



Access USB devices over IP connection

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1 Preface

1.1 About This Document

This document explains how to access remote USB devices over the network using the eWON Cosy 131 or the eWON Flexy 205. The eWON Cosy 131 and the eWON Flexy 205 have a built-in USB port that allows USB devices to be shared through Talk2M network.

1.2 Document History

Version	Date	Description
1.0	2015-06-15	First release
1.1	2015-08-31	Added Wizard Configuration
1.2	2015-10-16	USB sharing integrated to eCatcher
1.3	2019-01-11	Document layout update

1.3 Related Documents

Document	Author	Document ID
N/A	N/A	N/A

1.4 Trademark Information

eWON® is a registered trademark of HMS Industrial Networks SA. All other trademarks mentioned in this document are the property of their respective holders.

2 eWON Configuration

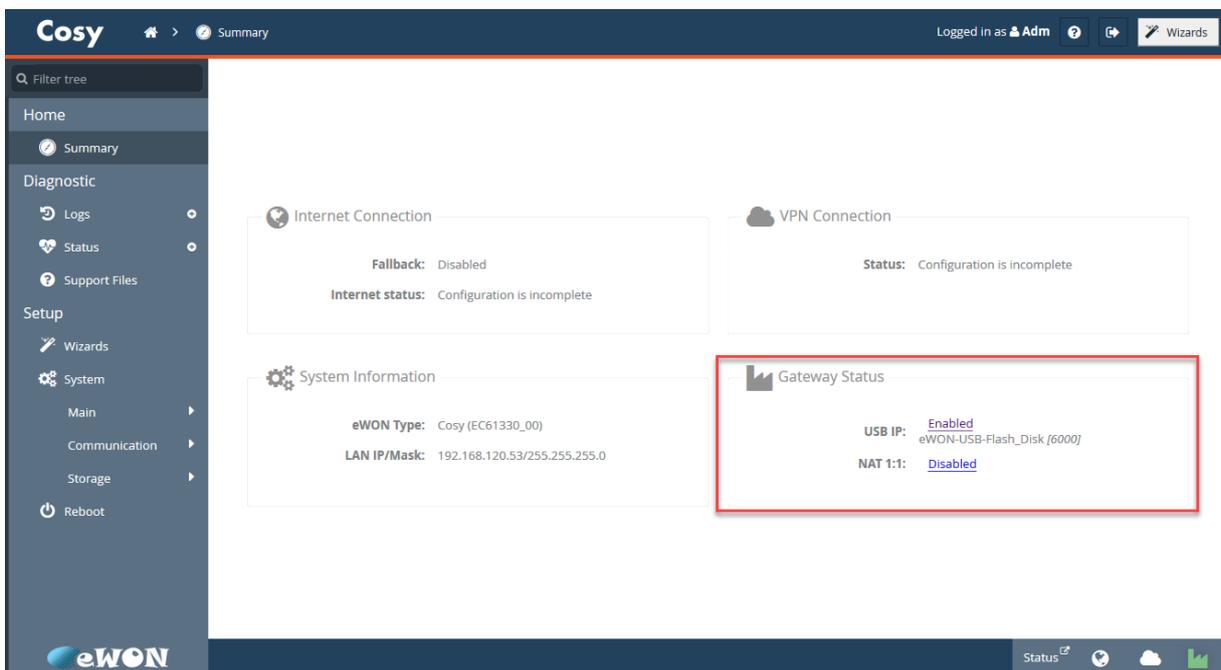
To take advantage of the USB over IP feature, the firmware of your eWON requires to be 9.0s0 or higher.

By default, the USB over IP feature is enabled. There is nothing to configure on the eWON side to access a plugged-in USB device.

2.1 (De)Activate the USB over IP

The dashboard (a.k.a “Summary” page) of the eWON shows the status of the USB over IP feature: enabled or disabled.

It also shows if a USB device is currently plugged in as the USB over IP feature is enabled.



The screenshot displays the eWON web interface. The top navigation bar shows the user is logged in as 'Adm'. The left sidebar contains a navigation menu with categories: Home (Summary), Diagnostic (Logs, Status, Support Files), and Setup (Wizards, System, Main, Communication, Storage, Reboot). The main content area is divided into four panels: Internet Connection (Fallback: Disabled, Internet status: Configuration is incomplete), VPN Connection (Status: Configuration is incomplete), System Information (eWON Type: Cosy (EC61330_00), LAN IP/Mask: 192.168.120.53/255.255.255.0), and Gateway Status (USB IP: Enabled eWON-USB-Flash_Disk [6000], NAT 1:1: Disabled). The Gateway Status panel is highlighted with a red border.

2.1.1 Procedure

Once you have logged in to your eWON web interface, there are two methods to change the USB IP state. Both methods render the same configuration page.

Through the Dashboard:

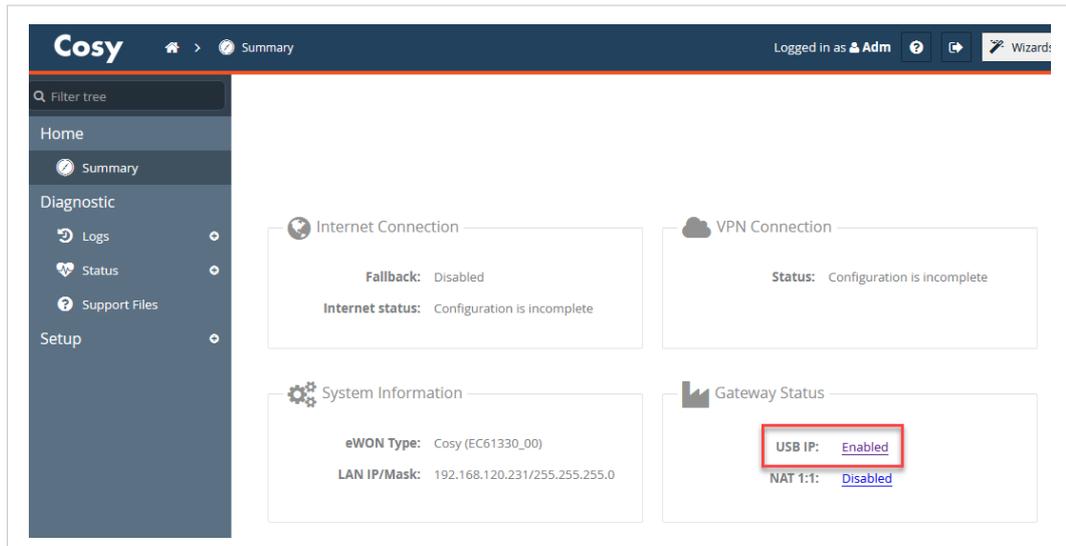


Fig. 1 Change the USB IP through the dashboard

As you are on the eWON dashboard, in the “Gateway Status” click on the *Enabled* or *Disabled* near the USB IP label.

The eWON displays the *USBIP setup*” page which allows the status modification of the USB over IP feature.

Through the Menu

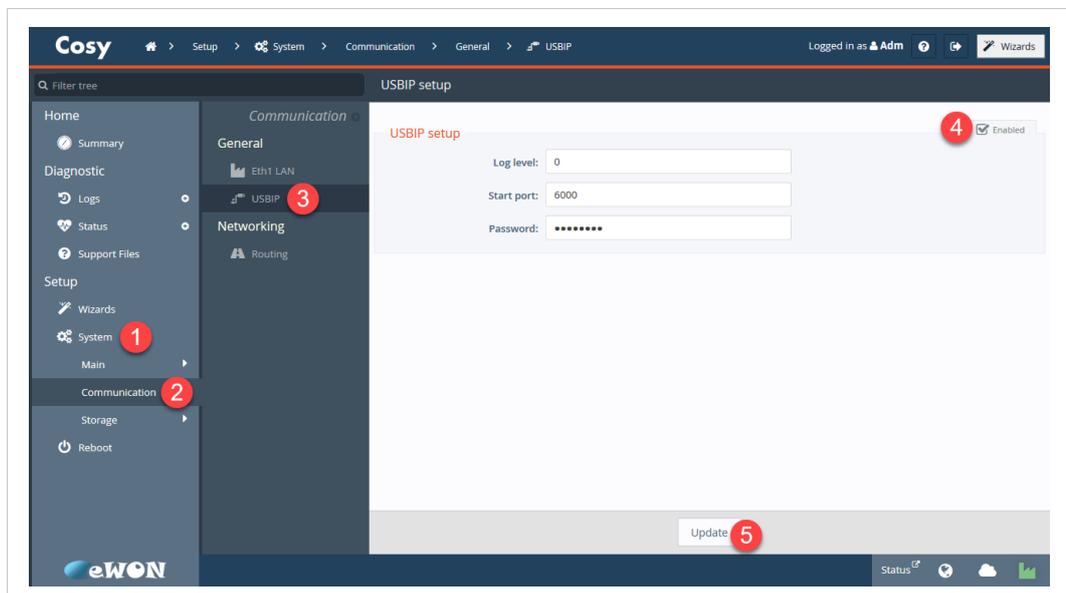


Fig. 2 Change the USB IP through the menu

Starting from the left side menu, click on the following links:

1. click on *System*
2. click on *Communication*
3. click on *USBIP*
4. (un)check the *Enable checkbox*
5. click on *Update*

Your configuration through the menu or the dashboard has been saved and your USB port is now (de)activated. This configuration modification does not require a reboot of the device.

2.2 **Advanced Parameters**

The configuration of the USB IP can also be done by modifying the parameters directly in the COMCFG text file. To do so, refer to our Appendix A - Advanced Parameters

3 PC Configuration

3.1 Installation

To get an access to your remote USB device, you need the [eCatcher software](#).

The required version of the eCatcher software must be 5.1 or higher.

The USB connection in eCatcher relies on the drivers provided by Eltima®. Those drivers were specifically modified to work in an eWON environment and are automatically added when installing eCatcher.

3.2 Connection

If a USB device is plugged in the eWON and this eWON is reachable (LAN, WAN or VPN), the USB device can be shared on the network as shown below:

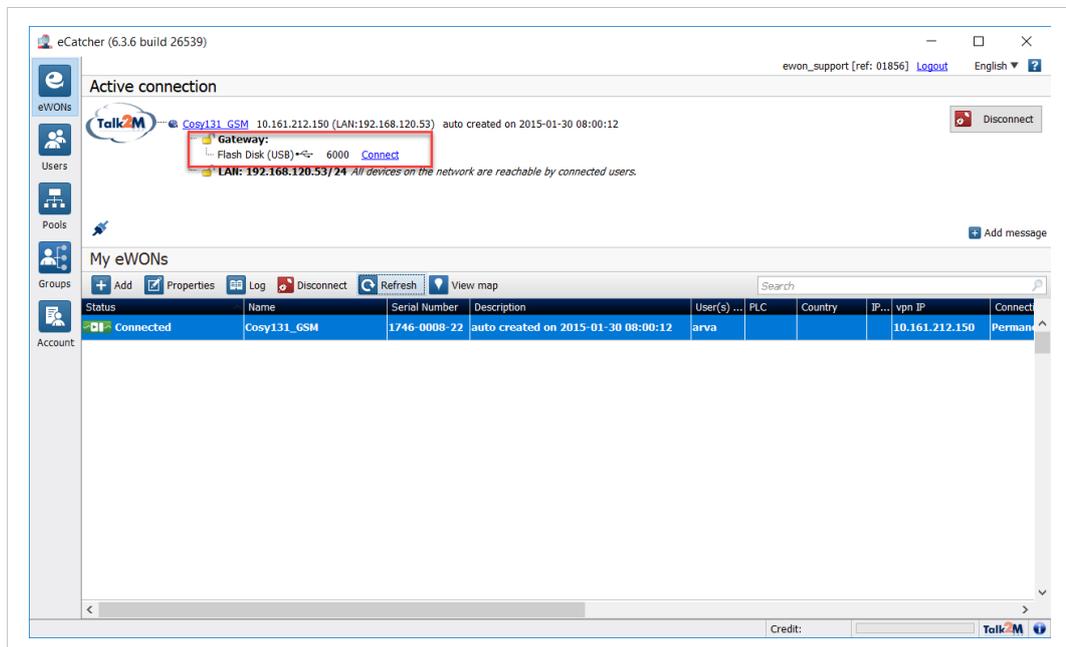


Fig. 3 USB listed in eCatcher

The detection of a USB device plugged in the eWON is automatic and is added under the “Gateway” section.



If the USB device does not appear in the eWON after plugging it in, wait a few seconds (~15 seconds for an automatic eCatcher refresh). If the USB device still does not appear, manually hit the refresh button in eCatcher.

To access the USB device, click on *Connect* which is located near the name of the USB device.

Once connected, the status and the USB icon change to reflect the succeeded connection.

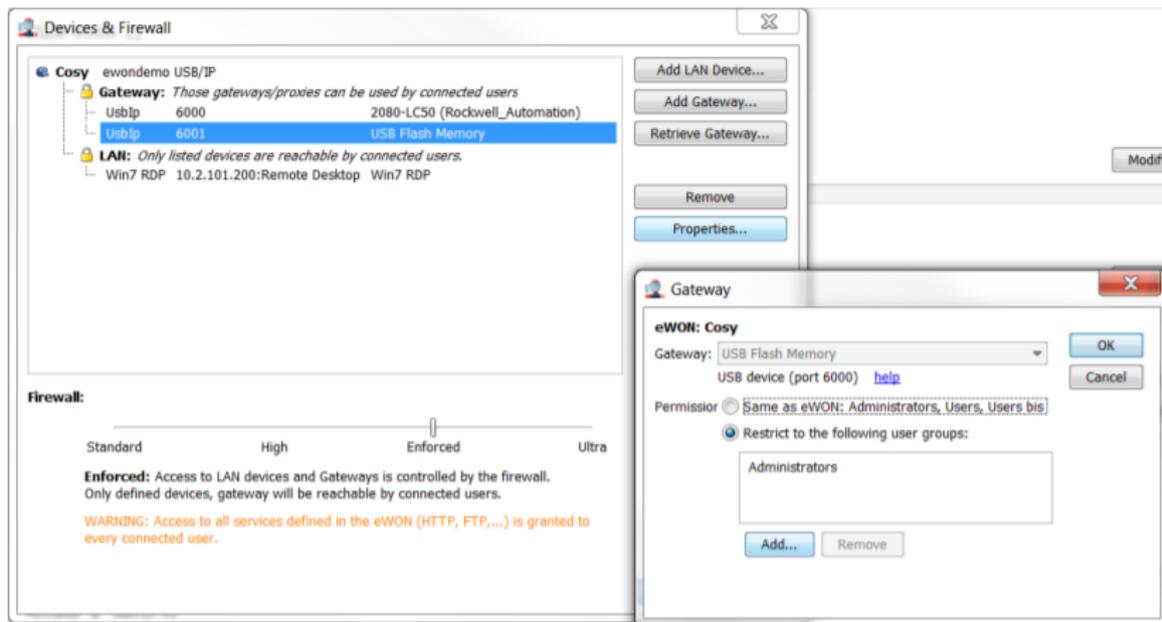
If the remote USB device is a camera or a PLC, we recommend installing its proprietary software on your computer before connecting to it.

3.3 Protection

In a Talk2M Pro account, it is possible to restrict the remote USB access to a specific group of users.

To do so, follow the procedure in eCatcher:

- click on the row of the eWON you want to modify,
- click on *Properties*,
- click on *Configure LAN Devices & Firewall*,
- verify that the *Firewall* level is at least “Enforced”,
- select the targeted USB device,
- click on *Properties*,
- assign the USB device to the desired user group.



3.4 Limitations

It is possible to connect a USB hub to eWON's USB port, therefore, connect more than a single USB device. The eWON device allows a connection of **maximum 10 devices**.

USB devices shared over IP can have network problems. Connecting a USB hub can slow the connection between the computer and the USB devices.

Even if the software indicates that the USB port has been connected, your computer might take time (up to a few minutes) to process and recognize it. You should always see a notification on your computer indicating that the device is ready to be used.

3.5 Supported devices

There is a non-exhaustive list of devices tested and confirmed by the eWON team. Visit the [eWONsupport website](#) for further information.

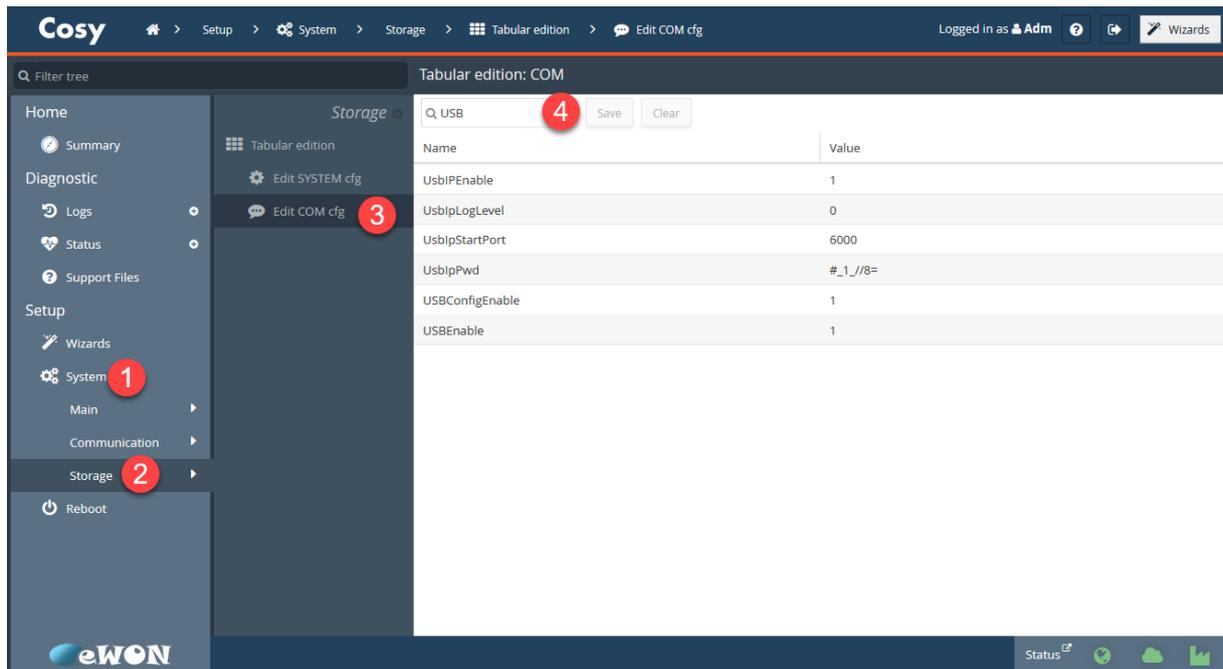
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A Advanced Parameters

The USB over IP feature can be configured through the user interface but can also be configured through the advanced parameters in the COMCFG text file.

To modify the parameters in the COMCFG, follow this procedure on the eWON web interface:

1. click on *System*,
2. click on *Storage*,
3. click on *Edit COM cfg*,
4. search for “USB” term.



The USBIP parameters that can be modified are the following ones:

UsbIPEnable	0 to disable, 1 to enable (default value).
UsbIPLogLevel	0 to disable (default value), 1 for some logs, 2 for full logs.
UsbIPPwd	a string representing the password. Keep in mind that if a password is set, the USB device will not be shown anymore in eCatcher.
UsbIPStartPort	an integer representing the port range for shared devices. If the “UsbIPStartPort” is X, the 10th device would be shared on port X + 9. Default is 6000, so the 1st device will be shared on port 6000. The second one will be on 6001 and so on.

Make sure the IT department allows the communication on the default port if there is a direct access to the eWON device.

Be aware that port allocation cannot be predetermined. A device X is not ensured to always receive port Y, the port number can change at any moment.

