

ADVANTECH



Transparent Mode



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Used symbols



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



Attention – Problems that can arise in specific situations.



Information – Useful tips or information of special interest.



Example – Example of function, command or script.

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1. Changelog



This Router App has been tested on a router with firmware version 6.3.10. After updating the router's firmware to a higher version, make sure that a newer version of the Router App has not also been released, as it is necessary to update it as well for compatibility reasons.

1.1 Transparent Mode Changelog

v1.0.0 (2014-06-24)

- First release.

v1.0.1 (2014-07-03)

- Fixed DNS issue.
- DHCP lease time increased to 60 seconds.

v1.0.2 (2014-07-07)

- Fixed DNS issue that occurs when the operator do not assign DNS.

v1.0.3 (2014-07-08)

- Added support of port forwarding.

v1.0.4 (2014-07-16)

- Added support of outbond traffic from router.

v1.0.5 (2014-08-21)

- Fixed NAT bugs with incoming traffic.

v1.1.0 (2017-03-21)

- Recompiled with new SDK.

v1.1.1 (2017-06-22)

- Added using of the largest possible netmask on internal network.

v1.1.2 (2020-06-19)

- Fixed handling with modules without arp.

v1.2.0 (2022-11-03)

- Reworked license information.

v1.2.1 (2024-02-16)

- Added description and summary files.

v1.3.0 (2024-08-05)

- Fixed transparentMode module on S1

v1.4.0 (2024-10-09)

- Added GUI configuration to enable/disable
- Fixed init status
- Added integrity checks for the -S1 platforms

v1.4.1 (2024-10-17)

- Fixed init stop

v1.4.2 (2024-10-17)

- Fixed alternative profiles

2. Introduction



Router App *Transparent Mode* is not included in the standard router firmware. Uploading of this Router App is described in the Configuration manual (see Chapter [Related Documents](#)).



This Router App works for the ETH0 interface only.

After installing the Router App and enabling *Transparent mode support* in any Advantech router, this router becomes "invisible" for the remote devices. It is available only for a device that is located behind the router. The default IP address of the ETH0 interface is 192.168.1.1. All communication with the device, that is located behind this router, runs directly. This means that communication from the Internet toward the SIM IP will be redirected to the interface of the device behind this router.



The device connected to the Advantech router must have the DHCP client enabled.

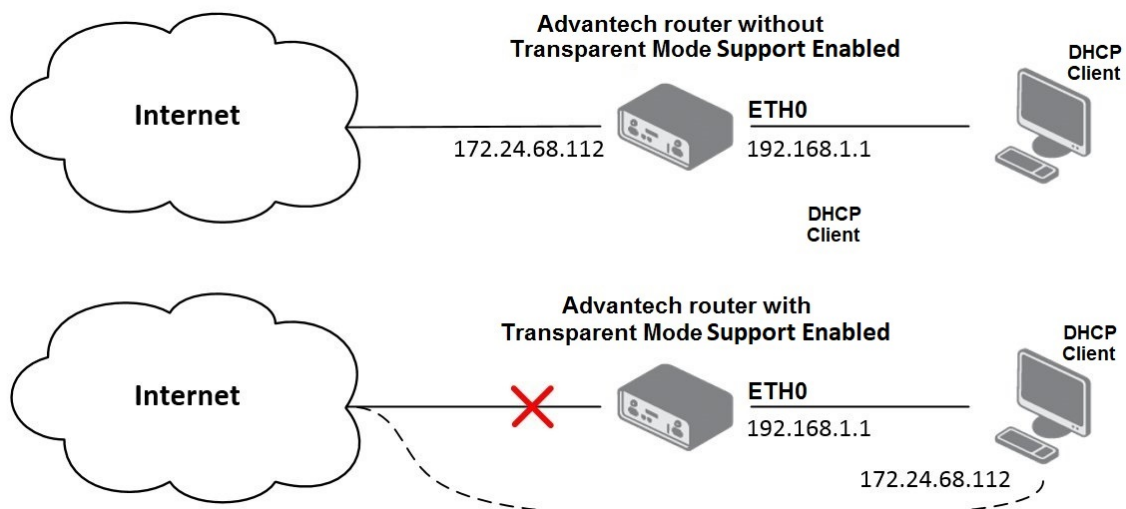


Figure 1: Functional scheme

3. Web Interface

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

Left part of this GUI contains menu with Status, Configuration menu section and Administration menu section. Administration 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 module's GUI is shown on Figure 2.



Status
Global
Configuration
Global
Administration
Return

Figure 2: Menu

4. Configuration

4.1 Status

In Status menu section you will find information about *Transparent Mode*



Figure 3: Transparent Mode status

4.2 Enabling Transparent Mode support

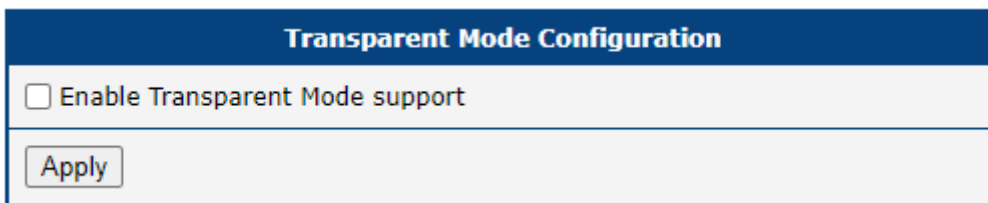


Figure 4: Menu

After enabling *Transparent Mode support* in the *Configuration* section after the installation of *Transparent Mode* router app to the router, DHCP server (dynamic distributing of IP addresses) is disabled. IP address is allocated only when cellular connection is established. For cases when cellular connection is not established, it is necessary to set a static IP address for a device behind the router. The moment the router app is uninstalled or the router app disabled, the router is reconfigured to its original state. If the DHCP server was enabled before installing *Transparent Mode* router app, after uninstalling this router app or disabling *Transparent Mode support* will be enabled again.

ETH0 Configuration		
DHCP Client	IPv4	IPv6
	disabled	disabled
IP Address	192.168.1.1	
Subnet Mask / Prefix	255.255.255.0	
Default Gateway		
Primary DNS Server		
Secondary DNS Server		
Bridged	no	
Media Type	auto-negotiation	
MTU	1500	bytes
<input type="checkbox"/> Enable dynamic DHCP leases		
IP Pool Start	IPv4	IPv6
	192.168.1.2	
IP Pool End	192.168.1.254	
Lease Time	10	sec
<input type="checkbox"/> Enable static DHCP leases		
MAC Address	IP Address	IPv6 Address
<input type="checkbox"/> Enable IPv6 prefix delegation		
Subnet ID *		
Subnet ID Width *		bits

Figure 5: Reconfiguration of *Lease Time*



After enabling *Transparent Mode support*, *Masquerade outgoing packets* item (on NAT page of router web interface) is disabled. **This item must never be enabled!**

5. Related Documents

You can obtain product-related documents on *Engineering Portal* at icr.advantech.com address.

To get your router's *Quick Start Guide*, *User Manual*, *Configuration Manual*, or *Firmware* go to the [Router Models](#) page, find the required model, and switch to the *Manuals* or *Firmware* tab, respectively.

The *Router Apps* installation packages and manuals are available on the [Router Apps](#) page.

For the *Development Documents*, go to the [DevZone](#) page.