MAG1000 Upgrade OIAD Firmware Guide
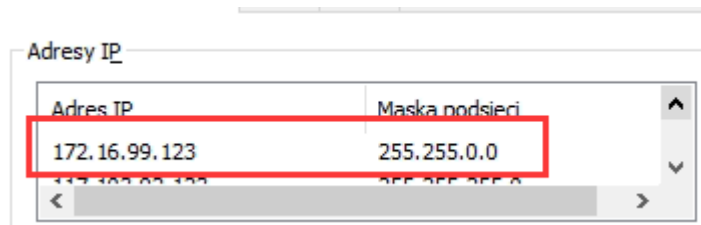
1. Connect the network cable to LAN2 of MAG1000 and network ports of the PC, make sure both MAG1000 and PC are under the same subnet of the network switch, then add network segments on the PC:

Network segment 1:

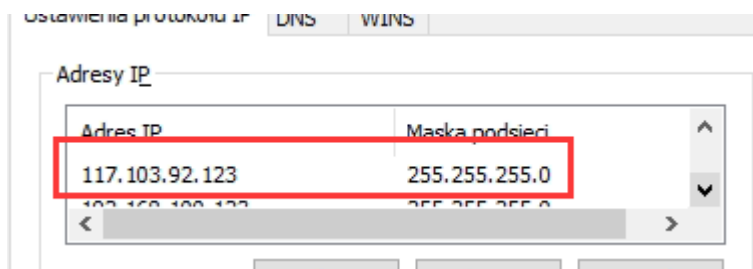172.16.99.123 (for Accessing the original uboot ip 172.16.99.1)

Network segment 2:

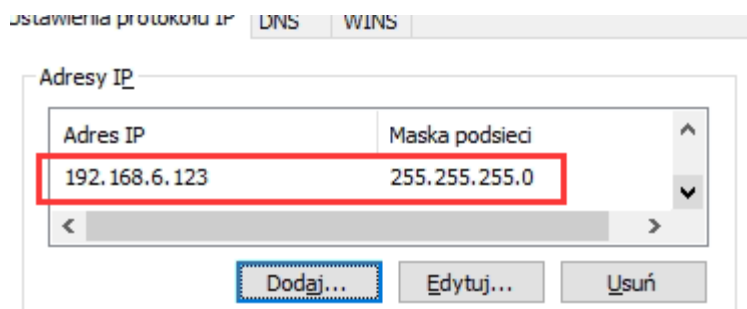117.103.92.123 (for Accessing Lan2 IP address 117.103.92.1 after flashing new OIAD firmware)

Network segment 3:

192.168.6.123 (for Accessing Lan2 IP address 192.168.6.65 after writing OEM info on OIAD firmware)

2. Start Flashing uboot and OIAD firmware

2.1 Update uboot

2.1.1 Enter the uboot interface

* a. Power off the device;

* b. Press and hold the RST red button;

* c. Power on the device, and keep holding the RST for 10-15 seconds, if you see all LEDs are flashing quickly, it means the uboot mode is ready;

* d. Ping 172.16.99.1 on the PC and enter http://172.16.99.1 in the browser to enter the uboot interface as shown in the following figure;

2.1.2 Upgrade uboot

名称

☐ 01-20231229-melon2-iac-v1-u-boot-with-spl.bin — **uboot**

⊚ 02-v2.2.6-mag1000-iag801-normal-iac-v1-squashfs-sdcard-ee6dcd12.img — **oiad**

☐ How to Flash OIAD Firmware on MAG1000.docx

☐ oem.info

* a. Click on the browse of U-Boot and select Uboot firmware (20231229-melon2-iac-v1-u-boot-with-spl)

* b. Click on Update U-Boot to upgrade

- This utility is for recovering the system in case it is running into abnormal state.

- You are going to update firemware on the device,Please choose file from your local drive and click the button.

- Don't power off the device during update,if everything goes well,the device will restart!

- product_id=24.

Kernel:		Browse	Update kernel
Rootfs:		Browse	Update Rootfs
U-Boot:	C:\fakepath\20231026-melon2_iac-v1-u-boot-with-spl.bin **1**	Browse	Update U-Boot **2**
DTB:		Browse	Update DTB
FactoryReset:			FacrotyReset

* c. After upgrading, you will enter the above interface again

* d. Cut the power of MAG1000, then repeat the step 2.1.1 again to enter uboot mode.

* e. Ping 172.16.99.1, and then access the web of the uboot interface again.

You can see that the new uboot version number has changed; As shown in the figure below, it indicates that the uboot upgrade was successful; the latest uboot version is 1.5.8

⚠ Niezabezpieczona | 172.16.99.1

UPDATE UTILITY V 1.5.8

- This utility is for recovering the system in case it is running into abnormal state.

- You are going to update firemware on the device,Please choose file from your local drive and click the button.

- Don't power off the device during update,if everything goes well,the device will restart!

- product_id=4.

Firmware:		Browse	Update Firmware
U-Boot:		Browse	Update U-Boot

2.1.3 Cleaning Environment Variables

*a. Click on EnvDefault in the new uboot interface to restore the environment variables to default (this step is crucial)

*b. After clicking EnvDefault, it will take few seconds to finish the process, then it will come back to the uboot interface again;

2.2 Burning firmware

2.2.1 Uploading and Updating Firmware

*a. Click the 【Browse】 and choose the OIAD firmware, then Click 【Update Firmware】to flash firmware.

Upgrading...

*b. Observe the web page, after upgrading, it will show 【Upgrade succeed!】

Upgrade succeed!

*c. Click 【Factory Reset】

UPDATE UTILITY V1.5.8

- This utility is for recovering the system in case it is running into abnormal state.

- You are going to update firemware on the device,Please choose file from your local drive and click the button.

- Don't power off the device during update,if everything goes well,the device will restart!

- product_id=4.

Firmware:		Browse	Update Firmware
U-Boot:		Browse	Update U-Boot
EnvDefault:			EnvDefault
FactoryReset:			FactoryReset
Reboot:			Reboot
Net boot first:	No ▾		Apply

It will clean all configs:

← → C ⚠ Not secure | 172.16.99.1/index.html

🔴 Amazon Polly ⚫ Centos7-add-disk 📧 Mail - Nithin Krishn... 📧 Bitvoice 🔵 openvpn 📥 https://download.le... UT Max-depth 🐳 Portainer ⚫ GitHub - waynemer...

cmd running

- Command running ...

- Please wait... Do not close this page.

It will auto restart the device MAG1000, then the device should be running normally on the new OIAD system;

2.2.2 Write OEM information and MAC address

After flashing the OIAD firmware into MAG1000, the device is only accessible by SSH connection, and the web interface is not available now.

It is necessary to write the factory OEM information to enable Web access and bring it to normal status.

    *a. Access the MAG1000 by SSH tools (putty or xshell, etc.)

IP address: 117.103.92.1

SSH port: 3505

User: root

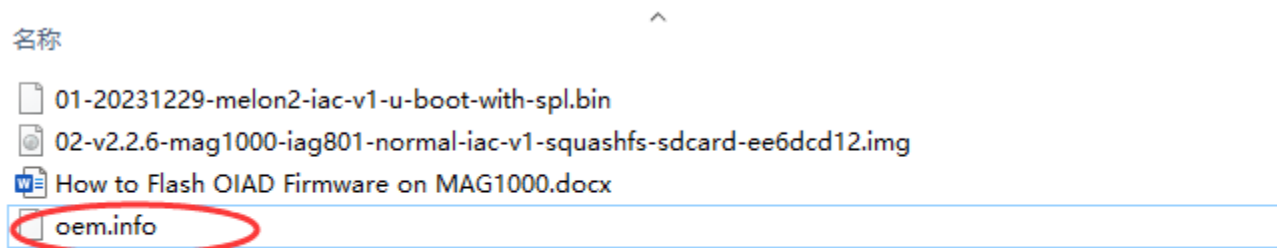Password: wsa-98uf

After login, as shown in the figure:

    *b. Enter the/tmp directory and create an oem.info file

        For example, the number of device ports is 32, and the port type is FXS

        cd /tmp/

        vi oem.info

        Paste the following content of above file 【oem.info】 into the file you just created:

```
 1   {
 2       "vendor": "OpenVox",
 3       "website": "www.openvox.cn",
 4       "product": "OpenVox IAD Series",
 5       "region": "zh",
 6       "language": "cn",
 7       "model2": "MAG1000-32S",
 8       "sn": "MA1KHJ02RGQ8",
 9       "interface": "analog",
10       "maxslots": 1,
11       "maxspans": 1,
12       "maxchannels": 32,
13       "maxprofiles": 4,
14       "fxs_enable": "yes",
15       "fxo_enable": "no",
16       "maxacls": 16,
17       "maxlocalswitchlist": 64,
18       "maxdigitmaprule": 64,
19       "maxcallrouterule": 64,
20       "maxroutelist": 64,
21       "maxfirewallrules": 64,
22       "maxsiptrunk": 6,
23       "cfgdefault": 1,
24       "vendor_cn": "",
25       "style": "blue",
26       "extra0": "",
27       "extra1": "",
28       "extra2": "",
29       "extra3": ""
30   }
31
```

After that, change the serial number of the SN part in red to the real SN code (You can find it on the label of MAG1000 device), save and exit.

*c. Write the MAC address (the MAC address of Lan1 on the label of MAG1000).

For example, the MAC address of Lan1 is A098050E5A32

/appenv/contrib/icvp/icvp-oem write_mac A098050E5A32

```
root@localhost:/tmp# /appenv/bin/icvp-oem write_mac A098050E5A32
MAC: A098050E5A32
Reset factory required when done!
DONE
```

*d. Read MAC address

/appenv/contrib/icvp/icvp-oem read_mac

```
root@localhost:/tmp# /appenv/bin/icvp-oem read_mac
A098050E5A32
```

*e. Write OEM data

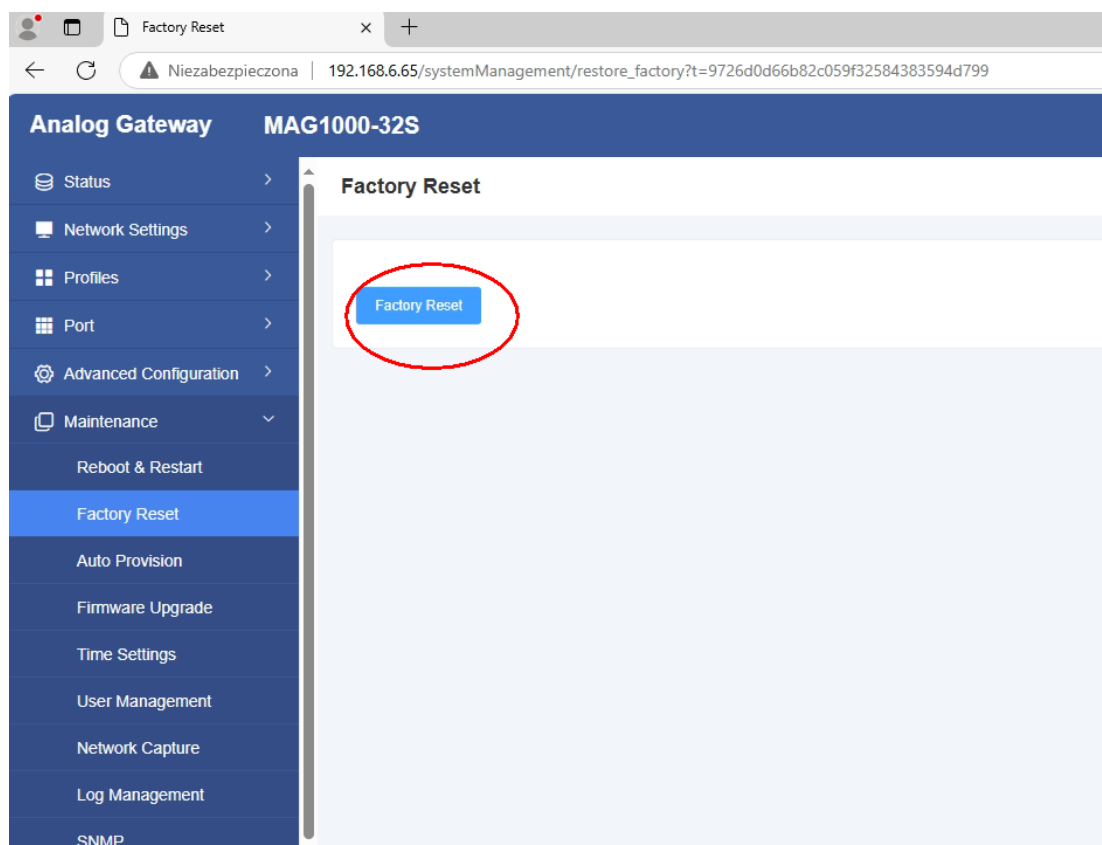/appenv/contrib/icvp/icvp-oem write_oem /tmp/oem.info

```
root@localhost:/tmp# /appenv/bin/icvp-oem write_oem /tmp/oem.info
DCS: offset[0x2000] size[0x10] realsize[0x10] checksum[af3c661bff097a871f5f0f9716cd12a3]
DATA: offset[0x2400] size[0xC00] realsize[0x1DF]
Reset factory required when done!
DONE
root@localhost:/tmp#
```

After writing the OEM data, the device will reboot and uses a new default IP (192.168.6.65).

*f. Input 192.168.6.65 in the browser and enter the new web interface of OIAD system:

Click 【Factory Reset】to make sure all configs are fresh new status

the device will restart and use IP 192.168.6.65 to access Lan2 and the web interface.

The default username and password are admin/admin:

Now you can enjoy the new OIAD firmware on the MAG1000 device!