

NOTE D'APPLICATION

APNFR006 - Exemple de configuration NAT *Pour WaveOS*

Mai 2020 – Rev A1

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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
- PLC_IO : UDP 192.168.1.10:4200

translaté vers 192.168.100.101:80 translaté 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) :

	SETUP	TOOLS	STATUS				
PHYSICAL INTERFACES	NETWORK						
VIRTUAL INTERFACES	NETWORK	OVERVIEW					
IETWORK	NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
LAN	lan	V	192.168.1.253	255.255.255.0		Enabled	
/PN	bba (*	notwork					~
RIDGING		network					
OUTING / FIREWALL	L						
OS							
SERVICES							

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

	SETUP TOOLS STATUS	
PHYSICAL INTERFACES	NETWORK LAN	
VIRTUAL INTERFACES	NETWORK - LAN	i'
NETWORK	On this page you can configure the network in	nterfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the
LAN	names of several network interfaces.	
VPN	COMMON CONFIGURATION	
BRIDGING	Den 10 to Interference Cottingen	and Collinso
ROUTING / FIREWALL	Enable interface	
QOS		
SERVICES	Network description	PUBLIC Friendly name for your network
	Protocol	static
	IPv4-Address	192.168.1.10
	IPv4-Netmask	255.255.255.0
	IPv4-Gateway	
	<u>DNS</u> -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 Add
		🔕 Reset 🥝 Save 🚺 Save & Apply



Décochez la case Ethernet adapter, puis Save

	SETUP TOOLS STATUS
PHYSICAL INTERFACES	NETWORK
VIRTUAL INTERFACES	
NETWORK	On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the
LAN	names of several network interfaces.
VPN	COMMON CONFIGURATION
BRIDGING	
ROUTING / FIREWALL	General Setup Interfaces Settings Advanced Settings
QOS	Bridge interfaces
SERVICES	Enable STP/RSTP Enable STP/RSTP Karpen Stream St
	Enable LLDP forwarding 🗌 🙆 Enables the LLDP frame forwarding.
	bridge VLAN C C Enable VLAN management in bridge. You must configure the bridge VLANs before enabling this option (setup->bridging)
	Interface
	MTU 1500
	IP-ALIASES
	This section contains no values yet
	Add
	🔞 Reset 🙆 Save 🚺 Save & Apply

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

	SETUP	TOOLS	STATUS				
HYSICAL INTERFACES							
RTUAL INTERFACES	NETWORK	JVERVIEW					
TWORK	NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
PUBLIC	PUBLIC	✓	192.168.1.10	255.255.255.0		Enabled	2
RIDGING ROUTING / FIREWALL ROS	E Add h	etwork					
ERVICES							



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

	SETUP TOOLS STATUS	
PHYSICAL INTERFACES		
VIRTUAL INTERFACES		
NETWORK	On this page you can configure the network in	terfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the
PUBLIC NET1	COMMON CONFIGURATION	
VPN		
BRIDGING	General Setup Interfaces Settings Advance	ced Settings
ROUTING / FIREWALL	Enable interface	
QOS	Network description	PRIVATE
SERVICES		Priendly name for your network
	Protocol	static
	IPv4-Address	192.168.100.100
	IPv4-Netmask	255.255.255.0
	IPv4-Gateway	
	DNS-Server	<u></u>
		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 Discussion Save & Apply

Décochez la case Bridge interfaces et sélectionnez Ethernet adapter LAN

	SETUP TOOLS STATUS
PHYSICAL INTERFACES	NETWORK NET
VIRTUAL INTERFACES	
NETWORK	On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the
PUBLIC	names of several network interfaces.
NET1	COMMON CONFIGURATION
VPN	
BRIDGING	General Setup Interfaces Settings Advanced Settings
ROUTING / FIREWALL	Bridge interfaces
QOS	Interface Interface
SERVICES	🔘 🧟 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)

	SETUP TOOLS STATUS
PHYSICAL INTERFACES	
VIRTUAL INTERFACES	NEIWORR - PRIVATE
NETWORK	On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and tick the
PUBLIC	names of several network interfaces.
PRIVATE	COMMON CONFIGURATION
VPN	
BRIDGING	General Setup Interfaces Settings Advanced Settings
ROUTING / FIREWALL	Network persistence
QOS	Avoid the network deletion after a link down.
SERVICES	
	IP-ALIASES This section contains no values yet Add Save & Apply

Cliquez sur Routing/Firewall

	SETUP	TOOLS	STATUS				
SICAL INTERFACES	NETWORK						
UAL INTERFACES	NETWORK	VERVIEW					
NORK	NAME	ENABLED	IP ADDRESS	NETMASK	GATEWAY	PERSISTENCE	ACTIONS
BLIC	PUBLIC		192.168.1.10	255.255.255.0		Enabled	2 🕺
IVATE	PRIVATE	✓	192.168.100.100	255.255.255.0		Enabled	2
DGING ITING / FIREWALL S IVICES	Add ne	twork					

Cliquez NETWORK ZONES puis Add zone

	SETUP	TOOLS STAT	rus			
PHYSICAL INTERFACES	NETWORK 7					
VIRTUAL INTERFACES	NE IWORK 2	LONES OVERVIEW				
NETWORK	NAME CO	OVERED NETWORKS	FORWARD TO DESTINATION ZONE	NAT ENABLE	LOCAL SERVICES	ACTIONS
VPN	(+) +++	1				
BRIDGING	Add	zone				
ROUTING / FIREWALL		<u> </u>				
DOS PROTECTION MULTICAST ROUTING NETWORK ZONES STATIC ROUTES		•				
QOS						
SERVICES						



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

PHYSICAL INTERFACES	NETWORK ZONES - ZONE SETTINGS	
VIRTUAL INTERFACES	NETWORK ZONES - ZONE SETTINGS	
NETWORK	ZONE "ZONE_1"	
VPN	This section defines common properties of "zone_1".	
BRIDGING	Covered networks specifies which available networks	s are members of this zone.
ROUTING / FIREWALL	General Settings Advanced Settings	
DOS PROTECTION	Name	PRIVATE
NETWORK ZONES	Enable NAT	🔲 😰 Only on public zones. Warning: if using VRRP, the NATed network must be set to protocol NONE
STATIC ROUTES	MSS clamping	
QOS	Default acceptance policy for local services	
SERVICES		You can restrict or open the local services in the firewall section below
	Covered networks	PUBLIC: Image: Constraint of the second s
	INTER-ZONE FORWARDING Use this section only if NAT is disabled on this zo The options below control the forwarding policies bet from "zone_1". The forwarding rule is unidirectional,	wee. ween this zone (zone_1) and other zones. <i>Destination zones</i> cover forwarded traffic originating , e.g. a forward from lan to wan does <i>not</i> imply a permission to forward from wan to lan as well.

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

	SETUP	TOOLS STAT	US			
PHYSICAL INTERFACES	NETWORK					
IRTUAL INTERFACES	NETWORK	ZONES OVERVIEW				
ETWORK	NAME	COVERED NETWORKS	FORWARD TO DESTINATION ZONE	NAT ENABLE	LOCAL SERVICES	ACTIONS
PN	PRIVATE	"PRIVATE"			All enabled	2
RIDGING	(+) ···					
OUTING / FIREWALL	Ad	ld zone				
DOS PROTECTION		— K				
MULTICAST ROUTING		· •				
STATIC ROUTES						
os						



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

HYSICAL INTERFACES							
RTUAL INTERFACES	NETWORK ZONES - ZO	ONE SETTINGS					
TWORK	ZONE "ZONE_2"						
N	This section defines common p	roperties of "zone_2".					
DGING	Covered networks specifies wh	ich available networks	are members of this zo	ne.			
JTING / FIREWALL	General Settings Advanc	ed Settings					
OS PROTECTION	Name	•	PUBLIC				
JLTICAST ROUTING	Enable NAT		🔽 😰 Only on put	olic zones. Warning: if usi	ng VRRP, the NATed netw	vork must be set to protoco	NONE
ATIC ROUTES	MSS clamping						
	Default acceptance policy for	local services			-		
VICES			You can restrict o	or open the local services	in the firewall section be	low	
	INTER-ZONE FORWARDING		PR	IVATE 🧕			
	INTER-ZONE FORWARDING Use this section only if NAT is The options below control the fu from "zone_2". The forwarding	s disabled on this zor orwarding policies betw g rule is unidirectional,	ne. ween this zone (zone_2) e.g. a forward from lan	MATE:	estination zones cov	ver forwarded traffic o rward from wan to lar	riginatii 1 as well
	INTER-ZONE FORWARDING Use this section only if NAT in The options below control the for from "zone_2". The forwarding Allow forwarding to destination	s disabled on this zon orwarding policies betv g rule is <i>unidirectional</i> , n zones:	ne. ween this zone (zone_2) e.g. a forward from lan	and other zones. <i>D</i> to wan does <i>not</i> imp RIVATE:	estination zones cov	ver forwarded traffic o prward from wan to lar	riginatir 1 as well
	INTER-ZONE FORWARDING Use this section only if NAT in The options below control the for from "zone_2". The forwarding Allow forwarding to destination TRAFFIC FORWARD	s disabled on this zon orwarding policies betv g rule is <i>unidirectional,</i> n zones:	ne. ween this zone (zone_2) e.g. a forward from lan	NATE: 🛃 and other zones. D to wan does <i>not</i> imp RIVATE: 🐊	Pestination zones cov	ver forwarded traffic o orward from wan to lar	riginatir n as well
	INTER-ZONE FORWARDING Use this section only if NAT is The options below control the fe from "zone_2". The forwarding Allow forwarding to destination TRAFFIC FORWARD Use this section only if NAT is This section allow to redirect the	s disabled on this zon orwarding policies bety g rule is <i>unidirectional,</i> <i>n zones</i> : s enabled on this zon e input traffic on this zon	ne. ween this zone (zone_2) e.g. a forward from lan PRIVATE P PRIVATE P	NATE: 🛃 and other zones. D to wan does <i>not</i> imp RIVATE: 🚬	estination zones cov	ver forwarded traffic o prward from wan to lar	riginatin n as well.
	INTER-ZONE FORWARDING Use this section only if NAT in The options below control the for from "zone_2". The forwarding Allow forwarding to destination TRAFFIC FORWARD Use this section only if NAT in This section allow to redirect the SOURCE ZONE NAME	s disabled on this zon orwarding policies betw g rule is <i>unidirectional,</i> <i>n zones</i> : s enabled on this zon e input traffic on this zon SOURCE IP	ne. ween this zone (zone_2) e.g. a forward from lan PRIVATE P PRIVATE P ne one to a device on other FRAME PROTOCOL	And other zones. D to wan does not imp RIVATE: 2010 Zone PUBLIC PORT	Destination zones cov Ny a permission to fo	ver forwarded traffic o prward from wan to lar DESTINATION IP	riginatin a as well SORT
	INTER-ZONE FORWARDING Use this section only if NAT is The options below control the for from "zone_2". The forwarding Allow forwarding to destination TRAFFIC FORWARD Use this section only if NAT is This section allow to redirect the SOURCE ZONE NAME	s disabled on this zoo orwarding policies betv g rule is <i>unidirectional,</i> <i>n zones</i> : s enabled on this zon e input traffic on this zon SOURCE IP Blank any ip source.	ne. veen this zone (zone_2) e.g. a forward from lan PRIVATE P PRIVATE P ne one to a device on other FRAME PROTOCOL	TATE: 10 and other zones. D to wan does <i>not</i> imp RIVATE: 10 Zone PUBLIC PORT Blank, all ports	Destination zones cov Ily a permission to fo PRIVATE PORT Blank, all ports	ver forwarded traffic o rward from wan to lar DESTINATION IP	riginati n as well SORT
	INTER-ZONE FORWARDING Use this section only if NAT is The options below control the for from "zone_2". The forwarding Allow forwarding to destination TRAFFIC FORWARD Use this section only if NAT is This section allow to redirect the SOURCE ZONE NAME	s disabled on this zor orwarding policies betw g rule is <i>unidirectional</i> , <i>n zones</i> : s enabled on this zor e input traffic on this zor SOURCE IP Blank any ip source.	ne. ween this zone (zone_2) e.g. a forward from lan PRIVATE P PRIVATE P ne one to a device on other FRAME PROTOCOL This section contains	A and other zones. D to wan does <i>not</i> imp RIVATE: P Zone PUBLIC PORT Blank, all ports	Pestination zones coo Ny a permission to fo PRIVATE PORT Blank, all ports	ver forwarded traffic o orward from wan to lar DESTINATION IP	riginat a as we SOR

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

TRAFFIC FORWA	RD							
Use this section This section all	on only if NAT is enabled low to redirect the input t	on this zone raffic on this zone to a device o	n 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	Add	any	udp 💌	4200	4200	192.168.100.101	• •	

TRAFFIC FORWA	RD							
Use this sectio This section all	n only if NAT is enabled ow to redirect the input	l on this zone 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	÷ +	×
* A	dd		1					

Sauvez et revenez dans NETWORK ZONE pour éditer la zone PRIVATE

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	SETUP	TOOLS S	TATUS			
PHYSICAL INTERFACES	NETWORK	ZONES OVERVI	EW			
VIRTUAL INTERFACES	NE IVORK	ZONES OVERVI	200		He contraction of the contractio	
NETWORK	NAME	COVERED NETWOR	RKS FORWARD TO DESTINATION Z	ONE NAT ENABLE	LOCAL SERVICES	ACTIONS
VPN	PRIVATE	"PRIVATE"	-		All enabled	A ×
BRIDGING	PUBLIC	"PUBLIC"	-		All enabled	
ROUTING / FIREWALL DOS PROTECTION MULTICAST ROUTING NETWORK ZONES STATIC ROUTES QOS SERVICES	Ad	d zone				

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

HYSICAL INTERFACES	NETWORK ZONES - ZONE SETTINGS					
IRTUAL INTERFACES						
ETWORK	ZONE "PRIVATE"					
PN	This section defines common properties of "PRIVATE	n 				
RIDGING	Covered networks specifies which available networks	are members of this zone.				
UTING / FIREWALL	General Settings Advanced Settings					
DOS PROTECTION MULTICAST ROUTING NETWORK ZONES	Name	PRIVATE				
	Enable NAT	Only on public zones. Warning: if using VRRP, the NATed network must be set to protocol NON				
STATIC ROUTES	MSS clamping					
)S	Default acceptance policy for local services	All enabled				
RVICES		You can restrict or open the local services in the firewall section below				
	Covered networks	PUBLIC:				
	INTER-ZONE FORWARDING					
	Use this section only if NAT is disabled on this zo The options below control the forwarding policies betw originating from "PRIVATE". The forwarding rule is lan as well.	ne. ween this zone (PRIVATE) and other zones. Destination zones cover forwarded traffic unidirectional, e.g. a forward from lan to wan does not imply a permission to forward from v				

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.

IRMWARE UPGRADE		
PASSWORD SETTINGS	CONFIGURATION MANAGEMENT	
SYSTEM	SAVE AND RESTORE CONFIGURATION	
TWORK	Configuration file	
SAVE CONFIG / RESET	Configuration me	Parcourir Aucun fichier selectionne.
OG SETTINGS	Restore configuration from file	Restore
	Backup settings to file	Backup
	RESET AND REBOOT	
	Reset to factory settings	Reset



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

MOT MED		and a second					
VICE INFO	INTERFA	CES					
TWORK							
RELESS	PRIVATE						
VICES			IP (CONFIGURATION			
GS			IPv4: 192.168.10	00.100 Netmask: 24 M	TU: 1500		
			DN	S server: 0.0.0.1			
	GRAPH	PHYSICAL INTERFACE	MAC ADDRESS	TX COUNT (IN BYTES)	RX COUNT (IN BYTES)	INTERFACE MODE	мт
		LAN	00:09:90:00:90:d4	2256162	4792868	Negotiated 1000 baseTX FD, link ok	150
	PUBLIC						
	PUBLIC		IP (CONFIGURATION			
	PUBLIC		IP (IPv4 : 192.168.	CONFIGURATION 1.10 Netmask: 24 MTU	J: 1500		
	PUBLIC		IP (IPv4 : 192.168. DN	CONFIGURATION 1.10 Netmask: 24 MTU S server: 0.0.0.1	J: 1500		
	PUBLIC	PHYSICAL INTERFACE	IP (IPv4: 192.168. DN MAC ADDRESS	CONFIGURATION 1.10 Netmask: 24 MTU S server: 0.0.0.1 TX COUNT (IN BYTES)	J: 1500 RX COUNT (IN BYTES)	INTERFACE MODE	MT

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	ASSOCIAT								
NETWORK	ASSOCIAT	ED STATION	3						
WIRELESS	ASSOCIATED	STATIONS RESU	LTS:1						
ASSOC STATIONS CHANNEL STATUS MESH SURVEY	GRAPH	RADIO	NAME / SSID	MODE	MAC O		SIGNAL		SIGNAL/NOISE
SERVICES STATUS SITE SURVEY SRCC STATUS	âĥ	WiFi	NAT-CLIENT	Infrastructure	00:80:48:7A:80:63	48	-45 dBm	-91 dBm	46 dB
SERVICES									
LOGS	- 🛃 F	Reset							

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