



ADVANTECH WiFi STA Relay User Guide

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ADVANTECH

User Module
WiFi STA Relay
APPLICATION NOTE



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Used symbols



Danger – Information regarding user safety or potential damage to the router.



Attention – Problems that may arise in specific situations.



Information or notice – Useful tips or information of special interest.



Example – example of function, command, or script.



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Introduction



This router app is not installed on Advantech routers by default. See Configuration Manual for the description of how to upload a router app to the router. For more information see the Configuration manual, chapter Customization → User Modules.



The router app is v2, v3, and v4 router platforms compatible.

WiFi STA Relay is a router app used to relay and dynamically redirect incoming connections to a target host. Its main purpose in routers is to extend the wireless network. For example, when the Router is in STA Wireless Station mode, it can be used to bridge WAN and LAN interfaces to create a larger Wireless network. This type of configuration connects devices from different networks into a single network, making it possible for the devices to communicate with each other while also providing the devices with an Internet connection.

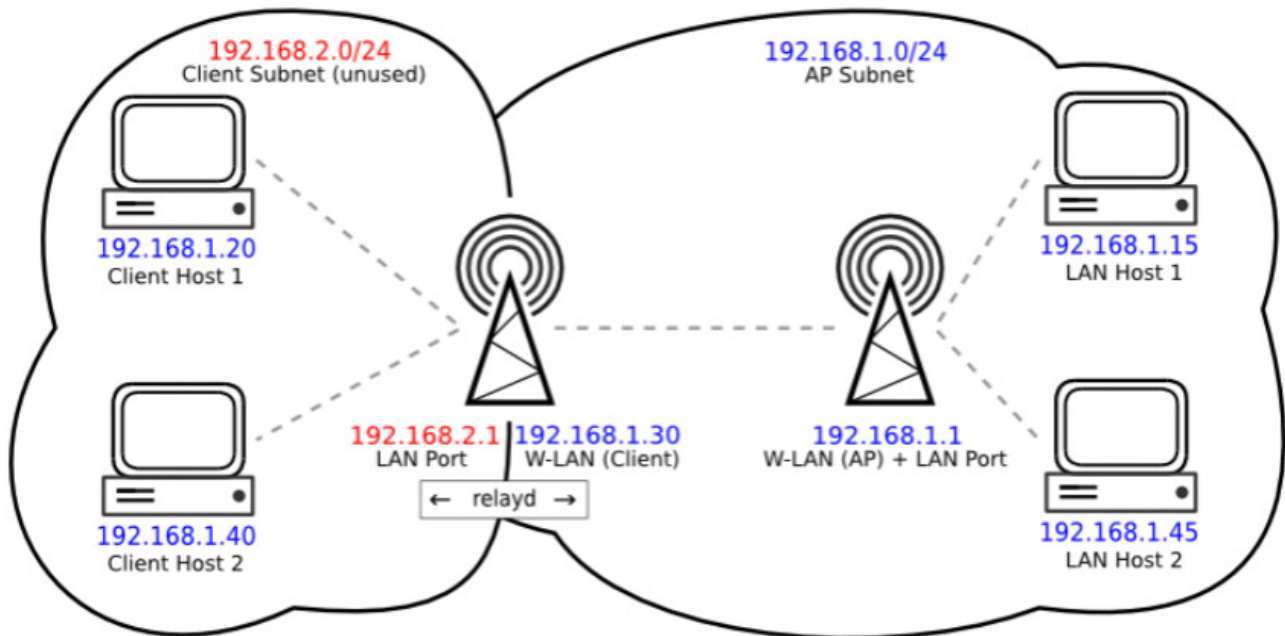


Figure 1: Wifi STA Example

This image shows an example setup. LAN interface of the Wi-Fi STA device MUST be on a different subnet for relayd to work (since it is routing traffic, it expects 2 different subnets).

Since both ethernet ports and Access Point, Wi-Fi network are on the same LAN interface, all clients connecting to the Ethernet ports and to the Access Point Wi-Fi network of the Wi-Fi STA device will be routed by relayd and will be connected to your main network.

The LAN interface subnet will be used only as a “management” interface, as devices connecting to the Wi-Fi repeater will be on the main network’s subnet instead.

Web Interface

Once the installation of the module is complete, the module’s GUI can be invoked by clicking the module name on the Router App page of the router’s web interface.

Left part of this GUI contains a menu with the Status, Configuration menu section, and Information menu section. Customization menu section contains only the Return item, which switches back from the module’s web page to the router’s web configuration pages. The main menu of the module’s GUI is shown on Figure 1.

Status
Overview
System Log
Configuration
Global
Information
Licenses
Customization
Return

Figure 2: Menu

2.1 Configuration

2.1.1 Global

All WiFi STA Relay router app settings can be configured by clicking on the Global item in the main menu of the module web interface. An overview of configurable items is given below.

Configuration

☒ Enable WiFi STA Relay service

Ethernet Interface

eth0

☒ Enable access from ethernet interface

☐ Disable DHCP parsing

☐ Set ARP source address for managed interfaces

Apply

Figure 3: Configuration

Item	Description
Enable WiFi STA Relay service	Enables WiFi STA Relay functionality.
Ethernet Interface	Select ethernet interface
Enable access from ethernet interface	Clients on ethernet gains access to the router
Disable DHCP parsing	Disabling DHCP options parsing prevents the introduction of a default route, that way the traffic addressed to not managed local networks is routed using the main routing table.
Set ARP source address for managed interfaces	Use the specified address as the arp src address for managed interfaces.

Table 1: Configuration items description

2.2 Information

2.2.1 Licenses

You can check the licenses on the Licenses Page in the Information section in the main menu.

WiFi STA Relay Licenses		
Project	License	More Information
relayd	GPLv2	License
ubox	Ubox	License


Related Documents

- [1] Advantech Czech: v2 Routers Configuration Manual (MAN-0021-EN)
- [2] Advantech Czech: SmartFlex Configuration Manual (MAN-0023-EN)
- [3] Advantech Czech: SmartMotion Configuration Manual (MAN-0024-EN)
- [4] Advantech Czech: SmartStart Configuration Manual (MAN-0022-EN)
- [5] Advantech Czech: ICR-3200 Configuration Manual (MAN-0042-EN)
- [6] Advantech Czech: Remote Monitoring Guide (APP-0091-EN)



Product-related documents can be obtained on Engineering Portal at icr.advantech.cz address.

Documents / Resources

 The image shows the cover of a technical document titled 'RouterApp User Module WiFi STA Relay APPLICATION NOTE'. It features a blue header with the 'RouterApp' logo and 'User Module' text. Below this, 'WiFi STA Relay' is written in a larger font, followed by 'APPLICATION NOTE' in a smaller font. The central graphic consists of a series of white, rectangular blocks arranged in a perspective view, resembling a staircase or a data structure. At the bottom, the 'ADVANTECH' logo is displayed in white on a blue background.	<p>ADVANTECH WiFi STA Relay [pdf] User Guide ADVANTECH, WiFi, STA, Relay</p>
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References

- [▲ Advantech 4G, 5G Cellular Routers & Gateways for IoT applications - Engineering Portal](#)
- [▲ Advantech 4G, 5G Cellular Routers & Gateways for IoT applications - Engineering Portal](#)