updated by the author August 12th 2016

2 Important Notes, Tips and WARNINGS

2.1 Do not ignore/skip any sections of this document, unless you understand the consequences!

It is perfectly *possible* to upgrade Controller and get it (initially) working without performing some of the steps that I prescribe/recommend. However, customer feedback has confirmed that, unless you perform all of my recommended/extra steps, the customer's Controller system will NOT work well in the long-term.

Therefore, throughout this document, there will be **hints & tips** in **blue** boxes such as this one:

TIP: Ignoring the tips may cause the Controller system to be slow, unreliable or have long-term issues.

In addition, there are will be **VITAL** information inside **red** boxes:

WARNING: If the information in these boxes is ignored, the Controller system is likely not to work at all correctly.

2.2 Server name conventions – FQDN and NetBIOS

Throughout this document, we shall talk about configurations that refer to the **<servername>** of your Controller server. There are two main conventions for server naming:

1. **NetBIOS** – for example 'MYSERVERNAME'
2. **FQDN** – for example 'MYSERVERNAME.uk.companyname.com'

Alternatively, you may even be using something else to refer to your servers. For example, you may want to use a "virtual" DNS name (for Disaster Recovery purposes).

Whatever naming convention that you choose, you ***must*** use the **SAME** (correct) version of your server name at ***all*** times, to retain consistency.

WARNING: To summarise, customers should typically use NetBIOS or FQDN names **throughout their entire configuration/deployment**, but not both (a mixture). Using a mixture of naming conventions will cause complications/problems later.



Before continuing, are you sure you want to upgrade your **existing Controller application server to 10.2.1?**

This document is based on upgrading an existing Windows server (which already hosts Controller server software) to a later version (10.2.1). However, is this the best idea for your company/situation?

Nowadays most customers use virtual servers. It is extremely easy to make new virtual servers, clone/archive old servers etc. For this reason, many customers decide that it is best to create a **brand new** Controller 10.2.1 server (instead of upgrading the existing server).

- This will allow the customer to run the old/new systems side by side (e.g. during UAT testing)

If you think you would benefit from using this approach (creating a brand new 10.2.1 server) then do not carry on further with this document. Instead, read the author's separate document "Installing & Configuring IBM Cognos Controller 10.2.1 server - Support Proven Practice" (available here: <http://www-01.ibm.com/support/docview.wss?uid=swg21608353>).

3 Initial Prerequisites

3.1 Inform users of Downtime

Ensure that all users are aware that the Controller system will be unavailable. Assuming the upgrade is performed by an efficient and **experienced** person, then:

- The Controller server upgrade process should take approximately **2 hours or so**
- The Controller client upgrade process should take approx **5 minutes** for each client

Naturally, if you are **inexperienced**, then **the process will take longer**.

In addition, if you are using the optional Controller '**FAP**' functionality, then you will probably want to upgrade your TM1 / FAP software/services (in addition to the Controller 'main' software).

- This will add a significant extra amount of downtime/work.

3.2 Backup all databases as a precaution

Identify all your Controller-related databases:

- All customers will have at least one "**application**" database (for example "ControllerLIVE", "ControllerTEST" etc.)
- All customers will have one "**ContentStore**" database
- Many customers will have "**Data Mart**" database(s), and/or "**FAP**" databases

Check that **all** your databases have been successfully backed-up recently (for example, the night before).

IMPORTANT: Make sure you are 100% sure that (a) you are sure which databases you need to back up and (b) you are 100% confident that the backups have completed successfully.

This upgrade will alter the database "schemas" and thus **render the database unreadable to any earlier version of Controller**. Therefore, in the unlikely event of an issue with the upgrade, you would need to revert the database back to the version before the upgrade.

3.3 **IMPORTANT:** Be aware of the deprecated supported software environments, and other changes.

Since you are upgrading from an older version of Controller, the new version may not support the third-party component or operating system that you are currently using.

- Full details of the supported software environments for all Controller versions are listed here: <https://www-304.ibm.com/support/docview.wss?uid=swg27014433>
- For example, from 10.2.1 onwards **your Controller application server must be 64-bit**
- We no longer support client devices based on **Windows XP** or **Vista**.
- We no longer support **Excel XP** or **Excel 2003**.

Therefore, in order to be 100% officially supported, **check to see if you need to upgrade third-party components** (for example upgrade Excel 2003 to Excel 2013, or Windows XP/Vista to Windows 7/8).

3.4 Download the Controller 10.2.1 GA (a.k.a. original RTM release) software from the IBM website

Instructions for how to download 10.2.1 are found here:

<http://www-01.ibm.com/support/docview.wss?uid=swg24038422>

TIP: Typically, most customers will only need to download the following components:

(1) 'Main' Controller server software

- **CN2XLML** = Controller 10.2.1 Microsoft Windows Multilingual

(2) TM1 Server (typically **only** 64 bit)

- **CIYF7ML** = TM1 64-bit 10.2.2 Microsoft Windows Multilingual

3.5 Download any preferred/recommended (post 10.2.1 RTM) Interim Fix Packs

The author recommends downloading the latest patch (**minimum** IF1) in order to benefit from the latest bug-fixes.

- At the time of writing, the current latest/recommended patch of Controller 10.2.1 is **IF1** ("up_cntrl_winx64h_10.2.5100.1006_ml.tar.gz").
- IF1 can be freely downloaded from here: <http://www-01.ibm.com/support/docview.wss?uid=swg24039788>

Contact IBM Support for details on any later patch versions

- NOTE: To obtain the **latest** IF files, please log a PMR (helpdesk call) with IBM Support and ask for a download link.

3.6 Obtain a suitable JDBC driver

Some Controller functions use JDBC connectivity to access the Controller databases. Controller does not ship with a JDBC driver in the software itself, so you must download a suitable JDBC driver from the relevant database provider's website.

For example:

Database Server	Description	Filename
Microsoft SQL	JDBC driver	sqljdbc4.jar
Oracle	JDBC thin driver	ojdbc5.jar
IBM DB2	DB2 driver	db2jcc.jar

TIP:

- **sqljdbc4.jar**
 - see here: <http://www-01.ibm.com/support/docview.wss?uid=swg21500432>

- **ojdbc5.jar**

Assuming you have installed the Oracle 11G rel2 client in the default location, then you can find this (on the Controller application server) here:

C:\app\Administrator\product\11.2.0\client_1\jdbc\lib

- **db2jcc.jar**

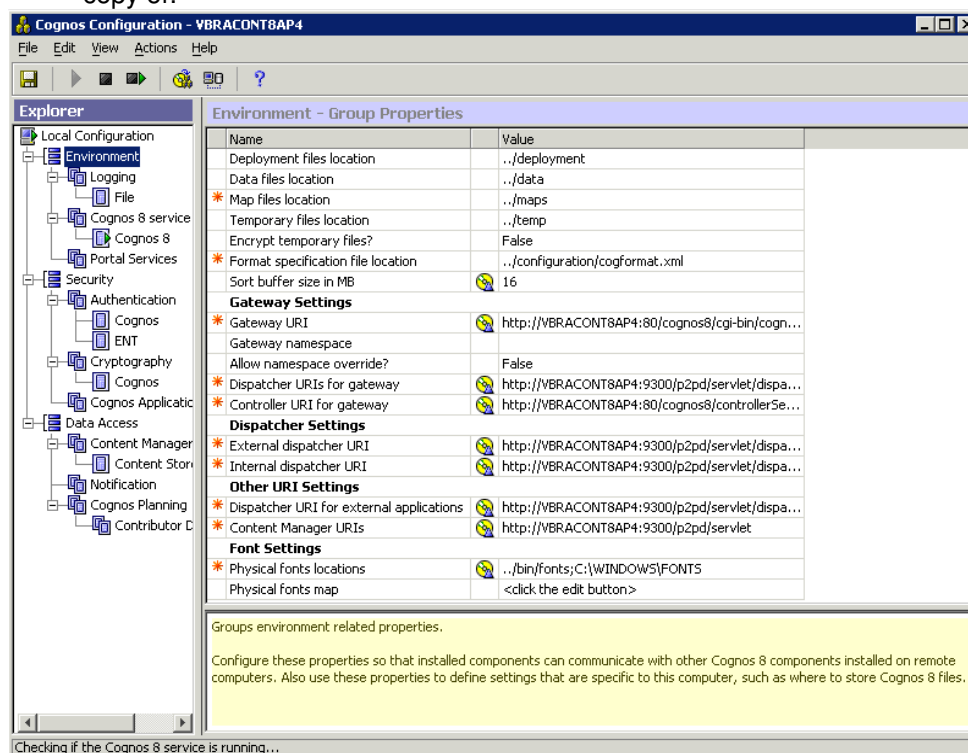
Assuming you have installed the DB2 10.5 client in the default location, then you can find this (on the Controller application server) here: C:\Program Files\ibm\SQLLIB\java

3.7 Keep a backup record of all configuration settings BEFORE proceeding

Vital: In later steps, there is requirement to apply some settings to the 'Cognos Configuration' and 'Controller Configuration' programs. It is **vital** that these programs are launched **before** the upgrade, and you make a note of **all** the settings (which we shall refer to later in the document).

Therefore, **before proceeding**:

- launch "Cognos Controller Configuration" from the Start Menu
 - take print-screens of **all** the current settings inside **all** sections and paste them into a Word document for reference purposes.
 - For example, here is an example of one of the screens that you should take a copy of:

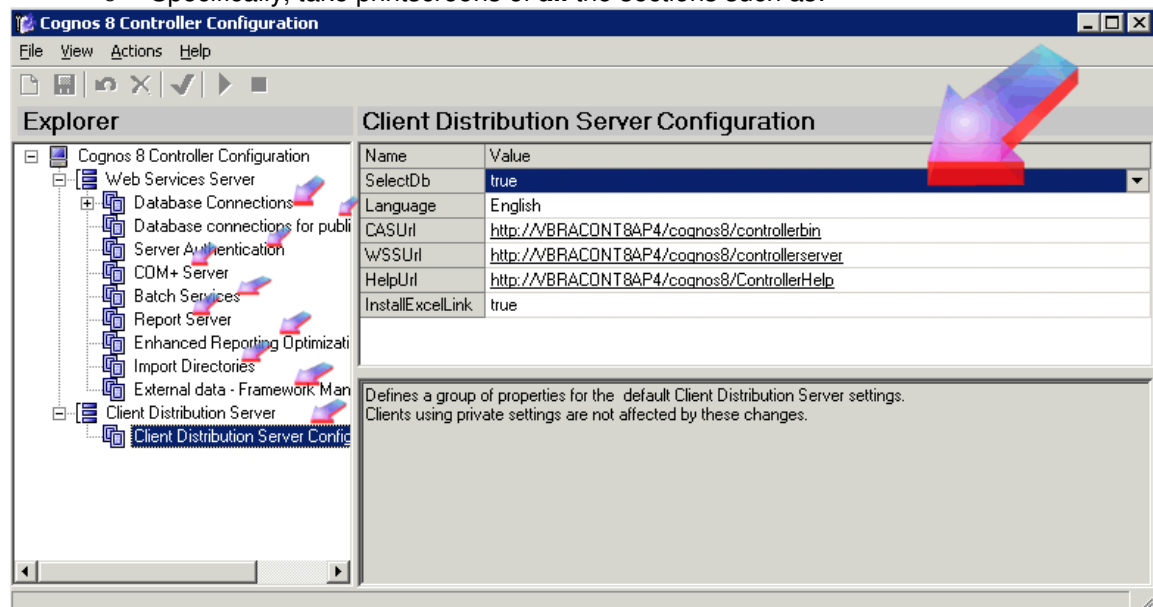


- Repeat the above **for all screens**, taking print-screens of **everything**, until **all** information inside **every section** is captured

TIP: In addition to the above, it is **vital** that you export the current configuration to a file.

- Click "File - Export As"
- When prompted, choose "yes" to export decrypted content
- Choose a new folder (for example, onto the 'desktop')
- Save the file as 'Export_<date>_cogstartup.xml'
- Keep this file safe (for example store in a sensible backup folder).

- Repeat the above for “Cognos Controller Configuration”
 - Specifically, take printscreens of **all** the sections such as:



- Repeat the above print-screen until *all* information inside *each and every* section is captured

By performing the above, this will allow you to refer back to your settings later, when you are asked to enter the appropriate values.

IMPORTANT: As an extra precaution, please create a backup of ALL the settings of your Cognos & Controller Configurations, by following the advice inside IBM Technote #1386810.

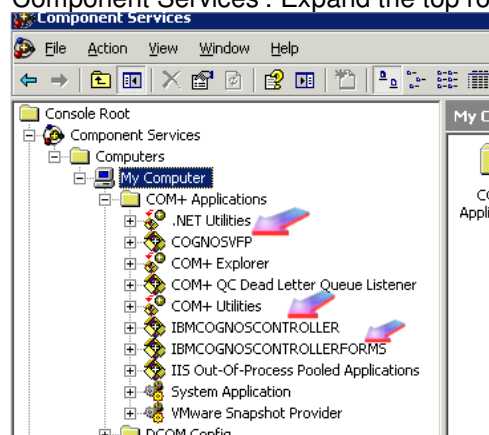
If ALL of the above conditions have been met, then please proceed...

3.8 Check if your COM+ application has been split

Vital: Many customers will have split their COM+ application, for increased scalability and performance. For example, they may have:

- Split the COM+ application ("IBMCOGNOSCONTROLLER") on the ***same*** server
- Split the COM+ application ("IBMCOGNOSCONTROLLER") onto a ***separate physical server*** (for example a dedicated 'consolidation' server)

Therefore, on the application server launch 'Control Panel' – 'Administrative Tools' – 'Component Services'. Expand the top row to open 'My Computer' – 'COM+ Applications':



By default, the Controller server will already have at least one application called "IBMCOGNOSCONTROLLER" (or "COGNOSCONTROLLER" if using a very old version of Controller).

However, if the server was manually optimized, then there may be other applications there. In theory, these could be called anything, but (**by convention**) they will typically be called "COGNOSVFP" or "IBMCOGNOSVFP" or "IBMCOGNOSCONTROLLERxxxx". If these 'extra' COM+ applications exist then they must be removed (see later section) **before** the upgrade can continue.

3.9 Remove 'remote' COM+ applications if using a physically separate server (for example a separate 'dedicated consolidation' server)

TIP: You can skip this section if you do **not** have a second physically-separate (remote) application server processing some COM+ components.

For more information on this subject, see IBM Technote #1440369.

You need to:

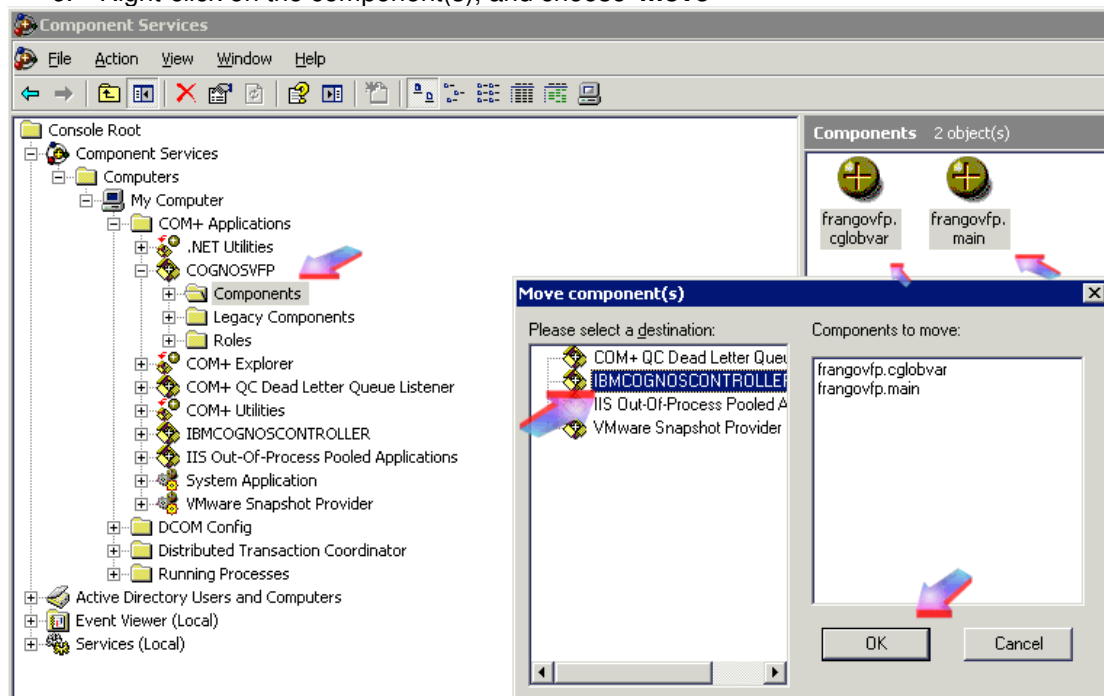
- on the **'main'** application server:
 - Launch Add/Remove Programs
 - Uninstall the remote COM+ application (by convention, typically called 'CognosVFP') by highlighting it, and choosing 'Remove'.
- on the **'consolidation'** application server:
 - Launch 'Control Panel' – 'Administrative Tools' – 'Component Services'.
 - Expand the top row to open 'My Computer' – 'COM+ Applications'
 - Right-click on the COM+ application (by convention, typically called 'CognosVFP') and choose 'delete'
 - Confirm that you wish to delete this COM+ application.

3.10 Remove any split COM+ applications if your COM+ application has been split

TIP: You can skip this section if you do not have any split COM+ applications (see earlier section).

For more information on this subject, see Technote #1406604.

1. Launch 'Control Panel' – 'Administrative Tools' – 'Component Services'
2. Expand the top row to open 'My Computer' – 'COM+ Applications'
3. Locate the COM+ application(s). *TIP: By convention, these will probably have names similar to:*
 - COGNOSVFP
 - IBMCOGNOSCONTROLLERxxx (for example IBMCOGNOSCONTROLLERFORMS)
4. Expand each application in turn, and open the section 'Components'
5. Select/highlight **all** the components (there will probably be between 1 and 10 listed here)
6. Right-click on the component(s), and choose 'move'



7. Choose to move to 'IBMCOGNOSCONTROLLER' and choose 'OK'
8. Repeat steps 4-7 for all the Controller-related COM+ applications ***except*** for the 'main' one (which will be called either 'COGNOSCONTROLLER' or 'IBMCOGNOSCONTROLLER', depending on the old version of Controller).

In other words, what we have achieved is to move all (approximately 250+) the individual components back to the 'main' application (which will be called either 'COGNOSCONTROLLER' or 'IBMCOGNOSCONTROLLER', depending on the old version of Controller).

3.11 Microsoft Visual C++ 2010 SP1 Redistributable Package (x64)

TIP: This is a **different** (updated) version from the one previously used in Controller 10.1.x and earlier. This file is currently downloadable from here:

<http://www.microsoft.com/en-gb/download/details.aspx?id=13523>

Launch the file "**vcredist_x64.exe**" and perform a default install.

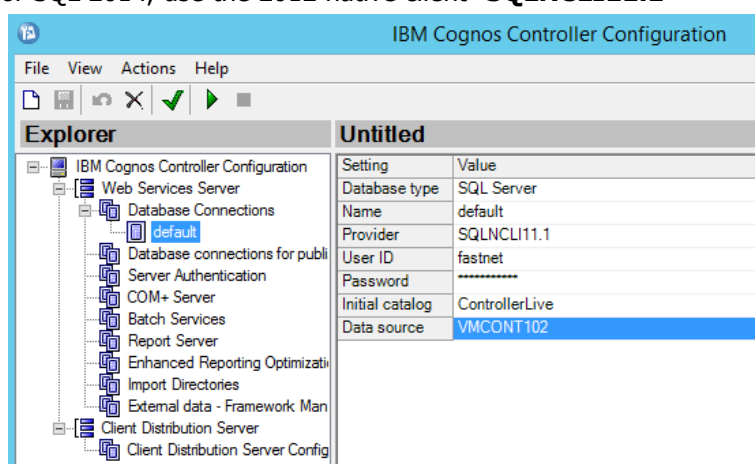
3.12 Check the value for "Provider" for all SQL connections is NOT **SQLOLEDB.1**

TIP: You can skip this section if:

- You are using DB2/Oracle
- Or you are already running Controller 10.1 (since you will have already done this).

From Controller 10.1 onwards, it no longer support SQLOLEDB.1. Therefore (inside Controller Configuration) change each and every database connection's '**provider**' to use one of the following (as appropriate):

- the SQL 2005 native client "**SQLNCLI.1**"
- or SQL 2008 native client "**SQLNCLI10.1**"
- or SQL 2012 native client "**SQLNCLI11.1**"
- TIP: For SQL 2014, use the 2012 native client "**SQLNCLI11.1**"



NOTE: If you do not have the relevant native client already installed on the application server, then do this now. Instructions are inside the author's companion document "Installing & Configuring IBM Cognos Controller 10.2.1 server - Support Proven Practice".

3.13 Create backup of JDBC settings file 'ccr-dbTypes.properties' file

NOTE: For most customer's environments, the Java database connection file ("ccr-dbTypes.properties") can be left as the default value (blank).

Therefore, for most installations, you can skip this section.

The configuration file 'ccr-dbTypes.properties' is (by default) located inside the folder:

- **8.5.1:** C:\Program Files\cognos\c8\server\integration
- **10.1:** C:\Program Files\ibm\cognos\c10\server\integration
- **10.2.0:** C:\Program Files\IBM\cognos\ccr_64\server\integration

This file may be overwritten during the upgrade. Therefore, to prevent losing the settings from your FAP system, please backup this file. For example, copy the file to a new file "Backup_before_10.1.1_upgrade_ccr-dbTypes.properties".

3.14 **For Oracle Only** - Create backup of JDBC settings file 'ccr-system-properties.properties' file

NOTE: This is only for customers using Oracle.

The configuration file 'ccr-system-properties.properties' is (by default) located inside the folder:

- **8.5.1:** C:\Program Files (x86)\cognos\c8\server\integration
- **10.1:** C:\Program Files (x86)\ibm\cognos\c10\server\integration
- **10.2.0:** C:\Program Files\IBM\cognos\ccr_64\server\integration

This file may be overwritten during the upgrade. Therefore, to prevent losing the settings from your FAP system, please backup this file. For example, copy the file to a new file "Backup_before_10.2.1_upgrade_ccr-system-properties.properties".



4 Extra steps required if using Financial Analytics Publisher (FAP) feature

TIP: This entire section can be skipped if you are **not** currently using the Controller 'FAP' feature.

4.1 Create backup of FAP settings file 'FAPService.properties'

If you have FAP installed, then you will have a configuration file 'FAPService.properties' on your server. By default, this is located in a location *similar* to:

C:\Program Files\cognos\c8\server\FAP\FAPService.properties

This file may be overwritten during the upgrade. Therefore, to prevent losing the settings from your FAP system, please backup this file. For example, copy the file to a new file "Backup_before_10.2.1_upgrade_FAPService.properties").

4.2 Uninstall previous versions of Cognos Controller Financial Analytics Publisher

Before upgrading to 10.2.1 you have to perform several steps (including deleting the FAP database). For more details see: <http://www-01.ibm.com/support/docview.wss?uid=swg21515709>

1. Remove all old Financial Analytics Publisher dimensions and cubes from the TM1 server.
2. Uninstall the FAP Service.

- TIP: To delete the existing service, you run the following command:
sc delete "IBM Cognos FAP Service"

For more information, see IBM Technote 1607064.

5 Application Server Upgrade

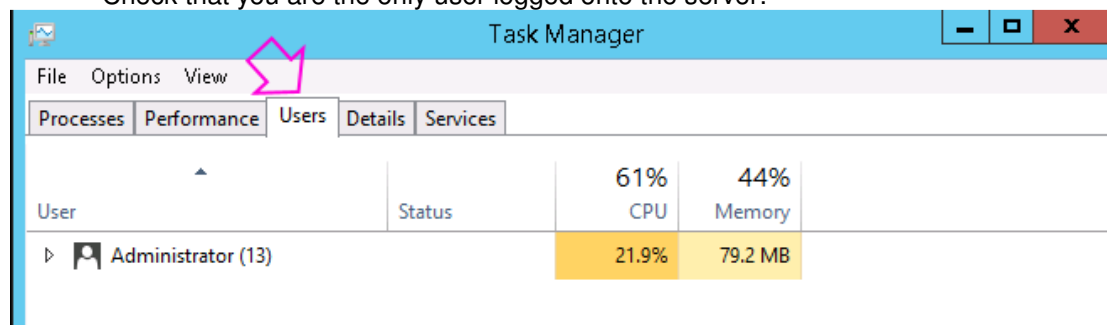
5.1 Uninstall existing version of Controller *client* (if installed) from the application server

1. Logon to the application server locally *on the console*

TIP: You can connect to the console session using the command: `mstsc.exe /admin`

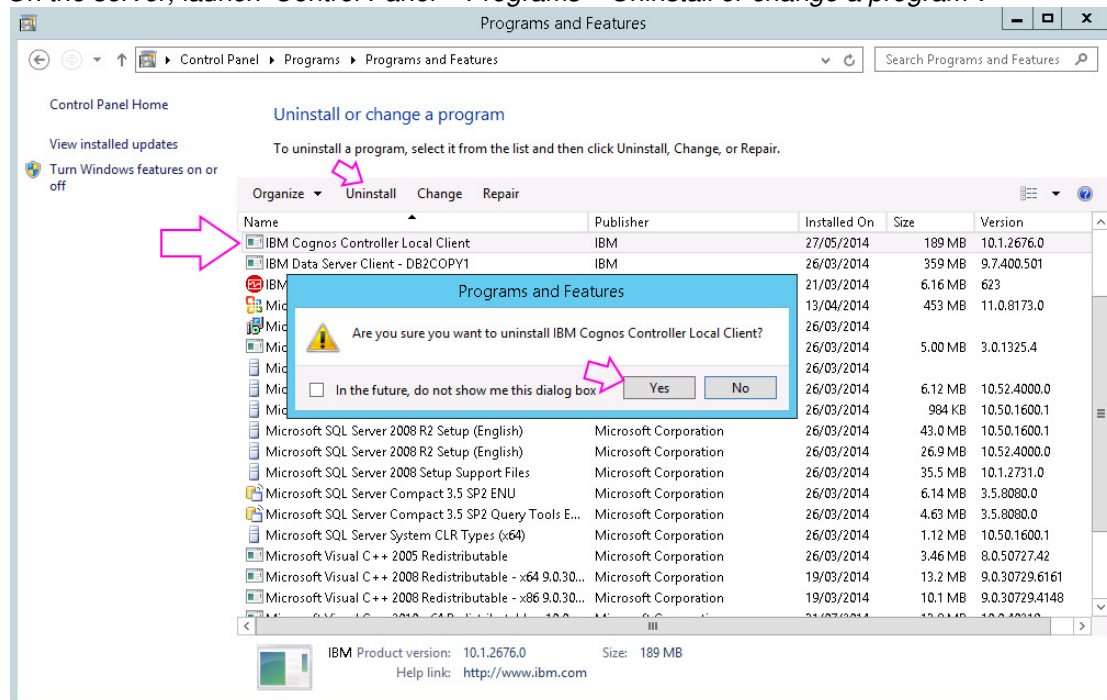
2. Check no users are running a remote session on the server

- Launch “Task Manager”
- Click on tab ‘Users’
- Check that you are the only user logged onto the server:



3. Uninstall the old version of the Controller *client* from the server:

On the server, launch ‘Control Panel – Programs – Uninstall or change a program’:



- Highlight the relevant client (e.g. “IBM Cognos Controller Local Client” - This will be named differently, depending on the version of Controller you have installed)

TIP: If you do not see an entry for the Controller client, it is ***possible*** that this is caused by a bug in Controller where (for some versions of the client, in some situations) the entry only appears inside Add/Remove Programs when you are logged onto Windows using the same Windows user that originally installed the Controller client.

- In this case, please logoff from Windows and re-logon as the relevant Windows user.

- Click “**Uninstall**”
- Confirm that you want to uninstall the software
- In the **highly unlikely** event that “Cognos Controller Forms Converter” is also installed, repeat the above to remove this too.

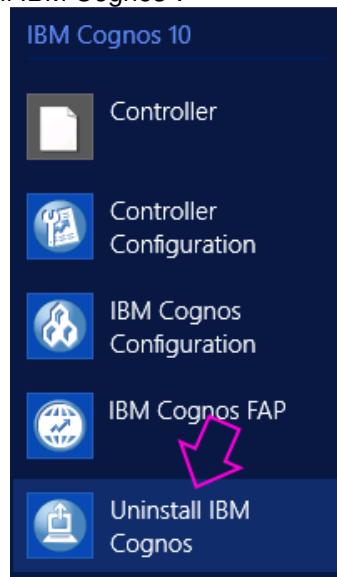
Finally (if using Citrix/TS) repeat the above for each of the Citrix/Terminal servers.

- In other words, in addition to the uninstalling the old client version from the application server, you will need to uninstall it from each and every Citrix/Terminal server that you are using (if you are using Citrix/TS).

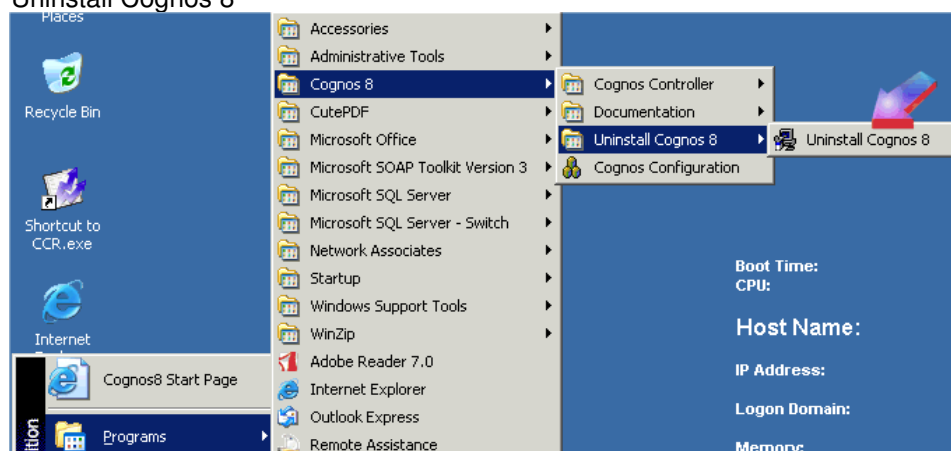
5.2 Uninstall existing version of Controller server

On the Application Server, uninstall the old Controller server version. The menu item is different depending on Controller version:

- **Controller 10.2.0:** In the start menu (or APPs listing) click “IBM Cognos Controller – 64 – Uninstall IBM Cognos”
- **Controller 10.1.x:** In the start menu (or APPs listing) click “IBM Cognos 10 – Uninstall IBM Cognos”:

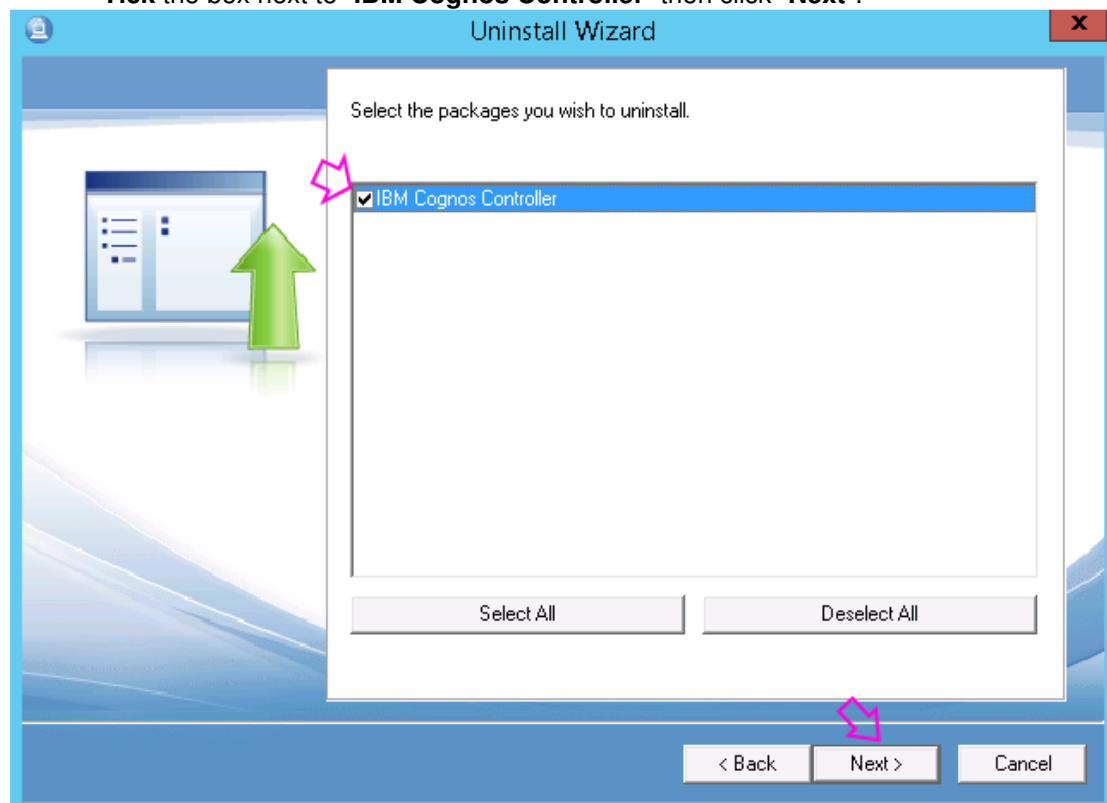


- **Controller 8.x:** Launch “Start” – “Programs” – “Cognos8” – “Uninstall Cognos 8” – “Uninstall Cognos 8”

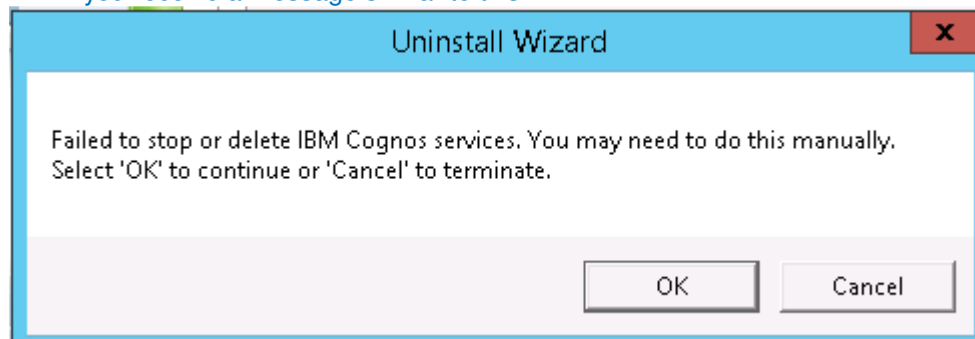


The uninstall wizard will vary slightly (depending on what version of Controller you are uninstalling), but in general:

- **Tick** the box next to **"IBM Cognos Controller"** then click **"Next"**:



TIP: If you receive a message similar to this...



...then manually stop the Windows service **"IBM Cognos"**, and then click OK.

After a few minutes, it will have uninstalled all components (for example 10.1.1 contains 392). Finally, click "Finish"

TIP:

At this stage (before going any further), please take a backup of the current "residual" files (those left behind after the uninstall).

For example, create a compressed (ZIP) file containing the folder "C:\Program Files (x86)\Cognos\c8". For example create a ZIP file "C:\Program Files (x86)\Cognos\c8.backup_before_10.2.0_upgrade.ZIP" containing the contents of that folder.

This is to make an 'archive' of the old configuration files. By doing the above, it would make reverting to the previous Controller version (in the event of issues) much easier.

5.3 Installation of Controller 10.2.1 Server

TIP: We shall be deliberately installing Controller into a “**ccr_64**” folder. This is a **deliberate** action, designed to ensure that the customer’s Controller 10.x system is kept as standard as possible (with respect to documentation/Technotes etc.).

Logon to the Controller Application Server and extract the installation media (for example ‘cntrl_10.2.1_win_ml.tar.gz.tar.gz’) to a sensible folder location. Afterwards, launch the install routine from the folder.

- *double-click on:* ...winx64h\issetup.exe

During the install, you are asked several questions. Assuming that you only have one single application server, then typically choose the following defaults:

- (English) **Next**
- “I Agree”, **Next**
- “I Agree”, **Next**
- <default installation location C:\Program Files\IBM\cognos\ccr_64> **Next** (“Yes”)
- <all components> **Next**
- “IBM Cognos Controller - 64” **Next**
- **Next**

The install will start. After it has completed, click “**Finish**”.

5.4 Install/apply required Interim Fix

TIP: It is VITAL that the IF is installed without any IBM Cognos-related services/processes running.

At the time of writing, the latest/recommended patch (either Fix Pack or Interim Fix) of Controller 10.2.1 for all customers is **IF1**.

- **The author recommends downloading the latest patch** (minimum IF1) in order to benefit from the latest bug-fixes. Contact IBM Support for details on the latest patch version
- IF1 can be freely downloaded from here: <http://www-01.ibm.com/support/docview.wss?uid=swg24039788>

For the most up-to-date instructions/advice about applying patches (Interim Fixes and Fix Packs), see the following IBM Technote:

- <http://www-01.ibm.com/support/docview.wss?uid=swg21701948>

5.5 Remove old IIS (website) cognos8/ibmcognos virtual directories

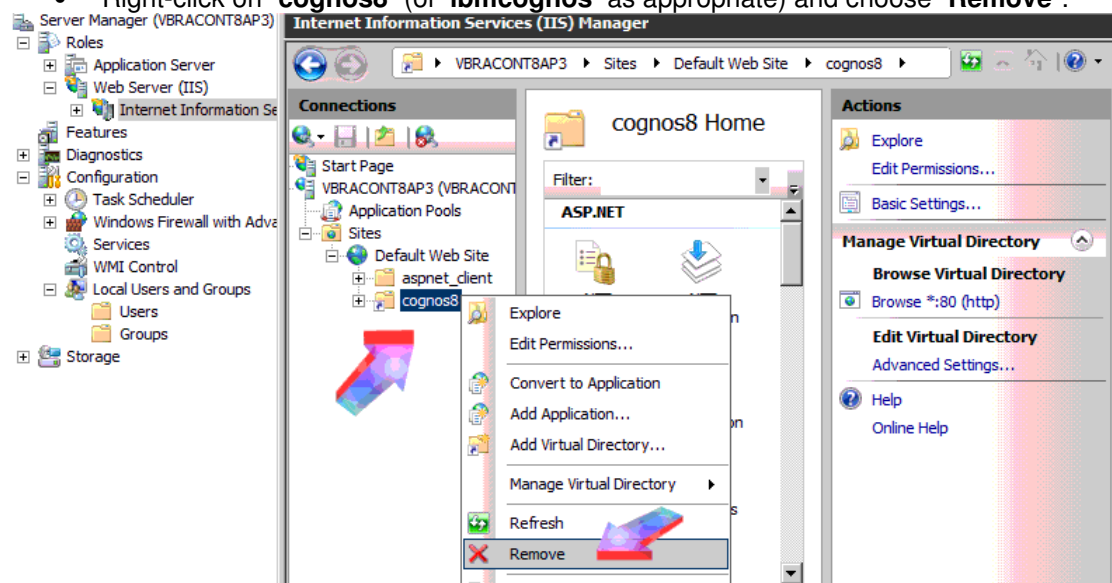
TIP: If your old version of Controller was 8.x, then the old website's root name was 'cognos8'. If your old version of Controller was 10.x, then the old website's root name was 'ibmcognos'.

Launch the **Internet Information Services (IIS)** tool

- For example, right-click on "My Computer" and choose "manage" and expand "Roles – Web Server (IIS)"

Then:

- Because we stopped the 'Default Web Site' earlier (in order to install the IF patch) you need to [start the 'Default Web Site' website again](#) (right-click on 'Default Web Site' and choose 'Start')
- Expand <servername>\sites\Default Web Site
- Right-click on "cognos8" (or 'ibmcognos' as appropriate) and choose "Remove":

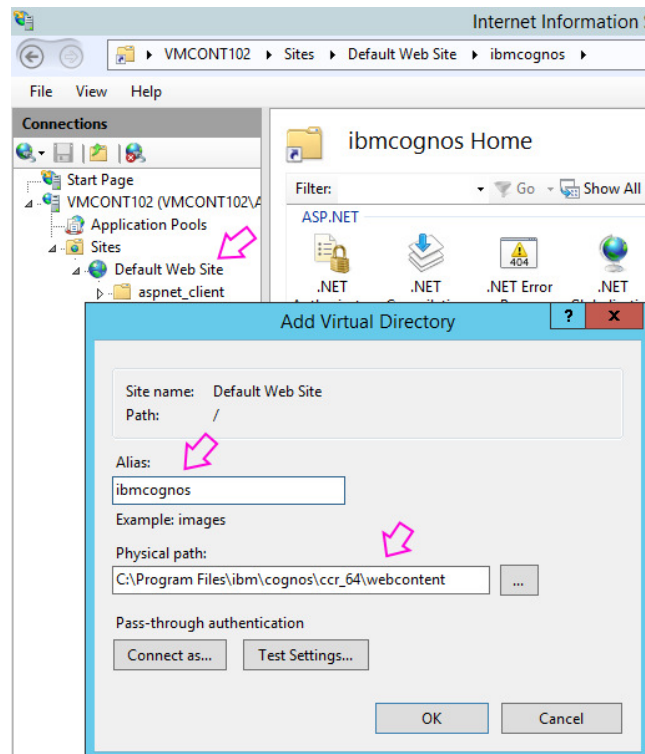


Click "yes" to confirm.

5.6 Add new IIS (website) Report Server virtual directories

Add the **ibmcognos** virtual directory

- Launch IIS Manager
- In the tree control in the left pane expand (machine name) > Web Sites > **Default Web Site**
- Right click the **default web site**
- Choose '**Add Virtual Directory**'
- Enter **ibmcognos** in the Alias
- In the 'Physical path' browse to the (installdir)\webcontent path (for example C:\Program Files\ibm\cognos\ccr_64\webcontent and click **Next**
- Click OK

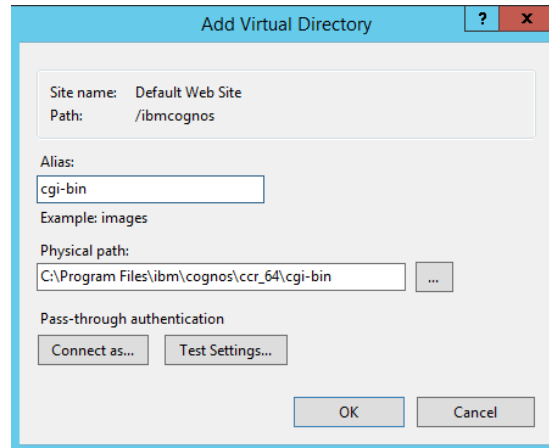


If you expand 'ibmcognos' you will notice that (underneath ibmcognos) the **old** virtual directories still exist.

- Right-click on '**cgi-bin**' and choose 'remove'
- Right-click on '**controller**' and choose 'remove'
- Right-click on '**controllerbin**' and choose 'remove'
- Right-click on '**controllerhelp**' and choose 'remove'
- Right-click on '**controllerserver**' and choose 'remove'

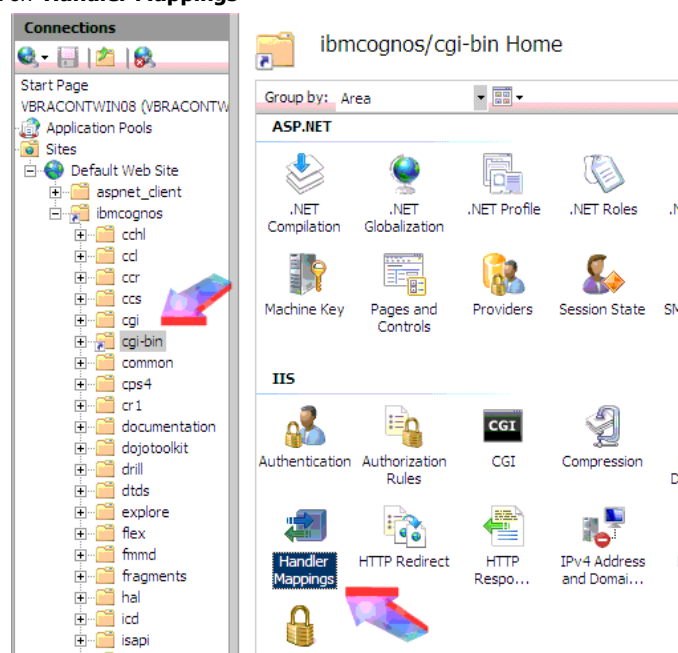
Add the **cgi-bin** virtual directory

- **Right click on** the new **ibmcognos** entry
- Choose '**Add Virtual Directory**'
- Enter **cgi-bin** in the Alias field
- In the 'Physical path' browse to (installdir)\cgi-bin path (for example C:\Program Files\ibm\cognos\ccr_64\cgi-bin) and click the **Next** button

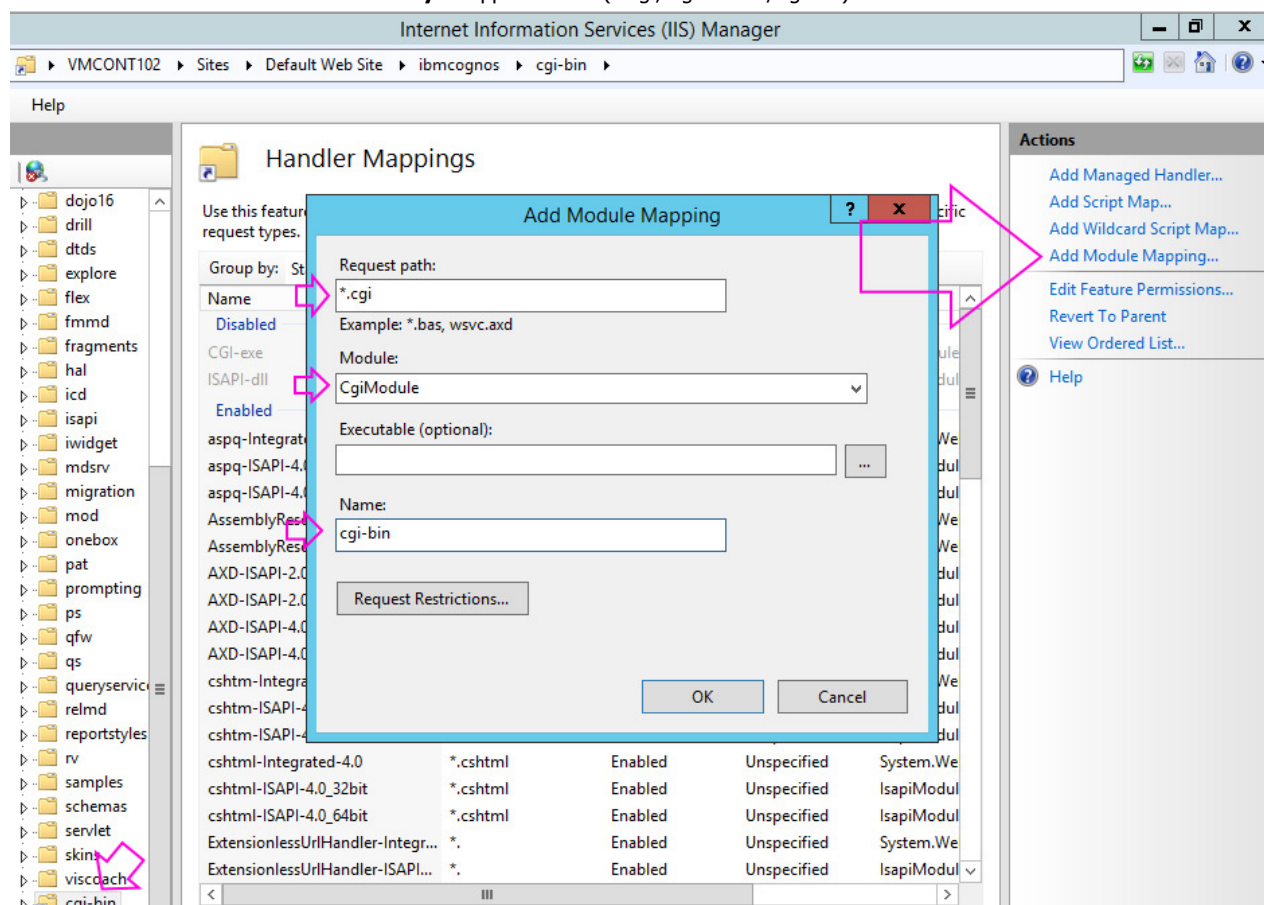


Next, you need to:

- Highlight the **cgi-bin** virtual directory
- Double-click on '**Handler Mappings**'



- Click on 'Add Module Mapping'
- Enter the values **exactly** as appear below (*.cgi, CgiModule, cgi-bin):



- Click OK.

cgi-bin	*.cgi	Enabled	Unspecified	CgiModule
---------	-------	---------	-------------	-----------

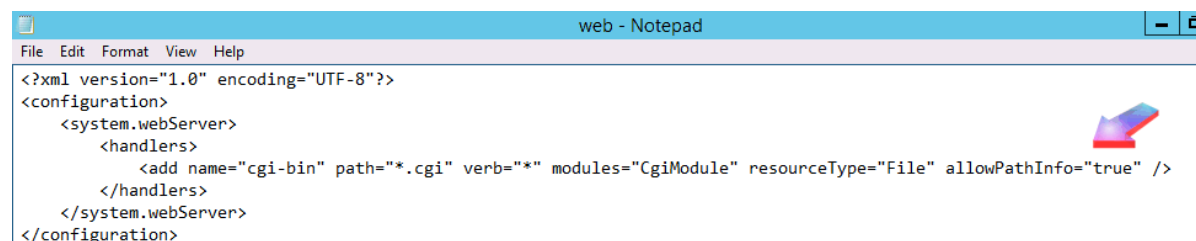
By default handlers defined in IIS 7.0 for either CGI or ISAPI modules do not process the full path information in a URI. Therefore (see Technote 1390241) you must perform the following:

- Using Windows Explorer, open the **cgi-bin** folder (default = c:\Program Files\ibm\cognos\ccr_64\cgi-bin)
- Launch **NOTEPAD.EXE** and edit the file 'web.config'

TIP: From Windows 2012 onwards, it is not possible to edit files directly unless logged on as the user 'Administrator'. One easy workaround is to launch a Command Prompt 'As Administrator' and (inside there) type: NOTEPAD.EXE.

- Add the text `allowPathInfo="true"` after the entry: `resourceType="xxxxx"`

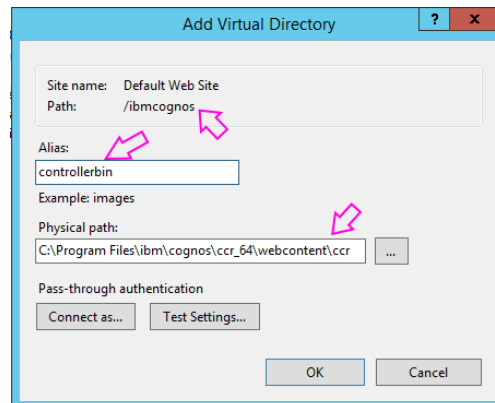
TIP: The file will now look similar to:



5.7 Modify IIS (website) Controller virtual directories

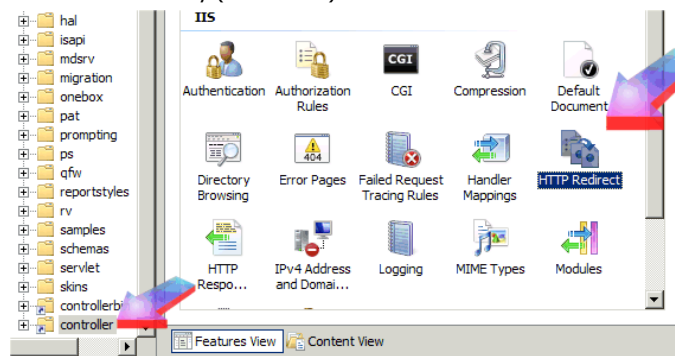
Add the **controllerbin** virtual directory:

- Launch **IIS Manager**
- In the tree control in the left pane expand (machine name) > Sites > **Default Web Site**
- Right click the **ibmcognos** virtual directory and choose 'Add Virtual Directory'
- Enter **controllerbin** in the Alias edit field
- Browse to the <installdir>\webcontent\ccr path (typically C:\Program Files\ibm\cognos\ccr_64\webcontent\ccr) and click **OK**

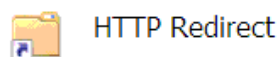


Add the **controller** virtual directory:

- Right click the **ibmcognos** virtual directory and choose 'Add Virtual Directory'
- Enter **controller** in the Alias edit field
- Browse to the <installdir>\ccrvdir path (typically C:\Program Files\ibm\cognos\ccr_64\ccrvdir) and click **OK**
- Highlight the new virtual directory (**controller**) and then click "HTTP Redirect":



- Tick the "redirect request to..." box, and enter **/ibmcognos/controllerbin/ccr.exe**



Use this feature to specify rules for redirecting incoming requests to another file or URL.

☒ Redirect requests to this destination:

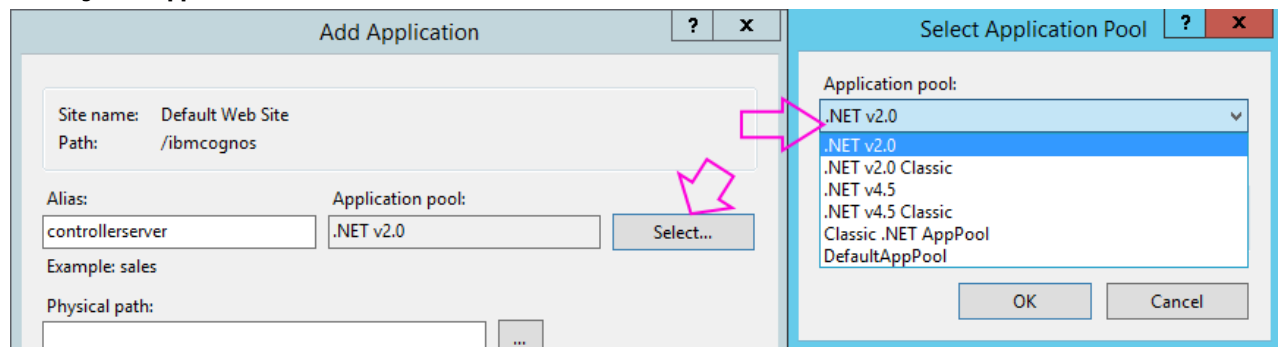
/ibmcognos/controllerbin/ccr.exe

- Click **Apply** button (top right corner)

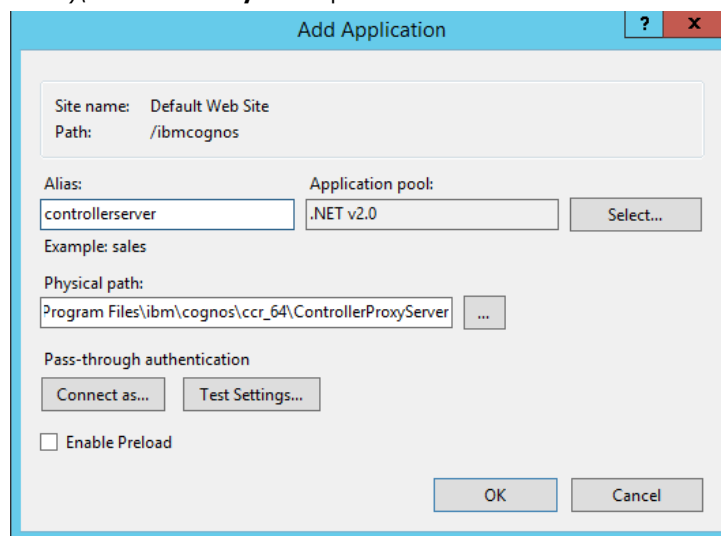
TIP: The section above controls where the client's web browser redirects when they click the 'Controller' link inside Cognos Connection. Therefore, if you have your Client Distribution Server on a **different** server, you should redirect to a different server. For example: <http://CTRLsvrCDS/ibmcognos/controllerbin/ccr.exe>

Add the **controllerserver** application:

- o Right click on the **ibmcognos** entry, select **Add Application** from the popup menu
- o Enter **controllerserver** in the Alias edit field
- o Change the 'Application Pool' to be **".NET v2.0"**:

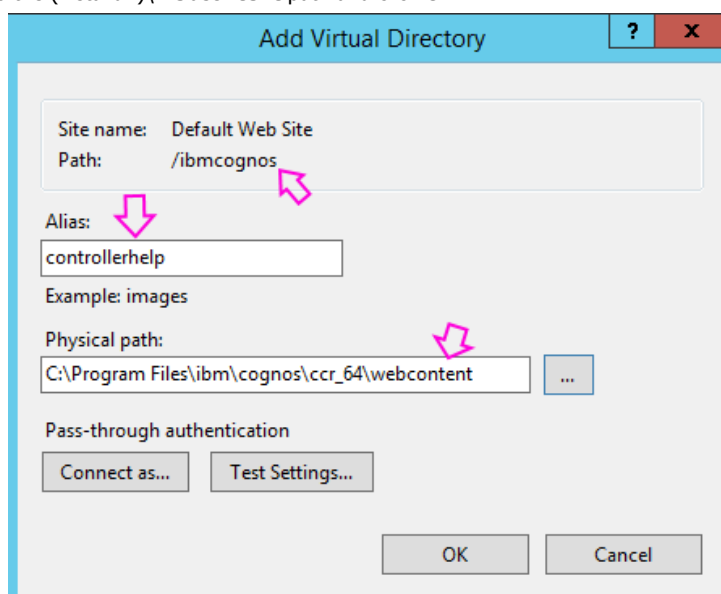


- o Browse to the (installdir)**ControllerProxyServer** path and click **OK**



Add the **controllerhelp** virtual directory:

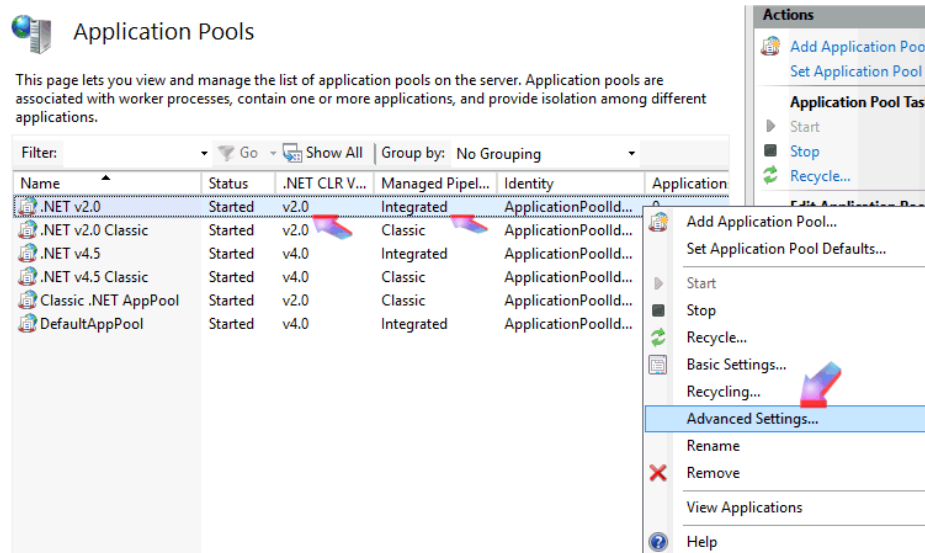
- Right click on the **ibmcognos** entry, select New > **Virtual Directory...** from the popup menu
- Enter **controllerhelp** in the Alias edit field and click **Next**
- Browse to the (installdir)**webcontent** path and click **OK**



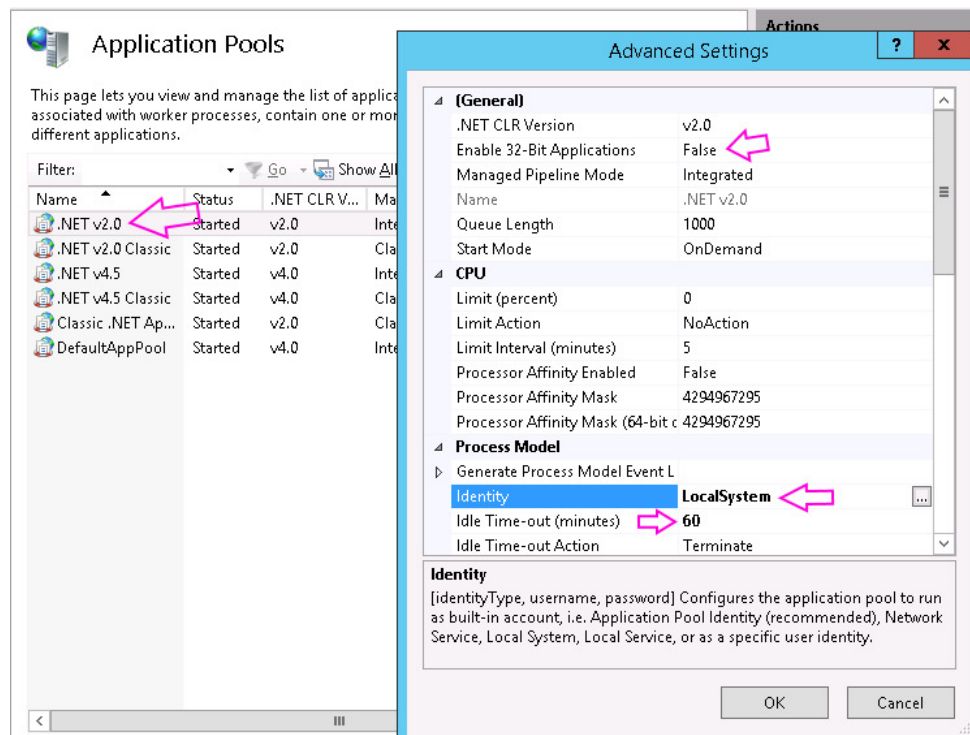
5.8 Modify .NET 2.0 'Application Pool' to **disallow** 32-bit applications, and to run under '**LocalSystem**'

Inside IIS Manager, open the section 'Application Pools'

- Right-click on '**.NET v2.0**' (**Integrated**) and choose 'Advanced Settings'



- Modify the setting "Enable 32-bit Applications" to be "**False**"
- Also, modify the setting "Identity" to be "**LocalSystem**":



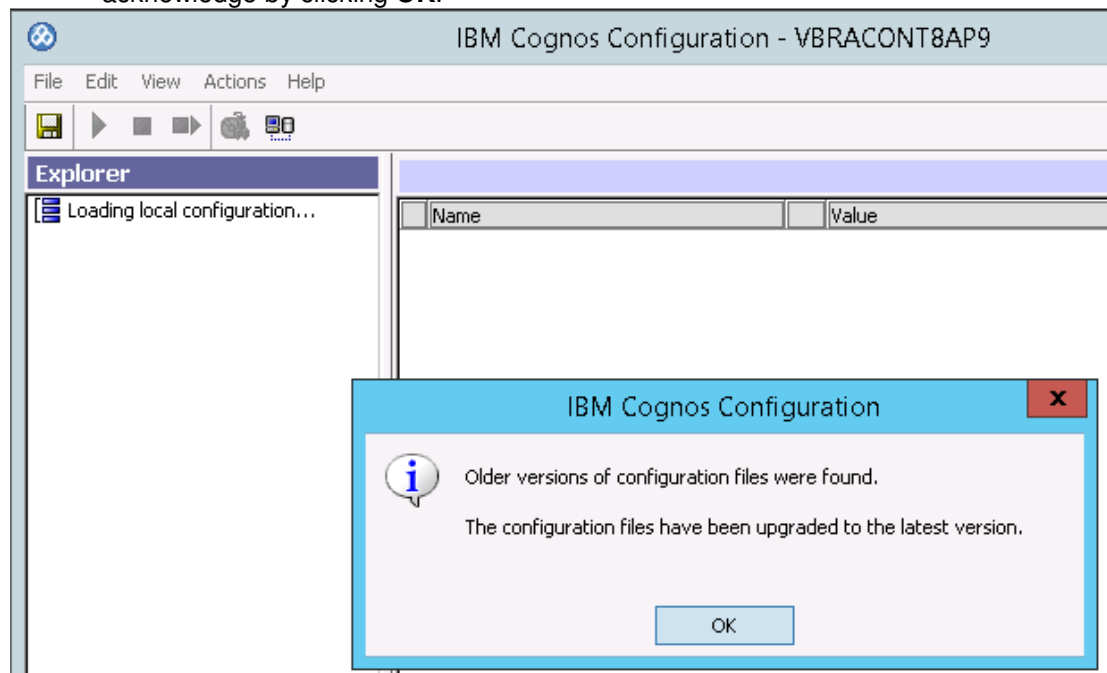
5.9 'Cognos Configuration' - Importing Settings **Automatically**

NOTE: There are two different methods to configure Cognos Configuration. This section refers to an 'automatic' method, which simply imports the old settings that were used in the previous version of Controller.

- This is (by far) the simplest method
- However, it is *possible* that you will import some non-optimal (legacy) settings from your old Cognos software.

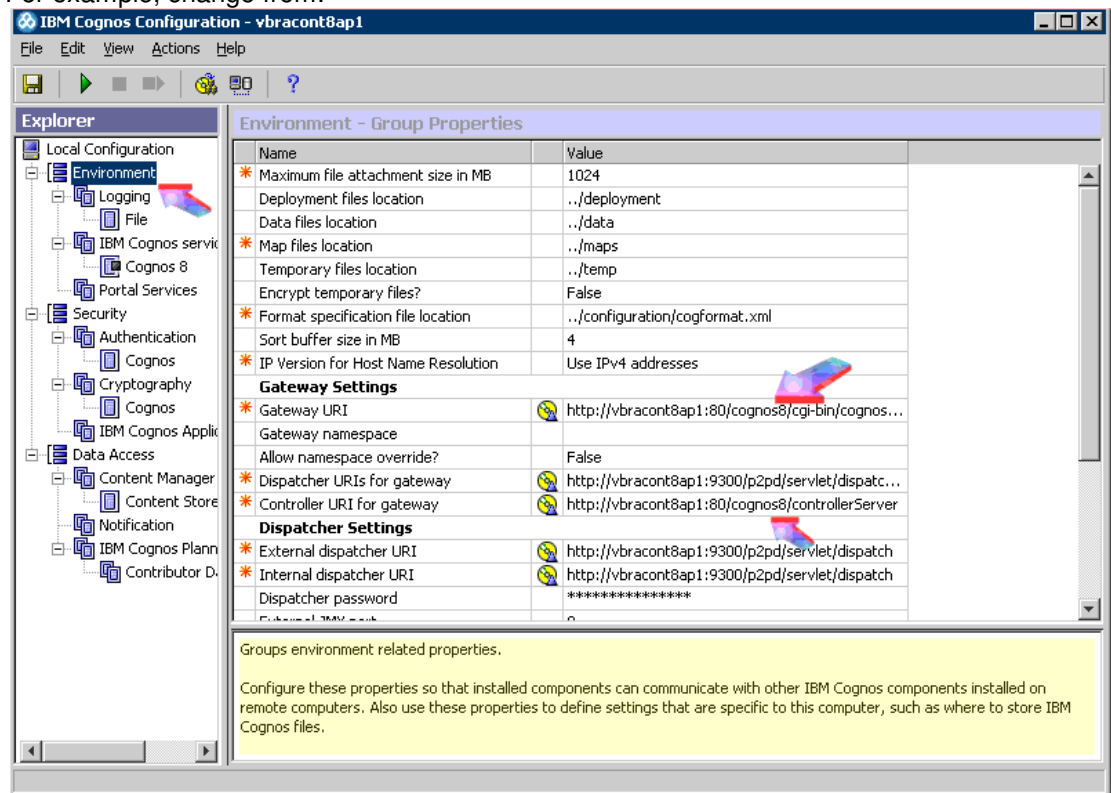
Therefore, some **experienced** people may prefer to use the more complicated 'manual' method (see next section) instead.

- Open the "configuration" folder (by default: C:\Program Files\ibm\cognos\ccr_64\configuration)
- (As a precaution) create a backup copy of the files "cogstartup.xml" and "cogstartup.xsd".
- Delete the file "cogstartup.xml"
- Copy the export file (for example "Export_<date>_cogstartup.xml") that you created earlier, into this folder
- Rename the export file to "cogstartup.xml"
- Launch "Cognos Configuration". If prompted with the following message, acknowledge by clicking **OK**.



- Open the section “Environment”
- If upgrading from Controller 8.5, then modify any entries that point to the wrong location (for example change all references from “**cognos8**” to “**ibmcognos**”)

For example, change from:



To =>

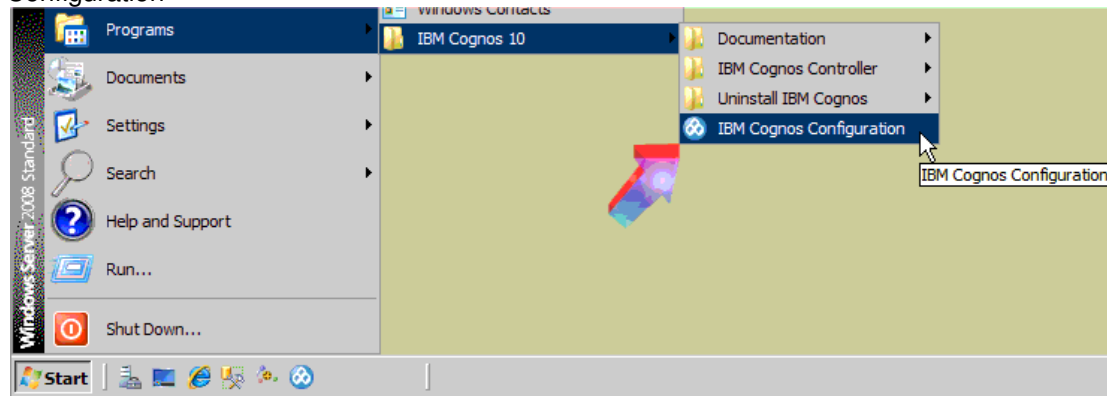
Gateway Settings		
* Gateway URI		http://vbracont8ap1:80/ibmcognos/cgi-bin/cogn...
Gateway namespace		
Allow namespace override?		False
* Dispatcher URIs for gateway		http://vbracont8ap1:9300/p2pd/servlet/dispatch...
* Controller URI for gateway		http://vbracont8ap1:80/ibmcognos/controllerSer...

- Skip the next section (“creating settings manually”)

5.10 Optional - 'Cognos Configuration' - Creating Settings Manually

TIP: This section can be skipped if you have used the 'automatic' method (see previous section) to import the old settings.

Launch "IBM Cognos Configuration" from "Start – Programs - IBM Cognos 10 – Cognos Configuration"



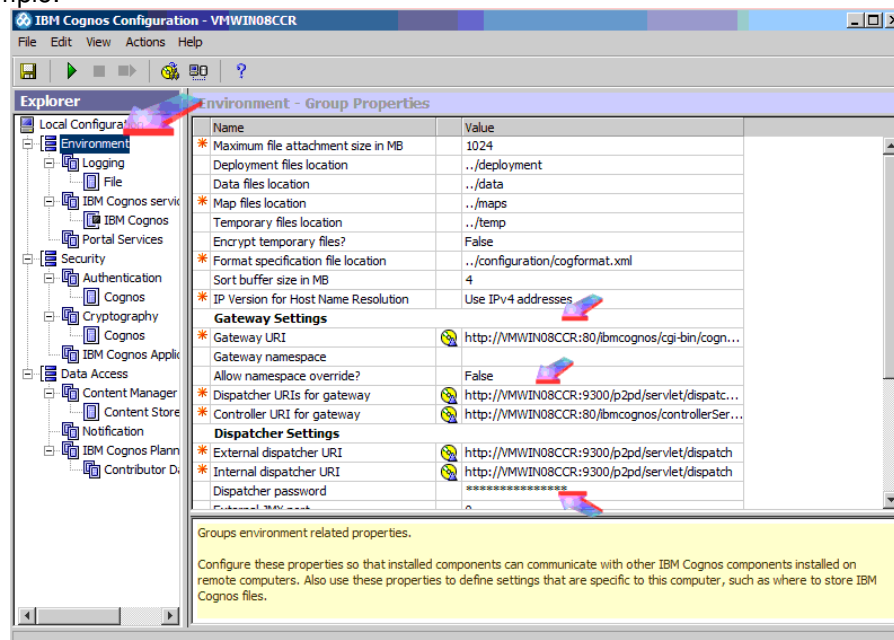
You will now have to manually type in all the settings that you had configured in your old system

Typically these will include:

(a) Change all references from "localhost" to <servername>

These are located inside "Environment" and "Environment\IBM Cognos service\Portal Services"

For example:



(b) Cognos security (Namespaces)

This is located inside “**Security\Authentication**”.

(c) Configure the ContentStore

This is located inside “**Data Access\Content Manager**”

TIP: For instructions on how to change the setting from the default (DB2) see separate Proven Practice document “Installing & Configuring IBM Cognos Controller 10.1 server”.

In addition, other fairly common settings to change include:

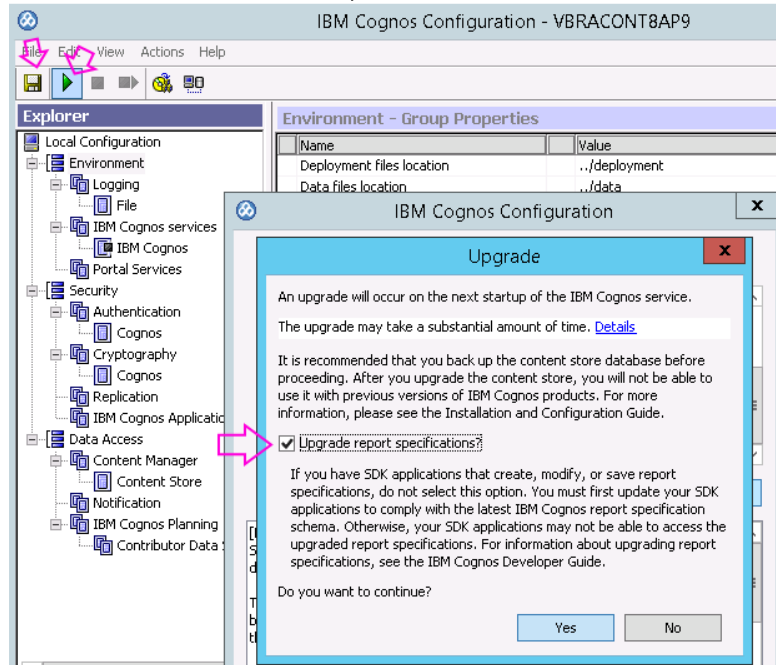
(d) Change section “Environment\Logging”

TIP: Refer to the (Word) document you created earlier to ensure that your new settings 100% match your old settings, before proceeding.

5.11 'Cognos Configuration' – Saving Settings and starting service

Launch "Cognos Configuration".

Click on the '**save**' button at the top-left corner, then (if prompted) **tick the box** to 'upgrade the report specifications' and then click **OK**, then click "**Close**".



Then click the green "**start**" button. This will take some time to complete.

Afterwards, it is a good time to test that the Cognos Connection website (<http://servername/ibmcognos>) works OK.

5.12 Delete CCR_JAVA_HOME system environment variable

NOTE: This was a requirement for some earlier versions of Controller, but it is no longer needed in Controller 10.2.

- Right-click on 'My Computer' and choose 'properties'
- Inside your "system properties", select the "Advanced" Tab
- Click the Environment Variables button
- Look inside the **System Variables** group
- If there is an entry "CCR_JAVA_HOME" then delete this variable.

5.13 Delete CCR_INTEGRATION_SERVER_DEPLOY_HOME system environment variable

NOTE: This was a requirement for Controller 8.5, but it is no longer needed in Controller 10.2. Therefore, if you are upgrading from Controller 8.5.x, you will need to delete the variable

- Right-click on 'My Computer' and choose 'properties'
- Inside your "system properties", select the "Advanced" Tab
- Click the Environment Variables button
- Look inside the **System Variables** group
- If there is an entry "CCR_INTEGRATION_SERVER_DEPLOY_HOME" then delete this variable.

5.14 Delete JAVA_HOME system environment variable

NOTE: This was a requirement for very old versions of Controller, but it is no longer needed in (from Controller 8.5 onwards). Therefore, if you are upgrading from a very old version of Controller, you will need to delete the variable. See Technote 1347527 for more info.

- Right-click on 'My Computer' and choose 'properties'
- Inside your "system properties", select the "Advanced" Tab
- Click the Environment Variables button
- Look inside the **System Variables** group
- If there is an entry "JAVA_HOME" then delete this variable.

5.15 Delete FAP_JAVA_HOME system environment variable

NOTE: This was a (rarely used) setting for some specialised Controller 10.1.1 environments, but it is no longer needed in (from Controller 10.2.0 onwards). Therefore, if you are upgrading from Controller 10.1.1, you will need to delete the variable

- Right-click on 'My Computer' and choose 'properties'
- Inside your "system properties", select the "Advanced" Tab
- Click the Environment Variables button
- Look inside the **System Variables** group
- If there is an entry "FAP_JAVA_HOME" then delete this variable.

IMPORTANT: Before continuing, you will have to reboot the application server now for all the above system variable changes to be registered.

5.16 Controller Data Link (UDL files)

- Open the **old** Controller “Data” folder (for example C:\Program Files (x86)\IBM\cognos\c10\data)
- Copy all the files (*.UDL) into the Controller 10.2 data folder (by default C:\Program Files\ibm\cognos\ccr_64\data)

If you use Data Mart functionality, then repeat the above but for the ‘DmData’ folder

- For example C:\Program Files (x86)\IBM\cognos\c10\DmData)

5.17 Copy required JDBC drivers onto server

Copy the JDBC driver(s) (downloaded/backed-up earlier) into the new ‘Integration’, ‘Lib’ and ‘ccr_64’ folders.

TIP: By default, these are located here:

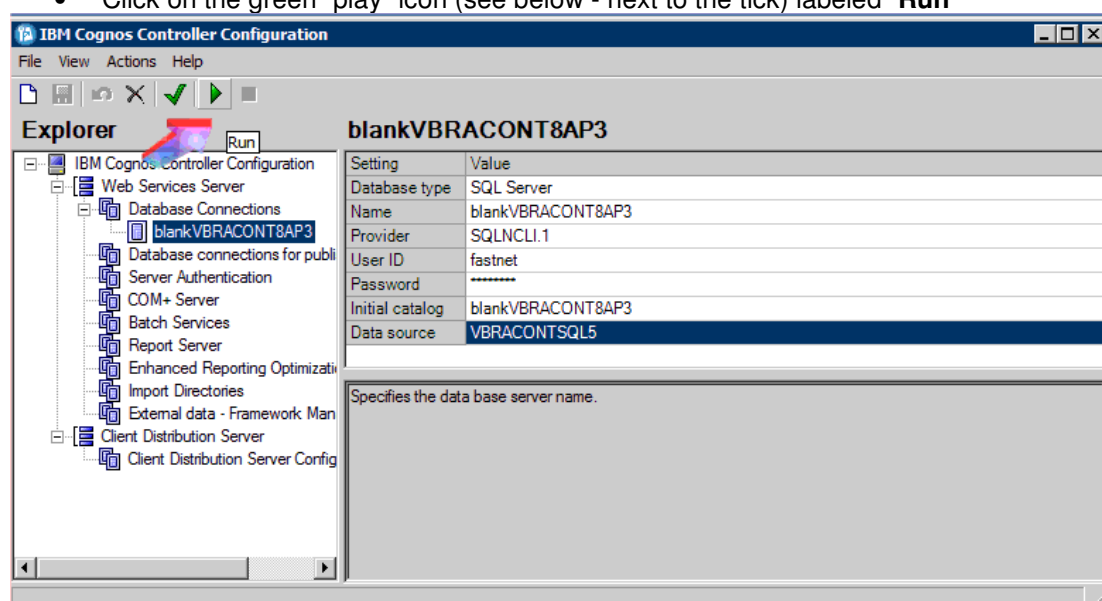
1. C:\Program Files\ibm\cognos\ccr_64\Server\Integration
2. C:\Program Files\ibm\cognos\ccr_64\server\FAP\lib
3. C:\Program Files\ibm\cognos\ccr_64

Database Server	Description	Filename
Microsoft SQL	JDBC driver	sqljdbc4.jar
Oracle	JDBC thin driver	ojdbc5.jar
IBM DB2	DB2 driver	db2jcc.jar

5.18 ‘Controller Configuration’ – Upgrading application database schemas

Launch **Controller Configuration** on the Application Server, by opening “Start –Programs – ‘IBM Cognos Controller – 64’ - IBM Cognos Controller - **Controller Configuration**”

- Click “database connections” and then highlight your database
- Click on the green “tick” and ensure that it says “connection succeeded”
- Click on the green “play” icon (see below - next to the tick) labeled “Run”



Click “Connect” at the following screen:

IMPORTANT: MAKE SURE THAT YOUR SCREEN ABOVE IS FILLED IN SIMILARLY TO THE ABOVE (i.e. there is a number inside ‘Current Version’) BEFORE PROCEEDING (otherwise you could corrupt your SQL server)

In your case, you will see that the “Current Version” is lower than the new “Upgrade to” DB version (927). Because of this, click “Upgrade” and wait for the process to finish:

```

Running script: script/sql/sql_create_view_form.sql
Running DB Step: 926
Running script batch: script/sql_926.batch
Running script: script/sql/sql_create_index_xbatchlog.sql
Running DB Step: 927
Running script batch: script/sql_927.batch
Running script: script/sql/sql_bigint_xocubefact.sql
Running script: script/sql/sql_delete_from_xmenu1.sql
Running script: script/sql/sql_delete_from_xmenu2.sql
DB succesfully upgraded to version: 927
    
```

Click “Close”.

Repeat the above process to upgrade all other databases

5.19 Optional – if using FAP - 'Controller Configuration' – Upgrading FAP database schema

Launch "Controller Configuration" and then:

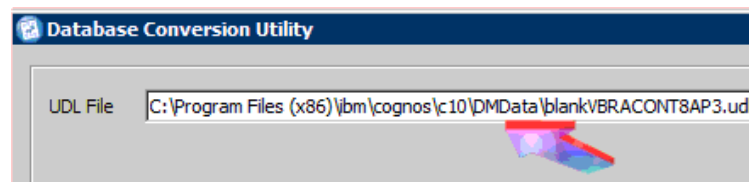
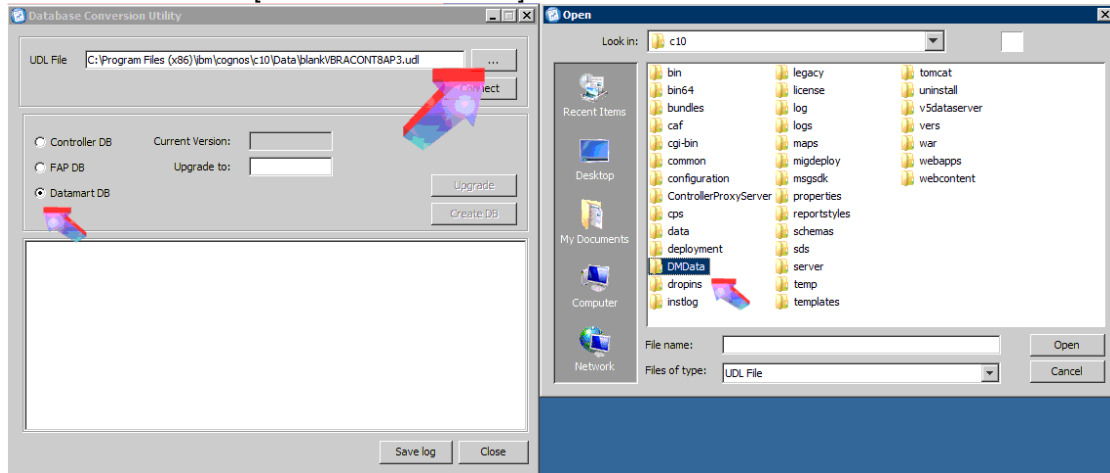
- Open "Database Connections" and create a new entry
- Choose your settings for the FAP database, for example:
 - database Type (for example **"SQL Server"**)
 - Name: **controller_fap_data_mart**
 - Provider: **SQLNCLI11.1**
 - User id: **fastnet**
 - Password: <password>
 - Initial Catalog: **controller_fap_data_mart**
 - Data source: <SQL_server>
- Click **'Save'**
- Select this database connection (for example **"controller_fap_data_mart"**) and click the **"run"** button (green triangle). *This will launch the "Database Conversion Utility"*
- Check that the "UDL File" is correctly pointing to your FAP database
- Click the **"FAP DB"** radio button
- Click **"Connect"**
- Click **"Upgrade"**

IMPORTANT: After doing the above steps, you should 'tidy up' the new Database Connection by moving the UDL file (for example C:\Program Files\ibm\cognos\ccr_64\data**controller_fap_data_mart.UDL**) to a new folder (for example C:\Program Files\ibm\cognos\FAP_UDL). *If you do not do this, then users will see this in their list of databases to choose from when they launch Controller.*

5.20 'Controller Configuration' – Upgrading Data Mart database schemas

Repeat the instructions in the previous section, but this time:

- Click on the **"Datamart DB"** radio button (see picture above)
- Click on the 'browse' button ("...") and **MAKE SURE THAT YOU OPEN THE "DMData" folder** [NOT the "Data" folder]



- Choose your UDL file and upgrade it.

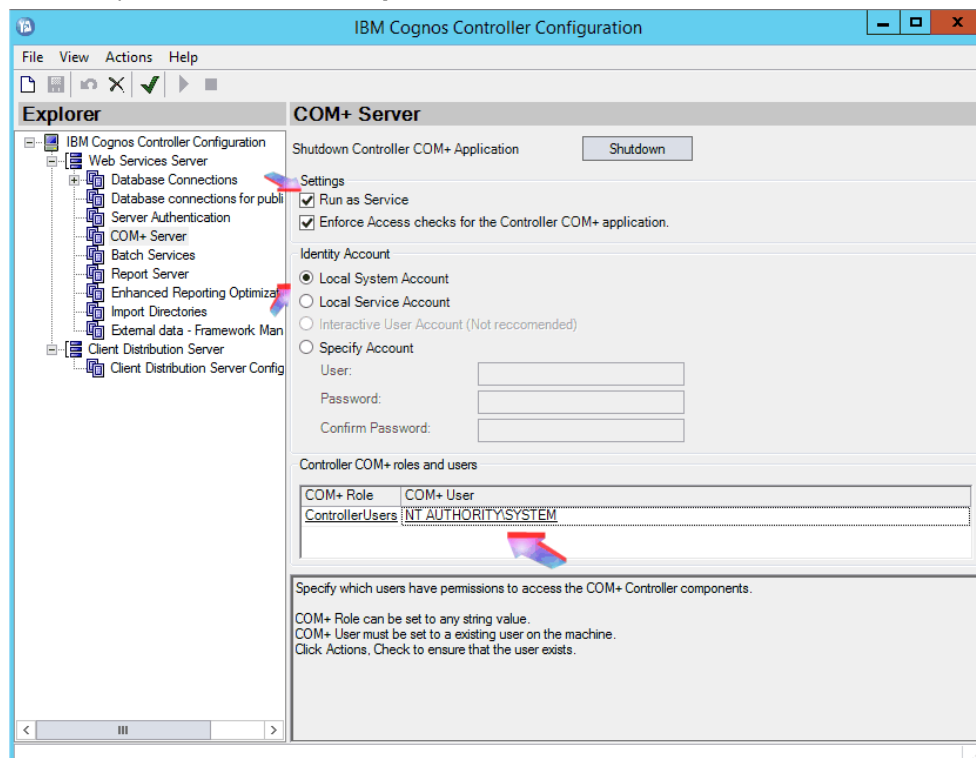
Repeat the above process to upgrade the Data Mart version for all other database connections inside the "DMData" folder.

5.21 'Controller Configuration' – Configuring **new 10.2** settings

Some of the settings have changed (between 10.2 and earlier versions of Controller)

Launch **Controller Configuration** (Start Menu > IBM Cognos Controller - 64 > Controller Configuration)

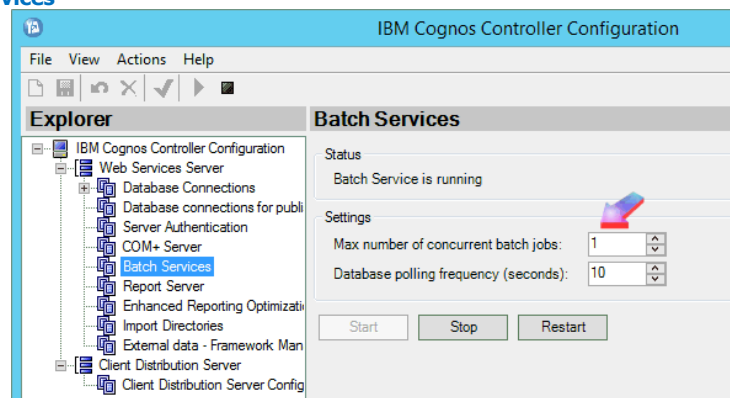
- Configure **COM+ Server**
 - In the tree control in the left pane, expand **Cognos Controller Configuration > Web Services Server > COM+ Server**
 - In the right pane, make sure that "Run as a Service" is ticked
 - Make sure that "Enforce Access checks for the Controller COM+ application" is ticked
 - In "Identity Account" choose "Local System Account":



In the **Controller COM+ roles and users**, if there are no entries (see above for what it should correctly look like) then add the relevant entries manually by doing the following:

- Click in the 'white' area, and then click the **New** button ('white page' icon) from the main tool bar
- In the COM+ Role, enter a suitable name, such as "ControllerUsers"
- In the COM+ User, enter NT AUTHORITY\SYSTEM as the user (see above picture)
- Click on "SAVE" icon (top left corner)

- Configure **Batch Services**

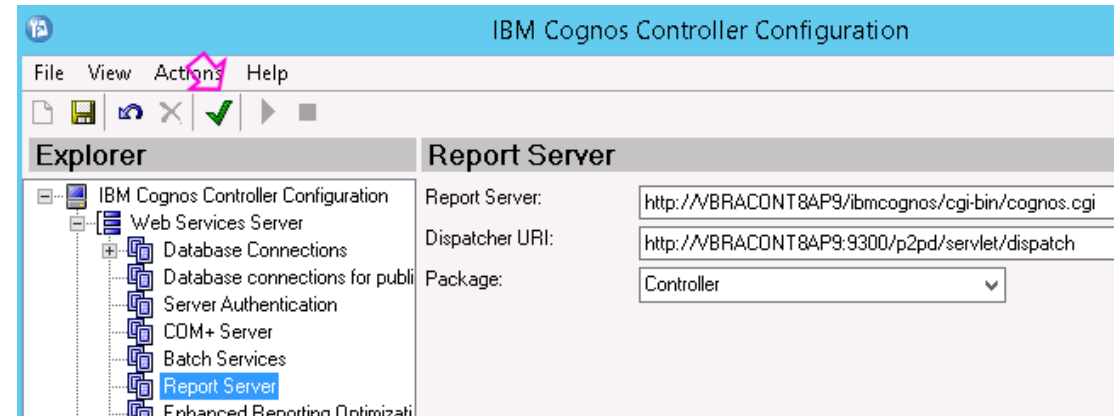


- **IMPORTANT:** Unless the customer has exceptional needs/requirements, you should **only** have a maximum of **1 concurrent batch jobs running** (no more) – See Technote 1370901 for full details.

5.22 'Controller Configuration' – Re-entering and re-applying the **remaining** (old) Controller settings

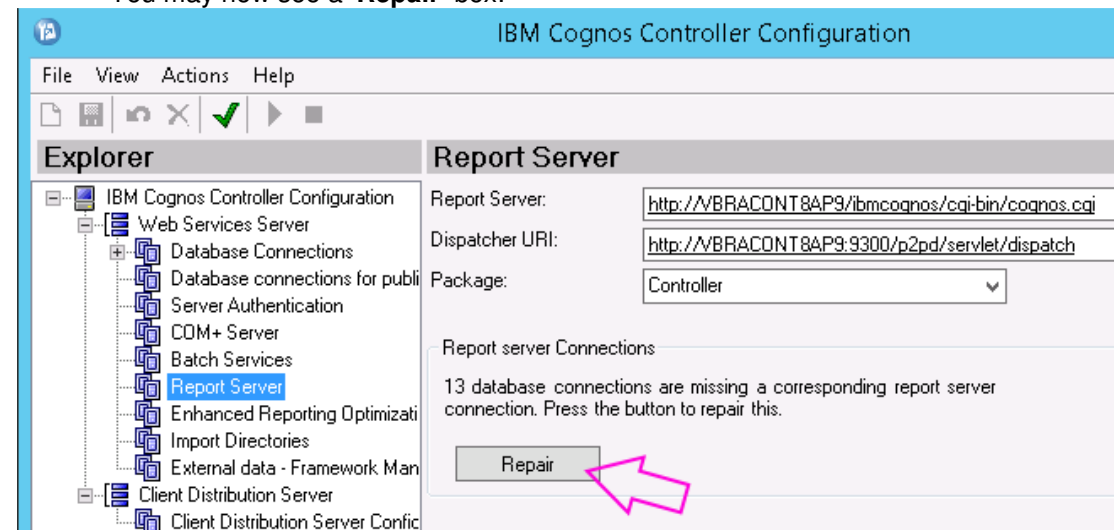
In this section, we shall refer to the series of “print-screens” that you have previously created during the ‘prerequisites’ section. This will give you the exact values/settings to type in/configure.

- Firstly, click on “Report Server”
- Ensure that the values look correct:



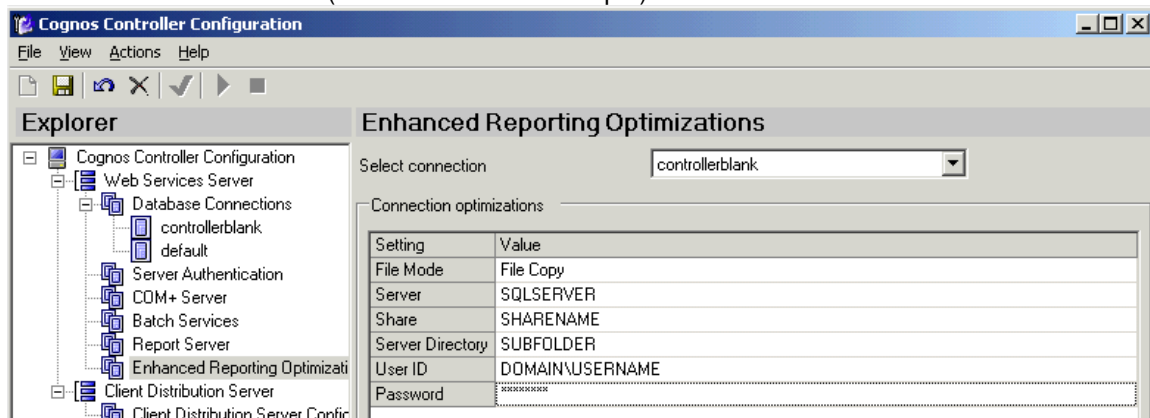
- IMPORTANT:** Sometimes (to ensure that the ‘report server’ settings are 100% correctly saved) it is necessary to:
- change the value inside “Report Server”
 - from <http://servername/...>
 - to <http://localhost/...>
 - then click SAVE
 - now change it *back again* (from “<http://localhost/...>” to “<http://servername/...>”)

- Then click on the green “**tick**”, and ensure that “Verification Succeeded” appears in the bottom-left corner
- You may now see a ‘Repair’ box:

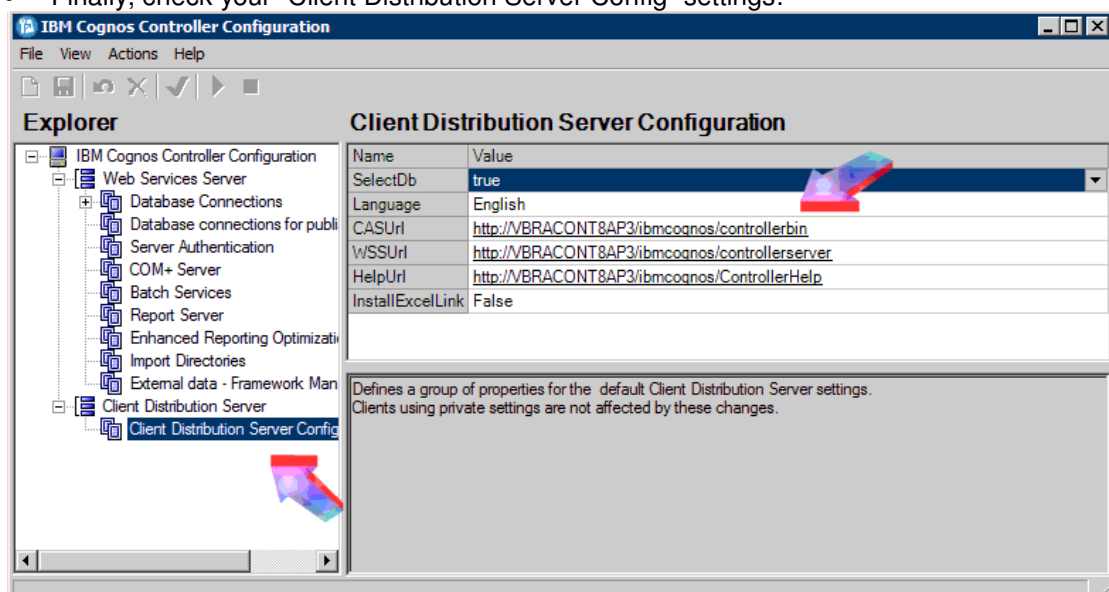


If so, then click “**Repair**”.

- Now ensure that the “Enhanced Reporting Optimization” screen is filled in correctly for each connection name (see below for an example):



- Finally, check your “Client Distribution Server Config” settings:



- then remember to click the **save** button

It is vital that the screens discussed in this section (inside Cognos Controller Configuration) are **exactly** the same after the new install, as they were before the upgrade.

5.23 'Database Connections' – ensure that any 'default' database connection is all lowercase.

IMPORTANT: The 'database connection' names are **case-sensitive**.

Therefore, for 'SelectDB' and 'single-user mode' to work correctly, your main (live) database should **never** be called 'Default'. Instead, it should be 'default' with **all characters lowercase!**

For more information, see IBM Technote 1364826 .

Launch 'Controller Configuration' and then:

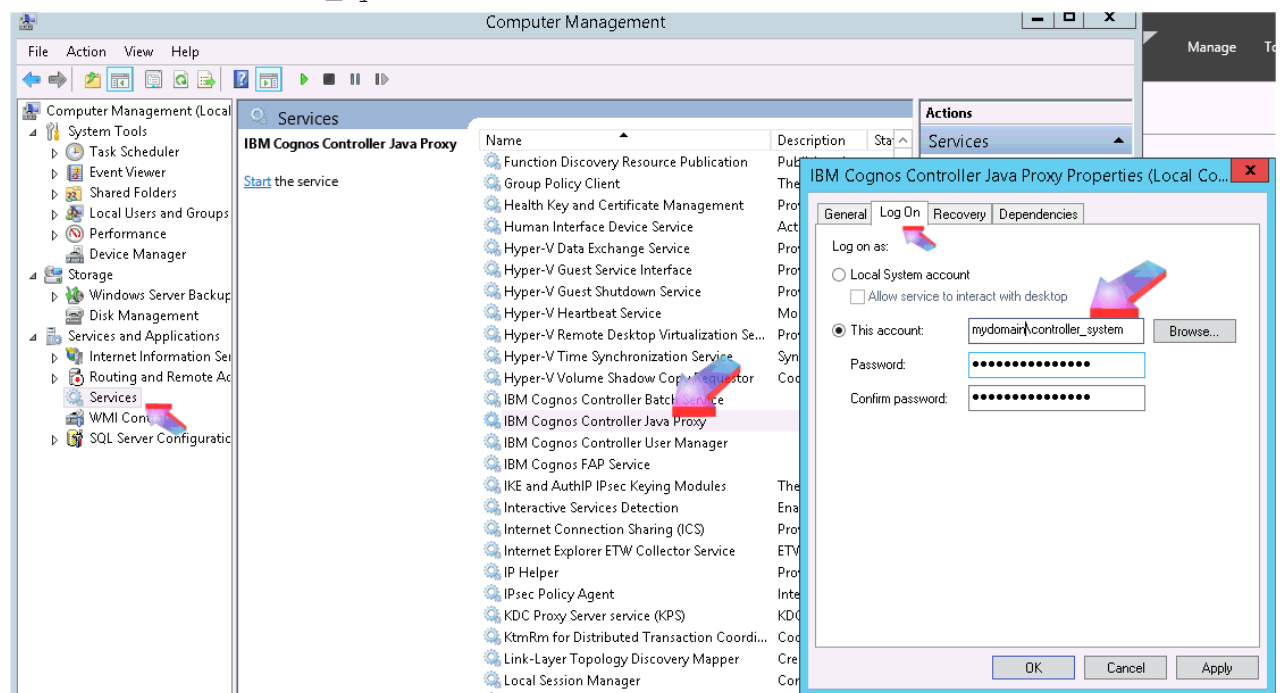
- In the tree control in the left pane, expand Cognos Controller Configuration > Web Services Server > **Database Connections**
- Check if there is a database connection name called 'Default' or similar
- If so, ensure that it is all spelt **lowercase** ("default")

NOTE: Previous versions of Controller required/recommended using 'Default' (and not 'default'). The change in recommendations is because of a **code change that has occurred from 8.5.1 onwards**. For more information, see Technote #1406756.

5.24 'IBM Cognos Controller Java Proxy' Windows Service User Account

Modify the Windows service 'IBM Cognos Controller Java Proxy' so that it does NOT run under the default Windows user ("Local System").

Instead, change it to run under your Controller COM+ user account (for example '`<DOMAIN>\Controller_system`':



5.25 Restore the backup of FAP settings file 'FAPService.properties'

If you had FAP installed before the upgrade (for example were upgrading from 8.5.x) then you should have already created a backup of the configuration file 'FAPService.properties' on your server.

You can now restore your backup into the new location (default = C:\Program Files\ibm\cognos\ccr_64\server\FAP\FAPService.properties).

For example, in this folder

- rename the existing file 'FAPService.properties' to 'FAPService.properties.BLANK'
- copy the file "Backup_before_10.2_upgrade_FAPService.properties" into the folder
- Rename the file to "FAPService.properties".

5.26 Optional - Restore the backup of JAVA settings file 'ccr-dbTypes.properties'

TIP: For most customer's environments, the Java database connection file ("ccr-dbTypes.properties") can be left as the default value (blank).

Therefore, for most installations, you can skip this section.

For some customer's environments, when upgrading from an old version you need to restore the backup for the configuration file 'ccr-dbTypes.properties' that you made earlier.

TIP: By default, you should copy it to here:

C:\Program Files\ibm\cognos\ccr_64\server\integration\ccr-dbTypes.properties

TIP: For more details, see IBM Technote #1440254.

5.27 Oracle only - Restore the backup of JAVA settings file 'ccr-system-properties.properties'

Restore the backup for the configuration file 'ccr-system-properties.properties' that you made earlier.

TIP: By default, you should copy it to here:

C:\Program Files\ibm\cognos\ccr_64\server\integration\ccr-system-properties.properties

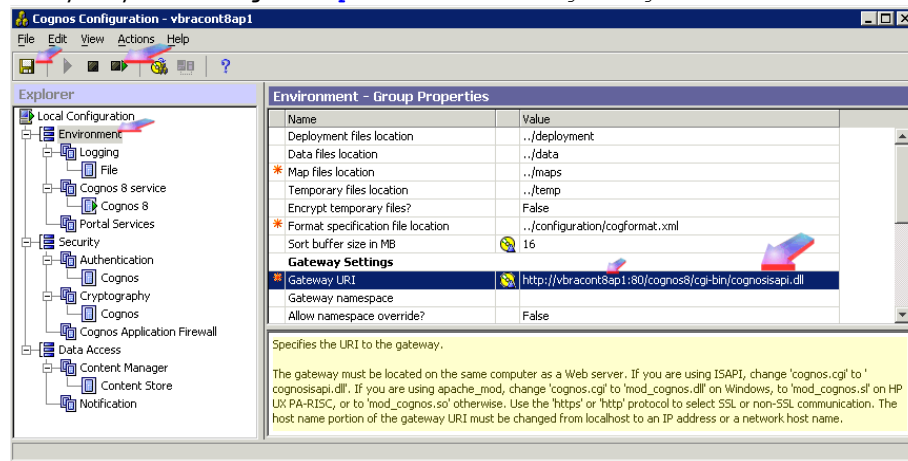
IMPORTANT: Before continuing, you will have to reboot the application server now for all the above system variable changes to be registered.

5.28 Check ISAPI - only required if using ISAPI (not using the default = CGI)

When Controller was first installed, it is possible that Controller was configured to use ISAPI and not CGI for its reporting. This is an optional configuration change that *may* give better performance under certain circumstances.

If this was done, then you **must** perform/check the following to ensure that ISAPI is re-enabled:

- Launch **Cognos Configuration**
- Locate "Environment" – and then search for "Gateway URI"
- Modify entry to have "**cognosisapi.dll**" instead of "**cognos.cgi**" at the end

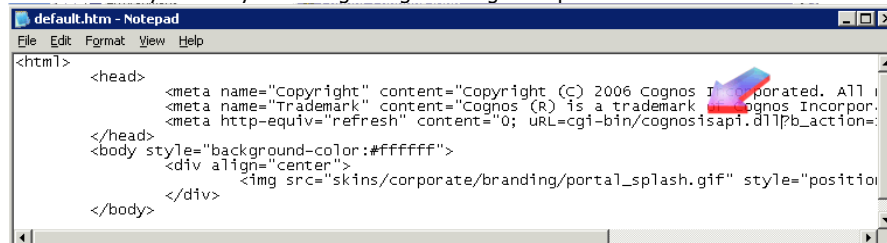


- Click "save"
- Restart the Cognos8 BI service

- In addition, launch the following:

Notepad.exe **C:\program files\ibm\cognos\ccr_64\webcontent\default.htm**

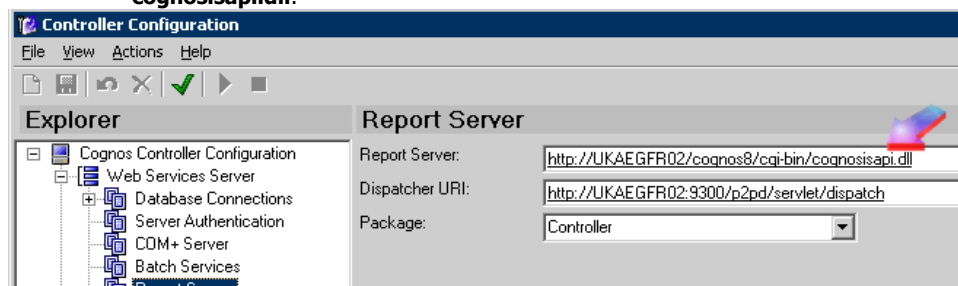
- Modify the entry from "**cognos.cgi**" to "**cognosisapi.dll**" instead:



- Repeat the above for the file:

Notepad.exe **C:\program files\ibm\cognos\ccr_64\webcontent\index.htm**

- Finally, change the "Report Server" setting (inside "Controller Configuration") to use **cognosisapi.dll**:



6 Upgrading TM1 version / FAP system

TIP: This entire section can be skipped if you do not use the Controller feature "Financial Analytics Publisher" (FAP) or you have decided to keep the current/existing/old version of TM1.

6.1 Overview

Each main Controller version (from 8.5 RTM onwards) is bundled with a copy of TM1 for use with the Controller 'FAP' functionality.

- However, there is a restriction placed on the *license* for TM1, so it is only allowed to be used for the Controller FAP functionality (not, for example, for use as a standalone TM1 system for analyzing non-Controller data).

For example:

- Controller **8.5 RTM** ⇔ bundled with TM1 **v9.4.1**
- Controller **8.5.1** ⇔ bundled with TM1 **v9.5.0**
- Controller **10.1.0** ⇔ bundled with TM1 **v9.5.2**
- Controller **10.1.1** ⇔ bundled with TM1 **v10.1.0**
- Controller **10.2.0** ⇔ bundled with TM1 **v10.2.2**

Therefore, when upgrading the Controller version, many customers (who use the FAP functionality) will also want to upgrade their TM1 server.

6.2 Upgrade TM1 server version to new release

Rather than 're-invent the wheel' this document shall intentionally **not** give precise details of how to upgrade a TM1 server from an old version (for example v9.4.1) to a later version (for example 10.2.2).

Instead, the author shall refer you to other existing documentation. For example, at the time of writing there is online documentation here:

http://www-01.ibm.com/support/knowledgecenter/SS9RXT_10.2.2/com.ibm.swg.ba.cognos.ctm1.doc/welcome.html?cp=SS9RXT_10.2.2%2F0

6.3 Re-register new version of Cognos Controller Financial Analytics Publisher

For more details see Technote TN 1515709 and page 140/141 of the Controller 10.2.0 installation guide ("ctrl_inst.pdf"). Here is an extract of that document:

- ☐ Install and configure the latest version of Cognos Controller Financial Analytics Publisher.
- ☐ Run an initial publish to re-create the Cognos Controller Financial Analytics Publisher cubes.
- ☐ Update the names of existing reports and settings that reference the Cognos Controller Financial Analytics Publisher dimensions or cubes.

7 Upgrading end user's Controller client version

Important Change from previous version of this document

In some older versions of this upgrade document, I referred to the fact that it was common/default practice to use the client install file "ControllerClient.MSI".

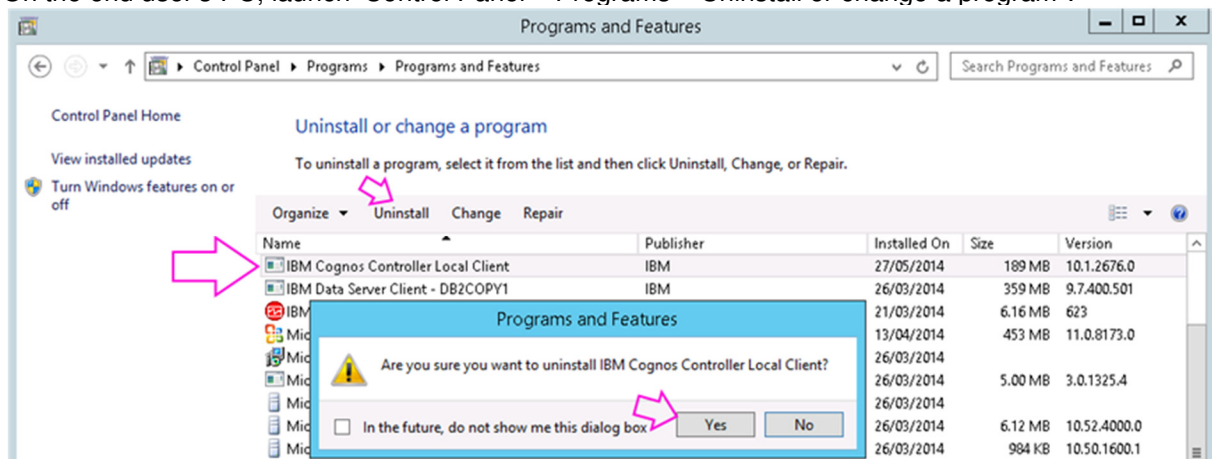
However, for the sake of (a) simplifying the install procedure and (b) conforming with IBM R&D's latest recommendation (<https://www-304.ibm.com/support/docview.wss?uid=swg21501029>) this document shall mainly demonstrate the author's new (since 10.x) preferred method – using/installing the (different) client install file 'CCRLocalClient.MSI'.

However, be aware that this will deliberately/intentionally install the entire Controller client *locally* (on the user's PC/Citrix server) – therefore users will have a Start Menu shortcut (as opposed to using a website) to launch Controller.

If you prefer to remain using the older "ControllerClient.MSI" client install/launch method (via a website), then please skip this entire section, and instead use Appendix C (see end of this document).

7.1 Uninstall current version of the client

On the end user's PC, launch 'Control Panel – Programs – Uninstall or change a program':



- Highlight the relevant client (e.g. "IBM Cognos Controller Local Client" - This will be named differently, depending on the version of Controller you have installed)

TIP: If you do not see an entry for the Controller client, it is ***possible*** that this is caused by a bug in Controller where (for some versions of the client, in some situations) the entry only appears inside Add/Remove Programs when you are logged onto Windows using the same Windows user that originally installed the Controller client.

- In this case, please logoff from Windows and re-login as the relevant Windows user.

- Click "**Uninstall**"
- Confirm that you want to uninstall the software

7.2 Install Controller 10.2.1 client

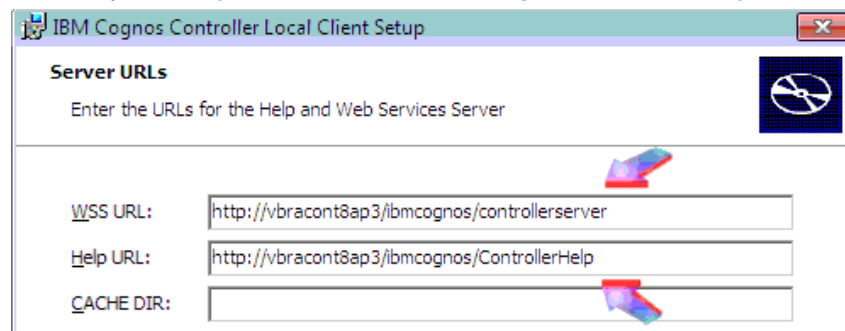
On the end user's PC:

- Install **CCRLocalClient.MSI** (located inside folder ...\\webcontent\\ccr)

TIP: This can be downloaded from the application server:

<http://servername/ibmcognos/controllerbin/CCRLocalClient.MSI>

- When asked for **WSSUrl** & **HelpUrl**, typically enter values similar to:
WSS Url: <http://<servername>/ibmcognos/controllerserver>
Help Url: <http://<servername>/ibmcognos/ControllerHelp>



- You are asked for "CACHE DIR".
 - For 95% of customers, **do not configure this section!**
 - However, some customers (especially those who redirect their %APPDATA% variable) may want to change this value. See Technote #[1409414](#).

For more instructions on the above, see the author's companion document "How to install the IBM Cognos Controller 10.2 client - QUICK START guide - Support Proven Practice".

7.3 Upgrading the Controller client on a Citrix/Terminal Server

- Logon as an Administrator
- Ensure no other users/sessions running on the Citrix server
- Open 'Add/Remove programs'
- Highlight the old client software (e.g. "Controller 8 Excel link Add-In")
- Click 'Remove'

Now we shall install the new client MSI file.

Full instructions are inside the separate document "How to install the IBM Cognos Controller 10.2 client - QUICK START guide - Support Proven Practice".

However, to summarize:

- Launch a command prompt
- `change user /install`
- double-click on MSI file (for example `CCRLocalClient.MSI`)
- `change user /execute`

Afterwards, your Citrix administrator may need to modify the Citrix published application.

- For example, it may be changed from a website (<http://servername/cognos8/controllerbin/ccr.exe>) to "C:\Program Files (x86)\IBM\IBM Cognos Controller\CCR.exe")

Typically, this is all that has to be done on a Citrix/Terminal server. However, see [Appendix B](#) for an extra consideration that you may need to consider, especially if you are using Windows roaming profiles for Terminal Services.

7.4 Inform end users of updated Cognos-related website links.

If you have upgraded from Controller 8.x ***and*** the users use "Cognos Connection" then inform end users that Cognos Connection's website has changed from <http://servername/cognos8> to <http://servername/ibmcognos>

7.5 Inform end users that passwords are now CASE SENSITIVE.

If you have upgraded from Controller 8.x, then be aware that the Controller DbConv upgrade process from Controller 8.x to 10.x will have converted all passwords to **lowercase**. However, from Controller 10.x onwards, when users change their passwords they should be aware that they are **case sensitive**. See Technote #1500962.

7.6 Logon & test for each upgraded client PC

Launch the main Controller client (from the icon in the Start Menu) and login.

- Click 'Help – About' and check that the version of Controller has upgraded, as expected.

Afterwards, launch Excel, and click 'Controller – About Controller Excel link'.

- Check that the version of Controller has upgraded, as expected.

Typically, this is all the testing that needs to be performed on the client PC. In other words, if the above functions work, then it is unlikely that there are any client problems.

8 Other tasks

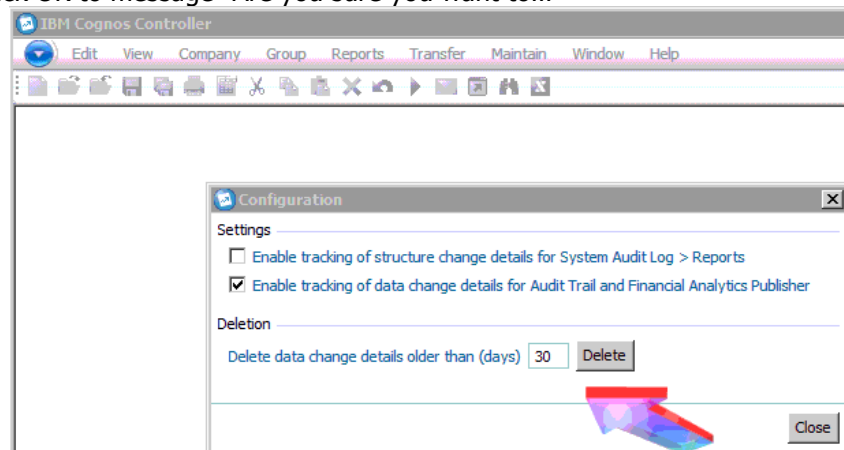
8.1 Superuser should optimise database a.s.a.p.

Although the program may not prompt you to do so, it would be ideal to run an "Optimize" (inside the application) for each database, **as soon as you can** after the upgrade.

8.2 "Enable tracking of data change details..." if using FAP

From Controller 10.1 onwards, there is a new requirement if using FAP. The superuser must perform the following inside the relevant database:

- Click "Maintain - User - Single Mode"
- Click "Maintain - System Audit Log – Configuration"
- Tick "**Enable tracking of data change details** for Audit Trail and **Financial Analytics Publisher**"
- Click OK to message "Are you sure you want to..."

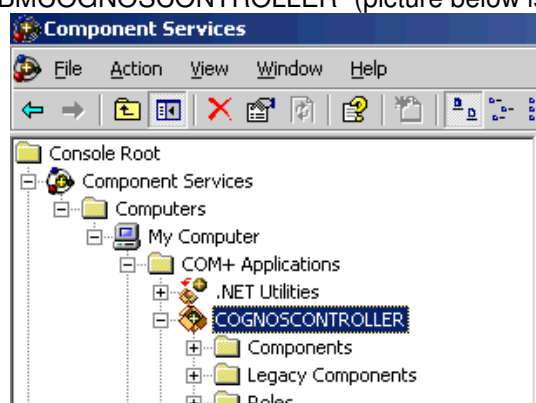


9 Appendices

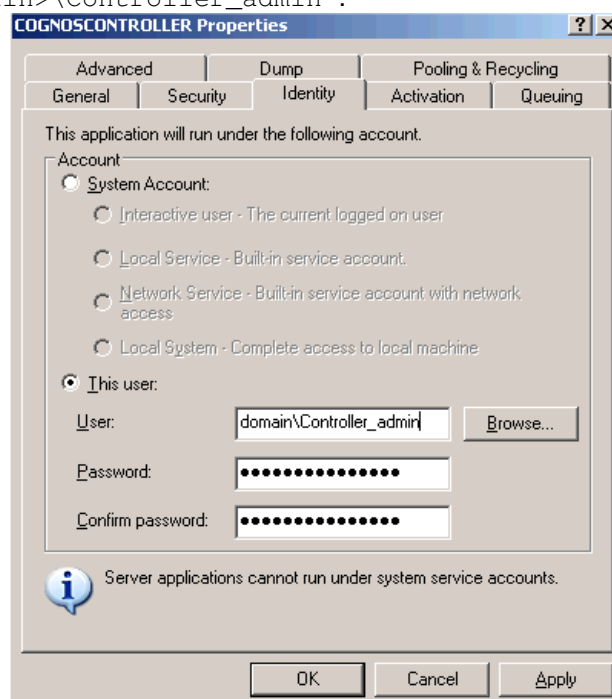
9.1 Appendix A - Checking the Controller Installation Parameters

Controller admin user – perform the following on the Application Server:

- Start – settings – Control Panel
- Administrative Tools – Component Services
- Expand the top row until you see either “COGNOSCONTROLLER” (older versions of Controller) or “IBMCOGNOSCONTROLLER” (picture below is for old version)

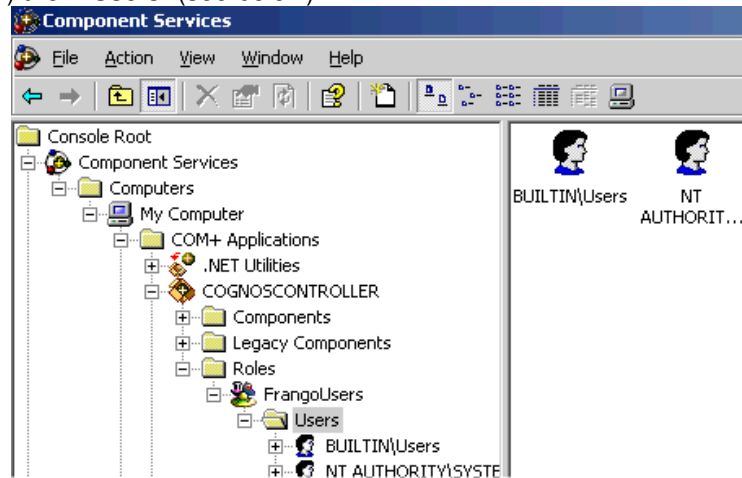


- Right-click on “CognosController” (or IBMCOGNOSCONTROLLER) and choose “properties”
- Click on “identity”
- The Controller “admin” user (a service/system account) is shown (see below) e.g. <yourdomain>\Controller_admin :-



Controller User group – again, perform this on Application Server

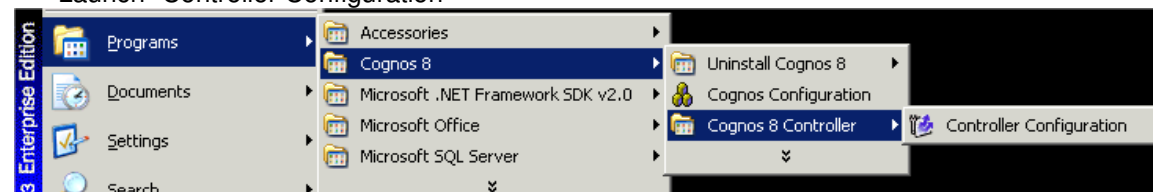
- Locate the COGNOSCONTROLLER COM+ component (see above)
- Expand “Roles” then “FrangoUsers” (TIP: It *may* be called “CognosUsers” or similar) then “Users” (see below)



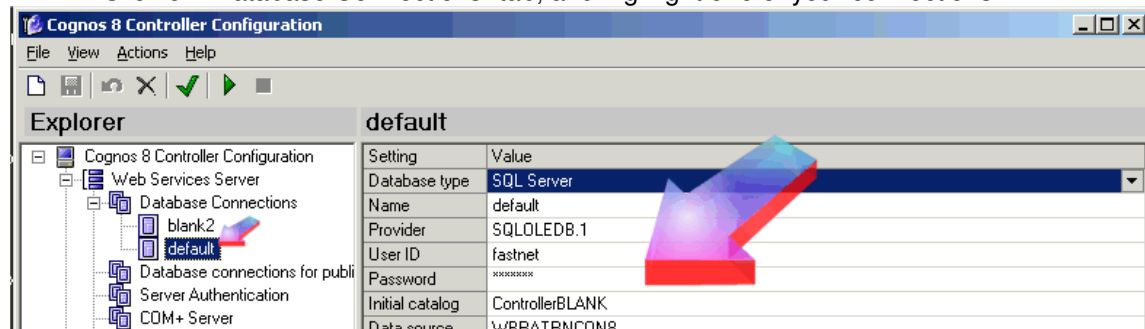
- The users group is now shown (in this case, it's called “BUILTIN\Users”). Typically, this is the group “everyone”.

Database/SQL server – Perform the following on your Application Server:

- Launch “Controller Configuration”



- Click on “Database Connections” tab, and highlight one of your connections



- This shows all the database connections available to the users.
 - The ‘default’ database **connection name** (i.e. the connection name that the users click on inside Controller to connect to the live database) should be called “default” (highlighted above)
 - The actual physical **database** that this connection name *points to* may or may not be the same as the connection name

Application Server – *A Windows 2003 Server, which runs that Controller ‘logic’, as part of several COM+ services.*

Citrix Server / Microsoft Terminal Server – *For some customers, they choose to deploy entirely via Citrix/Terminal Server.*

Installation directories – *the drive/folder used when installing Controller. This may be different for each server*

Simply logon to each application/Citrix server (and client PC if locally installed) to find where Controller is installed (e.g. right-click and click “properties” on Controller start menu item).

Enhanced Reporting Optimization settings

On your *application server*, launch Controller Configuration. Click on “Enhanced Reporting Optimization”

Make a note of your settings *for each database connection*. After you have upgraded Controller, you *may* need to re-enter these settings (previous versions of Controller ‘forgot’ these settings during an upgrade, but more recent versions remember them).

9.2 Appendix B – Citrix/Terminal Services – when using Roaming Profiles

For most customers (not using Terminal Services roaming profiles) can ignore this section.

Check whether your domain/Active Directory is set to use Roaming Profiles for Terminal Service sessions (NB this is a completely *separate* setting from Roaming Profiles for “normal” Windows sessions (e.g. when the user logs onto his/her Windows 7 PC).

Consider the problem that would be caused if the users had roaming profiles for multiple Citrix/Terminal servers. Since Controller creates/requires an Excel add-in for their profile, if the user logs onto a Terminal Server (or Citrix server) that does *not* have Controller installed (or has Controller installed to a different location) then the user profile (i.e. registry settings) will be pointing to files that either do not exist or are in the wrong location. Therefore the user will get errors.

In other words, by default, when the user launches a session on a Citrix server with Controller installed, and then launches Excel, his/her profile will try to open the `C:\Program Files (x86)\IBM\IBM Cognos Controller\ControllerXL.xll` add-in. If they logoff, and then logon to a Citrix server WITHOUT Controller installed, it will STILL try to open this file... but the file wouldn't exist, therefore they would get an error!

There are several solutions to this issue. Consult your Citrix administrator for their best suggestion for how to resolve this problem in your specific environment.

9.3 Appendix C – Using the 'old' client install method ("ControllerClient.MSI")

In this configuration, the Controller client comprises of two parts:

=====

1) "Main" Controller program ("CCR.EXE" – normally launched from a website)

For most customers, CCR.EXE is launched (from the client) *directly from the website*. i.e. <http://servername/ibmcognos/controllerbin/ccr.exe>. For these customers, there is nothing more to do (relating to CCR.EXE).

However, there may be a reason (e.g. for some customers delivering Controller via Citrix) where the client (e.g. Citrix server or end user's PC) device has the CCR folder (containing CCR.EXE and the other files) copied locally (i.e. onto his/her PC). If this is true, then this folder ***needs to be updated with the "new" CCR folder***, [which is found as a subfolder of "webcontent" on the Application server]

=> typically

- If upgrading from **Controller 8.x**, **modify the URL** that the user uses
- If upgrading from **Controller 10.1.x**, **there is no action required** on the client PC regarding this part of the client.

=====

2) The "Excel link" (an add-in which is installed from an .MSI file)

To upgrade, simply uninstall the old version of the Excel link (on each client PC and/or Citrix server). Afterwards, simply re-install the later version ***in the same way as it was originally installed***.

(Typically this means deploying the file `ControllerClient.MSI` for manual installs, and "ClientAdmin.MSI" when automatically deploying via a tool such as Active Directory).

=> typically you **need to upgrade each and every client PC** regarding this part of the client.

Upgrading an end user's Excel link on a standard Desktop PC:

- Logon as an Administrator
- Open 'Add/Remove programs'
- Highlight the old "Controller 8 Excel link Add-In" software
- Click 'Remove'
- Afterwards, install the new Excel link MSI file, by simply double-clicking on the MSI file (e.g. "ControllerClient.MSI")

TIP:

- There are 3 different types of MSI file, each of which are inside the `webcontent\ccr` folder (on the application server)
- **IMPORTANT:** Use the same type of MSI file as the PC previously had installed (typically/by default, this is `ControllerClient.MSI`)
- For more information on the different MSI files, see IBM Technote 1371088 – "What is the difference between the different Controller 8.2 client MSI packages?"

Upgrading the Excel link on a Citrix/Terminal Server:

- Logon as an Administrator
- Ensure no other users/sessions running on the Citrix server
- Open 'Add/Remove programs'
- Highlight the old "Controller 8 Excel link Add-In" software
- Click 'Remove'

Now we shall install the new Excel link MSI file.

TIP:

- There are 3 different types of MSI file, each of which are inside the `webcontent\ccr` folder (on the application server)
- **IMPORTANT:** Use the same type of MSI file as the PC previously had installed (typically/by default, this is `ControllerClient.MSI`)
- For more information on the different MSI files, see IBM Technote 1371088 – "What is the difference between the different Controller 8.2 client MSI packages?"

To do this:

- Launch a command prompt
- `change user /install`
- double-click on MSI file (for example `ControllerClient.MSI`)
- `change user /execute`

Typically, this is all that has to be done on a Citrix/Terminal server. However, see [Appendix B](#) for an extra consideration that you may need to consider, especially if you are using Windows roaming profiles for Terminal Services.

Inform end users of updated Cognos-related website links.

For example, inform end users that Cognos Connection's website has changed from <http://servername/cognos8> to <http://servername/ibmcognos>

Inform end users that passwords are now CASE SENSITIVE:

The Controller DbConv upgrade process from Controller 8.x to 10.x will have converted all passwords to **lowercase**. However, from now onwards, when users change their passwords they should be aware that they are **case sensitive**. See Technote #1500962.

Logon & test for each upgraded client PC:

Launch the main Controller client (for example <http://servername/ibmcognos/controllerbin/ccr.exe>) and login. Click 'Help – About' and check that the version of Controller has upgraded, as expected.

Afterwards, launch Excel, and click 'Controller – About Controller Excel link'. Check that the version of Controller has upgraded, as expected.

Typically, this is all the testing that needs to be performed on the client PC. In other words, if the above functions work, then it is unlikely that there are any client problems.