

**800xA for DCI 5.1 Rev E**  
**Installation – Upgrade**  
**Post Installation – Maintenance**  
**Supplemental Instructions**

**3BUA001686-510 E**

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# 1 Introduction

800xA for DCI 5.1 is released with System 800xA 5.1, however, the 800xA System Installer 5.1 does not support automatic installation of the 800xA for DCI 5.1 product. In addition, instructions for 800xA for DCI 5.1 Installation (automatic and manual), upgrade, and post installation are not included in the System 800xA 5.1 user documents.

For the 800xA for DCI 5.1 release, this document complements the following System 800xA 5.1 user documents.

- 3BSE034679-511: System 800xA Automated Installation System Version 5.1
- 3BSE034678-511: System 800xA Manual Installation System Version 5.1
- 3BSE036342-511: System 800xA Upgrade System Version 5.1
- 3BUA000156-511: System 800xA Post Installation System Version 5.1
- 3BSE046784-510: System 800xA System Maintenance System Version 5.1

The upgrade path for 800xA for DCI 5.1 is a manual upgrade path. A system running 800xA 4.1 with 800xA for DCI 4.1 or 800xA 5.0 SP2 latest revision with 800xA for DCI 5.0 SP2 RUx cannot be upgraded automatically using System Installer. System Installer 5.1 does not recognize 800xA for DCI 5.1, thus the System Installer tools used in automatic upgrade procedures cannot be used.

## 2 800xA for DCI Software Release

Obtain the 800xA for DCI 5.1 software deliverable via the System 800xA 5.1 release media. The 800xA for DCI 5.1 software deliverable includes the components identified below: the DCI Extension, the DCI Batch Extension, and the DCI VB6 Graphics Extension.

Application	System Extension
800xA for DCI	DCI Extension
	DCI Batch Extension
	DCI VB6 Graphics Extension

Copy the software files to a folder on the disk of each machine, or to a share folder accessible from each machine.

800xA for DCI 5.1 Connectivity Server software is supported on Microsoft Windows Server 2008 SP2 or Windows Server 2008 R2 SP1 only.

In System 800xA 5.1, 800xA for DCI may be installed on a virtual machine running the Microsoft Server 2008 operating system and functions with ECC MUX software. Refer to the ABB ECC MUX Installation and Configuration User Manual (3BUA000910\*) for detailed information to configure the ECC MUX on a virtual machine.

Composer CTK SR6.0 SP1 and ECC MUX 2.1 are network compatible with 800xA for DCI 5.1.

### 3 Composer CTK Software

Composer CTK Version 6.x software is required on at least one node in a system.

- ⓘ Composer CTK SR6.x software must be installed on a separate node on the DCI Control Network (CNET). It may not be on the same node as the 800xA for DCI 5.1 Connectivity Server. 800xA for DCI 5.1 Connectivity Server runs on Windows Server 2008 SP2 or Windows Server R2 SP1. Composer CTK SR6.0 SP1 is not supported on Windows Server 2008. Composer CTK SR6.1 supports Windows Server 2008 and Windows 7.

Composer CTK SR6.x is needed for the following DCI Engineering functions that are not supplied with 800xA for DCI:

- DCU Status Display
- Network Device Assignment
- DCU Resident Configuration
- DCU Support Services
- DCU Operations
- DCU File Operations
- Program Download
- Database Download and Updump
- CCL Editing
- 800xA Tag List Export

Composer CTK SR6.x is required for support of 800xA Batch for DCI.

## 4 Redundant Connections to Harmony DCUs

The ABB ECC MUX Redundant Ethernet software driver provides the redundant communication to the Harmony DCU. Thus, the ABB ECC MUX provide the only mechanism for a redundant connection to the Harmony DCU controllers.

800xA for DCI 5.1 is fully compatible with the ABB ECC MUX 2.1 or 2.2 driver software.

For detailed instructions on installing the ABB ECC MUX Redundant Ethernet Driver software, refer the ECC MUX Installation and Configuration User Manual (3BUA000910\*).

Refer to Table 1 for default IP addresses for each DCI Connectivity Server.

**Table 1: Default IP Addresses**

Item	Host Name	IP Address
DCI Primary Connectivity Server 1	DCI1	40.0.20.1
DCI Secondary Connectivity Server 1	DCI2	40.0.20.2
DCI Primary Connectivity Server 2	DCI3	40.0.20.3
DCI Secondary Connectivity Server 2	DCI4	40.0.20.4
DCI Primary Connectivity Server 3	DCI5	40.0.20.5
DCI Secondary Connectivity Server 3	DCI6	40.0.20.6
DCI Primary Connectivity Server 4	DCI7	40.0.20.7
DCI Secondary Connectivity Server 4	DCI8	40.0.20.8

If using the ABB ECC MUX Redundant Ethernet Driver software to communicate to the Harmony DCU, set the subnet mask to a value of 255.0.0.0 for the required Class A network. Ensure that it is NOT configured to obtain IP Address from a DHCP Server.

## 5 800xA for DCI Automatic Installation

800xA for DCI 5.1 is released with System 800xA 5.1, however, the 800xA System Installer 5.1 does not support automatic installation of the 800xA for DCI 5.1 product and is thus is not installed as part of the documented System 800xA 5.1 automated installation procedure. However, a base 800xA 5.1 system can be installed using the System 800xA 5.1 automated installation procedures with additional manual steps to install 800xA for DCI 5.1 software.

The System 800xA Automated Installation System Version 5.1 user document, 3BSE034679-511, describes basic system installation procedures. These procedures include the following:

- System Preparation

- System Planning

- System Installation - New System Installation

- System Installation – Upgrading an Installed System

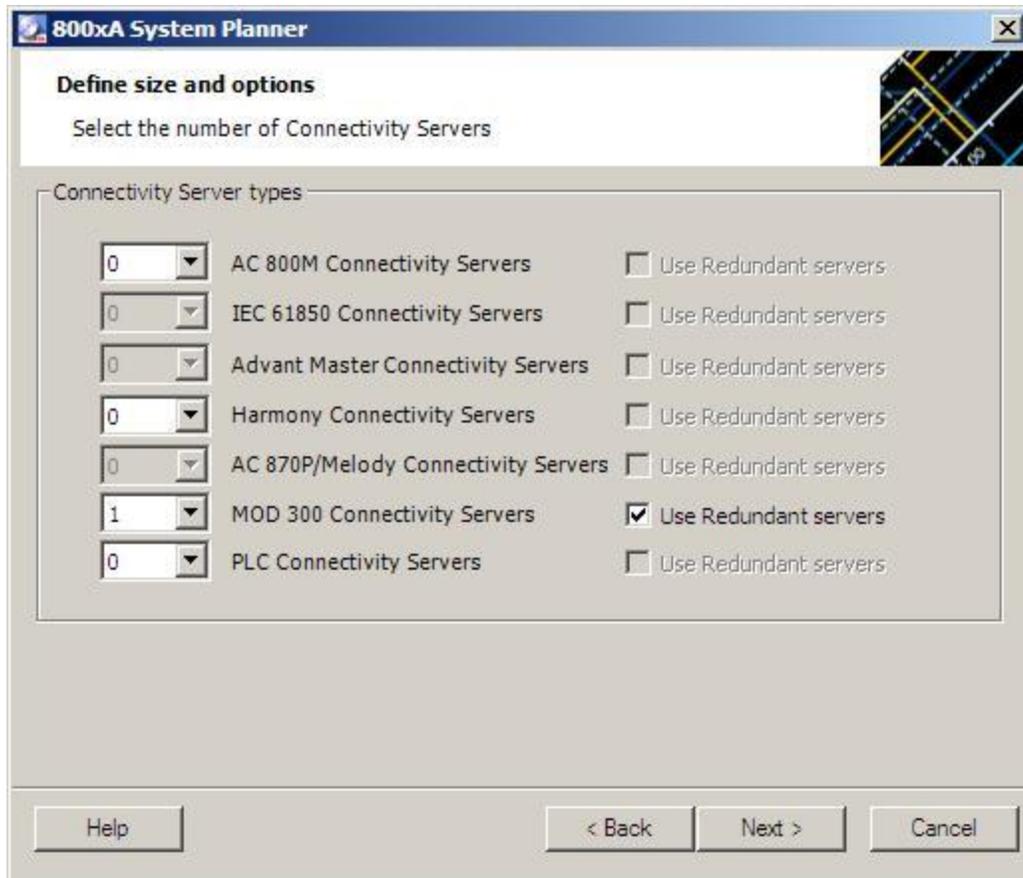
### 5.1 *System Preparation*

Follow the instructions identified in this System Preparation section.

### 5.2 *System Planning*

There is not an option to plan a DCI Connectivity Server for an 800xA System 5.1. To plan a DCI Connectivity Server node, identify the DCI Connectivity Server nodes as MOD 300 Connectivity Server nodes and follow the planning instructions for this node.

When using the System Planner Tool to identify the Connectivity Servers, select the future DCI Connectivity Server node as a MOD 300 Connectivity Server node, reference Figure 1 below. Select a MOD 300 Connectivity Server node for each DCI Connectivity Server node. Select Use Redundant Servers, if redundancy is desired.



**Figure 1 - Select Product Dialog**

### 5.3 *System Installation – New System Integration*

Follow the installation steps documented in the System 800xA Automated Installation System Version 5.1 user document, Section 5, for the following

1. Installation Type
2. Windows Configuration
3. Base System Verification (Installing Third Party Software)
4. 800xA System Installation

At the software installation dialog on the DCI Connectivity Server, deselect ABB PAS - System Services (MOD) and 800xA for MOD 300 Connect Server. See Figure 2 for an example of the Copy Software Dialog for Connectivity Server.

Product title	Status	Time
<input checked="" type="checkbox"/> ABB Central Licensing System Client	Initial	
<input checked="" type="checkbox"/> ABB 800xA Base	Initial	
<input checked="" type="checkbox"/> ABB Central Licensing System Extension	Initial	
<input checked="" type="checkbox"/> ABB SoftPoint Server	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - Application Scheduler	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - DataDirect	Initial	
<input type="checkbox"/> ABB PAS - System Services (MOD)	Initial	
<input type="checkbox"/> 800xA for MOD 300 Connect Server	Initial	
<input checked="" type="checkbox"/> ABB PC, Network and Software Monitoring Client	Initial	
<input checked="" type="checkbox"/> ABB Diagnostics Collection Tool	Initial	
<input checked="" type="checkbox"/> ABB 800xA Instructions	Initial	

**Figure 2 – Copy Software Dialog for Connectivity Server**

On all other nodes, deselect the 800xA for MOD 300 Connect Client. See Figures 3 and 4 for examples of the Copy Software Dialog for Aspect Servers and Clients.

Product title	Status	Time
<input checked="" type="checkbox"/> ABB Central Licensing System Server & Client	Initial	
<input checked="" type="checkbox"/> ABB 800xA Base	Initial	
<input checked="" type="checkbox"/> ABB Central Licensing System Extension	Initial	
<input checked="" type="checkbox"/> ABB SoftPoint Server	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - Application Scheduler	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - DataDirect	Initial	
<input type="checkbox"/> 800xA for MOD 300 Connect Client	Initial	
<input checked="" type="checkbox"/> ABB PC, Network and Software Monitoring Client	Initial	
<input checked="" type="checkbox"/> ABB Diagnostics Collection Tool	Initial	
<input checked="" type="checkbox"/> ABB 800xA Instructions - AS and Engineering clients	Initial	

**Figure 3 – Copy Software Dialog for Aspect Server**

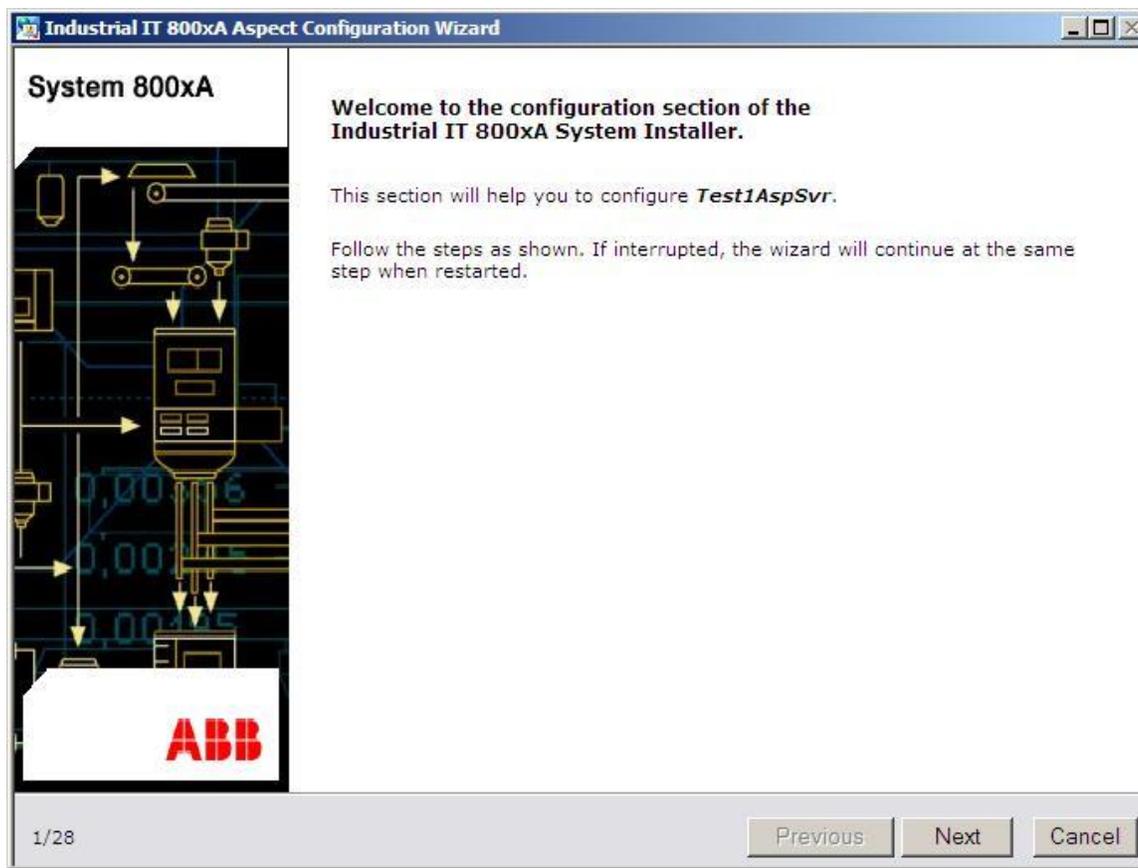
Product title	Status	Time
<input checked="" type="checkbox"/> ABB Central Licensing System Server & Client	Initial	
<input checked="" type="checkbox"/> ABB 800xA Base	Initial	
<input checked="" type="checkbox"/> ABB Central Licensing System Extension	Initial	
<input checked="" type="checkbox"/> ABB SoftPoint Server	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - Application Scheduler	Initial	
<input checked="" type="checkbox"/> ABB Inform IT - DataDirect	Initial	
<input type="checkbox"/> 800xA for MOD 300 Connect Client	Initial	
<input checked="" type="checkbox"/> ABB PC, Network and Software Monitoring Client	Initial	
<input checked="" type="checkbox"/> ABB Diagnostics Collection Tool	Initial	
<input checked="" type="checkbox"/> ABB 800xA Instructions - AS and Engineering clients	Initial	

**Figure 4 – Copy Software Dialog for Clients**

After the automatic installation of the 800xA 5.1 software components, install the required 800xA for DCI 5.1 software components on each machine.

A dialog indicating that all System 800xA products have been installed will appear and prompt for reboot.

After reboot, System Installer will resume at the Configure System step, see Figure 5 below.



**Figure 5 - System Installer Configure System Screen**

Cancel, then ESC to temporarily exit System Installer to install 800xA for DCI 5.1 software manually.

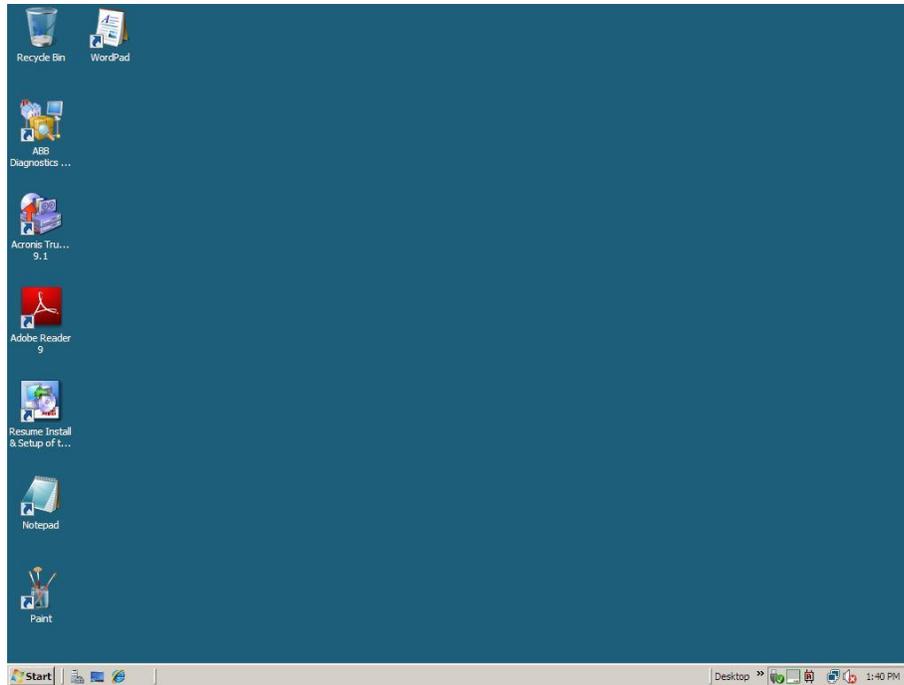
See Appendix A for instructions on installing the 800xA for DCI 5.1 software.

Always install the DCI Connect Extension first. Install the Server feature on DCI Connectivity Servers only.

If this system is an 800xA Batch Management system, install the DCI Batch Extension next. Install the Server feature on the DCI Connectivity Servers that will act as the DCI Batch Management servers.

If using Visual Basic faceplates and graphics, install the DCI VB6 Graphics Extension last

Click on the Resume Install and Setup icon on the desktop, see Figure 6 below. This will return to the System Installer "Configure System 800xA" steps.



**Figure 6 - Desktop Screen**

## 5. Configuring the 800xA System including Windows Firewall

The Aspect Configuration Wizard progresses through the necessary configuration steps.

On the DCI Connectivity Server, skip the step to configure the Real-Time Accelerator Unit Installation and Configuration. On these servers, and, on all other nodes, skip the configuration steps for the 800xA for Mod 300.

A final step in “Configuring the 800xA System” is to configure the Windows Firewall. Follow the steps to configure the Windows Firewall for System 800xA 5.1 software. Windows Firewall exceptions for 800xA for DCI 5.1 are not configured with this tool.

Go to Section 6, 800xA for DCI Post Installation, to execute the 800xA for DCI post installation steps which include adding 800xA for DCI 5.1 software exceptions to the Windows Firewall exception list.

## 6. System Report Generation

## 5.4 System Installation – Upgrading an Installed System

The supported upgrade paths for System 800xA 5.1 are as follows:

800xA 5.0 SP2 to 800xA 5.1 online

800xA 5.0 SP2 to 800xA 5.1 offline

800xA 4.1 to 800xA 5.1

In general, System Installer 5.1 can be used to automatically upgrade an existing installed 800xA system, systems without 800xA for DCI.

The System 800xA 5.1, System Installer 5.1 cannot be used to automatically upgrade an existing installed system with 800xA for DCI software. An existing system with 800xA for DCI software can only be upgraded manually. Follow the instructions in the System 800xA Upgrade System Version 5.1 user document with supplemental steps in this document for manual upgrade procedures,

In general, upgrading from a System 800xA at a previous system version to System 800xA 5.1 is a matter of performing a Backup/Restore from the old system to the new. Manually upgrade to the System 800xA 5.1 software, install the 800xA for DCI 5.1 software following the instructions in Appendix A, and then restore the system.

## 6 800xA for DCI Post Installation

This section documents the post installation procedures for 800xA for DCI.

System extensions provide the 800xA System with additional functionality. 800xA for DCI has the following System Extensions

Application	System Extension
800xA for DCI	DCI Extension
	DCI Batch Extension
	DCI VB6 Graphics Extension

DCI VB6 Graphics Extension is available to be loaded *when upgrading* from a previous 800xA system version with Visual Basic graphic functionality. With 800xA for DCI 5.1, Process Graphics is the supported default graphic functionality.

## 6.1 *Configuring a Single NIC Interface to the DCU*

ⓘ Please note that the DCI control network must be Class A (127.0.0.0 or less) and must have a subnet mask of 255.0.0.0.

ⓘ **AbbDciSelectNetwork.exe** modifies the registry. You must have Administrative rights to use this program. Only an Administrator Account should run this program.

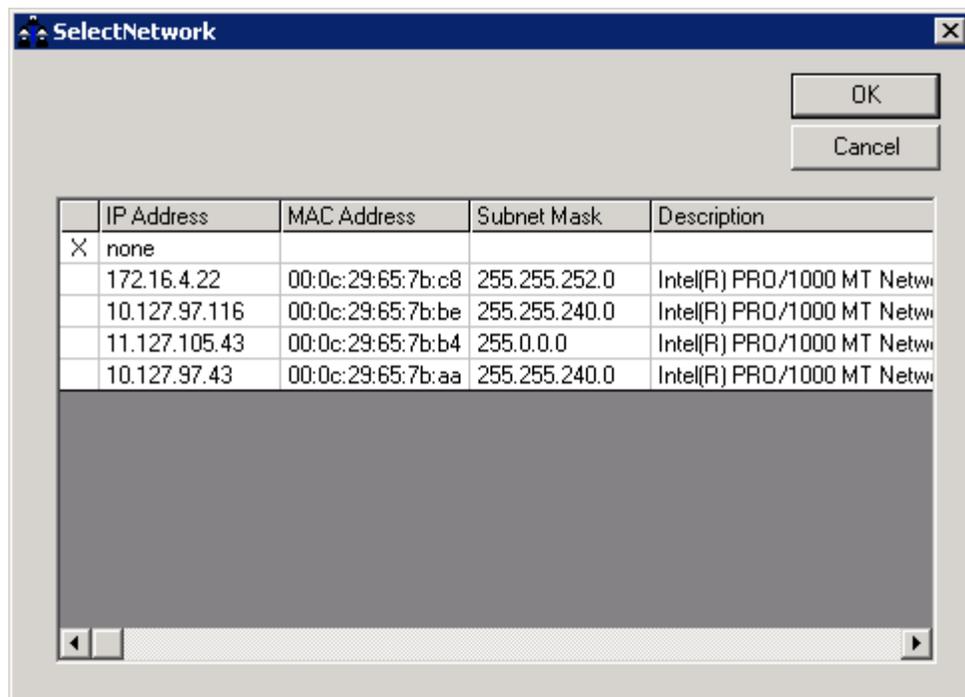
Most 800xA for DCI installations will use the ABB ECC MUX 2.1 or later to communicate with DCU controllers in order to take advantage of the redundant network. However, a single NIC may be used to communicate with the DCUs if redundancy is not an issue. If a single NIC is used, then it must be designated as the one used for the DCI Control Network (CNET) as follows:

If the ABB ECC MUX Redundant Ethernet driver has not been installed, configure the path for the network services by performing the following steps:

1. Select:

Start > All Programs > ABB Industrial IT 800xA > 800xA OCS Systems > DCI > DCI Select Network

ⓘ The AbbDciSelectNetwork dialog will appear (Figure 7 below). The X in the first row indicates that no network is selected.



**Figure 7 - AbbDciSelectNetwork Dialog**

2. Choose the network that 800xA for DCI will use by clicking on the row of the desired network adapter.
  - i** Choose the network by IP address. The physical name is provided for help (description).
3. Click OK. The network is now selected.
4. Reboot the node for the selection to activate.

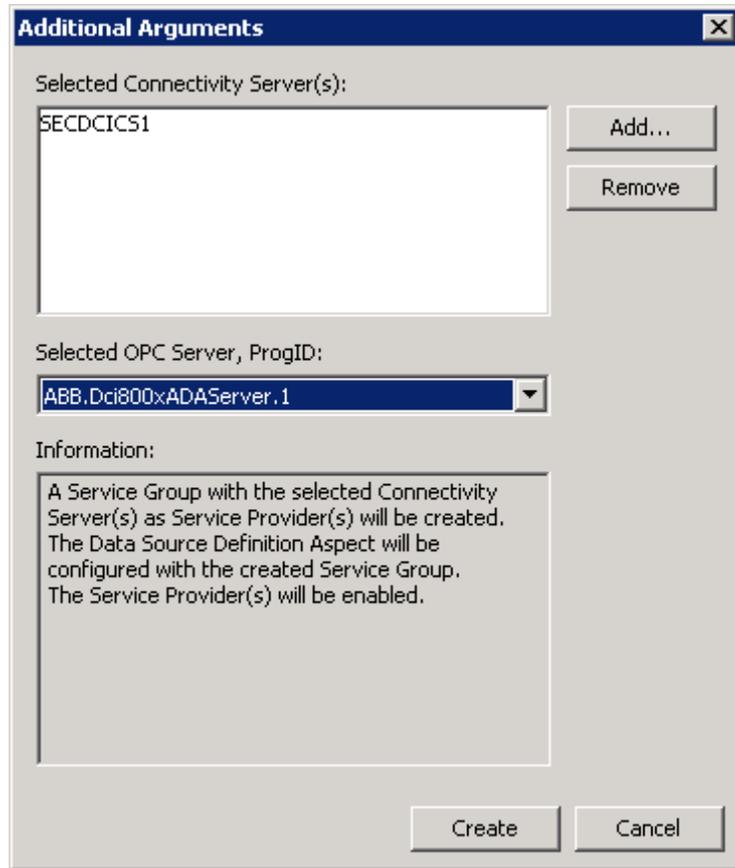
The next time the network service is run, it will automatically default to the last chosen network. Repeat Step 1 through Step 3 to choose a new network.

## 6.2 *Creating a DCI OPC Server*

**Caution: If you are creating a DCI OPC Server for a Batch System, the following steps must be performed on the individual primary DCI Connectivity Server for each DCI OPC Server.**

Create a Symphony DCI OPC Server object by performing the following steps:

1. Open a Plant Explorer Workplace.
2. Use the Structure Selector to select the Control Structure.
3. Use the Object Browser to navigate to Root of the Control Structure. Right click and select New Object from the Context Menu. The New Object dialog appears.
4. Select the Common tab.
5. Expand the following tree:
  - Object Types > Control System > Symphony DCI
6. Select Symphony DCI OPC Server Network from the Symphony DCI tree.
7. Enter a name for the Symphony DCI OPC Server Network and click Next.
8. The Addition Arguments dialog appears as shown in Figure 8. Click on the Add button.



**Figure 8 - Additional Arguments Dialog**

- Select the Primary Connectivity Server and Backup Connectivity Server (if applicable) from the list and click OK.
9. Select ABB.Dci800xADAServer.1 from the Selected OPC Server, ProgID drop-down list box and click Create.
  10. If the DCI Batch system extension has been loaded, the Setup DCI Batch Service Group dialog will appear.
    - a. Select Add from the Setup DCI Batch Service Group dialog.
    - b. Select the Primary Batch Connectivity Server and Backup Batch Connectivity Server (if applicable) from the list and click OK.
  11. Use the DCI Tag Importer to establish all DCI controllers and module tags under the Symphony DCI OPC Server Network. Refer to 800xA for DCI, Configuration (*3BUA000135-510*) for more details.
  12. Some DCI system events will be associated with the DCI Node Name of the Connectivity Server. These events will not be visible unless an Object of the same name has been configured in the 800xA System. The DCI Node Name is the name of the DCI node that appears in the CTK DCU Manager. The DCI Node Name is composed of the Node Number specified at 800xA for DCI

installation prefaced with the string DCI (Example: DCI12). To add the DCI node object:

Note: The DCI Node Name may have a different prefix if 800xA for DCI has been installed along with Conductor NT or Composer CTK.

- a. Right-click on the Symphony DCI OPC Server Network Object.
  - b. Select New Object from the context menu.
  - c. Select the Common tab in the New Object dialog.
  - d. Select Object Types | 3-rd party OPC server support | Generic OPC Object.
  - e. Enter the DCI Node Name in the Name edit box.
  - f. Click Create.
13. Repeat Step 2 through Step 12 for each DCI Connectivity Server

### 6.3 *Configuring the DCI AE Event Collector Structure*

The DCU alarm and event stream is collected by each DCI AE Server on each DCI Connectivity Server node. Every DCI Connectivity Server node collects all alarms and events presented by all DCU nodes that it communicates with.

Place each DCI Connectivity Server node in an Event Collector Service Group that covers the same DCU set. The alarms and events are not limited to the set of DCU tag objects configured for the corresponding DA Server. This means that each AE Server that communicates with the same DCU set will act as a backup for each other. Configure a separate Service Provider under a single Service Group for each DCI Connectivity Server node connected to the same DCU set.

- ① Do not configure separate Service Groups for Connectivity Servers that communicate with the same DCU set or duplicate alarms will occur.
- ② Do not add a Connectivity Server as a Service Provider on a Service Group that sees a different DCU set.

Configure the DCI AE Event Collector Structure by performing the following steps:

1. Open a Plant Explorer Workplace.
2. Use the Structure Selector to select the Service Structure.
3. Select the Event Collector, Service object.
4. Select the Configuration tab on the Service Definition aspect.
5. Click Add and the New Service Group Name dialog appears.
6. Enter a name, such as DCI\_AE\_SGx (where x is a running number), in the edit box on the New Service Group Name dialog and click OK. The dialog disappears and the service group name appears in the Groups list.

7. Click Apply in the Service Definition aspect.
8. Expand the Event Collector, Service object and click on the DCI Service Group object.
9. Select the Configuration tab on the Service Group Definition aspect.
10. Click Add and the New Service Provider Name dialog appears.
11. Enter a name, such as DCI\_AE\_SP\_nodename (where nodename is a DCI Connectivity Server name), in the edit box on the New Service Provider Name dialog and click OK. The dialog disappears and the service provider name appears in the Providers list.
12. Click Apply in the Service Group Definition aspect.
13. Select the DCI Service Provider in the Providers list and click View. The Service Provider Definition Aspect View appears.
14. Select the desired DCI Connectivity Node from the Node drop-down list box, click Apply and then close the dialog.
15. Click on the Special Configuration tab on the Service Group Definition aspect.
16. Select the ABB DCI 800xA OPC Alarm & Event Server from the Alarm Server drop-down list box.
17. Verify that ABB DCI Alarms & Events appears in the Collection Definition drop-down list box then click Apply.
18. Verify the connection by clicking on the Status tab on the Service Group Definition Aspect View and verify that the state is Service.
19. Repeat Step 10 through Step 18 for each DCI Connectivity Server node that is connected to the same set of DCUs. Do not create a new Service Group for any of those nodes.
20. Repeat Step 3 through Step 19 for the next set of DCI Connectivity Server nodes that were not previously configured.

## 6.4 *800xA for DCI Firewall Configuration*

On all 800xA for DCI Connectivity Servers, run Windows Firewall Configuration and use the following procedure to add 800xA for DCI tasks to the Windows Firewall exception list.

1. Open the **Windows Control Panel**.
2. Open the **Windows Firewall** configuration window.

3. In the **Windows Firewall** window, click on "**Allow a program through Windows Firewall.**"
4. In the **Windows Firewall Settings** dialog, select the "**Exceptions**" tab, if not already selected.
5. Click on the "**Add Programs...**" button.
6. In the **Add a Program** dialog, click on the "**Browse...**" button.
7. Use the **Browse** dialog to browse to the location where the DCI Network tasks are located, usually, "**C:\ABB\bin**".
8. Click on **AbbDciNetRouter.exe** in the list of executable objects, and then click the "**Open**" button. The **Browse** dialog disappears.
9. Click on the "**OK**" button in the **Add a program** dialog. The **Add a program** dialog disappears and the **AbbDciNetRouter.exe** object appears in the list of programs in the **Windows Firewall Settings** programs with the check box selected.
10. Repeat the "**Add a program...**" process for **tsyncdd.exe**, **tsyncCtrl.exe**, and **tftpd.exe**.
11. Click the "**Apply**" button and then the "**OK**" button on the **Windows Firewall Settings** dialog. The **Windows Firewall Settings** dialog disappears.
12. Close the **Windows Firewall** window.
13. Close the **Control Panel** window.
14. Reboot each 800xA for DCI Connectivity server when the Windows Firewall configuration is complete.

## 6.5 800xA for DCI IPSEC Configuration

**i** IPSEC is supported in the release of System 800xA. This functionality is supported for 800xA for DCI 5.1 RU1 as part of the System 800xA 5.1 release.

**i** Perform the following procedure only on domain controllers.

The use of IPsec in 800xA must be addressed for 800xA for DCI Connectivity Servers and the HDCU controllers on their control networks. IPsec restricts the node access to an 800xA system within a domain environment. The restriction extends to all nodes,

including HDCU controllers, thus, IP addresses for all HDCUs must be entered using the IPsec tool.

DCI redundant controllers are referred to as “a” and “b” units for the right and left DCP. When running, one of these units will become the online unit and the other will become the backup unit. Both the “a” and “b” units must have their IP addresses added to the IPsec rules for exemption.

Follow the instructions on using the ABB 800xA IPsec Configuration Tool. When ready to proceed with entering the IP addresses of the DCI HDCU controllers, select the “Add Exemptions for 800xA DCI HDCU Controllers” item in the Exemptions List: combo-box control.

Add the IP addresses for each HDCU one at a time in the Subnet or IP addresses: text entry control window and click on the Add Exemptions button to add to the exemptions list. Add the IP address of both the “a” and “b” units.

## ***6.6 Multiple DCI Batch Servers on a Single DCI Network***

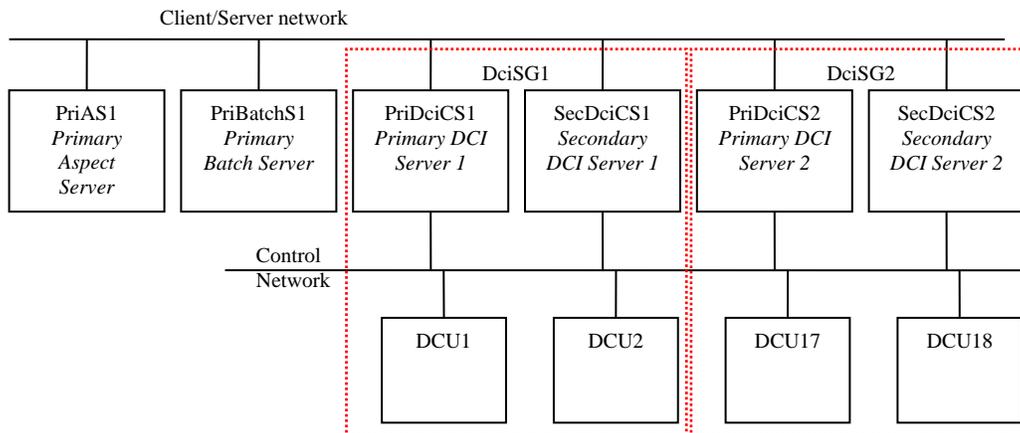
Normally when a DCI System Six system is brought forward into 800xA, the usual method is to declare a separate Service Group for OPC DA functions for each separate DCI Control Network. For systems that include Batch, this results in separate Service Groups for DCI Batch OPC DA servers also. This is the correct and only way for DCI Batch to function in an 800xA environment.

In some instances, for reasons of performance, the process engineer may choose to declare multiple Service Groups for a single DCI network. They may split the DCUs between two or more Service Groups so that each Service Group concentrates on their own set of controllers and is not required to know about the controllers declared for a different Service Group. When this is done, a single DCI Batch Service Group is created for the different DCU sets. The result of this is that some of the DCI tag objects fail to be covered by an In-Service DCI Batch Service Provider.

The following procedure provides a method to combine the DCI Batch OPC DA Service Providers under the proper DCI Batch OPC DA Service Group.

### **6.6.1 Procedure**

For purposes of illustration, and to make the procedure easier to understand, the following sample system is defined:



**Figure 9 - Sample System Network Drawing**

In Figure 9, the two dotted red-line rectangles define the two Service Groups for the example.

### 6.6.2 Initial Service Structure

Declaring the two Service Groups results in the OpcDA\_Connector Service structure similar or identical to the following:

- Services
- ...
- OpcDA\_Connector, Service
  - + SG\_DciSG1, Service Group
  - + SG\_DciSG2, Service Group
  - SG\_DCI\_Batch\_PRIDCICS1, Service Group
    - DCI\_Batch\_Provider\_PRIDCICS1, Service Provider
    - DCI\_Batch\_Provider\_SECDCICS1, Service Provider
  - SG\_DCI\_Batch\_PRIDCICS2, Service Group
    - DCI\_Batch\_Provider\_PRIDCICS2, Service Provider
    - DCI\_Batch\_Provider\_SECDCICS2, Service Provider

A glance at the four DCI Batch Service Providers shows that one of the providers is in Service state while the other three are in Initialize state. DCI tag objects that are serviced by the Service Group that has both Service Providers in Initialize State will not be able to participate in 800xA Batch.

### 6.6.3 What has to be Done

All four Service Providers must be moved to a single Service Group, and both DCI Batch Data Source Definition Aspects must be changed to point to the remaining Service Group. Follow the steps in the procedure, substituting the correct names for the Service Groups and Service Providers you are working with.

#### **6.6.4 Backup the System**

An Import/Export file of the Control Structure, the OpcDA\_Connector Object and children in the Service Structure, and the Procedure Structure will be sufficient to return the system to the present state.

#### **6.6.5 Follow These Steps**

1. Back up the system.
2. Go to the Service Structure.
3. Change the name of SG\_DCI\_Batch\_PRIDCICS1 Service Group to SG\_DCI\_Batch.
4. Drag and drop both of the Service Providers under SG\_DCI\_Batch\_PRIDCICS2 Service Group Object into the SG\_DCI\_Batch Service Group Object.
5. In the Service Structure object list, select the OpcDA\_Connector Object.
6. Select the Service Definition Aspect.
7. On the Configuration tab in the preview pane, find the Groups: list box.
8. Select the SG\_DCI\_Batch\_PRIDCICS2 Service Group Object and click the Delete button.
9. Click the Apply button.
10. Go to the Control Structure.
11. Select the DciSG1 Object.
12. Select the DCI Batch Data Source Definition Aspect.
13. In the Service Group drop-down box, select the SG\_DCI\_Batch Service Group.
14. Click the Apply button, if needed.
15. Select the DciSG2 Object.
16. Select the DCI Batch Data Source Definition Aspect.
17. In the Service Group drop-down box, select the SG\_DCI\_Batch Service Group.
18. Click the Apply button, if needed.
19. Reboot the DCI Connectivity Server nodes.

## 7 800xA for DCI Upgrade

The supported upgrade paths for System 800xA 5.1 are as follows:

800xA 5.0 SP2 to 800xA 5.1 online

800xA 5.0 SP2 to 800xA 5.1 offline

800xA 4.1 to 800xA 5.1

**i** Upgrading 800xA 3.1 SP3 to 800xA 5.0 SP2 does not apply for 800xA for DCI. 800xA for DCI was first released with System 800xA 4.1.

All paths assume that the 800xA System has a saved system backup, reference the System 800xA Maintenance System Version 5.1 user document. All paths require, after backup and before restore, installing the 800xA System software, and creating the system as if it were a new installation.

In general, System Installer 5.1 can be used to automatically upgrade an existing installed 800xA system, systems without 800xA for DCI.

The System 800xA 5.1, System Installer 5.1 cannot be used to automatically upgrade an existing installed system with 800xA for DCI software. An existing system with 800xA for DCI software can only be upgraded manually. Follow the instructions in the System 800xA Upgrade System Version 5.1 user document with supplemental steps in this document for manual upgrade procedures,

In general, upgrading from a System 800xA at a previous system version to System 800xA 5.1 is a matter of performing a Backup/Restore from the old system to the new. Manually upgrade to the System 800xA 5.1 software, install the 800xA for DCI 5.1 software following the instructions in Appendix B, and then restore the system.

### 7.1 Graphics

It is important to recognize the role that Graphics (Process Graphics or VB Graphics) plays in the upgrade procedure. (Reference the System 800xA Upgrade System Version 5.1 user document, Section 1 Introduction.)

800xA 5.1 supports Process Graphics 2 as a default with optional VB Graphics extensions that can be installed and loaded when upgrading.

800xA 5.0 SP2 supported VB Graphics as the default with Process Graphics 2 extensions that could be installed and loaded.

800xA SV 5.0 SP1 and earlier supported VB Graphics as the default with no option for Process Graphics 2.

Customers upgrading from previous 800xA versions can still view and modify their VB Graphics, but they must install their previously licensed version of Visual BASIC 6.0 with SP6 in order to do so. They must also install and load the VB Graphics extensions.

New 800xA 5.1 customers should not install the VB Graphics extensions as they will only have the VB runtime and will not be able to create and/or modify VB graphics unless they have a licensed version of Visual BASIC 6.0 with SP6.

## **7.2 *Upgrading 800xA 5.0 SP2 to 800xA 5.1 Online***

An online upgrade of 800xA for DCI software can be performed when it is installed with redundant DCI Connectivity Servers.

800xA for DCI is backed up with the standard 800xA Backup/Restore aspect.

Follow the instructions identified in document 3BSE036342-511 System 800xA Upgrade System Version 5.1, Section 3 Upgrading 800xA 5.0 SP2 to 800xA 5.1 Online. Supplement the instructions from Section 3 with 800xA for DCI specific instructions identified below.

In general, the upgrade flow includes the following procedures:

- Pre-Upgrade Procedures
- Online Upgrade
- Requirements for VB Graphics Extension Software
- Post Upgrade Procedures

### **7.2.1 Pre-Upgrade Procedures**

Follow the pre-upgrade procedures identified in Section 3 of the upgrade user document (3BSE036342-511).

Perform the following procedures to save 800xA for DCI information:

1. Use the import/export utility to export all DCI OPC Server Network objects and all their children from the Control Structure.
  -  The exported file will be used only if there is a problem with the upgrade.
2. If any modifications/additions were made to Symphony DCI object types in the Object Type Structure, export only those changes using the import/export utility.

## 7.2.2 Online Upgrade

Follow the online upgrade procedures identified in Section 3 of the upgrade user document (3BSE036342-511).

Once all 800xA base software is loaded, load the 800xA for DCI software using the procedures in Appendix B. Load them in the following order.

DCI Extension.

DCI Batch Extension (Only if this is a Batch Management System.)

## 7.2.3 VB Graphics Extension Software

Perform the VG Graphics Extension Software procedures identified in Section 3 of the upgrade user document (3BSE036342-511) if the restored system makes use of VB graphics.

Follow the instructions identified in this sub-section. These procedures are applicable to all 800xA Systems, unless the system that is being upgraded has all Process Graphics 2 graphics and no VB graphics

## 7.2.4 Loading DCI Software

Once all 800xA base software has been loaded, load the 800xA for DCI software using the procedures in Appendix B. Load them in the following order.

- DCI Extension.
- DCI Batch Extension (Only if this is a Batch Management System.)
- DCI VB6 Graphics Extension (Only if VB6 graphics is going to be used.)

Execute the Post Installation instructions identified in Section 6 of this document.

## 7.2.5 Post-Upgrade Procedures

Follow the post-upgrade procedures identified in this section and perform the following procedure for 800xA for DCI software installation.

### 7.2.5.1 Maintenance Update of 800xA for DCI

Perform the following procedure on the Primary Aspect Server

1. Start the Configuration Wizard from the primary Aspect Server node. Select:

**Start > All Programs > ABB Industrial IT 800xA > System >  
Configuration Wizard**

2. Open the System Extension Maintenance dialog box by going to:  
**System Administration > Select System > System Extension Maintenance**
3. A view appears with the available extensions listed in the left pane. Select the ABB DCI Extension and, if applicable, the ABB DCI Batch Extension system extensions to load in the list in the left pane and move them to the list in the right pane by clicking >.  
To move all the system extensions from the left pane to the right pane, click >>.
4. The red cross, green check mark, and warning icons indicate the status of the dependency evaluation.
  - The green check mark indicates that the system extension must be loaded first.
  - The red cross icon indicates that the system extension can not be loaded until the one with the green check mark icon is loaded.
  - The warning icon indicates that the system extension can be loaded, but that there is additional information available in the Description frame in the lower part of the dialog box. The additional information can, for example, be that the system extension contains aspect types that are not environment aware.

For 800xA for DCI extensions, there should only be green check marks.

5. All system extensions in the right pane should be marked with the green check mark or the warning icon.
6. Click **Next** and the Apply Settings dialog box appears.
7. Click **Finish** to load all system extensions.
8. A progress dialog box is shown during the load. Click **View Log** to view log messages during load.

The load is aborted if:

- The user clicks Abort.
- An error occurs; for example, if the Configuration Wizard fails to load a file into the system.

An aborted system extension load can be resumed from the System Extension Maintenance dialog box.

9. Check in the Wizard log to verify that no errors occurred during the load.
10. Close the Configuration Wizard.

### **7.2.5.2 Load ABB DCI VB6 Graphics Extension**

If applicable, load the ABB DCI VB6 Graphics Extension using the following procedure.

Perform the following procedure on the Primary Aspect Server

1. Start the Configuration Wizard from the primary Aspect Server node. Select:  
**Start > All Programs > ABB Industrial IT 800xA > System > Configuration Wizard**
  2. Open the System Extension Load dialog box by going to:  
**System Administration > Select System > System Extension Load**
    - A view appears with the available extensions listed in the left pane. Select the ABB DCI VB6 Graphics Extension system extension to load in the list in the left pane and move them to the list in the right pane by clicking
- For 800xA for DCI extensions, there should only be green check marks.
3. Click **Next** and the Apply Settings dialog box appears.
  4. Click **Finish** to load all system extensions.
  5. A progress dialog box is shown during the load. Click **View Log** to view log messages during load.

The load is aborted if:

- o The user clicks Abort.
- o An error occurs; for example, if the Configuration Wizard fails to load a file into the system.

An aborted system extension load can be resumed from the System Extension Maintenance dialog box.

6. Check in the Wizard log to verify that no errors occurred during the load.
7. Close the Configuration Wizard.

### 7.3 **Upgrading 800xA 5.0 SP2 to 800xA 5.1 Offline**

Follow the instructions identified in document 3BSE036342-511, Section 4 Upgrading 800xA 5.0 SP2 to 800xA 5.1 Offline. You must load the 800xA for DCI extension software as a manual step after loading all other 800xA software.

#### 7.3.1 **System Backup**

800xA for DCI is backed up with the standard 800xA Backup/Restore aspect. In addition, you may want to perform the following backups.

#### 7.3.2 **800xA for DCI Specific Backup**

Use the following procedure to save 800xA for DCI information:

1. Use the import/export utility to export all DCI OPC Server Network objects and all their children from the **Control Structure**.

**i** INFORMATION: The exported file will be used only if there is a problem with the upgrade.

2. If any modifications/additions were made to Symphony DCI object types in the **Object Type Structure**, export only those changes using the import/export utility.

### 7.3.3 VB Graphics Extension Software

Follow the instructions identified in this sub-section. These procedures are applicable to all 800xA Systems, unless the system that is being upgraded has all Process Graphics 2 graphics and no VB graphics

### 7.3.4 Loading DCI Software

Once all 800xA base software has been installed, Install the 800xA for DCI software using the procedures in Appendix B. Install them in the following order.

- ABB DCI Extension.
- ABB DCI Batch Extension (Only if this is a Batch Management System.)
- ABB DCI VB6 Graphics Extension (Only if VB6 graphics is going to be used.)

Execute the Post Installation instructions identified in Section 6 of this document.

### 7.3.5 Post-Upgrade Procedures

Follow the post-upgrade procedures identified in this section and perform the following procedure for 800xA for DCI software installation

#### 7.3.5.1 Maintenance Update of 800xA for DCI

Perform the following procedure on the Primary Aspect Server

1. Start the Configuration Wizard from the primary Aspect Server node. Select:  
**Start > All Programs > ABB Industrial IT 800xA > System > Configuration Wizard**
2. Open the System Extension Maintenance dialog box by going to:  
**System Administration > Select System > System Extension Maintenance**
3. A view appears with the available extensions listed in the left pane. Select the ABB DCI Extension and, if applicable, the ABB DCI Batch Extension system extensions to load in the list in the left pane and move them to the list in the right pane by clicking >. To move all the system extensions from the left pane to the right pane, click >>.

4. The red cross, green check mark, and warning icons indicate the status of the dependency evaluation.
  - The green check mark indicates that the system extension must be loaded first.
  - The red cross icon indicates that the system extension can not be loaded until the one with the green check mark icon is loaded.
  - The warning icon indicates that the system extension can be loaded, but that there is additional information available in the Description frame in the lower part of the dialog box. The additional information can, for example, be that the system extension contains aspect types that are not environment aware. For 800xA for DCI extensions, there should only be green check marks.
5. All system extensions in the right pane should be marked with the green check mark or the warning icon.
6. Click **Next** and the Apply Settings dialog box appears.
7. Click **Finish** to load all system extensions.
8. A progress dialog box is shown during the load. Click **View Log** to view log messages during load.

The load is aborted if:

- The user clicks Abort.
- An error occurs; for example, if the Configuration Wizard fails to load a file into the system.

An aborted system extension load can be resumed from the System Extension Maintenance dialog box.

9. Check in the Wizard log to verify that no errors occurred during the load.
10. Close the Configuration Wizard.

### 7.3.5.2 Load ABB DCI VB6 Graphics Extension

If applicable, load the ABB DCI VB6 Graphics Extension using the following procedure.

Perform the following procedure on the Primary Aspect Server

1. Start the Configuration Wizard from the primary Aspect Server node. Select:  
**Start > All Programs > ABB Industrial IT 800xA > System > Configuration Wizard**
2. Open the System Extension Load dialog box by going to:  
**System Administration > Select System > System Extension Load**

- A view appears with the available extensions listed in the left pane. Select the ABB DCI VB6 Graphics Extension system extension to load in the list in the left pane and move them to the list in the right pane by clicking For 800xA for DCI extensions, there should only be green check marks.

3. Click **Next** and the Apply Settings dialog box appears.
4. Click **Finish** to load all system extensions.
5. A progress dialog box is shown during the load. Click **View Log** to view log messages during load.

The load is aborted if:

- The user clicks Abort.
- An error occurs; for example, if the Configuration Wizard fails to load a file into the system.

An aborted system extension load can be resumed from the System Extension Maintenance dialog box.

6. Check in the Wizard log to verify that no errors occurred during the load.
7. Close the Configuration Wizard.

## **7.4 *Upgrading 800xA 4.1 to 800xA 5.1 Offline***

Follow the instructions identified in Section 5 Upgrading 800xA 4.1 to 800xA 5.1 Offline. It is important to realize that the 800xA 4.1 system is configured for VB graphics. In 800xA 5.1 system, the system is defaulted with Process Graphics. It is important to load the VB extensions for products in the system or convert the VB graphics to Process Graphics.

You must upgrade from 4.1 to 5.0 and then to 5.0 SP2 before upgrading to 5.1. Follow all instructions in the 800xA 5.0 Upgrade Document to upgrade 800xA for DCI to 5.0.

Then follow the instructions in this document to upgrade 800xA for DCI from 5.0 SP2 to 5.1

## 8 800xA for DCI Maintenance

800xA for DCI is released with 800xA 5.1, however maintenance is not identified in the documented System 800xA System Maintenance (3BSE046784-510). Basic 800xA 5.1 system maintenance can be performed using the System 800xA System Maintenance documented procedures with additional manual steps to maintain 800xA for DCI software.

Document System 800xA System Maintenance (3BSE046784-510) provides instruction for the following:

- [System Check](#) - To get full benefit of the system, it needs to be inspected on a regular basis.
- [Operation System Update](#) - It is increasingly important to keep the automation systems current with available security updates. ABB validates security updates from Microsoft with respect to relevance to and compatibility with System 800xA. By properly upgrading an automation system installation with security updates, it is possible to avoid or mitigate damage from attacks by certain types of malicious software.
- [Node Restart and System Shutdown/Restart](#)- Contains information on the order to start and stop a node or system.
- [Import/Export](#) - The Import/Export tool allows you to move applications to and from any 800xA System. The data is saved as objects and aspects in archive files (.afw). The Import/Export tool allows you to store and restore objects, aspects, and entities. It is possible to view the contents of an archive file.
- [Backup and Restore](#) - The backup and restore procedures consists of two different parts; backup of standard Windows system and backup of the System application data.
- [Single Node Replacement](#) - This covers the procedures that must be performed in order to recover from a node failure in a complete 800xA 5.1 System
- [Engineering Repository](#) - This section provides information on configuring the Engineering Repository tool.
- [Information Management](#) - This section provides guidelines and reference information related to configuring and maintaining Information Management software.

800xA for DCI specific maintenance procedures are identified for Backup and Restore.

### 8.1 *800xA for DCI Backup and Restore*

Follow the instructions identified in document 3BSE046784-510, Section 6 Backup and Restore and perform the following procedures for 800xA for DCI software installation.

Save Function-Specific Information

System 800xA Backup

System 800xA Restore

## Recover Function-Specific Information

### 8.1.1 Save Function-Specific Information

Follow the instructions identified in this section and compliment with the 800xA for DCI procedures below:

#### 8.1.1.1 800xA for DCI

The following steps should be used to save function-specific information for 800xA for DCI:

1. Go to the node containing the installed Composer CTK.
2. Start Composer CTK by selecting **Start > Programs > ABB Automation > Composer CTK > Composer CTK**.
3. Log into CTK (if necessary) and select **File > Backup**.
4. To perform a FULL backup, click the **All** buttons in the Backup window. To backup only selected items, click the desired **Selected** buttons in the Backup window, then select the desired items from the resulting window. Click **OK** to continue.
5. From the Backup Operation window, select the destination for the backup file and select the desired options. Click **OK** to begin the backup operation.
6. Click **OK** when the Backup Complete dialog appears.

### 8.1.2 800xA System Backup

Follow the instructions identified in this section.

### 8.1.3 800xA System Restore

Follow the instructions identified in this sub-section of document 3BSE046784-510.

### 8.1.4 Restore Function-Specific Information

Follow the instructions identified in this sub-section of document 3BSE046784-510, and compliment with the 800xA for DCI procedures below

#### 8.1.4.1 800xA for DCI

The following steps should be used to restore 800xA for DCI:

1. Go to the node containing the installed Composer CTK.
2. Start Composer CTK by selecting **Start > Programs > ABB Automation > Composer CTK > Composer CTK**.
3. Log into CTK (if necessary) and select **File > Restore**.
4. From the Restore Operation window, specify the location and name of the backup file. Click **OK**.
5. Verify that you have selected the correct file, then click **Yes** to continue, or **No** to select another file.

To perform a FULL restore, click the **All** buttons in the Restore window. To restore only selected items, click the desired **Selected** buttons in the Restore window, then select the desired items from the resulting window. Click **OK** to begin the restore operation.

## 8.2 800xA for DCI Single Node Replacement

Follow the instructions identified in document 3BSE046784-510, Section 7 Single Node Replacement and perform the following procedures for 800xA for DCI software installation.

### 8.2.1 Connectivity Server Replacement for 800xA for DCI

Use the following procedures to restore 800xA 5.1 DCI Connectivity Server and Composer CTK Engineering Nodes.

Replacing the DCI Connectivity Server requires reloading the system from a saved disk image. All configuration information is kept in the Windows Registry or on the Aspect System Server and is restored with that node (or nodes).

To restore a DCI Connectivity Server node:

1. Remove the failed node from the network.
2. Repair or replace the failed node.
3. Restore a previously saved disk image.
4. Remove the failed node from the Domain Server files:
  - a. Select **Start > Programs > Administrative Tools > Active Directory Users and Computers** on the primary (or only) Domain Server node.
  - b. Select the active domain.
  - c. Select Computers.
  - d. Right click the name of the failed node.
  - e. Select **Delete** on the pop-up menu.
  - f. Select **Start > Programs > Administrative Tools > DNS**.
  - g. Select DNS\primary\_domain\_controller\_name\Forward Lookup Zones\domain\_name.

- h. Right click the failed node.
  - i. Select **Delete** on the pop-up menu.
  - j. Select DNS\primary\_domain\_controller\_name\Reverse Lookup Zones\1st\_three\_segments\_of\_IP\_address\_in\_reverse\_order.
  - k. Right click the failed node which is listed as last segment of IP address.
  - l. Select **Delete** on the pop-up menu.
5. Configure the node to have the same DNS name and IP address as the failed node.
  6. Connect the node to the network and to the Windows domain.  
  
Verify the reverse and forward lookup zone for the DNS are correct. Also verify that the DNS name and IP address of the node are still correct.
  7. Open the Configuration Wizard on the node being restored and select Connect Node.
  8. Select the appropriate Aspect Server. This will connect the restored node to the 800xA system.
  9. Verify connection with the Service Connection Viewer (use the appropriate tray icon).
  10. Check CPU load using the Task Manager utility. When the processor load settles, the connection is finished.

### **8.2.2 Composer CTK Engineering Node Replacement**

The Composer CTK Engineering node is not an 800xA node but has backup procedures defined in the 800xA for DCI Configuration instruction that need to be performed regularly.

To restore a Composer CTK Engineering node:

1. Remove the failed node from the network.
2. Repair or replace the failed node.
3. Restore a previously saved disk image.
4. Connect the node to the network and to the Windows domain.

Verify the reverse and forward lookup zone for the DNS are correct. Also verify that the DNS name and IP address of the node are still correct.

5. Restore Composer backup information. Refer to the Composer CTK Configuration instruction for more information.

## Appendix A - Installing 800xA for DCI 5.1 Software

The 800xA for DCI 5.1 software deliverable includes the components identified below: the DCI Extension, the DCI Batch Extension, and the DCI VB6 Graphics Extension.

Application	System Extension
800xA for DCI	DCI Extension
	DCI Batch Extension
	DCI VB6 Graphics Extension

### *Installation Steps for DCI Extension*

1. Go to the folder where the 800xA for DCI Extension release software was downloaded or copied.
2. Open the folder named DCI Extension/Media Software.
3. Double click on Setup.exe to start the installation process.
4. Click on the Next button on the installation wizard Welcome page.
5. Click on the “I accept ...” radio button and click on Next.
6. You can change the location of where the 800xA for DCI software will be installed by clicking on the Browse button and selecting a new folder. Click on the OK button when finished.
7. Click on the Next button to accept the destination folder.
8. Select either DCI Client or DCI Server or both (the default) if you are planning to create an 800xA for DCI Connect Server, and use the client functions on it.

**i** The 800xA for DCI Client feature provides all of the components needed to use 800xA for DCI aspects on 800xA Clients. Install this feature on 800xA Aspect System Servers and on 800xA Clients where you need to view and use 800xA for DCI aspects.

**i** The 800xA for DCI Server feature provides all of the components needed to connect to Harmony DCU controllers from 800xA. Install this feature only on DCI Connectivity Servers.

9. Click on the Next button.
10. If this is a Connectivity Server, you will need to select a node number and a console group number. The node number must be unique for each 800xA for DCI Servers, and must be between 1 and 99. The console group number may be from 1 to 50, and may be used to isolate the DCI server from Conductor nodes. Click on the Next button after selecting the node number and console group number.
11. Review the feature selections and click the Back button to change.
12. Click the Next button to start copying software and finish the installation process.
13. The copy process will take from a few seconds to a minute.
14. When the copy process completes, the aspects and servers will be registered, and the DCI Network Services will be started.
15. Click on the Finish button to acknowledge the completion of the installation process.

### ***Installation Steps for DCI Batch Extension***

1. You must install 800xA for DCI Extension before installing the 800xA Batch for DCI Extension.
2. Go to the folder where the 800xA Batch for DCI Extension release software was downloaded or copied.
3. Open the folder named DCI Batch Extension/Media Software.
4. Double click on setup.exe to start the installation process.
5. Click on the Next button on the installation wizard Welcome page.
6. Click on the “I accept ...” radio button and click on Next.
7. You can change the location of where the 800xA for DCI software will be installed by clicking on the Browse button and selecting a new folder. Click on the OK button when finished.

8. Click on the Next button to accept the destination folder.
9. Select DCI Batch Server if you are planning to create an 800xA Batch for DCI Connect Server. You may only install the 800xA Batch for DCI Server feature on DCI Connectivity Servers. The DCI Client Support is always selected.
- i** The DCI Batch Support provides an interface from 800xA for DCI to Batch Management. Install this feature on each 800xA for DCI Client node when 800xA Batch for DCI is installed on the system.
- i** The DCI Batch Server feature provides the DCI OPC Server for Batch Management. Install this feature only on DCI Connectivity Servers.
10. Click on the Next button.
11. Review the feature selections and click the Back button to change.
12. Click the Next button to start copying software and finish the installation process.
13. The copy process will only take a few seconds.
14. When the copy process completes, the aspects and servers will be registered.
15. Click on the Finish button to acknowledge the completion of the installation process.

### ***Installation Steps for DCI VB6 Graphics Extension***

1. Go to the folder where the 800xA for DCI VB6 graphics Extension release software was downloaded or copied.
2. You must install the 800xA for DCI Extension before loading the 800xA for DCI VB6 Graphics Extension.
3. Open the folder named DCI VB6 Graphics Extension/Media Software.
4. Double click on setup.exe to start the installation process.
5. Click on the Next button on the installation wizard Welcome page.
6. Click on the “I accept ...” radio button and click on Next.

7. You can change the location of where the 800xA for DCI software will be installed by clicking on the Browse button and selecting a new folder. Click on the OK button when finished.
8. Click on the Next button to accept the destination folder.
9. Click the Next button to start copying software and finish the installation process.
10. The copy process will only take a few seconds.
11. When the copy process completes, the aspects and servers will be registered.
12. Click on the Finish button to acknowledge the completion of the installation process

## Appendix B – 800xA for DCI Windows Firewall Configuration

On all 800xA for DCI Connectivity Servers, run Windows Firewall Configuration and use the following procedure to add 800xA for DCI tasks to the Windows Firewall exception list.

1. Open the **Windows Control Panel**.
2. Open the **Windows Firewall** configuration window.
3. In the **Windows Firewall** window, click on "**Allow a program through Windows Firewall.**"
4. In the **Windows Firewall Settings** dialog, select the "**Exceptions**" tab, if not already selected.
5. Click on the "**Add Programs...**" button.
6. In the **Add a Program** dialog, click on the "**Browse...**" button.
7. Use the **Browse** dialog to browse to the location where the DCI Network tasks are located, usually, "**C:\ABB\bin**".
8. Click on **AbbDciNetRouter.exe** in the list of executable objects, and then click the "**Open**" button. The **Browse** dialog disappears.
9. Click on the "**OK**" button in the **Add a program** dialog. The **Add a program** dialog disappears and the **AbbDciNetRouter.exe** object appears in the list of programs in the **Windows Firewall Settings** programs with the check box selected.
10. Repeat the "**Add a program...**" process for **tsyncdd.exe**, **tsyncCtrl.exe**, and **tftpd.exe**.
11. Click the "**Apply**" button and then the "**OK**" button on the **Windows Firewall Settings** dialog. The **Windows Firewall Settings** dialog disappears.
12. Close the **Windows Firewall** window.
13. Close the **Control Panel** window.
14. Reboot each 800xA for DCI Connectivity server when the Windows Firewall configuration is complete.

# Contact us

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3BUA001686-510 E

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