

Advantech AE Technical Share Document

Date	2017/11/6	SR#	1-3081098541
Category	■FAQ □SOP	Related OS	N/A
Abstract	IAG_FAQ_ADAM-6000_ADAM-6200_How to set routers' port forwarding to achieve P2P function		
Keyword	Port forwarding, P2P , router		
Related Product	ADAM-6000, ADAM-6200 series		

■ **Problem Description:**

Users want to use P2P function in two different external IP. This document will explain how to set the routers by following example.

■ **Answer:**

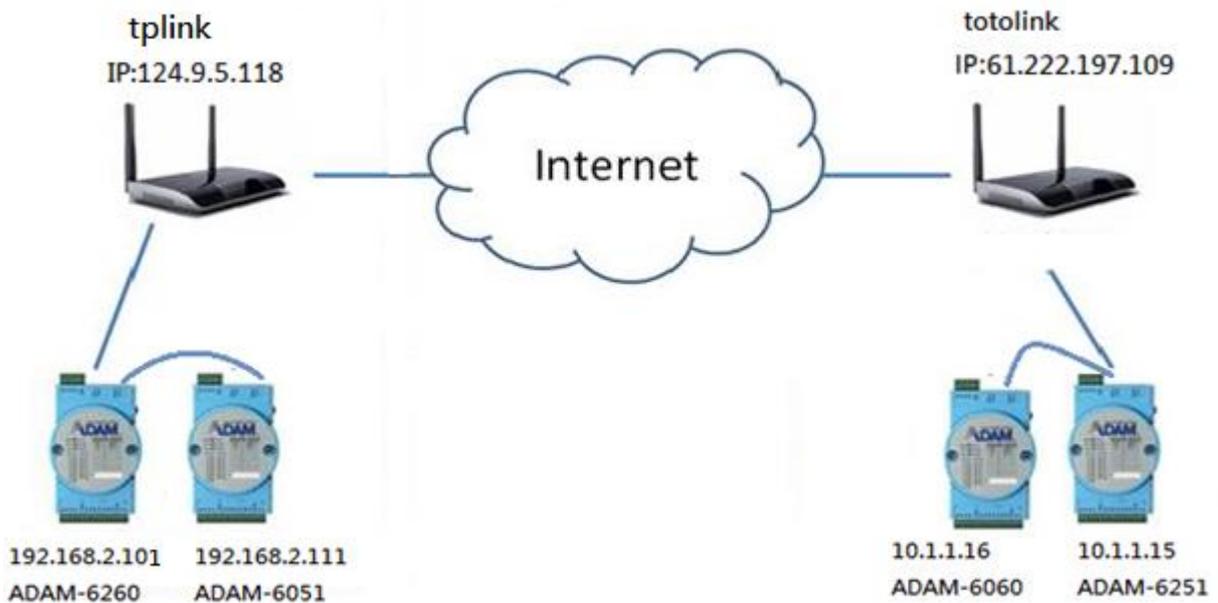


Figure 1. Network structure

This environment are two independent public IP, there are two ADAM modules under these two routers. One ADAM DI modules can control another ADAM Relay module at different public IP by P2P function. The structure is like *Figure 1.* and the rule is show at *Table 1.*

Source	Destination
192.168.2.111(ADAM-6051)	10.1.1.16(ADAM-6060)
10.1.1.15(ADAM-6251)	192.168.2.101(ADAM-6260)

Table 1. P2P logic

When ADAM-6051 controls ADAM-6060, its network package will go through router (TOTOLINK) like *Figure 2*.

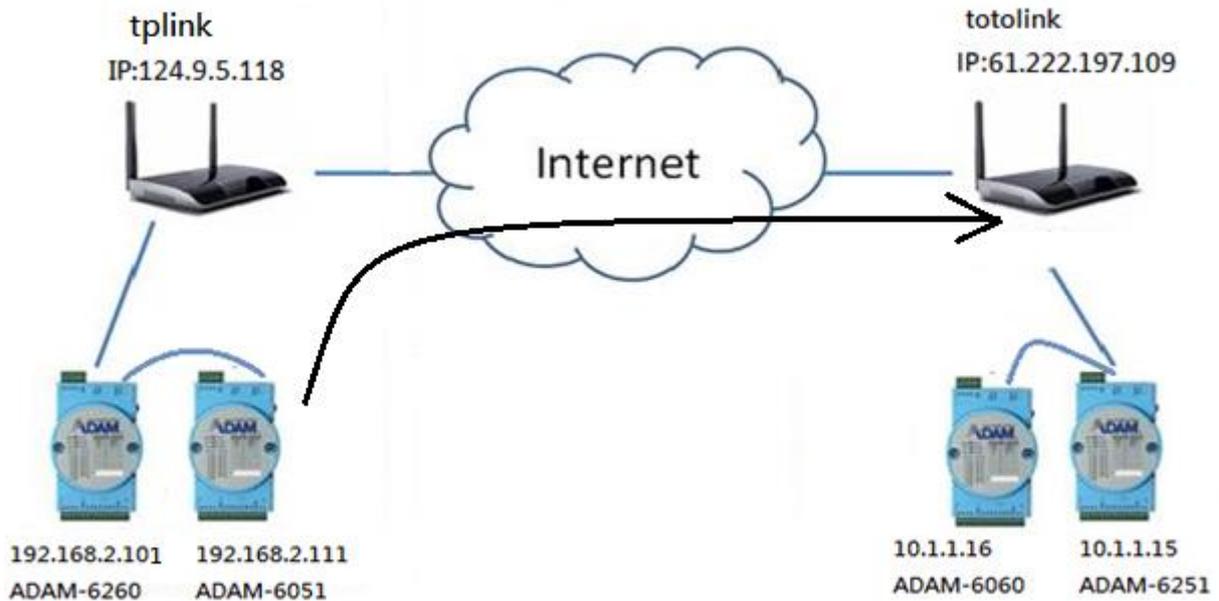


Figure 2. ADAM-6051→ADAM-6060

External port setting is 1025 because the default P2P target/local port is 1025. Internal port setting is 1234, so if the router receives the package from 1025 port it will transfer to 1234 port to the device under this router. For this example, user has to change the ADAM-6060 default P2P target/local port setting to 1234 like *Figure 4*. ADAM-6051 P2P setting is like *Figure 5*. (ADAM-6051 P2P target/local port settings do not need to change→default 1025)

本機IP位址	內部端口	外部端口	遠程IP地址	描述	選擇
				ADAM-6051 DI P2P	

Figure 3. TOTOLINK Port forwarding setting

Information | Network | Stream/Trap | Administration | Firmware | P2P/Event | Access Control | Modbus Address

Network Setting

MAC Address:

IP Address:

Subnet Address:

Default Gateway:

Host Idle (Timeout): second(s)

IP Mode
 Static DHCP

Note: The Host Idle will affect TCP connection. Please make sure the value is applicable.

Application Network Setting

Datastream Target Port (Default:5168):

P2P/GCL Target/Local Port (Default:1025):

Network Diagnostic (Default:On)

Figure 4. ADAM-6060 Utility setting

Information | Network | Stream/Trap | Administration | Firmware | P2P/Event | Access Control | Modbus Address

Mode
 Basic Advanced Disable

Basic (One to One)

Period time: second(s)

Enable Change of State (C.O.S.)

Source  IP: → Destination  IP:

Modify channel enable

Channel	Enable
0	<input checked="" type="checkbox"/>
1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>

Figure 5. ADAM-6051 P2P setting

192.168.2.101(ADAM-6260)	1025
192.168.2.111(ADAM-6051)	1025
10.1.1.16(ADAM-6060)	1234
10.1.1.15(ADAM-6251)	1025

Table 2. P2P target/local port setting

When ADAM-6251 controls ADAM-6260, its network package will go through router (TPLINK) like Figure 6. User has to setup the NAT rule. Under this router, its setting is like below Figure 7. In this router, we setup the virtual server function. It can choose a range of external port correspond to an internal port. (In this case, I set 1025→1025) Because I use the default port for P2P function, I don't need to change the P2P target/local port setting. ADAM-6251 P2P setting is Figure 8.

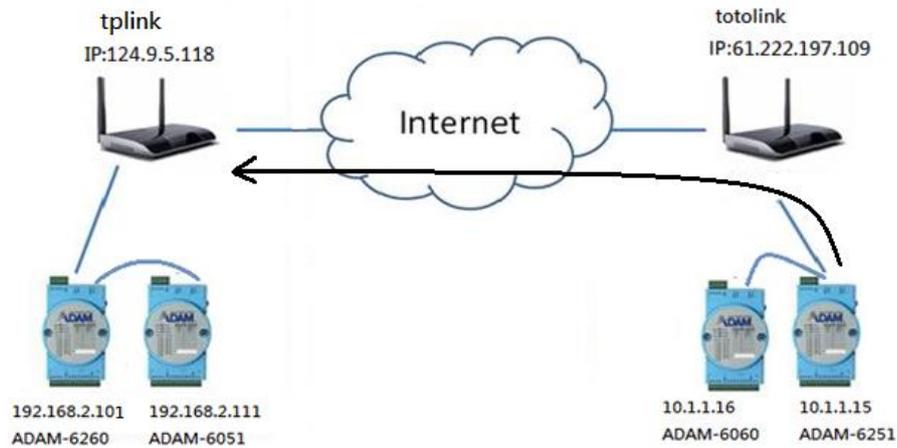


Figure 6. ADAM-6251→ADAM-6260

NO.	external port	internal port	IP address	potocol(TCP/UDP)	status	change/delete
1	1025	1025	192.168.1.101	全部	啟用	修改 刪除

Figure 7. TPLINK Port forwarding setting

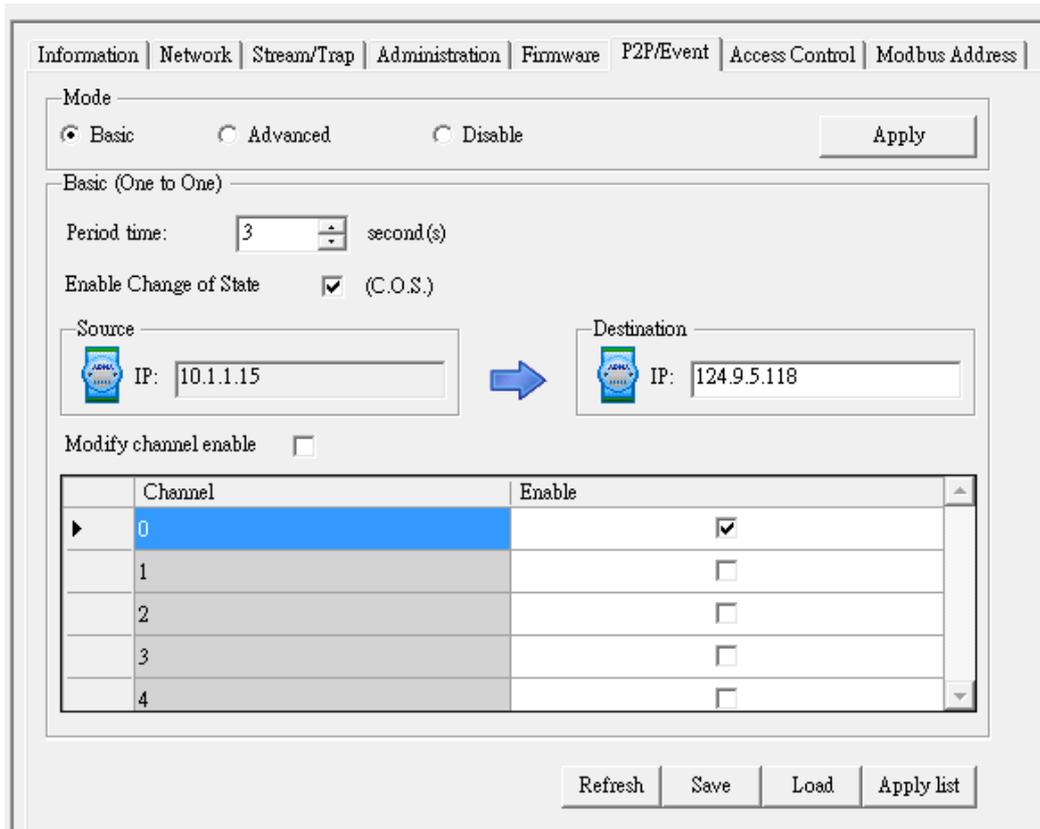


Figure 8. ADAM-6251 P2P setting

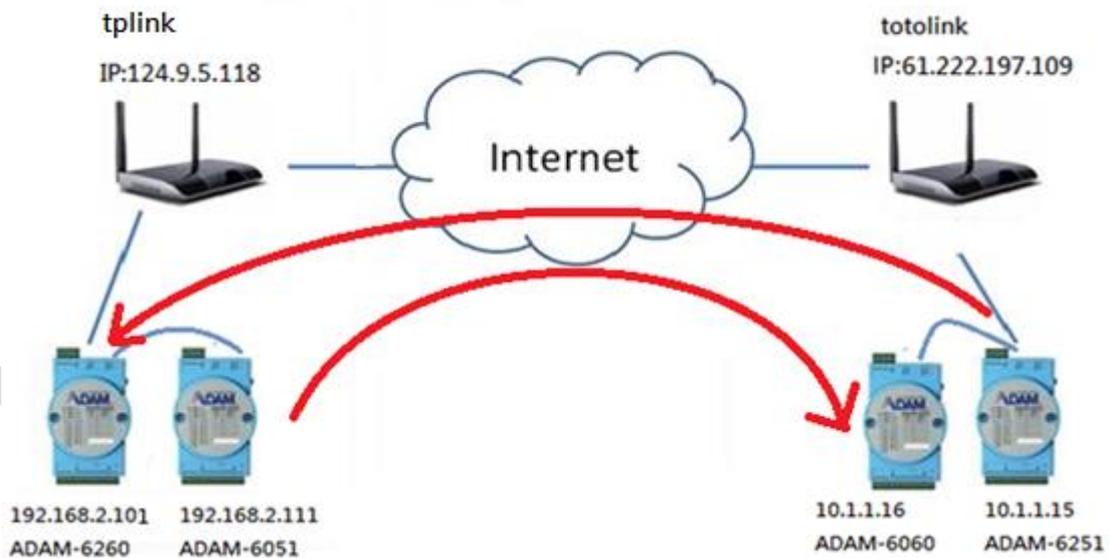


Figure 9. P2P behavior(DI→Relay)

Different routers have different functions and setting ways due to its level and brand. Above is an example for bio-direction P2P function between two independent IP routers (TOTOLINK-NT150RT and TPLINK-WR941ND). Users have to make sure their router setting, the ADAM modules setting (both P2P setting and P2P target/local setting) and the network status are correct while using P2P function.