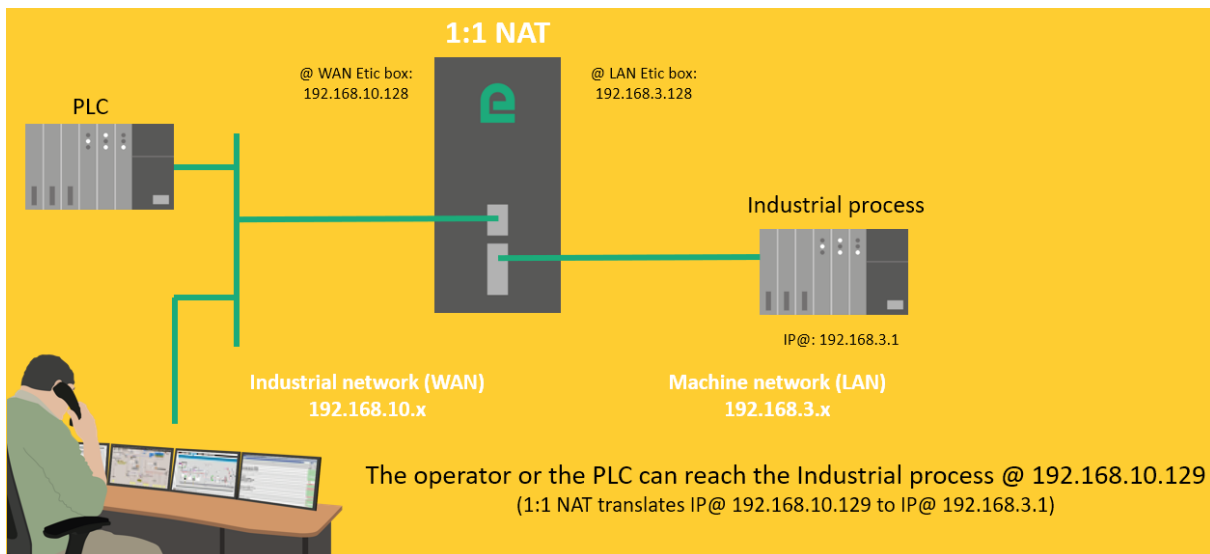


Application note

Starting with 1:1 NAT

- The 1:1 NAT solution
 - Configuring the @IP WAN
 - Configuring the @IP LAN
 - Configuring the 1:1 NAT
 - Configuring the SNAT
 - Hotline support during your test
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- Latest update **09/14/2018**



1) THE 1:1 NAT SOLUTION

The 1:1 NAT solution simply interconnects a machine to an industrial network without changing the factory IP address of this machine.

It is sufficient to insert between the machine and the rest of the industrial network an IPL / RAS configured for an address translation.

2) CONFIGURING THE IP@ WAN

In the « Setup » section, select « WAN interface » and give to the Etic Telecom router an IP address which is available in the Industrial network (for example: 192.168.10.128)

The screenshot shows the configuration page for the WAN interface. The breadcrumb trail is > Home > Setup > WAN interface. The left sidebar shows the navigation menu with 'Setup' expanded to 'WAN interface'. The main content area is titled '> Home > Setup > WAN interface' and contains the following configuration options:

- WAN type:** Ethernet (dropdown)
- Ethernet WAN port configuration:**
 - Speed / duplex:** Autonegociation (dropdown)
- IP configuration of Ethernet WAN:**
 - Connection type:** Ethernet (dropdown)
- WAN interface: connection to an Ethernet network:**
 - Ethernet WAN priority:** High (dropdown)
 - Obtain an IP address automatically:**
 - IP address:** 192.168.10.128 (text input)
 - Netmask:** 255.255.255.0 (text input)
 - Gateway:** (empty text input)
 - Obtain DNS servers addresses automatically:**
 - Enable address translation (NAT):**
 - Enable proxy ARP:**

3) CONFIGURING THE IP@ LAN

In the « Setup » section, select « LAN interface » => « Ethernet and IP » and give to Etic Telecom router an IP address which is available in the Machine network (for example: 192.168.3.128).

The screenshot shows the configuration page for the LAN interface. The breadcrumb trail is > Home > Setup > LAN Interface > Ethernet and IP. The left sidebar shows the navigation menu with 'Setup' expanded to 'LAN Interface'. The main content area is titled '> Home > Setup > LAN Interface > Ethernet and IP' and contains the following configuration options:

- Ports configuration:**
 - Enable hub mode:**
- LAN network:**
 - IP address:** 192.168.3.128 (text input)
 - Netmask:** 255.255.255.0 (text input)
 - Default gateway:** (empty text input)

4) CONFIGURING THE 1:1 NAT

In the « Setup » section, select « Network > 1:1 NAT > Add/Edit a 1:1 NAT rule » enter the 2 IP@ to set up the translation (ex: @ 192.198.10.129 translated to @ 192.168.3.1).

Please note: the @IP 192.168.10.29 used by the IPL for translation must be available on the WAN.

> Home > Setup > Network > 1:1 NAT > Add/Edit a 1:1 NAT rule

Save	Cancel	Page has unsaved changes
Enabled		<input checked="" type="checkbox"/>
WAN on which apply the rule		Ethernet WAN ▼
WAN IP to add		192.198.10.129
LAN IP to map on WAN		192.168.3.1

5) CONFIGURING THE SNAT

When the industrial process communicates outside the LAN, it must be configured to recognize the IPL as the default gateway.

Very often, the configuration of the machine (@IP 192.198.3.1) cannot be modified, It is then necessary to set up a SNAT as described below:

The screenshot shows the etic Telecom web interface. The breadcrumb navigation is: > Home > Setup > Network > Advanced NAT > SNAT rule. The page has unsaved changes. The configuration is as follows:

- IP address field:** Leave the address blank to apply the rule to all IP addresses. Enter just an IP address (ex 192.168.10.1) or a network IP address (ex: 192.168.0.0/24 or 192.168.0.0/255.255.255.0).
- Port field:** Leave the port blank to apply the rule to all ports. Enter a numeric port value under the form xx to specify a single port (e 80 for HTTP). Enter numeric ports values under the form xx,yy,...zz to specify several ports (ex 21,80 to specify FTP and HTTP). Enter numeric ports values under the form xxyy to specify a port range (ex: 80:90 to specify all ports between 80 and 90).
- New source field:** Enter just an IP address (ex 192.168.10.1). Leave the address blank or enter "0.0.0.0" not to translate (Null NAT).
- Active:**
- Frame to modify:**
 - Source IP address: []
 - Destination IP address: 192.168.3.1
 - Protocol: All ▼
- Translation:**
 - New source IP address: 192.168.3.128

Buttons: Save, Cancel, Back

6) HOT LINE SUPPORT DURING YOUR TEST

Feel free to contact +33 4 76 04 20 05 or hotline@etictelecom.com.

7) VIRTUAL SHOWROOM (AVAILABLE FROM THE WEBSITE HOME PAGE)

By surfing on our WEB site www.etictelcom.com (Support/Virtual Showroom) you can learn how to configure most of our products.

The following login and password may be requested: login: "etic", password: "demo".

The screenshot shows the top navigation bar of the Etic Telecom website. The logo 'etic TELECOM' is on the left, followed by menu items: 'Qui sommes-nous?', 'Produits', 'Solutions', 'Support', 'Actualités', and 'Contact'. A green button labeled 'Espace client' is on the right. Below the navigation bar is a dark grey bar with 'industrial networking' on the left and 'FR | EN' on the right. A large green banner contains the text 'SHOWROOM VIRTUEL' in yellow and 'Accédez à l'ensemble des produits Etic Telecom.' in white. Below the banner are two dropdown menus. The first, 'Sélectionnez une gamme de produits', has three options: 'Boitiers d'Accès Machines (gamme RAS)', 'Routeurs (gamme IPL)', and 'Extenseurs d'Ethernet (gamme XS+)'. The second, 'Sélectionnez un produit', has two options: 'IPL-E / Routeur Firewall pour Intranet' and 'IPL-DAC / Routeur ADSL avec backup Cellulaire', with the second option highlighted in blue.



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