

NAT 설정 매뉴얼

NAT mode Configuration

예시 구성)

- Private network (LAN): 192.168.100.100/24
- Public network (WLAN): 192.168.1.10/24

Translation rules:

- PLC_MASTER: TCP 192.168.1.10: 8080 translated to 192.168.100.101: 80
- PLC_IO: UDP 192.168.1.10: 4200 translated to 192.168.100.101: 4200

Private side (LAN):

Default gateway = 192.168.1 After configuring the WiFi settings, go to 00.100

(or route 192.168.1.0/24 to 192.168.100.100)

(lan):

NETWORK OVERVIEW

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

[Add network](#)

네트워크 이름을 **PUBLIC** 으로 설정 한 후 필수 설정 값을 입력하세요. 설정이 완료되면 **Interfaces Settings** 탭을 클릭하세요.

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
Friendly name for your network

Protocol static

IPv4-Address 192.168.1.10

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](#)

Ethernet adapter의 체크박스를 비활성화 한 후 **Save** 버튼을 클릭하세요.

SETUP TOOLS STATUS

PHYSICAL INTERFACES
VIRTUAL INTERFACES
NETWORK
LAN
VPN
BRIDGING
ROUTING / FIREWALL
QOS
SERVICES

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 creates a bridge over specified interface(s)

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

Enable LLDP forwarding Enables the LLDP frame forwarding.

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

Interface

- Ethernet adapter: LAN (lan)
- WiFi adapter: WiFi - NAT-CLIENT (lan)

MTU 1500

IP-ALIASES

This section contains no values yet

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NETWORK 탭을 클릭한 후 **NETWORK OVERVIEW** 화면에서 **Add Network** 버튼을 클릭하세요.

SETUP TOOLS STATUS

PHYSICAL INTERFACES
VIRTUAL INTERFACES
NETWORK
PUBLIC
VPN
BRIDGING
ROUTING / FIREWALL
QOS
SERVICES

NETWORK OVERVIEW

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

네트워크 이름을 **PRIVATE** 으로 설정 한 후 필수 설정 값을 입력하세요. 설정이 완료되면 **Interfaces Settings** 탭을 클릭하세요.

SETUP TOOLS STATUS

PHYSICAL INTERFACES
VIRTUAL INTERFACES
NETWORK
PUBLIC NET1
VPN
BRIDGING
ROUTING / FIREWALL
QOS
SERVICES

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

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Bridge interfaces 를 비활성화 하고 **Ethernet adapter LAN** 를 선택하세요.

SETUP TOOLS STATUS

PHYSICAL INTERFACES
VIRTUAL INTERFACES
NETWORK
PUBLIC NET1
VPN
BRIDGING
ROUTING / FIREWALL
QOS
SERVICES

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

Advanced settings 탭에서 **network persistence** 탭이 **Enabled** 되어있는지 확인한 후 **Save** 버튼을 클릭하세요.

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

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Routing/Firewall 버튼을 클릭하세요.

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 | |

NETWORK ZONES 에서 **Addzone** 버튼을 클릭하세요.

NETWORK ZONES OVERVIEW

| NAME | COVERED NETWORKS | FORWARD TO DESTINATION ZONE | NAT ENABLE | LOCAL SERVICES | ACTIONS |
|---|------------------|-----------------------------|------------|----------------|---------|
| <input type="button" value="Add zone"/> | | | | | |

Name 을 **PRIVATE** 설정한 후 **PRIVATE network** 체크박스를 활성화 하세요.

SETUP TOOLS 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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NETWORKZONE 탭에서 **Add zone** 버튼을 클릭하세요.

SETUP TOOLS STATUS

NETWORK ZONES OVERVIEW

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

Add zone

Name 을 **PUBLIC** 으로 설정하고 **NAT** 를 체크한 후 **PUBLIC** 네트워크를 활성화 한 다음 **TRAFFIC FORWARD** 에서 **Add** 를 클릭하세요.

SETUP TOOLS STATUS

PHYSICAL INTERFACES
VIRTUAL INTERFACES
NETWORK
VPN
BRIDGING
ROUTING / FIREWALL
DOS PROTECTION
MULTICAST ROUTING
NETWORK ZONES
STATIC ROUTES
QOS
SERVICES

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

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

NETWORKZONE 으로 이동한 후 **PRIVATE** 을 편집하세요.

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 | |

INTER-ZONE FORWARDING 에서 **PUBLIC** 으로 라우팅 한 후 **Save** 를 클릭 하세요.

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

TOOLS/SAVE CONFIG 탭에서 **REBOOT** 버튼을 클릭하여 재부팅 후 새로운 설정값을 활성화할 수 있습니다.

CONFIGURATION MANAGEMENT

SAVE AND RESTORE CONFIGURATION

Configuration file: Aucun fichier sélectionné.

Restore configuration from file:

Backup settings to file:

RESET AND REBOOT

Reset to factory settings:

Reboot your device:

재부팅 후 **STATUS/NETWORK** 탭에서 정상 동작 여부를 확인할 수 있습니다.

The screenshot shows the 'STATUS' tab with 'NETWORK' selected. It displays two interface configurations: PRIVATE and PUBLIC.

PRIVATE Interface:

- IP CONFIGURATION: IPv4: 192.168.100.100 Netmask: 24 MTU: 1500
- DNS server: 0.0.0.1
- Table:

| 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 Interface:

- IP CONFIGURATION: IPv4: 192.168.1.10 Netmask: 24 MTU: 1500
- DNS server: 0.0.0.1
- Table:

| 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 |

STATUS/WIRELESS/ASSOC STATIONS 에서 **AccessPoint** 또는 **Client** 가 올바르게 연결되어 있는지 확인할 수 있습니다.

The screenshot shows the 'STATUS' tab with 'WIRELESS' selected. It displays the 'ASSOCIATED STATIONS' section.

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 |

Below the table is a 'Reset' button.