Advantech AE Technical Share Document

Date	2021/9/13	SR#	1-4641785841
Category	■FAQ □SOP	Related OS	N/A
Abstracta	What if MDG100/200 is unable to dial-up or if ECU-1051 is acting as a server?		
Keyword	Password		
Related Product	ADAM-3600, ECU-1152, ECU-1251, ECU-1051, ECU-1050		

■ **Problem Description:**

There are some required parameters for EdgeLink driver to communicate with the module. If a user bough MDG100/200 from Advantech, then these parameters are enabled as default. Otherwise, please set it up according to this document.

MDG100/200 is not just a cellular module, but also a layer 3 router. This document also explains how to setup MDG100/200 if ECU-1051 is acting as a server. For example, if ECU-1051 is acting as a RETful API server, then MDG100/200 should setup port forwarding with port 443. If ECU-1051 is acting as a DNP3 server, then MDG100/200 should setup port forwarding with port 20000. If ECU-1051 is acting as a client, then MDG100/200 does not require to setup port forwarding.

■ **Answer:**

Step 1.   Connect MDG100/200 with an miniPCIe to USB converter and insert to a computer.

Step 2.   Go to Chrome browser and type-in 172.16.0.1.
The default username is "admin", and password is "admin. If it requires a user to modify the password, please remember it well. There is no reset PIN on the module.
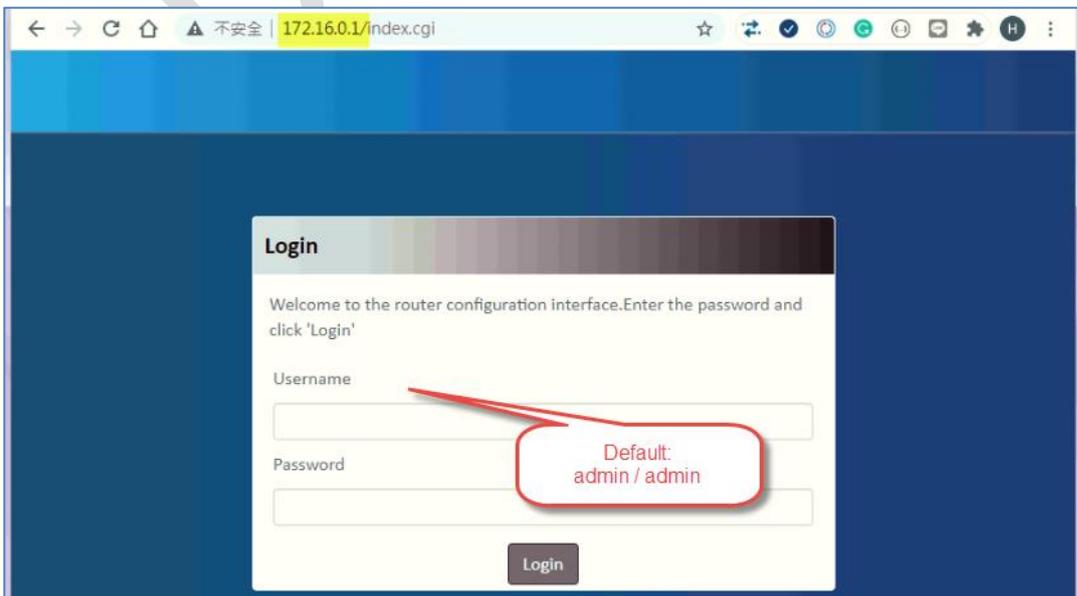
Step 3.   Make sure the following settings.

   Device mode: NAT.
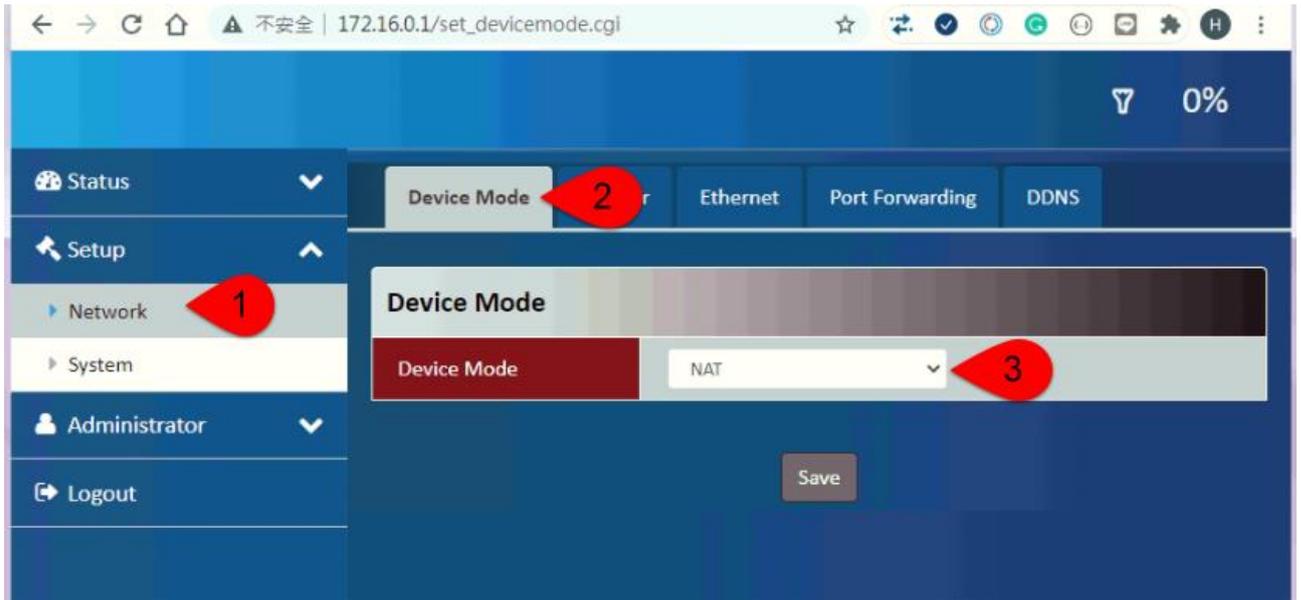
SIM select: auto. This mode allows a user to insert the SIM card either on MDG100/200 slot or ECU SIM card slot1/2.

APN: manual. This mode allows EdgeLink driver to setup the parameter according to the user setting in Studio.
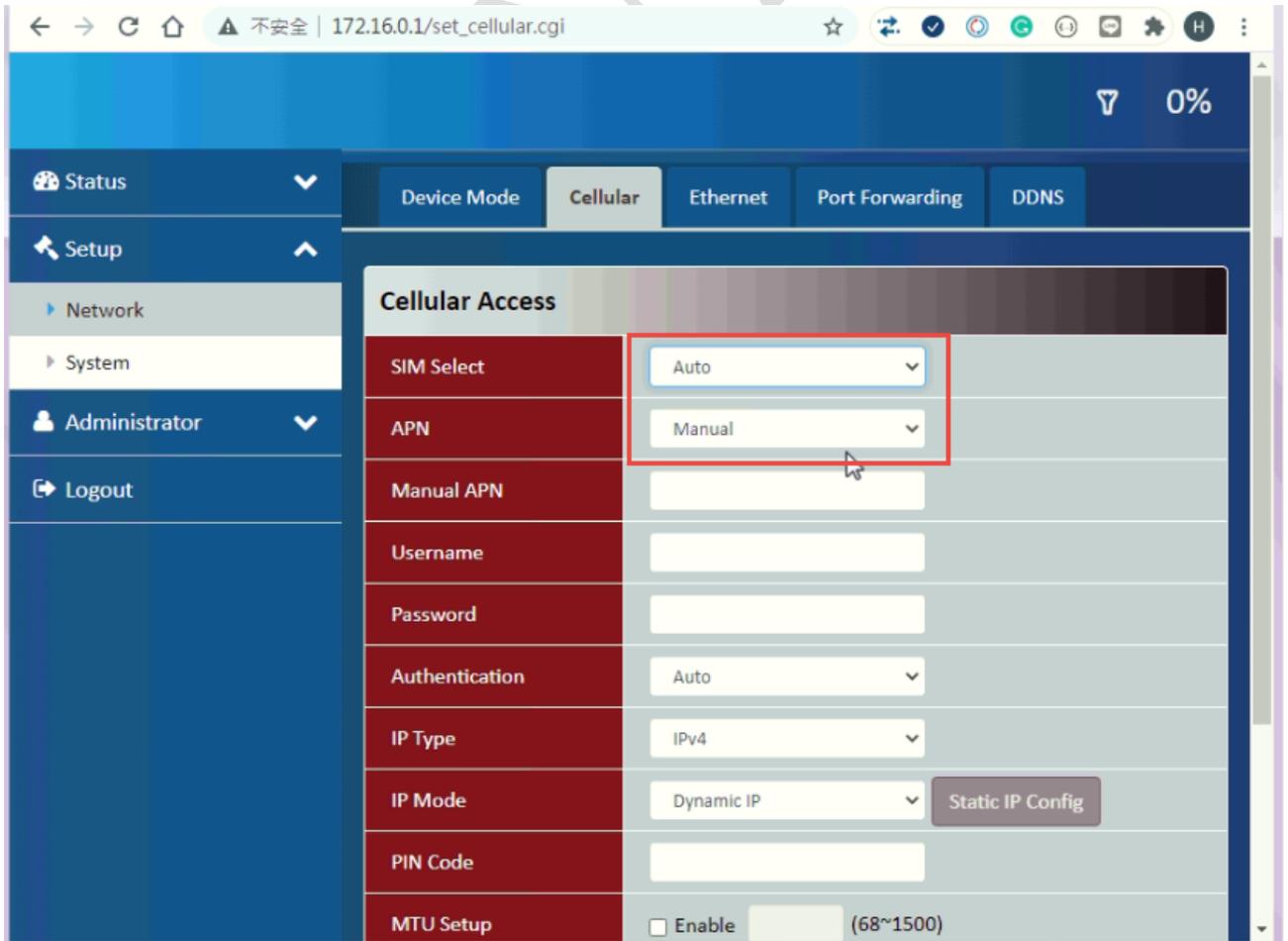
Port forwarding (optional): add a new setting according to the application. In the following figures are using REST API as a setting example. ECU-1051 is using port 443 for REST API.
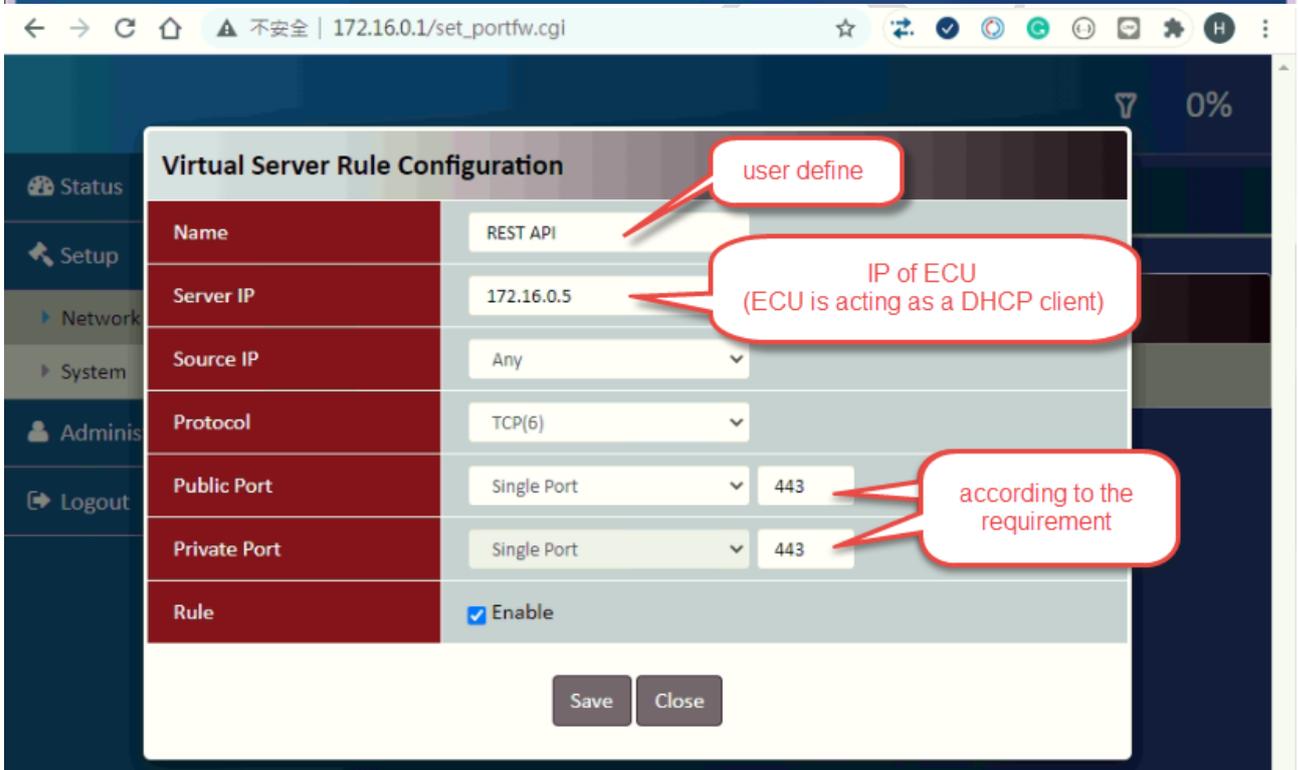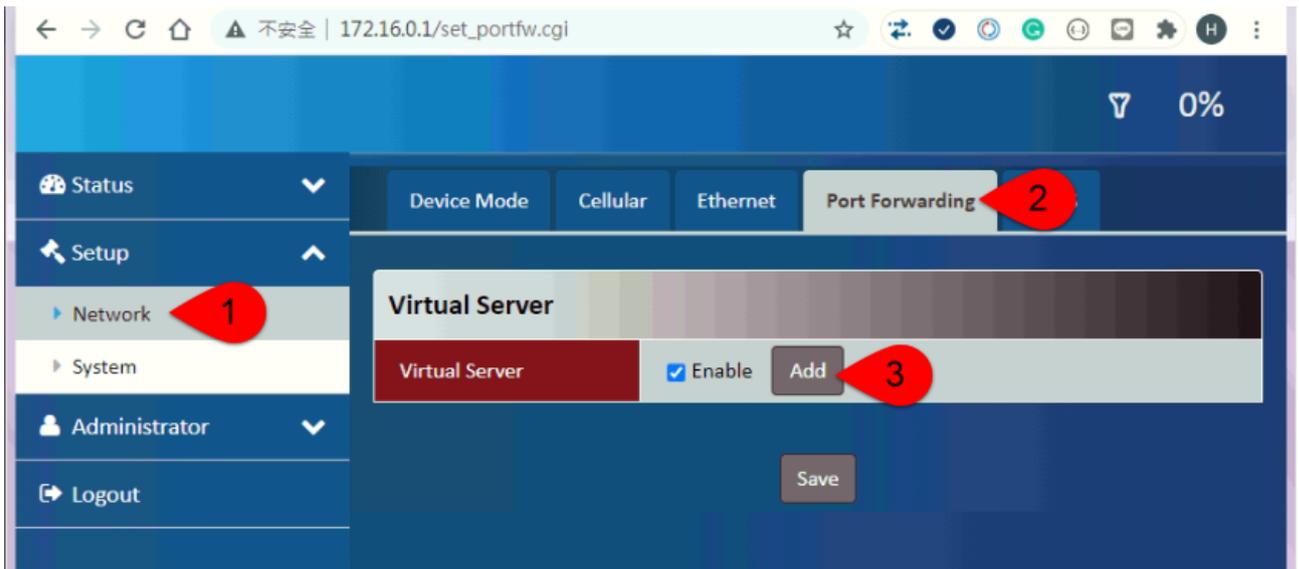

Another example: ECU-1051 acts as a DNP3 server. Then "port forwarding" is set with 20000.
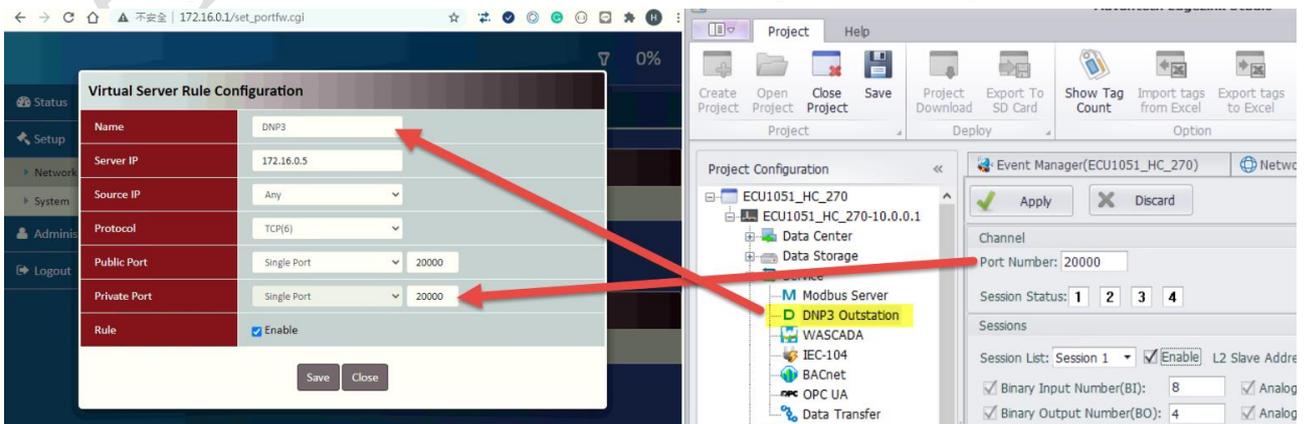
SSH/LAN: enable. This parameter allows EdgeLink driver to dial the cellular parameters.
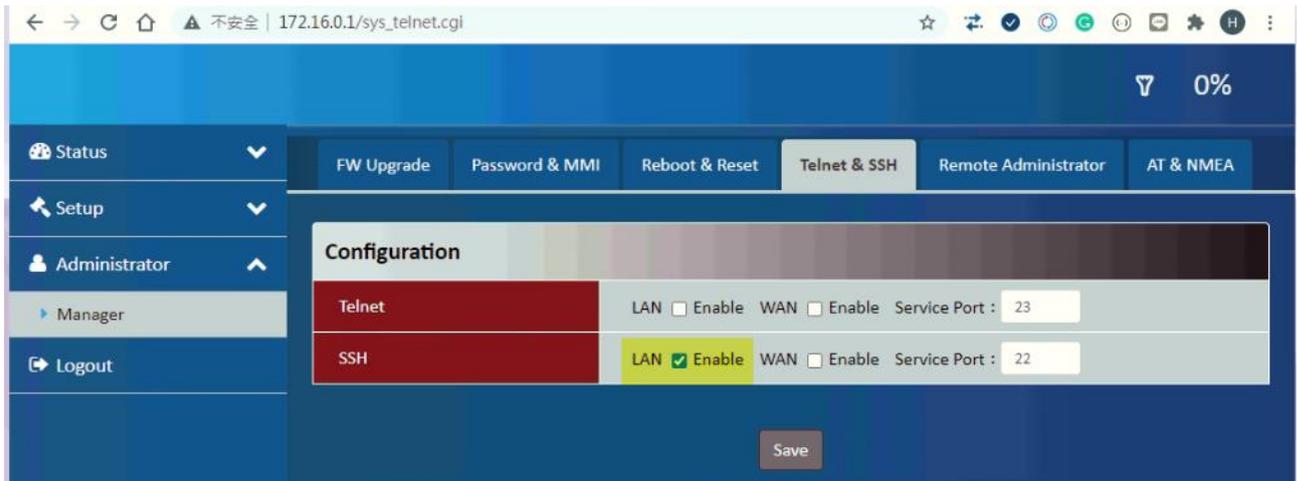
AT/NMEA Port: enable.
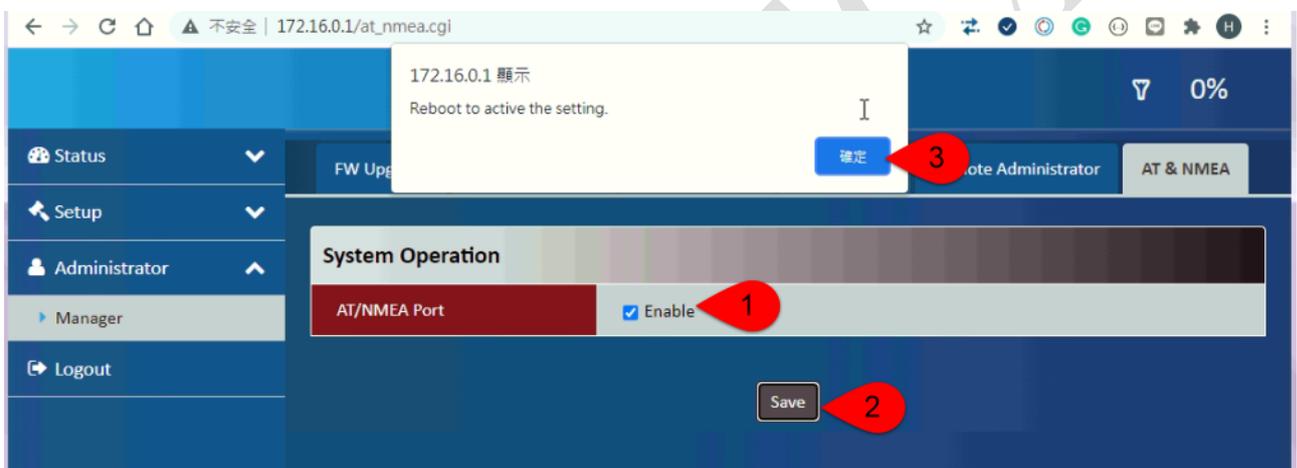
Step 4.   Optional. Only if a user wants to use ECU-1051 as a server.

Due to the wet setting page of MDG100/200 allow to setup the DHCP IP range with minimum 2 IP addresses, ECU-1051 will get different IP every time it dials-up. So have to use SSH to setup the MDG-100/200 module.

a. Use putty to get into ECU through SSH.

b. After ECU gets an 172.x.x.x IP and then use the command "admin@172.16.0.1" to get into the SSH of MDG module. The password is the one for logging into the configuration web page of the MDG module. The default password is "admin".

c. dhcp 0 ip_start <IP>

➔ example: dhcp 0 ip_start 172.16.0.5

➔ This IP address should match with the "port forwarding" parameter in previous step.

d. dhcp 0 ip_end <IP>

➔ example: dhcp 0 ip_end 172.16.0.5

➔ This IP address should match with the "port forwarding" parameter in previous step.

e. apply dhcp

Result:

➢   Use "ifconfig –a" to check if ECU is getting the same IP every time it boots-up.

➢ Use "nc –zvs10 <IP> <port>" to check if the port number of the server (ECU) is opened. The IP here is the one of MDG100/200.

➔ example: nc –zvs10 172.16.192.53 443