

# Integration Objects' Solution for Industrial Network Security and Connectivity

## OPCNet Broker<sup>®</sup> DA HDA AE Version 4.2 Rev.1



## QUICK USER GUIDE

OPCNet Broker<sup>®</sup> User Guide Version 4.2 Rev 1 Published September 2020 Copyright © 2003-2020 Integration Objects. All rights reserved.

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## **ABOUT THIS USER GUIDE**

This guide lists the main steps on how to install, configure and run OPCNet Broker (ONB).

## **INSTALLATION PRE-REQUISITES**

In order to properly run the ONB Server and ONB Client, install these software components on both OPC server and client computers:

- Microsoft .NET Framework version 4 or 2 depending on your Windows OS version
  - Deploy OPCNet Broker supporting .Net Framework version 4.0 for Windows Server 2019, Windows Server 2016, Windows Server 2012, Windows Server 2008, Windows 7, Windows 8 and Windows 10.
  - Deploy OPCNet Broker supporting .Net Framework version 2.0 for Windows Server 2003 and Windows XP.
- OPC Core Components, which consist of all shared OPC modules including the DCOM proxy/stub libraries, the OPC Server Enumerator, .NET wrappers, etc.
   You may install the OPC Core Components Redistributable delivered with the current package or download it from the OPC Foundation web site.



In addition to the above components, MDAC (Microsoft Data Access Components) should be installed on the server side.

The OPCNet Broker Server side should be installed on the same machine as the OPC server. The OPCNet Broker Client side should be installed on the same machine as the OPC client.

## **INSTALLING ONB SERVER SIDE**

- 1. Execute the « ONBS\_Setup » program on the OPC Server machine using an administrator account. The installation wizard will take you through the different steps.
- 2. Make sure to start the ONB Server service with a user account that has the right access privileges to pull data from your OPC Server.
- 3. Follow the instructions below to configure the user account on the ONB Server side:
  - a. Open Windows services panel and locate the ONB Server service
  - b. Open the ONB Server service properties and select the Log On tab
  - c. Configure the ONB Server service to start with your user account. This user account should have privileges to:
    - i. Connect to and collect data from your OPC Server.
    - ii. Read/write to the ONB Server installation folder and Windows registry. Refer to the "Grant Permission to ONB Server" section to automatically configure these access rights.



### **INSTALLING ONB CLIENT SIDE**

Execute the setup « ONBC\_Setup » program on the OPC Client machine using an administrator account. The installation wizard will take you through the different steps.

## **CONFIGURING ONB SERVER SIDE**

#### Grant Permission to the user account running ONB Server:

- 1. Go to Start => Programs => Integration Objects => OPC Gateway => OPCNet Broker => Server => OPCNet Broker Server Side
- 2. Run the program OPCNet Broker Server Side.



Figure 1: OPCNet Broker Server Start Menu

- 3. When starting, a small icon appears in the tool tray at the right-hand side of the Task Bar. Right click on the icon to display the following menu.
- 4. Click on **Settings** to launch the ONB Server configuration tool.

Start ONB Server						
Stop ONB Server						
Settings						
Exit Configuration Tool						
Exit Configuration Tool About						

Figure 2: ONB Server Tray Icon Menu

5. Go to User Account and enter the User ID and the domain then click on **Grant permission** then **Validate**.



Settings	
Communication Data Recovery Security User Account Logging	Grant permission To grant permission to a non administrator account to start the ONB service, enter the required information and then click on the "Grant Permission" button User: Domain: DNBServerMachine Grant permission
About	Default Validate Close

Figure 3: ONB Server Setting Menu

To ensure the principle of least privilege, the administrator can configure as illustrated above the user account to have the minimum right privileges to run the ONB Server. To do so, he has to grant the user account these permissions by entering the user ID, the domain and clicking the Grant permission button. If the entered information is correct, the user account will be configured automatically.

#### Start the ONB server:

Click on Start ONB Server to launch the ONB Server



Figure 4: Start ONB Server Menu



#### **CONFIGURING ONB CLIENT SIDE**

- 1. Go to Start => Programs => Integration Objects => OPC Gateway => OPCNet Broker => Client => ONB Client Configuration Tool.
- 2. Start the ONB Client Configuration tool using an administrator account.



Figure 5: OPCNet Broker Client Start Menu

3. In the tree view of the main dialog, right click the **OPCNet Broker Connections** node and choose the option **Add.** 

Add	Ins
Add server manually	
Refresh	F5
	Add Add server manually Refresh

Figure 6: Add connection

4. The « Add ONB Connection » dialog will appear.

Add ONB Connection						
ONB Server Identification          ONB Server Identification         IP Address         Host Name         Select Channel         TCP         Port Number						
Select the required security mode  Default  OK Cancel Advanced						

Figure 7: Add ONB Connection Menu



- 5. In the IP address field enter the IP address of the machine where resides the remote OPC Server (name or IP Address). Then click OK.
- 6. The list of existing OPC Server in your server machine will then be added to the tree view.
- 7. Open an OPC Client and connect to the added server.

OPC Servers	Archivers	Rules	Loops	Transfers		
				[×] <		
□- OPC Servers						
OPC DA Servers						
	DNB:192.168	.0.162:56	90:Integrat	tionObjects.AdvancedSimulator.1   localhost		

Figure 8: Connection with OPC Client





For additional information on this guide, questions or problems to report, please contact:

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