Industrial USB 2.0 Over IP Network 4-Port Hub – TCP/IP Network

Product Manual

Coolgear, Inc.
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Model Number: USBNET-400i

Revision History

Revision	Date	Author	Comments
1.0	3/20/2017	Coolgear	Original format
1.1	10/11/2017	Coolgear	New Manual Format

About this document

This product manual outlines installation and features of the USBNET-400i Industrial USB 2.0 Over IP Network 4-Port Hub – TCP/IP Network.

Scope

The scope of this manual is to give the user of the product an understanding of its use with detailed diagrams and verbiage. The manual allows the users to apply the product to their application.

Intended Audience

This product is intended for use in numerous industries including but not limited to applications such as; Automotive, Machine Equipment, Kiosk, Office, and others.

Product Support

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1. Introduction

The USBNET-400i is an industrial network-enabled USB Server for connecting four USB devices over the 10/100/1000Mbps Ethernet network running TCP/IP. By adding this USB to Ethernet Server to LAN, you can network-enable the USB devices. It breaks the traditional five-meter USB cabling distance limitation. By this implementation, USB devices connected to NetUSB-400i can be made available to remote clients over LAN-without a locally attached host PC.

WEIGHT	.675 lbs
DIMENSIONS	4.96"(L) x 3.59"(W) x 1.149"(H)
UPC	736983901705
WARRANTY	1 year from date of purchase
COLOR	Silver
DEVICE PORTS	4 USB Type-A Ports
LAN PORTS	1 RJ45 Port

1.1 Features

- Extends USB cabling distance beyond five meters.
- Allows USB devices to be used and shared by client PCs over LAN.
- Supports wide variety of USB devices.
- Compatible with bulk, interrupt and isochronous type USB devices.
- Provide Plug and Play function same as on board USB port.
- Access and monitor USB devices over a User-Friendly Application interface.
- Industrial metal case.
- Supports wide input power range: DC9V~DC30V.
- Compatible Windows XP/ 2003 Server/ Vista/ Windows 7/ Windows 8.
- RoHS compliant.

- Allows USB Devices to be used and shared by client PC's over LAN.
- 4 USB 2.0 High Speed Ports up to 480Mbps speed.
- Full 500mA power provided to each USB port.
- USB ports support over current protection.
- 10/100/1000 Mbps Ethernet support.
- Supports IP addressing: Static and DHCP.
- LEDs for system/ Ethernet/ USB ports.
- Field-upgradeable firmware.
- Supports "Reset" button for system reset.
- Regulatory approvals: FCC Class B (DoC) and CE.

2. Installation

Step 1 – Connect the USBNET-400i USB Server to your Network.

First connect an Ethernet cable to the NetUSB-400i USB Server's Ethernet port.

Figure 1: Ethernet Port, Ready LED, Power LED

Figure 1

Once the Ethernet cable is connected, connect the other end of the cable to your network. This can be a free Ethernet port on your DSL router, Ethernet Hub/Switch, or an 802.11n router/ base station.

If you do not have a network, you can connect the USB Server directly to the Ethernet port on your computer using a Cross-Over cable.

Step 2: Connect the USB Server's Power Supply / Read the LEDs

Connect the included power supply to the USB Server's power connector (figure 2).

Figure 2: Power Connector

Figure 2

Once the USB Server is powered, you will notice the USB Server's red "PWR" LED turns ON and after few seconds the yellow "RDY" LED blinks and turns ON.

The NetUSB-400i USB Server hardware installation is now complete. Please proceed to the NetUSB-400i Utility software installation instructions. The NetUSB-400i utility Setup is an Install Shield based application, which can be used for installing, uninstalling and upgrading the NetUSB-400i Software. (Click to download software here)
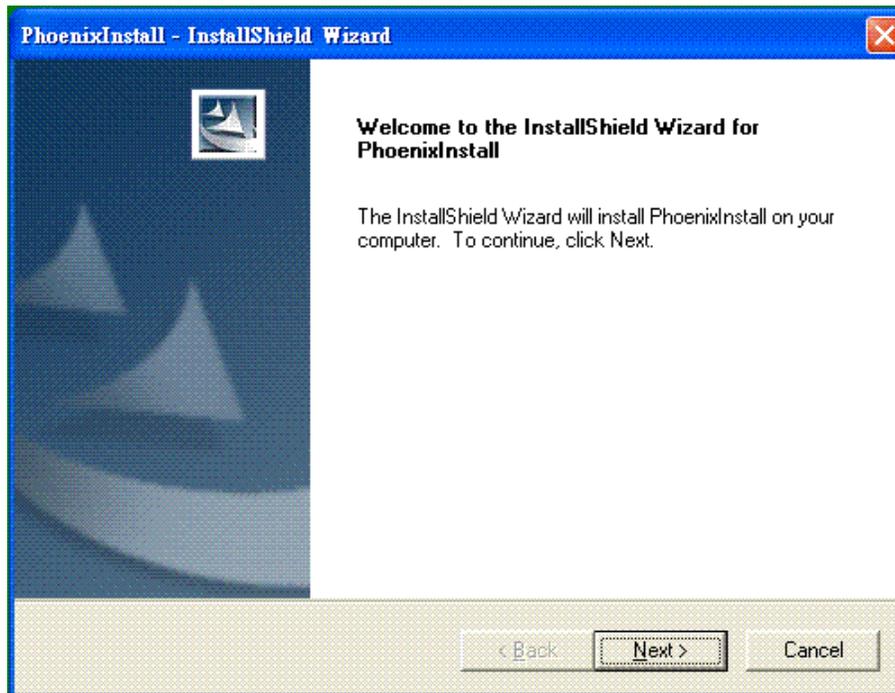
Figure 3

Then follow the instructions of the wizard to complete the installation process. Once the installation is complete, the NetUSB-400i utility shortcut is placed on the desktop as well as in the system tray as shown in the figure below.

Figure 4

Please reboot the system as requested by the installer when the process ends, otherwise the software might not work properly.

3. Running USB Server Program

To start the USB Server program, double click the shortcut icon of the USB Server on the Desktop.
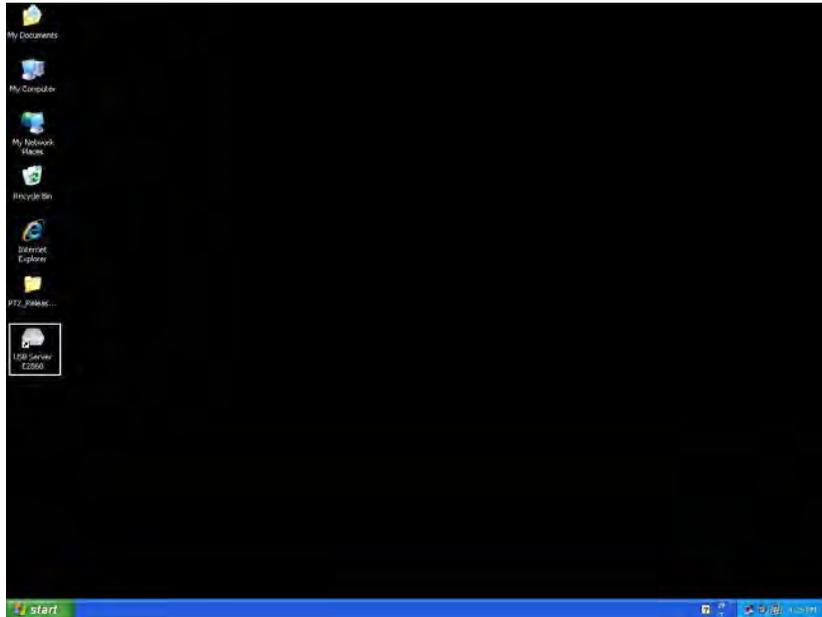
Figure 5

This would bring up the main dialog as shown below.
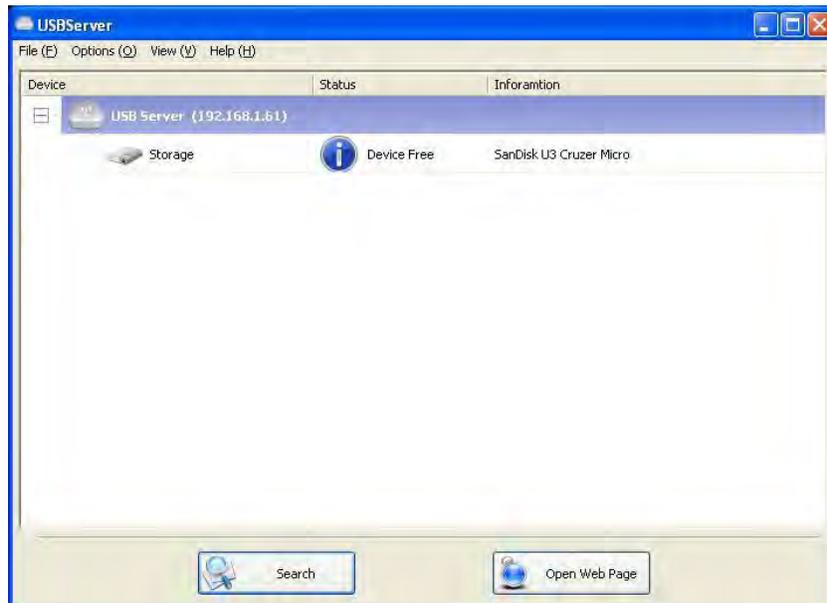
Figure 6

4.   System Firewall

When you start the program for the first time, your Windows OS will prompt you for Firewall Access. Please make sure you unblock the software or grant it access, otherwise the program will not work correctly.

Windows XP Firewall Access Alert
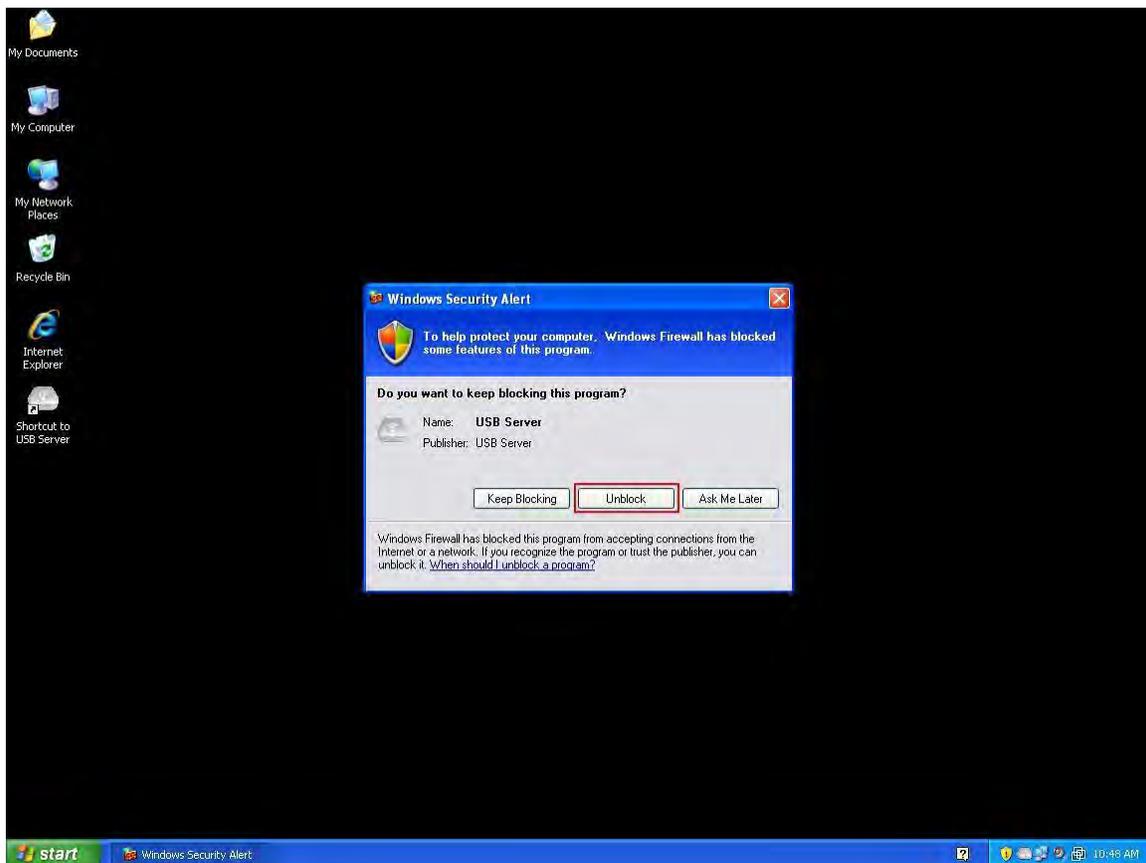
Figure 7

Please make sure you "Unblock" the program.

4.1 Windows Vista Firewall Alert
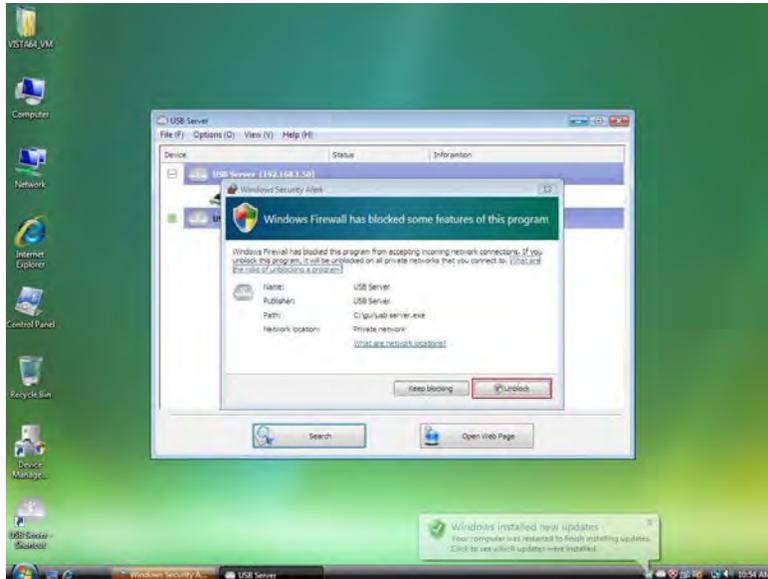
Figure 8

If your system is running Windows Vista, please make sure you "Unblock" the program.

4.2 Windows 7 or 8 Firewall Alert
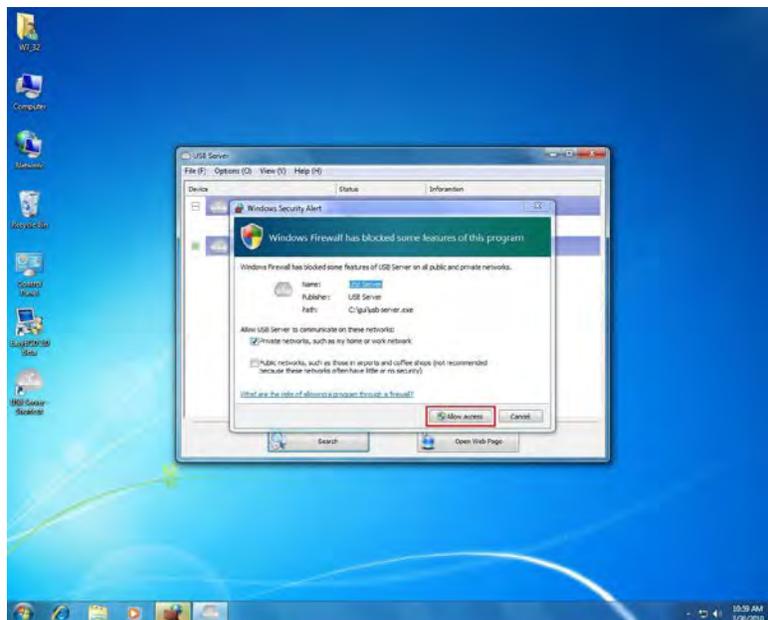
Figure 9

If your system is running Windows 7 or Windows 8, please make sure you click on "Allow access" when you see this alert.

Once you have done this once, the system will remember your setting and will not prompt you again next time you run the software.

5. Main Dialog Box

Once you have start up the program and grant it access through the firewall, you will see this main dialog box.
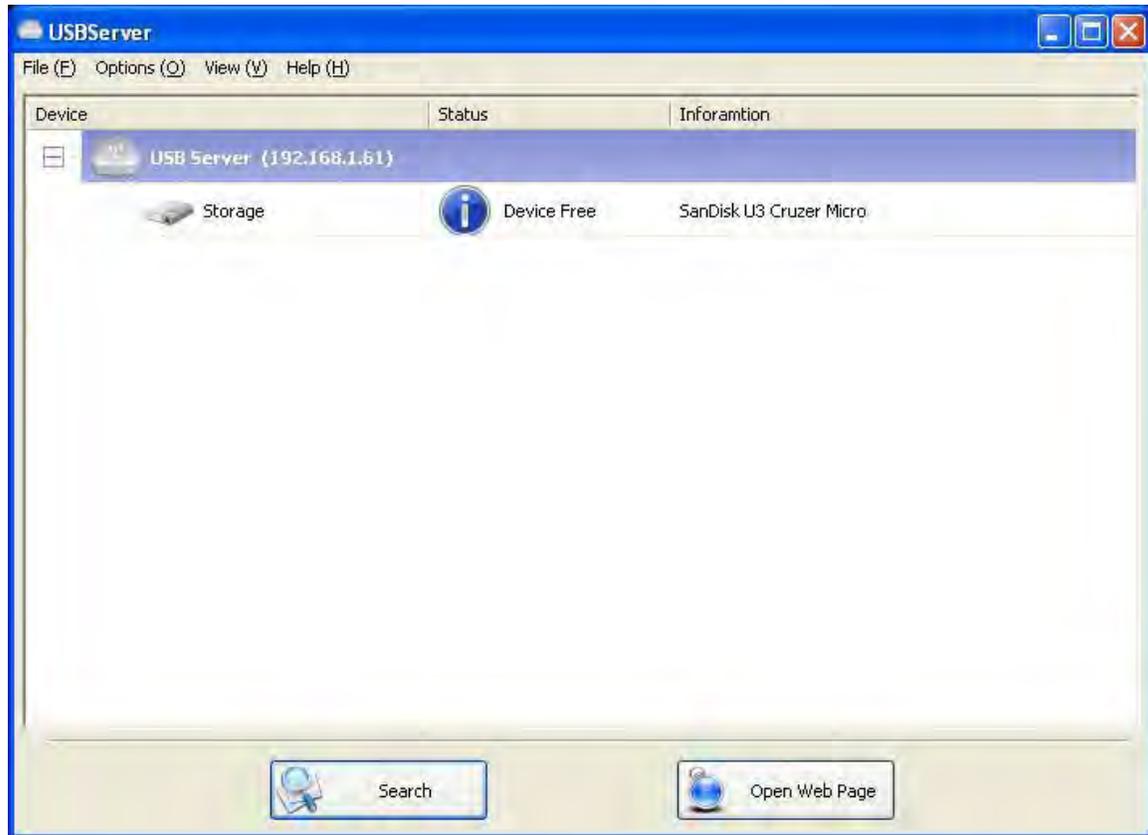
Figure 10

The main dialog box consists of a **Control Menu** (File, Options, View and Help), a tree view in the middle that displays a list of all the Server and devices discovered on the network, a **Search** button to get the current status of all USB Servers and devices, and a button that toggles between **Open Web Page** and **Connect Device** depending on the node you select on the tree view. The **Open Web Page** button toggles to **Connect Device** when a device is highlighted.

5.1 Status of NetUSB-400i USB Servers and Devices

The tree view also tells you the status of all the NetUSB-400i USB Servers and devices that are discovered on the network. An inaccessible USB Server will not show up on the list. It is either disconnected from the network, powered off or suffering from other technical difficulties.

The device might be in one of the following states, and there are different things you can do with it in each of the states. A specific icon represents each status.
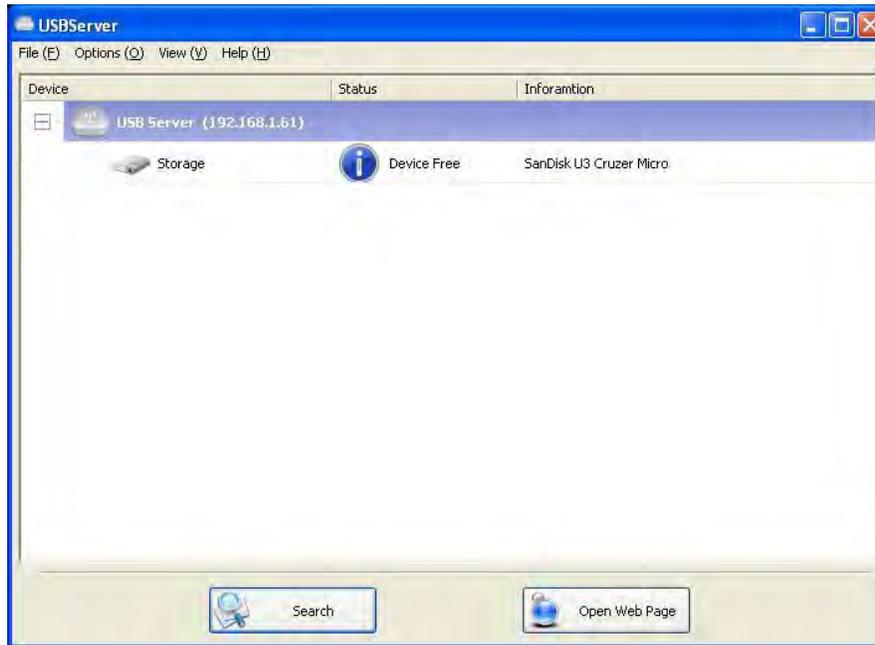
Figure 11

A device with Device Free status is unoccupied and ready to be connected.

5.2   Occupied By Other User

ICONS	DEFINITIONS
	This status icon indicates another user on your network occupies the device and you cannot connect to that device at the moment.
	This icon with question mark indicates that the server's IP address is on a different network segment from your PC. You cannot connect to a device attached to such server. Please check your network settings. However you can still change its network settings.
	USBNet-400i USB server does not support some of the devices. A stop sign icon as shown will identify such device. Of course, connecting to an unsupported device is not allowed.

6. Notes, Tips, Warnings, and Safety

Note	The default configuration for the NetUSB-400i USB server is DHCP enabled. If the USB server is not able to get an IP address from a DHCP server, it will use the IP address 169.254.10.10.

Tip	N/A

Warning	Do not connect your USB device(s) to the USB Server until you have finished installing the USB Server software and hardware!!!

Safety	- Read the entire Product Manual before implementing this product for your application. This manual contains important information about electrical connections that must be followed for safe and proper operation. - Inspect the product closely for visual defects before putting it to use. - Keep away from areas where moisture builds, this product contains electrical components that can be damaged by moisture build up, this can adversely affect your equipment connected to it. - Do not disassemble the product. Handling the product's internal components can expose it to ESD (Electro-Static Discharge) hazards that can affect the function of the device. - If this product is not functioning properly, email our support team at support@coolgear.com.

7. Supporting References

Document	Link
Website Product Page	https://www.coolgear.com/product/industrial-usb-2-0-ip-network-4-port-hub-share-usb-device-tcpip-network