

Description: Guide to upgrading an existing Hyper Historian configuration from v10.61 (including Hot Fix Pack 1 and Hot Fix Pack 2) to a v10.70 Hyper Historian configuration.

OS Requirement: Server 2003 x64/Vista x64/ Server 2008 x64/Windows 7 x64/ Server 2008 R2 x64

General Requirement: A former installation of Hyper Historian, overall knowledge of the Workbench and knowledge about the MonitorWorX redundancy viewer.

Introduction

This application note will guide you on how to upgrade your existing v10.6x Hyper Historian configuration to v10.70.

This application note will also give detailed guidance on how to upgrade four node and two node redundancy setups with zero data loss.

Before proceeding with the upgrade, please note that previous versions of the license must be upgraded to version 10.7x using the Web Licensing Utility. This applies to both software and hardware licenses.

Please contact the ICONICS Orders Department to verify that your SupportWorX plan covers this upgrade and to receive instructions on how to perform the upgrade.

Recommended Pre-Upgrade Actions

- Check that your SupportWorX Plan is valid and covers the upgrade – you can contact the ICONICS Orders Department for this information.
- Check that your hardware and software components meet the minimum requirements – see the DVD readme.
- Obtain account credentials for an account with local administrator rights to the machine where you will be doing the upgrade.
- Obtain account credentials for the Microsoft SQL Server you will be using for your configuration and logging databases.
- Check the ICONICS website for any patches or known issues prior to the upgrade.

Preparation

Due to enhancements added to the ICONICS products version 10.7, the 10.70 installation requires any ICONICS products of 10.61 or earlier versions to be uninstalled. The 10.70 installation will uninstall any 10.6x products for you as part of the install.

The following 10.6x products will be uninstalled:

- GENESIS64 - available on the GENESIS64 DVD

- Energy AnalytiX - available on the AnalytiX DVD
- Facility AnalytiX - available on the AnalytiX DVD
- Hyper Historian - available on the Hyper Historian DVD
- AlarmWorX64 Multimedia - available on the Hyper Historian DVD

All of the above products will be uninstalled when you run the upgrade for one product. For example, if you have 10.61 versions of GENESIS64, Energy AnalytiX, and Hyper Historian currently installed and you run the upgrade of Hyper Historian from the 10.70 DVD then Energy AnalytiX and GENESIS64 will also be uninstalled.

Once the Hyper Historian 10.70 installation has completed you will also need to run the 10.70 installations for Energy AnalytiX and GENESIS64 as well from their respective DVDs (if you still wish to use those products).

Follow these steps before running the 10.7 installation:

1. Back up all display files and configuration and logging databases.
2. ICONICS recommends that you keep your license safe during the upgrade process. The license can be stored back to the ICONICS online depository. For this the user can kill the license, credit it to the ICONICS Web Licensing Utility site, then use the Upgrade License action on the web to upgrade your license to 10.7.

NOTE: For more details on how to kill, credit, and reauthorize your license, see one of these app notes, depending on your license type:

Licensing – Using the ICONICS Web Licensing Utility for Software Key Licenses

Licensing – Using the ICONICS Web Licensing Utility for Hardware Key Licenses

3. Shut down any running ICONICS processes and services.

Upgrading an existing Hyper Historian configuration (without redundancy)

If you are using Hyper Historian configured with at least one remote Hyper Historian Collector then you should read the following note carefully. If you are using Hyper Historian only with the local collector then you can skip the following note.

Note: In case your Hyper Historian 10.61 is setup with a remote collector(s) you can minimize the data loss during upgrade of the Hyper Historian Collector and the Hyper Historian Logger machine.

The following steps given in this Note are only necessary if you

are upgrading your Hyper Historian setup with remote collector(s) to version 10.7 from these versions:

- 10.61
- 10.61 with Hot Fix Pack 1
- 10.61 with Hot Fix Pack 2

Do not follow the steps in this Note if any other versions are being used.

In order to minimize data loss during the system upgrade, please obtain the FwxAsyncCore.dll file from the Hyper Historian DVD located in the “Tools/Hyper Historian Upgrade” folder and copy it to the following locations:

- C:\Program Files\Common Files\ICONICS\FWX64\BIN
- C:\Program Files\ICONICS\GENESIS64\Components
- C:\Program Files\ICONICS\GENESIS64\WebSites\IcoConfig\Bin
- C:\Program Files\ICONICS\GENESIS64\WorkbenchSL\Bin

If you have both GENESIS64 and Hyper Historian installed on your machine with no redundancy, first insert the GENESIS64 v10.70 DVD and run the GENESIS64 setup. This would upgrade your GENESIS64 to v10.70 and also uninstall your existing version of Hyper Historian. After the GENESIS64 installation, you can insert the Hyper Historian DVD and install Hyper Historian for v10.70.

NOTE: For more details about upgrading GENESIS64 v 10.xx to v10.70, please read the application note *GENESIS64 - Upgrade to Version v10.7*.

If you only have a Hyper Historian installation with no GENESIS64, simply insert the Hyper Historian DVD for v10.70 and run the setup file and continue with the installation. This will uninstall the existing version and install Hyper Historian v10.70.

Some users prefer to use the default Hyper Historian database for their configurations. In this case, is it is **extremely important** not to overwrite any databases during the Hyper Historian database installation, or else the existing default configuration **will be permanently overwritten**. When prompted, select the check mark for “Do this for the next 8 conflicts” and click on “Don’t overwrite” similar to Figure 1.

ICONICS recommends that all configuration databases be backed up before upgrading the software to new version.

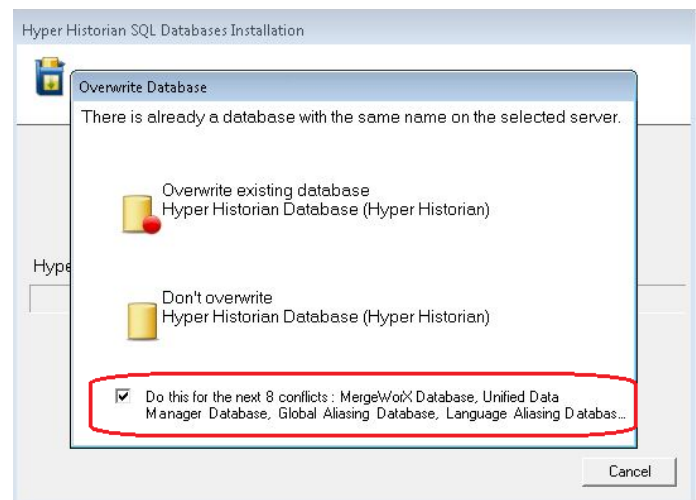


Figure 1 - Do not overwrite default databases if they are being used in the configuration.

The following databases will be affected during the Hyper Historian database installation.

- Hyper Historian
- MergeWorX
- UdmConfig
- GasConfig
- LanguageAliasing
- Snmp
- BACnet
- Icosec
- FrameWorX Server

If it was decided not to overwrite these databases, you will have to upgrade them after the installation, starting with Icosec (the default security database).

NOTE: There are databases that require upgrading following the GENESIS64 upgrade to 10.70 as well. Please read the application note *GENESIS64 - Upgrade to Version v10.7* for further details.

After the Hyper Historian installation, follow these three simple steps to reactivate your configuration database:

1. Connect to the configuration database.
2. Execute the Upgrade Database command.
3. Check if the configuration is okay.

These steps are explained in more detail below.

Connecting to the v10.6 configuration

- Open Workbench from the Start Menu and select the Hyper Historian provider.

- Select your “server name” entry (localhost by default). Right click on it and select “Connect database”

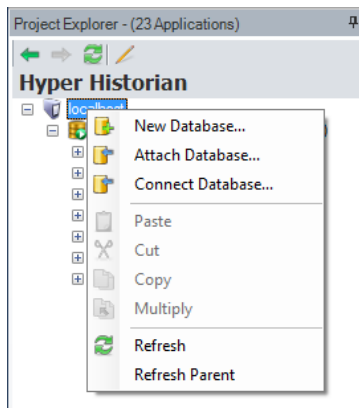


Figure 2 – Connect Database context menu

- Connect to your SQL Server, where the v10.6 Hyper Historian configuration databases are stored.
- Select the former Hyper Historian database from the dropdown menu.
- Click Finish when ready.

Connecting may take some time depending on the size of your configuration.

Upgrading the existing Hyper Historian database

The configuration database will appear in the list after you’ve connected. It will have a question mark on the icon to indicate it needs to be upgraded. Expand the tree and you will see something similar to Figure 3.

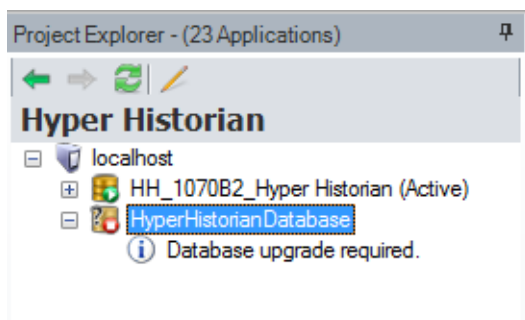


Figure 3 – Database upgrade required

Right click on the database and select “Upgrade Database” similar to Figure 4.

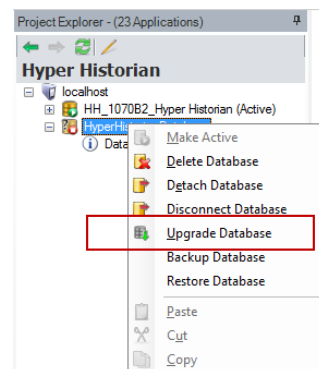


Figure 4 – Upgrade Database action

Check the box similar to Figure 5 on the dialog box in order to continue.

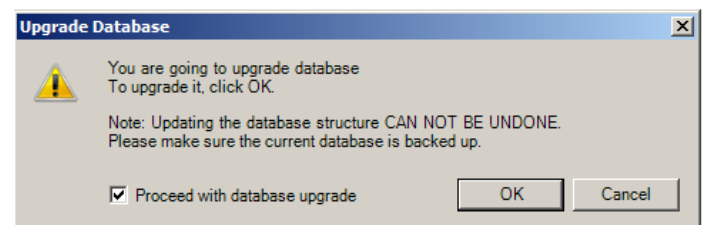


Figure 5 – Upgrade database

Check the configuration

After the upgrade has finished successfully, have a look at the configuration to see if it has upgraded correctly. You can activate the configuration and start the Hyper Historian Logger.

Upgrading a four node redundancy setup to 10.70

Basic steps for the upgrade

This section is for upgrading a four node redundancy setup for Hyper Historian, pictured in Figure 8.

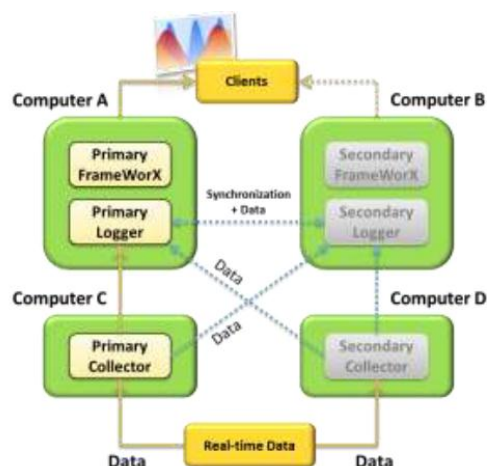


Figure 6 – Four node redundancy setup

Here is a summary of the steps to upgrade this system, with more detailed explanations to follow:

- Copy FwxAsyncCore.dll from the DVD to Computer B (For upgrades from v10.61).
- Copy FwxAsyncCore.dll from the DVD to Computer A (For upgrades from v10.61).
- Upgrade Secondary Collector to v10.70.
- Upgrade Secondary Logger to v10.70 and the license
- Upgrade Primary Collector to v10.70.
- Upgrade Primary Logger to v10.70 and the license

Four node redundancy setup upgrade in detail

NOTE: This application note should be followed to the exact step to eliminate data loss during the upgrades.

Steps 1-5 below are only necessary if you are upgrading your redundancy setup to version 10.7 from these versions:

- 10.61
- 10.61 with Hot Fix Pack 1
- 10.61 with Hot Fix Pack 2

Do not implement steps 1-5 when upgrading from any other version than those listed above.

1. On the machine where the Secondary Logger resides, open this folder:

C:\Program Files\Common Files\ICONICS\FWX64\BIN

Right click on the “StopGenesis.bat” file and run it as administrator. This will stop all ICONICS services on the Secondary Logger machine.

2. Verify that the Secondary Logger and FrameWorX server are offline in the MonitorWorX redundancy viewer and that data is still being collected and logged from the Primary Collector and Logger respectively.
3. Obtain the FwxAsyncCore.dll file from the Hyper Historian DVD located in the “Tools/Hyper Historian Upgrade” folder and copy it to the following locations:

- C:\Program Files\Common Files\ICONICS\FWX64\BIN
- C:\Program Files\ICONICS\GENESIS64\Components
- C:\Program Files\ICONICS\GENESIS64\WebSites\IcoConfig\Bin
- C:\Program Files\ICONICS\GENESIS64\WorkbenchSL\Bin

4. Reboot the Secondary Logger machine. Start the Hyper Historian logger service. Open the redundancy viewer and wait until the Secondary Logger is online. Ensure both the Primary and Secondary loggers are collecting data from the Primary Collector.
5. Repeat steps 1-3 for the Primary Logger machine. After running StopGenesis.bat, verify that the logging switches to the Secondary Logger and it collects data from the Primary Collector. **Do not proceed until this is verified.**

It is also important to verify that both Primary and Secondary Loggers are back online after the reboot and the Primary Logger is once more active and collecting data from the Primary Collector before continuing with the upgrade.

Upgrade Secondary Collector to v10.70

6. Open the NT Services console (services.msc) and stop the Hyper Historian collector service on the Secondary Collector. Verify the Secondary Collector is offline through the redundancy viewer of MonitorWorX .
7. Insert the Hyper Historian DVD and upgrade the Secondary Collector to v10.70.
8. Once upgraded, open the services console and start the collector service.
9. In the MonitorWorX redundancy viewer for Hyper Historian, verify that the secondary collector is once more available and both loggers have the secondary collector under their tree similar to Figure 7.

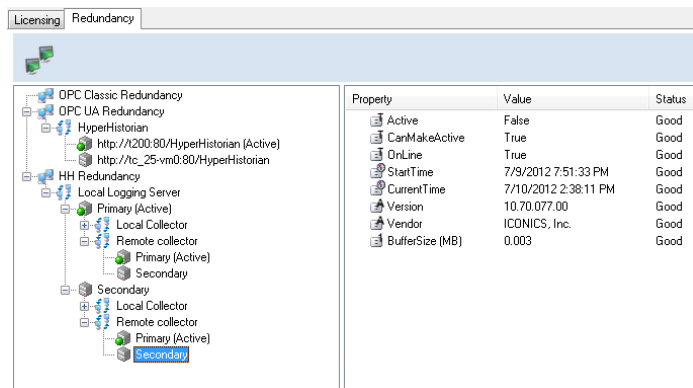


Figure 7 – Secondary collector should be available for both loggers after the upgrade

Figure 9 shows four node redundancy setup viewed from the MonitorWorX redundancy viewer with the Secondary Collector upgraded to v10.70.

Upgrade Secondary Logger to v10.70

10. From services.msc, stop the logger service on the Secondary Logger and verify it is offline through the redundancy viewer. Also verify that data is still being logged to the Primary Logger.
11. Kill the license and proceed with the license upgrade
12. Upgrade GENESIS64 and Hyper Historian to v10.70 on the machine with the Secondary Logger.

Is it **extremely important** not to overwrite any databases during the Hyper Historian database installation, or else the existing default configuration **will be permanently overwritten**. When prompted, select the check mark for “Do this for the next 8 conflicts” and click on “Don’t overwrite” similar to Figure 1 on page 1.

13. After the installation, reboot, open Workbench and first upgrade the security database. Then upgrade all other databases that need to be upgraded including the Hyper Historian database. If you weren’t using the default configuration, you will have to reconnect your former database, upgrade it and make it active. See the instructions for “Upgrading an existing Hyper Historian configuration (without redundancy)” above for further details.
14. Start the logger service on the Secondary Logger. Verify that the Secondary Logger is back online through the redundancy viewer. Verify the active collector for the Secondary Logger is the Primary Collector. Also verify that the Primary Logger is still active.

15. At this point, the Secondary Logger (v10.7) is getting data from the v10.61 Primary Logger that is fed by the v10.61 Primary Collector. It is important to verify that data is being correctly logged on the Secondary Logger before proceeding with rest of the upgrade.

Upgrade Primary Collector to v10.70

16. Given you have Completed steps 1-5 for the Primary and Secondary Loggers, we will upgrade the Primary Collector to v10.70. Stop the collector service on Primary Collector from services.msc.
17. Verify the active collector for both Primary Logger (v10.61) and Secondary Logger (v10.7) have switched to the Secondary Collector (v10.7) similar to Figure 10 – Final two node redundancy setup after the upgrade to V10.70.

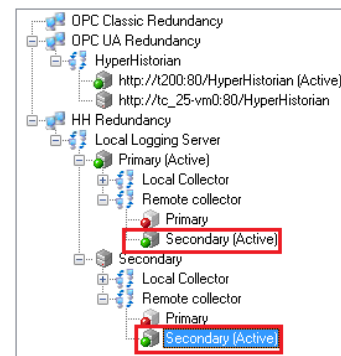


Figure 8 – Secondary Collector should be active for both loggers at this point

18. Upgrade the Primary Collector to v10.70 by inserting the Hyper Historian DVD for v10.70 and running the setup file. Then open services.msc and start the Hyper Historian collector service.
19. Verify that the Primary Collector comes back online on the MonitorWorX redundancy viewer. Verify the Primary Collector becomes “active” for both loggers (with auto-failback on).
20. Verify that data is being correctly logged on both loggers. Note that at this point, the Primary Logger (v10.6) is collecting data from the Primary Collector (v10.70) while the Secondary Logger (v10.70) is getting data from the Primary Logger (v10.61). It is important to verify that data is logging on both loggers before proceeding.

Upgrade Primary Logger to v10.70

21. Stop the Primary Logger service from services.msc. Verify that the Secondary Logger becomes active and it collects data from the Primary Collector.
 22. Kill the license and proceed with the license upgrade.
 23. Upgrade the Primary Logger machine with the v10.70 versions of GENESIS64 and Hyper Historian using the DVDs and finally reboot the machine.
 24. Open Workbench and upgrade the security database. Upgrade the Hyper Historian databases. If you are not using the default database, you will have to reconnect your old configuration database and upgrade it. Upgrade all databases that need to be upgraded on the Workbench. Please see the section entitled, “Upgrading an existing Hyper Historian configuration (without redundancy)” for further details.
- NOTE:** For more details about upgrading the databases in Workbench, please read the application note *GENESIS64 - Upgrade to Version v10.7*.
25. After the upgrade, start the Hyper Historian logger service.
 26. Open MonitorWorX redundancy viewer for Hyper Historian and verify that the Primary Logger is back online and it is active. Verify that the Primary Logger has the active Primary Collector under its tree. Verify the data is being correctly logged on both loggers.

At this point you have successfully upgraded your complete four node redundancy setup to v10.70. If you followed the exact steps mentioned in this application note, you should have done the upgrade with zero data loss after data synchronization has finished.

Upgrading a two node redundancy setup to 10.70

Basic steps for the upgrade

The two node redundancy setup is arranged similar to that of Figure 9. Note that the Primary Logger is in a different machine compared to the Primary Collector and FrameWorX servers. This is called the “crossover setup” and is the recommended way of setting up two node redundancy.

Here is a summary of the steps to upgrade this system, with more detailed explanations to follow:

- Copy FwxAsyncCore.dll from the DVD to Server B (For upgrades from v10.61).
- Copy FwxAsyncCore.dll from the DVD to Server A (For upgrades from v10.61).
- Upgrade Server B to Hyper Historian v10.70 and the license
- Upgrade Server A to Hyper Historian v10.70 and the license

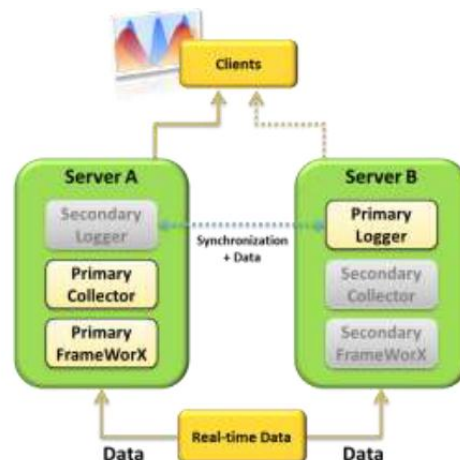


Figure 9 - Two node redundancy setup

A two node redundancy setup is similar to that of Figure 9. You can refer to the application note entitled *Hyper Historian – Redundancy Setup Options* for more details on this cross-over configuration for the two node redundancy setup.

Two node redundancy setup upgrade in detail

Steps 1-6 below are only necessary if you are upgrading your redundancy setup to version 10.7 from these versions:

- 10.61
- 10.61 with Hot Fix Pack 1
- 10.61 with Hot Fix Pack 2

Do not implement steps 1-6 when upgrading from any other version than those listed above.

1. On Server B, open this folder:

C:\Program Files\Common Files\ICONICS\FWX64\BIN

Right click on the “StopGenesis.bat” file and run it as administrator. This will stop all ICONICS services on the Server B machine.

2. Through the MonitorWorX redundancy viewer for Hyper Historian, verify that the Secondary Logger becomes active and starts collecting data from the Primary Collector. **Do not continue without verifying this.**

3. Obtain the FwxAsyncCore.dll file from the Hyper Historian DVD located in “Tools/Hyper Historian Upgrade” folder and copy it to the following folders.

- C:\Program Files\Common Files\ICONICS\FWX64\BIN
- C:\Program Files\ICONICS\GENESIS64\Components
- C:\Program Files\ICONICS\GENESIS64\WebSites\IcoConfig\Bin
- C:\Program Files\ICONICS\GENESIS64\WorkbenchSL\Bin

4. Reboot Server B. Wait for the data to sync and through the redundancy viewer, verify that the Primary Logger is active again and collects data from the Primary Collector.

5. Run “stopgenesis.bat” as administrator on Server A. Verify through the MonitorWorX redundancy viewer that the primary logger starts collecting data from the Secondary Collector.

6. Repeat step 1-4 for Server A and reboot. Through the MonitorWorX redundancy viewer for Hyper Historian, verify that the Primary Collector and Primary FrameWorX services are once more active and the Primary Logger is collecting data from the Primary Collector.

Upgrade Server B

7. Go to run → services.msc and stop the Hyper Historian logger and collector services on Server B. Through the

redundancy viewer on MonitorWorX, verify that the Secondary Logger starts collecting data from the Primary Collector.

8. Kill the license and proceed with the license upgrade.
9. Upgrade GENESIS64 and Hyper Historian on Server B from v10.xx to v10.70. For further details, please read the section entitled, “Upgrading an existing Hyper Historian configuration (without redundancy)”.
10. Reboot and upgrade the respective databases starting from the Security Server database. You will have to reconnect, upgrade and make active your Hyper Historian database if you are not using the default database configuration.

Is it is **extremely important** not to overwrite any databases during the Hyper Historian database installation, or else the existing default configuration **will be permanently overwritten**. When prompted, select the check mark for “Do this for the next 8 conflicts” and click on “Don’t overwrite” similar to Figure 1 on page 1.

11. Start the Logger and Collector services on Server B and wait for the data to synchronize. Verify that the Primary Logger, Secondary Collector and the Secondary FrameWorX server comes online through the MonitorWorX redundancy viewer.
12. Verify that the Primary Logger becomes active again and starts collecting data from the Primary Collector.
13. Verify that both Primary and Secondary Loggers have the Primary Collector active.

Upgrade Server A

14. We will now upgrade Server A Hyper Historian to v10.70.
15. Kill the license and proceed with the license upgrade.
16. Stop collector and logger services on Server A. Verify the Primary Logger starts collecting data from the Secondary Collector. **Only proceed to step 17 after verifying this.**
17. Upgrade GENESIS64 and Hyper Historian on Server A to v10.70 using the DVD. Read “upgrading an existing Hyper Historian configuration (without redundancy)” section for further details.
18. Reboot and upgrade the databases starting from the security database followed by the Hyper Historian database.

19. Start the Logger and Collector services on Server A.
20. Verify that Primary Logger logs data and once more starts collecting data from the Primary Collector.
21. Also verify that all collectors and loggers are back online through the MonitorWorX redundancy viewer for Hyper Historian. Verify that both loggers are logging data.
22. Verify that the Primary Logger is “active” and that both Primary and Secondary Loggers have the Primary Collector as “active”.

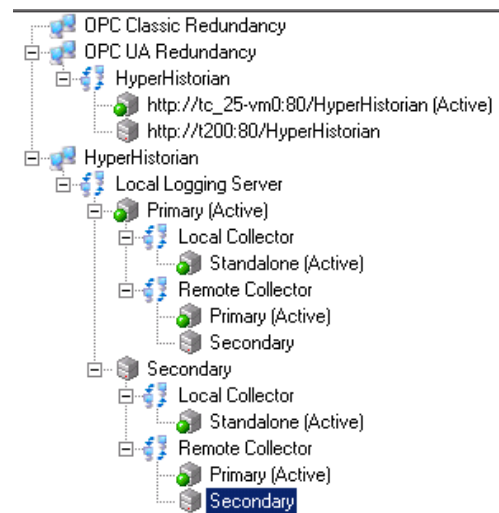


Figure 10 – Final two node redundancy setup after the upgrade to V10.70.

If you follow these exact steps, there will be no data loss on your two node redundancy setup during the upgrade to 10.70.