

NOTE D'APPLICATION

APNFR006 - Exemple de configuration NAT *Pour WaveOS*

CONFIGURATION D'UN PRODUIT WAVEOS EN MODE NAT

Configuration NAT souhaitée :

- Réseau privé (LAN) : 192.168.100.100/24
- Réseau public (WLAN) : 192.168.1.10/24

Règles de translation :

- PLC_MASTER : TCP 192.168.1.10:8080 traduit vers 192.168.100.101:80
- PLC_IO : UDP 192.168.1.10:4200 traduit vers 192.168.100.101:4200

Côté Privé (LAN) :

Gateway par défaut = 192.168.100.100 (ou route 192.168.1.0/24 vers 192.168.100.100)

Après configuration des paramètres WiFi, allez dans **SETUP/NETWORK** et éditez le réseau par défaut (**lan**) :

NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
lan	<input checked="" type="checkbox"/>	192.168.1.253	255.255.255.0		Enabled	

Add network

Renommez le réseau **PUBLIC** et renseignez les champs requis. Passez ensuite sur l'onglet **Interfaces Settings**

NETWORK - LAN

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the names of several network interfaces.

COMMON CONFIGURATION

General Setup | Interfaces Settings | Advanced Settings

Enable interface ☒

Network description: PUBLIC

Protocol: static

IPv4-Address: 192.168.1.10

IPv4-Netmask: 255.255.255.0

IPv4-Gateway:

DNS-Server:

IP-ALIASES

This section contains no values yet

Add

Reset Save Save & Apply

Décochez la case **Ethernet adapter**, puis **Save**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

LAN

VPN

BRIDGING

ROUTING / FIREWALL

QOS

SERVICES

SETUP

TOOLS

STATUS

NETWORK - LAN

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the names of several network interfaces.

COMMON CONFIGURATION

General Setup

Interfaces Settings

Advanced Settings

Bridge interfaces

Enable STP/RSTP

Enable LLDP forwarding

bridge VLAN

Interface

MTU

☒ creates a bridge over specified interface(s)

☐ Enables the Spanning Tree Protocol on this bridge
WARNING: Some cautions must be taken with wireless interfaces, please see user guide

☐ Enables the LLDP frame forwarding.

☐ Enable VLAN management in bridge. You must configure the bridge VLANs before enabling this option (setup->bridging)

☐ Ethernet adapter: LAN (lan)

☒ WiFi adapter: WiFi - NAT-CLIENT (lan)

1500

IP-ALIASES

This section contains no values yet

Add

Reset

Save

Save & Apply

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Cliquez sur **NETWORK** à gauche pour revenir sur **NETWORK OVERVIEW**. Cliquez sur **Add Network**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

PUBLIC

VPN

BRIDGING

ROUTING / FIREWALL

QOS

SERVICES

SETUP

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STATUS

NETWORK OVERVIEW

NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
PUBLIC	<input checked="" type="checkbox"/>	192.168.1.10	255.255.255.0		Enabled	

Add network

Nommez le réseau **PRIVATE** et renseignez les champs requis, puis passez sur l'onglet **Interfaces Settings**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

PUBLIC
NET1

VPN

BRIDGING

ROUTING / FIREWALL

QOS

SERVICES

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NETWORK - NET1

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the names of several network interfaces.

COMMON CONFIGURATION

General Setup

Interfaces Settings

Advanced Settings

Enable interface

☒

Network description

PRIVATE

Friendly name for your network

Protocol

static

IPv4-Address

192.168.100.100

IPv4-Netmask

255.255.255.0

IPv4-Gateway

DNS-Server

You can specify multiple DNS servers here, press enter to add a new entry. Servers entered here will override automatically assigned ones.

IP-ALIASES

This section contains no values yet

Add

Reset

Save

Save & Apply

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Décochez la case **Bridge interfaces** et sélectionnez **Ethernet adapter LAN**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

PUBLIC
NET1

VPN

BRIDGING

ROUTING / FIREWALL

QOS

SERVICES

SETUP

TOOLS

STATUS

NETWORK - NET1

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the names of several network interfaces.

COMMON CONFIGURATION

General Setup

Interfaces Settings

Advanced Settings

Bridge interfaces

☒

creates a bridge over specified interface(s)

Interface

☒ Ethernet adapter: LAN
 ☐ WiFi adapter: WiFi - acksys (PUBLIC)

MTU

1500

IP-ALIASES

This section contains no values yet

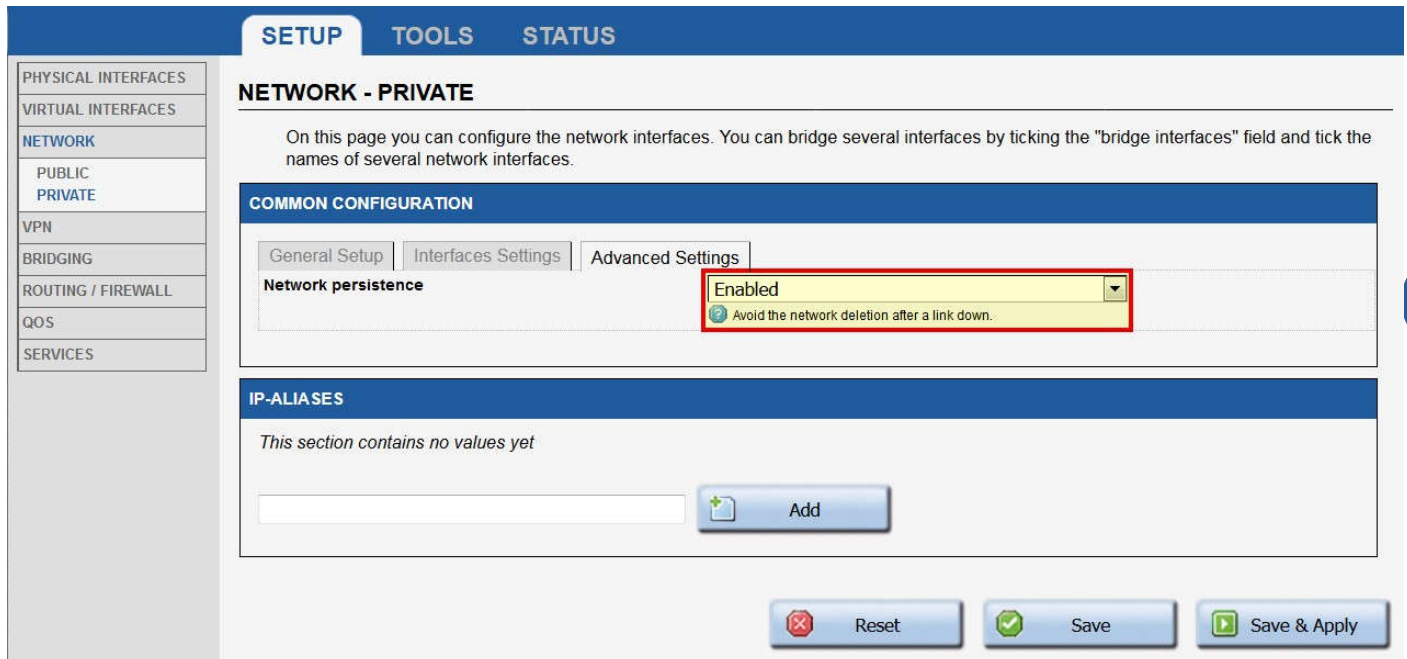
Add

Reset

Save

Save & Apply

Dans l'onglet **Advanced settings**, vérifiez que la persistance réseau est sur **Enabled** puis sauvez (**Save**)



NETWORK - PRIVATE

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the names of several network interfaces.

COMMON CONFIGURATION

General Setup | Interfaces Settings | **Advanced Settings**

Network persistence Enabled
Avoid the network deletion after a link down.

IP-ALIASES

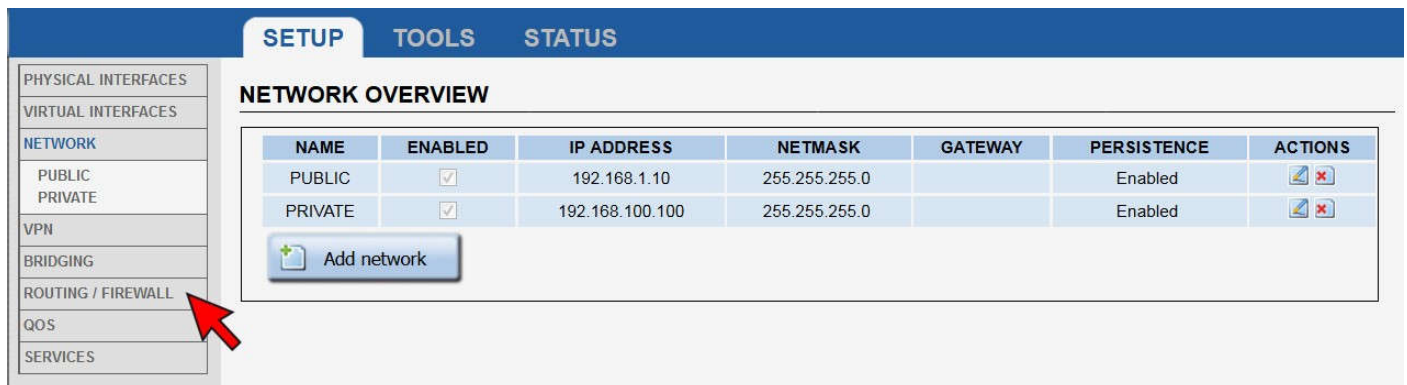
This section contains no values yet

Add

Reset Save Save & Apply

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Cliquez sur **Routing/Firewall**

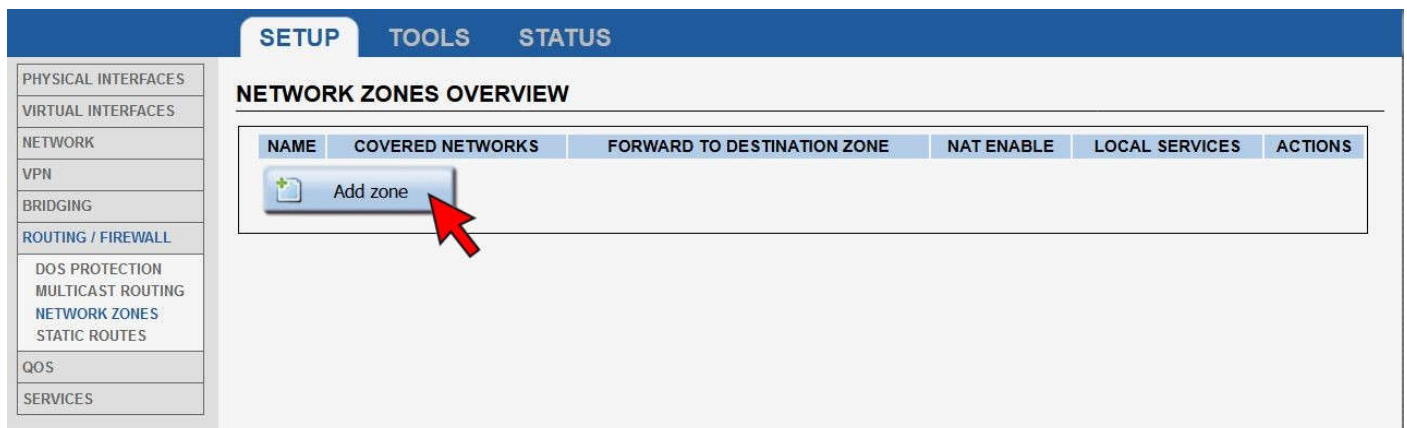


NETWORK OVERVIEW

NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
PUBLIC	<input checked="" type="checkbox"/>	192.168.1.10	255.255.255.0		Enabled	
PRIVATE	<input checked="" type="checkbox"/>	192.168.100.100	255.255.255.0		Enabled	

Add network

Cliquez NETWORK ZONES puis **Add zone**



NETWORK ZONES OVERVIEW

NAME	COVERED NETWORKS	FORWARD TO DESTINATION ZONE	NAT ENABLE	LOCAL SERVICES	ACTIONS
Add zone					

Nommez la zone **PRIVATE** et sélectionnez le réseau **PRIVATE**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

VPN

BRIDGING

ROUTING / FIREWALL

DOS PROTECTION

MULTICAST ROUTING

NETWORK ZONES

STATIC ROUTES

QOS

SERVICES

SETUP

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STATUS

NETWORK ZONES - ZONE SETTINGS

ZONE "ZONE_1"

This section defines common properties of "zone_1".
Covered networks specifies which available networks are members of this zone.

General Settings

Advanced Settings

Name

PRIVATE

Enable NAT

☐ Only on public zones. Warning: if using VRRP, the NATed network must be set to protocol NONE

MSS clamping

☐

Default acceptance policy for local services

All enabled

You can restrict or open the local services in the firewall section below

Covered networks

☐ PUBLIC:

☒ PRIVATE:

INTER-ZONE FORWARDING

Use this section only if NAT is disabled on this zone.

The options below control the forwarding policies between this zone (zone_1) and other zones. *Destination zones* cover forwarded traffic **originating from "zone_1"**. The forwarding rule is *unidirectional*, e.g. a forward from lan to wan does *not* imply a permission to forward from wan to lan as well.

Allow forwarding to *destination zones*:

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Sauvez puis ajoutez une nouvelle zone depuis **NETWORK ZONE**

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

VPN

BRIDGING

ROUTING / FIREWALL

DOS PROTECTION

MULTICAST ROUTING

NETWORK ZONES

STATIC ROUTES

QOS

SERVICES

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NETWORK ZONES OVERVIEW

NAME	COVERED NETWORKS	FORWARD TO DESTINATION ZONE	NAT ENABLE	LOCAL SERVICES	ACTIONS
PRIVATE	"PRIVATE"	-	<input type="checkbox"/>	All enabled	

Add zone

Nommez la nouvelle zone **PUBLIC**, cochez **NAT** et sélectionnez le réseau **PUBLIC**, puis **Add** dans **TRAFFIC FORWARD**.

PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

VPN

BRIDGING

ROUTING / FIREWALL

DOS PROTECTION

MULTICAST ROUTING

NETWORK ZONES

STATIC ROUTES

QOS

SERVICES

SETUP

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STATUS

NETWORK ZONES - ZONE SETTINGS

ZONE "ZONE_2"

This section defines common properties of "zone_2".
Covered networks specifies which available networks are members of this zone.

General Settings

Advanced Settings

Name PUBLIC

Enable NAT ☒ Only on public zones. Warning: if using VRRP, the NATed network must be set to protocol NONE

MSS clamping ☐

Default acceptance policy for local services All enabled
You can restrict or open the local services in the firewall section below

Covered networks

☒ PUBLIC:
 ☐ PRIVATE:

INTER-ZONE FORWARDING

Use this section only if NAT is disabled on this zone.
The options below control the forwarding policies between this zone (zone_2) and other zones. Destination zones cover forwarded traffic **originating from "zone_2"**. The forwarding rule is *unidirectional*, e.g. a forward from lan to wan does *not* imply a permission to forward from wan to lan as well.

Allow forwarding to destination zones: ☐ PRIVATE PRIVATE:

TRAFFIC FORWARD

Use this section only if NAT is enabled on this zone
This section allow to redirect the input traffic on this zone to a device on other zone

SOURCE ZONE	NAME	SOURCE IP	FRAME PROTOCOL	PUBLIC PORT	PRIVATE PORT	DESTINATION IP	SORT
		Blank any ip source		Blank, all ports	Blank, all ports		

This section contains no values yet

Add

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Renseignez les champs pour la première règle de translation, puis ajoutez la seconde règle

TRAFFIC FORWARD

Use this section only if NAT is enabled on this zone
This section allow to redirect the input traffic on this zone to a device on other zone

SOURCE ZONE	NAME	SOURCE IP	FRAME PROTOCOL	PUBLIC PORT	PRIVATE PORT	DESTINATION IP	SORT
		Blank any ip source		Blank, all ports	Blank, all ports		
Public	PLC_IO	any	udp	4200	4200	192.168.100.101	

Add

TRAFFIC FORWARD

Use this section only if NAT is enabled on this zone
This section allow to redirect the input traffic on this zone to a device on other zone

SOURCE ZONE	NAME	SOURCE IP	FRAME PROTOCOL	PUBLIC PORT	PRIVATE PORT	DESTINATION IP	SORT
		Blank any ip source		Blank, all ports	Blank, all ports		
Public	PLC_IO	any	udp	4200	4200	192.168.100.101	
Public	PLC_MASTER	any	tcp	8080	80	192.168.100.101	

Add

Sauvez et revenez dans **NETWORK ZONE** pour éditer la zone **PRIVATE**

SETUP

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PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

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DOS PROTECTION

MULTICAST ROUTING





NETWORK ZONES


STATIC ROUTES

QOS

SERVICES

NETWORK ZONES OVERVIEW

NAME	COVERED NETWORKS	FORWARD TO DESTINATION ZONE	NAT ENABLE	LOCAL SERVICES	ACTIONS
PRIVATE	"PRIVATE"	-	<input type="checkbox"/>	All enabled	 
PUBLIC	"PUBLIC"	-	<input checked="" type="checkbox"/>	All enabled	 

 Add zone

Dans **INTER-ZONE FORWARDING**, autorisez l'acheminement vers la zone **PUBLIC**, puis sauvez

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PHYSICAL INTERFACES

VIRTUAL INTERFACES

NETWORK

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DOS PROTECTION

MULTICAST ROUTING

NETWORK ZONES

STATIC ROUTES

QOS

SERVICES

NETWORK ZONES - ZONE SETTINGS

ZONE "PRIVATE"

This section defines common properties of "PRIVATE".
Covered networks specifies which available networks are members of this zone.

General Settings

Advanced Settings

Name

PRIVATE

Enable NAT

☐ Only on public zones. Warning: if using VRRP, the NATed network must be set to protocol NONE

MSS clamping



☐

Default acceptance policy for local services

All enabled

You can restrict or open the local services in the firewall section below


Covered networks

☐ PUBLIC: 
☒ PRIVATE: 

INTER-ZONE FORWARDING

Use this section only if NAT is disabled on this zone.
The options below control the forwarding policies between this zone (PRIVATE) and other zones. Destination zones cover forwarded traffic originating from "PRIVATE". The forwarding rule is *unidirectional*, e.g. a forward from lan to wan does *not* imply a permission to forward from wan to lan as well.

Allow forwarding to destination zones:

☒ PUBLIC PUBLIC: 

Vous allez maintenant pouvoir rebooter pour que la nouvelle configuration soit activée. Dans **TOOLS/SAVE CONFIG**, cliquez sur **REBOOT**. A ce point, assurez-vous que votre PC est bien configuré sur le subnet du réseau **PRIVATE** du produit (192.168.100.0/24) pour revenir dans l'administration.

SETUP

TOOLS

STATUS

FIRMWARE UPGRADE

PASSWORD SETTINGS

SYSTEM

NETWORK

SAVE CONFIG / RESET

LOG SETTINGS

CONFIGURATION MANAGEMENT

SAVE AND RESTORE CONFIGURATION

Configuration file

Parcourir...

Aucun fichier sélectionné.

Restore configuration from file

Restore

Backup settings to file

Backup

RESET AND REBOOT

Reset to factory settings

Reset

Reboot your device

Reboot

Après reboot, vous pouvez vérifier que les interfaces physiques sont bien fonctionnelles dans la page **STATUS/NETWORK**

SETUP

TOOLS

STATUS

DEVICE INFO

NETWORK

WIRELESS

SERVICES

LOGS

INTERFACES

PRIVATE

IP CONFIGURATION

IPv4: 192.168.100.100 Netmask: 24 MTU: 1500

DNS server: 0.0.0.1

GRAPH	PHYSICAL INTERFACE	MAC ADDRESS	TX COUNT (IN BYTES)	RX COUNT (IN BYTES)	INTERFACE MODE	MTU
	LAN	00:09:90:00:90:d4	2256162	4792868	Negotiated 1000 baseTX FD, link ok	1500

PUBLIC

IP CONFIGURATION

IPv4: 192.168.1.10 Netmask: 24 MTU: 1500

DNS server: 0.0.0.1

GRAPH	PHYSICAL INTERFACE	MAC ADDRESS	TX COUNT (IN BYTES)	RX COUNT (IN BYTES)	INTERFACE MODE	MTU
	WiFi	c4:93:00:08:a0:76	153832	156724	Role: Client (infrastructure) SSID: NAT-CLIENT Channel: 48	1500

Si le point d'accès est à portée, vous pouvez vérifier dans **STATUS/WIRELESS/ASSOC STATIONS** que le produit est bien associé

SETUP

TOOLS

STATUS

DEVICE INFO

NETWORK

WIRELESS

ASSOC STATIONS

CHANNEL STATUS

MESH SURVEY

SERVICES STATUS

SITE SURVEY

SRCC STATUS

SERVICES

LOGS

ASSOCIATED STATIONS

ASSOCIATED STATIONS RESULTS : 1

GRAPH	RADIO	NAME / SSID	MODE	MAC	CHANNEL	SIGNAL	NOISE	SIGNAL/NOISE
	WiFi	NAT-CLIENT	Infrastructure	00:80:48:7A:80:63	48	-45 dBm	-91 dBm	46 dB

Reset