

Description: Guide to setting up DCOM on a Windows Vista machine.

OS Requirement: Windows Vista

General Requirement: N/A

Introduction

For GENESIS32 applications to communicate with each other and to third party OPC Server via DCOM over the network, you need to configure some settings. This application note will walk you through the necessary changes.

In general, if you have ran the Application Setup Utility during installation, you will NOT need to perform these steps for ICONICS applications. For more information on the Application Setup Utility, please refer to the application note *GENESIS32 – Application Setup Utility*.

Also, ICONICS recommends using GenBroker communication instead of using DCOM when trying to connect to a remote OPC server. To learn more about GenBroker communication and its benefits, please refer to the application note *GenBroker - Introduction to GenBroker Communications*.

If you are unable to run the Application Setup Utility or use GenBroker to retrieve remote OPC data, you can use the steps described in this document to configure DCOM. You must have perfect DCOM setup for communication to remote OPC servers.

Settings on the Server Machine

DCOM

- Go to Start and type “dcomcnfg” into the search box or go to Start → Run and type “dcomcnfg”.
- Expand to Component Services → Computers → My Computer. Right-click on My Computer and select Properties.
- Go to the COM Security tab and click on the Edit Limits button in the Launch and Activation Permissions section.
- If it is not already in the list add the Network user by clicking on Add.
- Click on the “Locations” button to pick your local machine if it’s not already selected, then click on “Advanced” button.
- In the new form that shows, click on “Find Now” to get a list of users. Find the NETWORK user, double-click on it, and then hit OK to add it to the list.
- Select NETWORK in the list and check all of the Allow boxes, then click on OK and close Component Services.

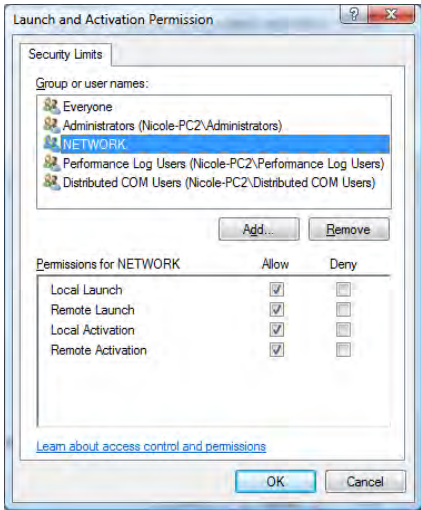


Figure 1 - Permissions for NETWORK

Local Security Settings

- Go to the Control Panel and switch to Classic Mode if you’re not there already, then go to Administrative Tools → Local Security Policy.
- Expand to Local Policies → Security Options and double-click on “Network access: Let Everyone permissions apply to anonymous users”.
- Select Enabled and hit OK, then close the Local Security Policy window.

Firewall Settings

- Go to Control Panel and switch to Classic Mode if you’re not there already, then go to Windows Firewall, click on Change Settings, and go to the Exceptions tab.
- Click on the Add port button. And fill the information below:
 - Name: OPC TCP 135
 - Port number: 135
 - Protocol: TCP

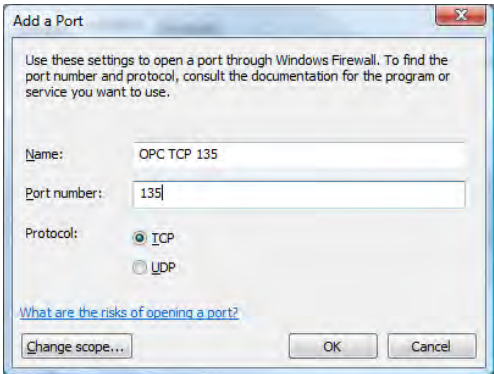


Figure 2 - Exception to Port 135



GENESIS32 – DCOM on Windows Vista in a Workgroup



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3. Click OK when finished you are done.
4. Click on Add Program and select or browse for your OPC server application, then click OK.
5. Repeat for each OPC server on the machine that you want to be able to communicate over DCOM.
6. Click on Add Program again and browse for the OPCENUM.EXE executable. This file is often located in \WINDOWS\System32.
7. Click OK to the Windows Firewall settings and close the Windows Firewall control panel.

NOTE: If you are using a firewall other than the Windows Firewall then you will need to make similar exceptions in your firewall. If you have no other firewall and the Windows Firewall is disabled then you may skip this section.

Network Discovery Setting

1. Go to Control Panel and switch to Classic Mode if you're not there already, then go to Network and Sharing Center.
2. Turn on Network Discovery if it is disabled.

Settings on the Client Machine

Local Security Settings

Follow the Local Security Settings options in the "Settings on the Server Machine" section.

Firewall Settings

1. Go to Control Panel → Windows Firewall, click on Change Settings, and go to the Exceptions tab.
2. Click on Add Program and select or browse for your OPC client application, then click OK. Repeat for each OPC client on the machine that you want to be able to communicate over DCOM.

NOTE: The GENESIS32 installation should have already added exceptions for all of its client applications, but you will need to add any third party clients you wish to use.

3. Click OK to the Windows Firewall settings and close the Windows Firewall control panel.

NOTE: If you are using a firewall other than the Windows Firewall then you will need to make similar exceptions in your firewall. If you have no other firewall and the Windows Firewall is disabled then you may skip this section.