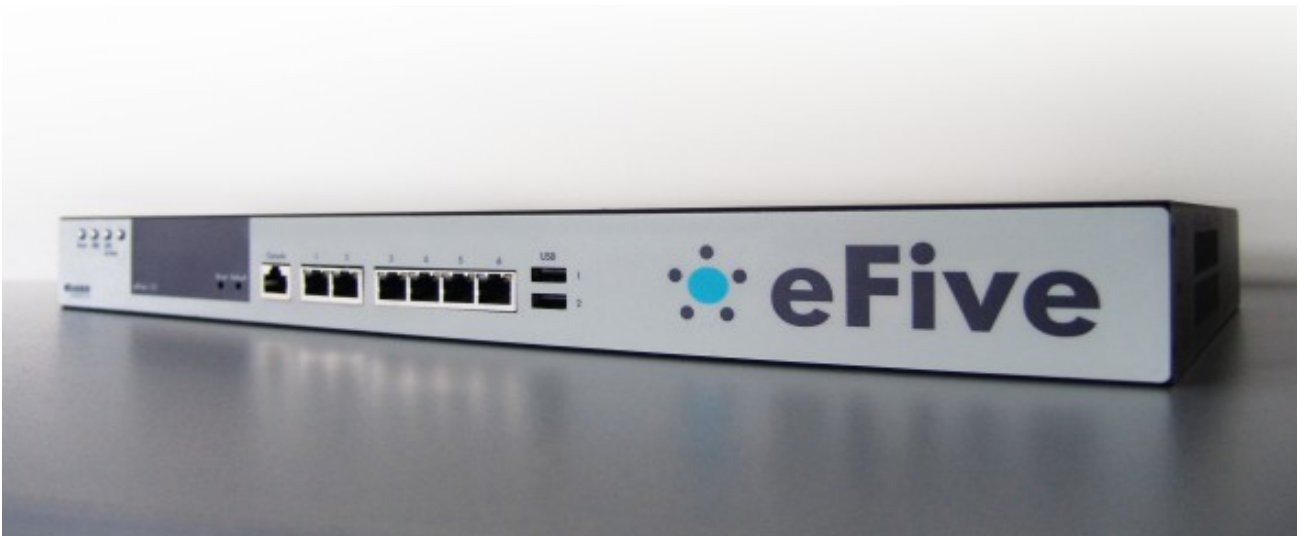


eFive 100 Installation Guide



Contents

This short guide explains how to install the eFive 100 Firewall and to get started with the embedded configuration web site.

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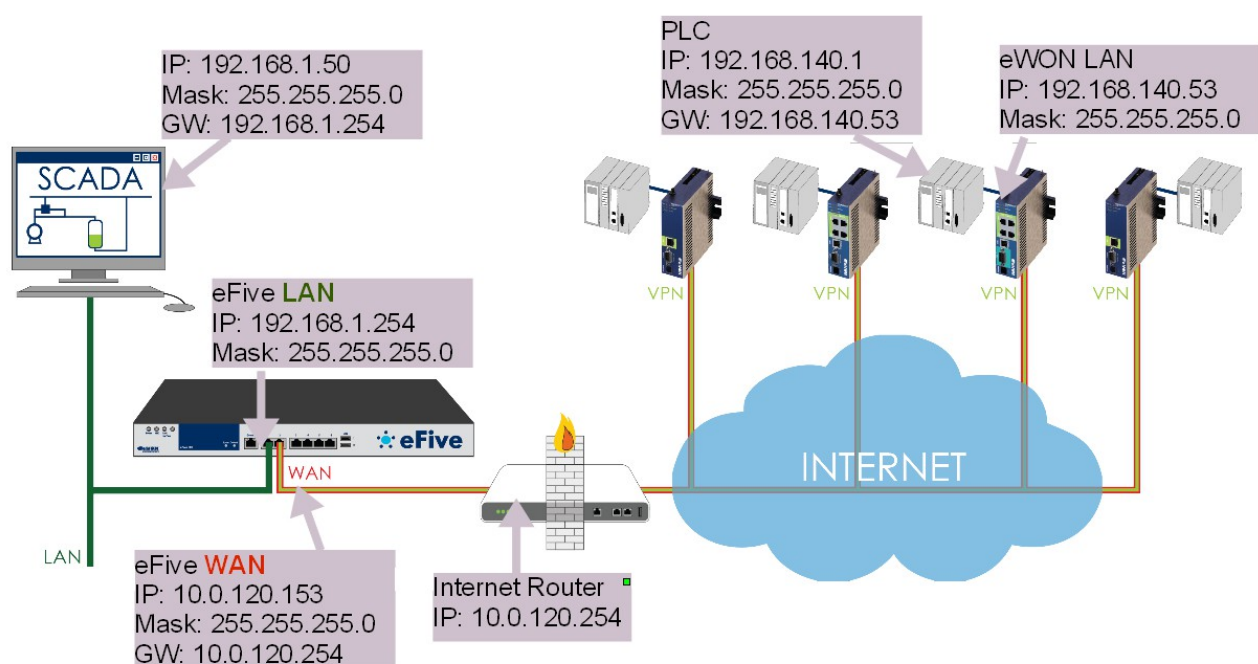
1. What is eFive 100 ?

This Installation Guide describes the hardware and software installation of the VPN server platform eFive 100.

eFive 100 is a rackmount hardware platform featuring a Virtual Private Network (VPN) gateway with OpenVPN. It has been designed to be a perfect match with the eWON range to build a VPN network. The eFive 100 acts as OpenVPN Server and the eWONs as OpenVPN Clients.

The model eFive 100 is designed to support up to **200 VPN clients**. For smaller configurations there is the eFive 25 (see IG-012-0-EN).

The objective is to connect for example a SCADA PC to the PLC devices behind the eWON. The SCADA PC makes part of the LAN network of the eFive and has the eFive as default Gateway. When the VPN connection is established between the eWON and the eFive, the eFive routes the requests from the SCADA to the network behind the eWON. An example of typical IP address configuration is given in the picture below. The System and VPN configuration to reach this objective are described in the user guide AUG-050-0-EN (eFive system and VPN configuration). This guide is available on the eWON support site <http://wiki.ewon.biz/efive>.



2. Compliance

The current versions of the product certificates for the eFive are available from our Support site: http://wiki.ewon.biz/Support/07_Documentations/Official_documents

3. Hardware description

3.1 Package contents

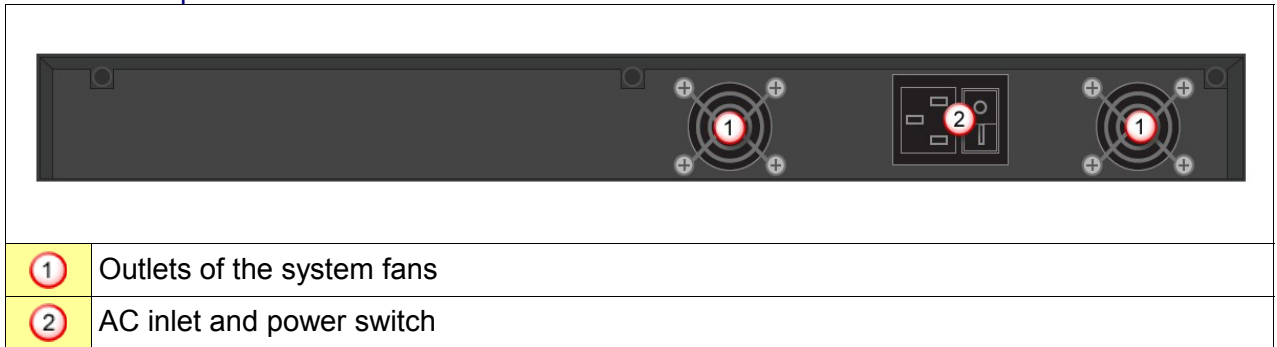
1	The eFive 100 VPN server hardware platform x 1
2	AC power cords (1 x NEMA 5-15p + 1 x CEE 7/7 France/Germany)
3	Plastic adhesive stands x 4 (<i>small adhesive stands to affix on the bottom of the unit</i>)
4	Quick start guide
5	Rack mounting ears x 2 + mounting screws
6	Serial cable for terminal emulator on console port See Appendix 1 - Serial Console Access

3.2 Housing interfaces

3.2.1 Front Panel

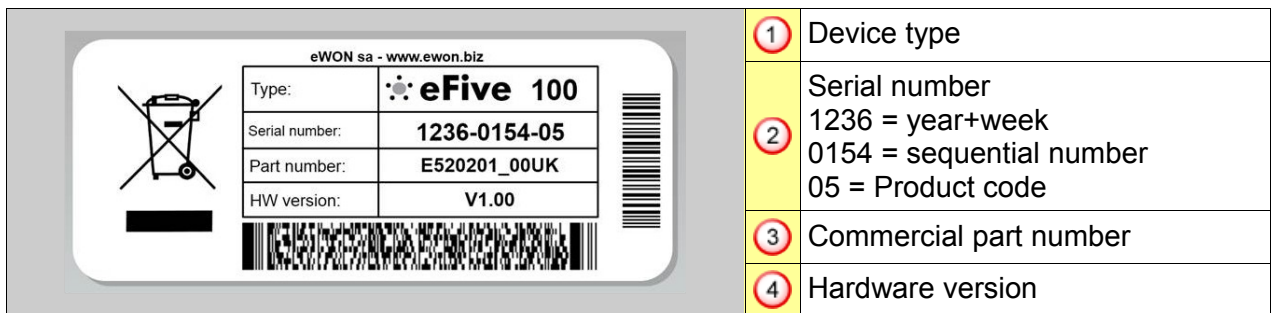
1	Ethernet Port 1 - LAN (green)	<u>Left side LED - Activity LED (orange single color)</u> OFF = No connection (or appliance OFF) ORANGE flashing = Activity <u>Right side LED - Transfer rate indication (double color)</u> OFF 10Mbps GREEN 100Mbps AMBER 1000Mbps
2	Ethernet Port 2 - WAN (red)	
3	Ethernet Port 3 - DMZ (orange)	
4	Ethernet Port 4 - WLAN (blue)	
5	Reserved port	
6	Reserved port	
7	<u>Console port</u> RJ45 connector to fit RS-232-cable as console port. Interface for reset to factory settings. Connection through terminal emulator See Appendix 1 - Serial Console Access	COM port 1 <u>Default settings:</u> Rate 115200 Parity 8, n, 1 Flow control: None
8	Reserved buttons	
9	<u>LED panel</u> <ul style="list-style-type: none"> Power LED – ON when the appliance is ON. HDD LED – ON when reading/writing on the solid state drive (SSD) LAN By Pass LED – ON when running the LAN By-Pass function No label LED - Reserved 	
10	USB ports (2) for mouse/keyboard connection	

3.2.2 Back panel

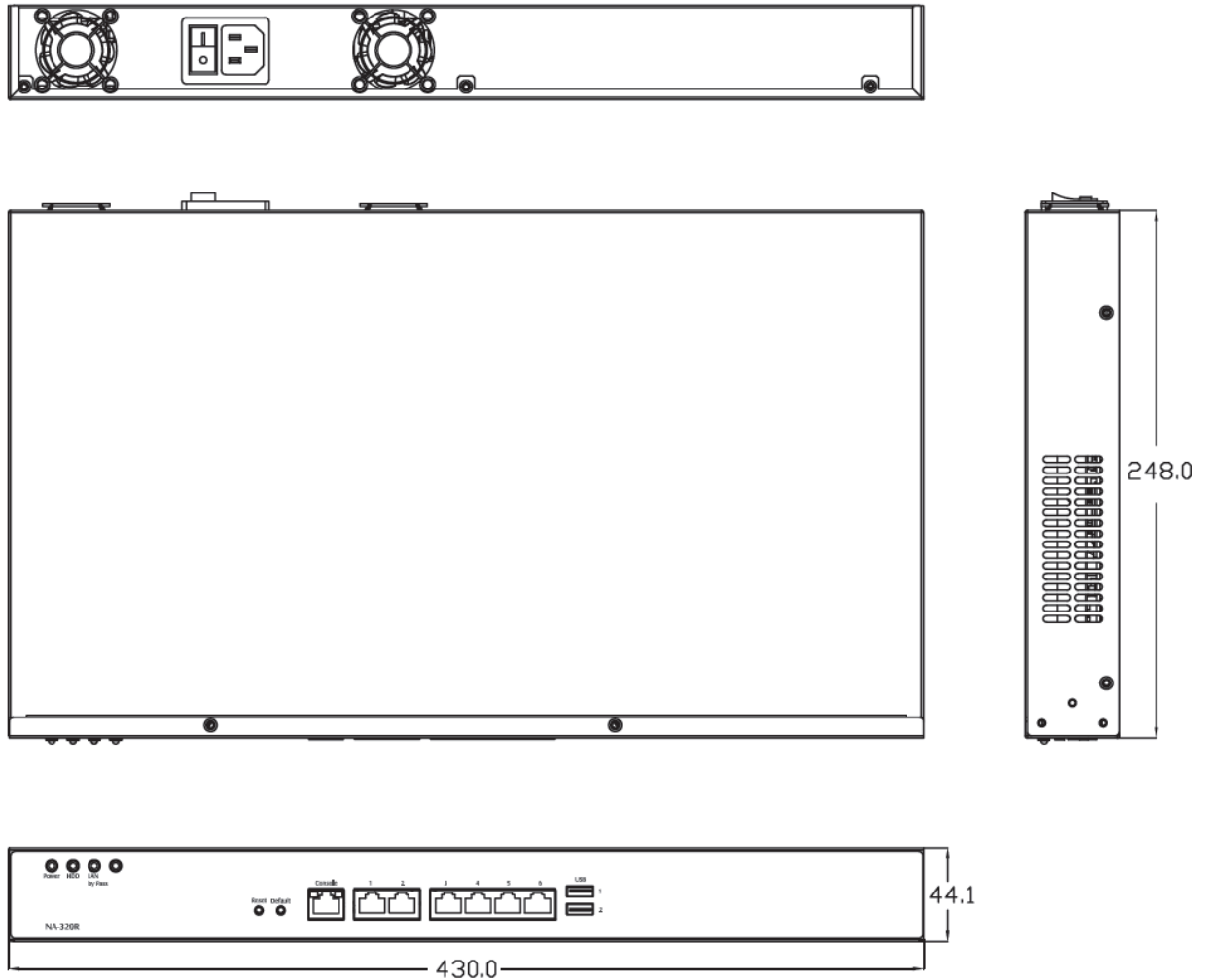


3.3 Markings

The identification label of the eFive 100 is placed on the bottom plate of the housing. The different parts of the label are shown below:



3.4 Mechanical outline



All dimensions are in millimeters.

4. Software configuration

4.1 Factory default IP settings

Default LAN IP address (Port 1)	10.0.0.153
Corresponding Subnet Mask	255.255.255.0

4.2 Network interface configuration

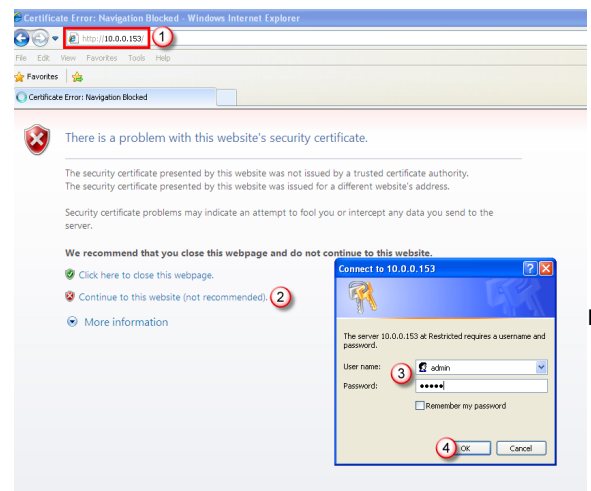
4.2.1 Selecting the appropriate IP ranges

Configuring the VPN server is simple. However, you need to pay attention to the different IP ranges of the involved networks. The IP range of the LAN-side needs to be different than the one on the WAN-side. Check with the network administrator whether the planned WAN range is compliant with the current IT-policy. For more information about the different networks used by the eFive, please see the eFive User Guide, AUG-050-0-EN which is available from the eWON Support website

http://wiki.ewon.biz/Support/07_Documentations.Fi

st connection

Connect your PC with the LAN-port of your eFive (Port 1 - green). Make sure that your PC is having an IP address that is compatible with the default LAN IP address of the eFive. Open your browser and type the default address 10.0.0.153 in the URL field. Hit Enter. You can discard the security warning as shown.



Enter the default username and password.
 Default username: admin
 Default password: admin

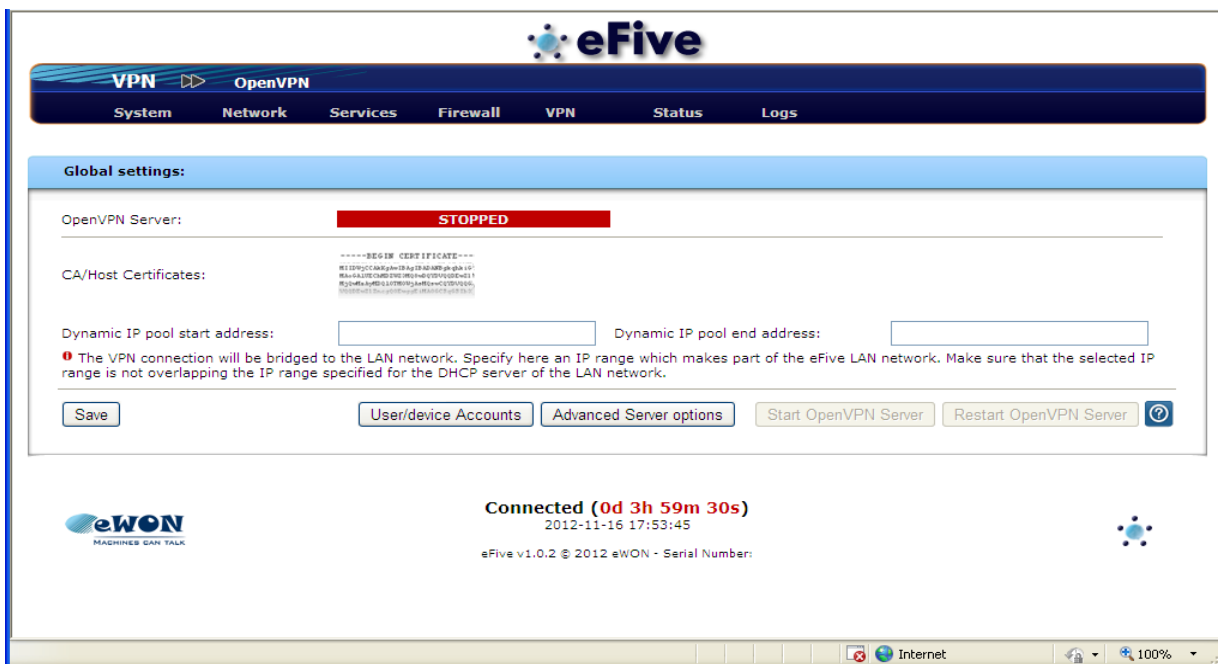
Warning!

For security reasons, changing the default password **admin** is absolutely required.



To change the **admin** password, from the menu bar, click on **System, Passwords**. Enter the new password twice and click **Save**.

The home page of the eFive opens.



4.2.2 Setting the LAN IP (green) address

Click **Network, Interfaces** from the main menu.



The interfaces window opens.
(see next page)

eFive

Network >> **Interfaces**

System Network Services Firewall VPN Status Logs

Interfaces

General settings:

Hostname:

Domainname:

DNS1: **1**

DNS2:

Default gateway:

lan - trusted internal network segment

IP address: **2**

Network mask:

wan - untrusted internet network segment

Interface type:

IP address: **3**

Network mask:

dmz - network segment for servers accessible from internet

IP address:

Network mask:

wlan - network segment for servers accessible fro WIFI

IP address:

Network mask:

Save interfaces settings and reboot **4**

In the LAN section, replace the default address and Network mask by the one you want to use.

4.2.3 Setting the WAN (red) address

There are no default settings on the WAN side. Depending on the requirements, you can configure the WAN port to acquire a dynamic address automatically (DHCP enabled) or with a fixed IP address and network mask. In this area, you also have to configure the DNS server address(es) and the default gateway. The WAN/DMZ and VPN configuration are described in the software document AUG-050-0-EN (eFive – Client configuration & device access).

5. General specifications of eFive 100

Mechanical/Power/Environmental	
Form factor	1U Rack mount
Dimensions	44mm (1.73") (H) x 430mm (16.93") (W) x 248mm (9.76") (D)
Weight	7kg (15.43 lb)
Power supply	AC to DC 84W open frame, Input 100-240 VAC 50/60 Hz 1A typ. 3A max.
Operation temperature	0°C ~ 45°C (32°F ~ 113°F)
Storage temperature	-20°C ~ 70°C (-4°F ~ 158°F)
Relative Humidity	0 to 95% non condensing
Interfaces	
Ethernet interfaces	6 x 10/100/1000Mbps Ethernet ports on RJ45 <i>(out of which only 1 to 4 are used)</i>
Serial interface	1 x RS232 Serial-port on RJ45 for console connection
USB interfaces	2 x USB ports

NOTE: All specifications and images are subject to change without notice.

Appendix 1 - Serial Console Access

The VPN server platform eFive 100 features a serial port allowing to connect a terminal console. This access is a useful rescue solution when it appears impossible to connect with the Ethernet interface. This happens i.e. when the IP configuration is uncertain or unknown, when the admin password is lost.

1. To make this connection, use the serial cable delivered with the unit. This black cable has a DB9 termination on one end and an RJ45 termination on the other end.



2. Connect the RJ45 side in connector 7 as shown and the DB9-side to the serial COM port of your PC.



3. On your PC, open a terminal application like HyperTerminal or PuTTY (www.putty.org).

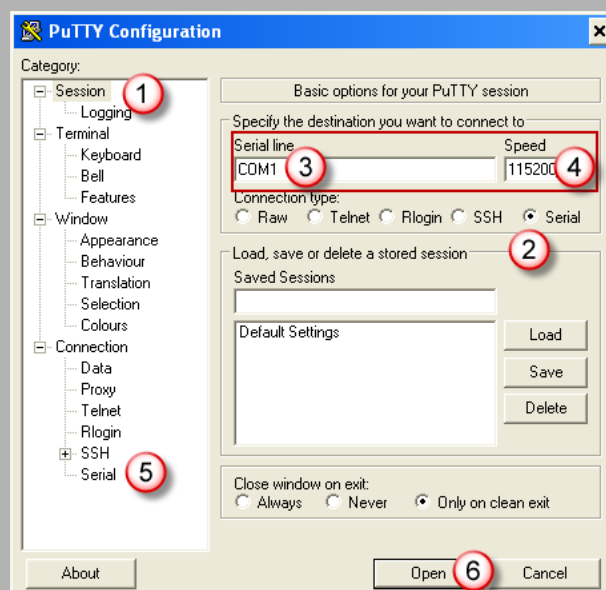
Configure the terminal application to open a serial (2) session on:

- COM-port used (3)
- @ 115200 bps (4)

Check the Serial (5) parameters to be

- 8, n, 1
- Flow Control: None

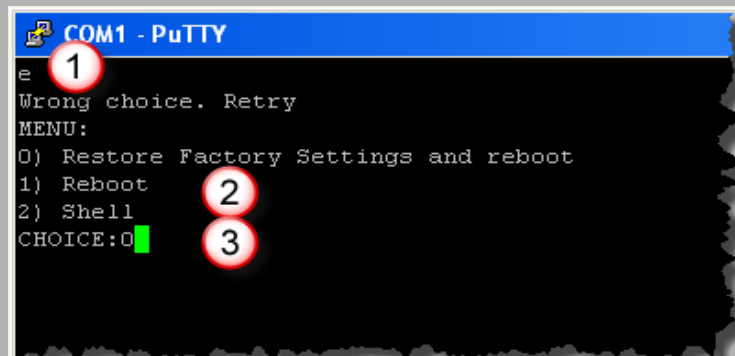
Click Open (6)



4.
Type any character and hit [enter] (1) the eFive returns a Menu (2).

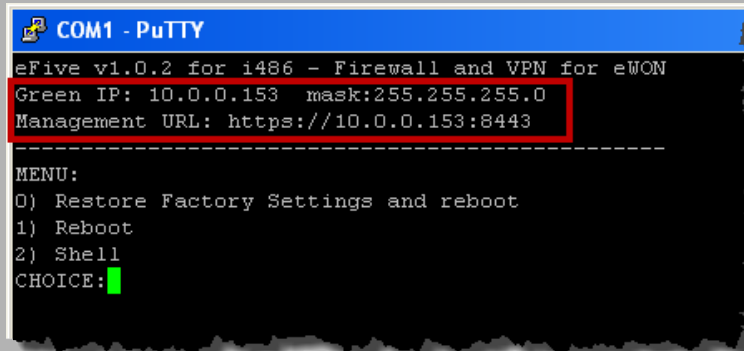
Select an option (3) depending on what you want to do.

To **display the current IP configuration** without resetting the unit, select option 1 (Reboot). After reboot, the IP configuration appears in as header in the terminal interface.



```
COM1 - PuTTY
e
Wrong choice. Retry
MENU:
0) Restore Factory Settings and reboot
1) Reboot
2) Shell
CHOICE:0
```

5.
To **reset the unit to its factory settings** (IP 10.0.0.153 and the admin password to admin) type 0 and hit [enter]. Wait for the reboot to complete (takes some time).



```
COM1 - PuTTY
eFive v1.0.2 for i486 - Firewall and VPN for eWON
Green IP: 10.0.0.153 mask:255.255.255.0
Management URL: https://10.0.0.153:8443
-----
MENU:
0) Restore Factory Settings and reboot
1) Reboot
2) Shell
CHOICE:█
```

Revision history

Revision Level	Date	Description
1.0	10/01/12	Initial release
1.1	12/12/12	Add terminal emulator port + cable + power cords
1.2	14/06/13	Add serial console access
1.3	09/05/14	eFive 25 supports up to 50 VPN Clients eFive 100 supports up to 200 VPN Clients

i

Document build number: 63

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