6. OMA-DM

6.1. Mandatory Configuration

1. **It's necessary to configure Quanta device with the following parameters before you start OMA-DM testing**.
2. **It's mandatory to configure Quanta device with the following parameters if your device is upgraded to new firmware.**
3. **Please make sure that the device is not connected to LTE network (i.e. offline from eNodeB) before you do any configuration**.
4. Please open connection manager.
5. Please enter the following AT commands sequentially (Please refer section 3.1.2).

   AT%SETCFG="enable_test_mode","0"

   AT%SETCFG="vzw_mode","1"

   AT%SETACFG=ecm.Mode.VzwMode,true

   AT%SETACFG=ecm.Mode.VzwImsTestMode,false
6. Please check if it returns "OK".
7. Please confirm your configuration by entering the following AT commands sequentially.

   AT%GETCFG="enable_test_mode"

   (it shall be "0")

   AT%GETCFG="vzw_mode"

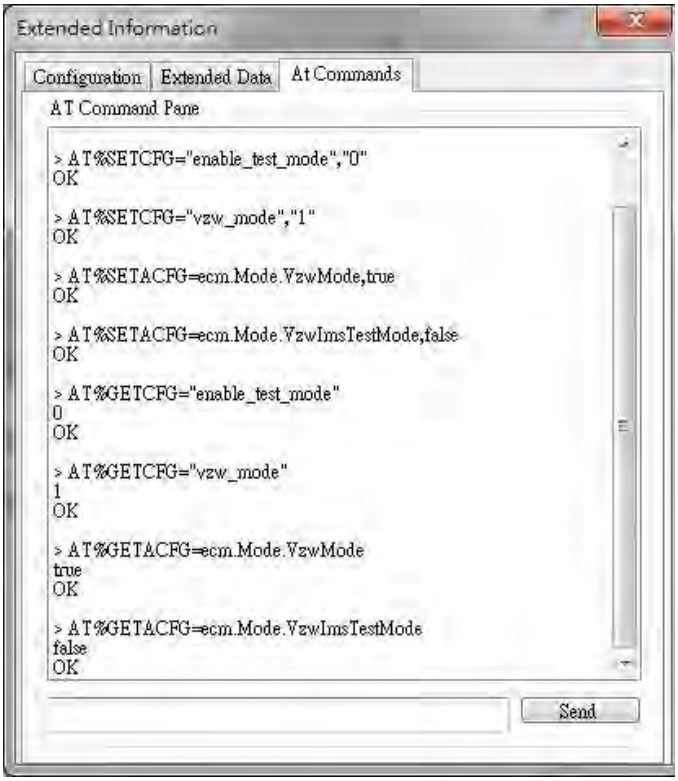
   (it shall be "1")

   AT%GETACFG=ecm.Mode.VzwMode

   (it shall be "true")

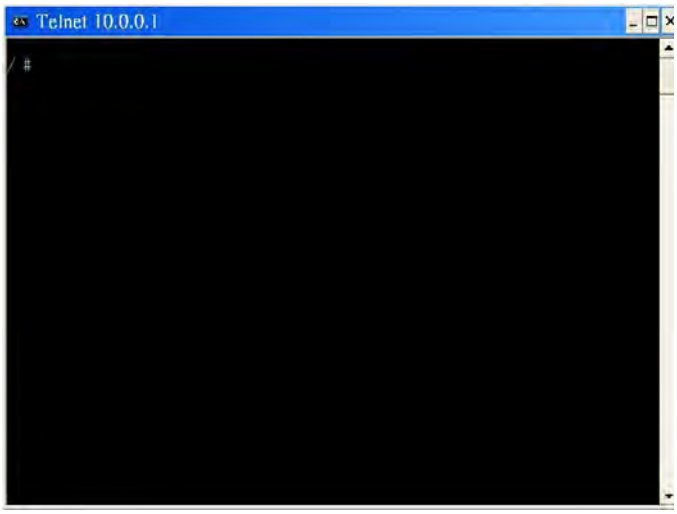
   AT%GETACFG=ecm.Mode.VzwImsTestMode

   (it shall be "false")

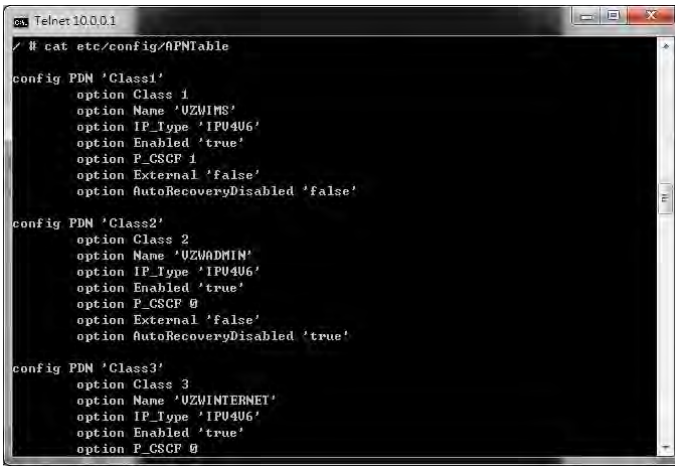


6.2. How to Enable/Disable APN

1. Please make sure your device has disconnected from network.
2. If you would like to edit APN table, it's necessary to telnet to embedded connection manager. (Please refer to section 3.1.1)
3. Please open command console.
4. Please key in "telnet 10.0.0.1" and press enter.
5. If you failed to telnet 10.0.0.1, please manually set your IP address to 10.0.0.133.

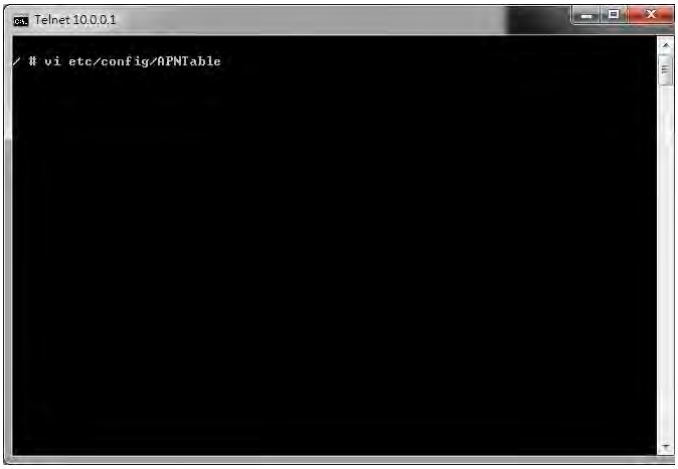


6. After successfully telnet to 10.0.0.1, please key in "**cat /etc/config/APNTable**" and press enter.
7. There are 4 APNs in table, and you can see its configurations, including NAME, IP_Type, P_CSCF and so on.



8. For example, if you would like to disable "VZWIMS" APN, please use the editor tool "vi" to edit this APNTable.
9. Therefore, please key in

   "**vi /etc/config/APNTable**" and press enter.



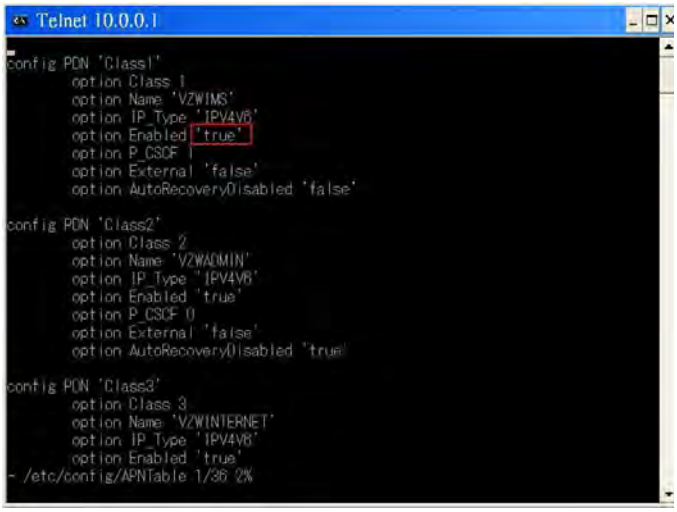
10. Please move cursor to

    Option Enabled “**true**”

11. Please modify this value to “**false**”.

    NOTE: If you are not familiar with vi commands, please refer to section 6.6 for more information.

12. Please enter “**Shift+z**” twice to save file.



13. Please key in

    “**cat /etc/config/APNTable**” and press enter.

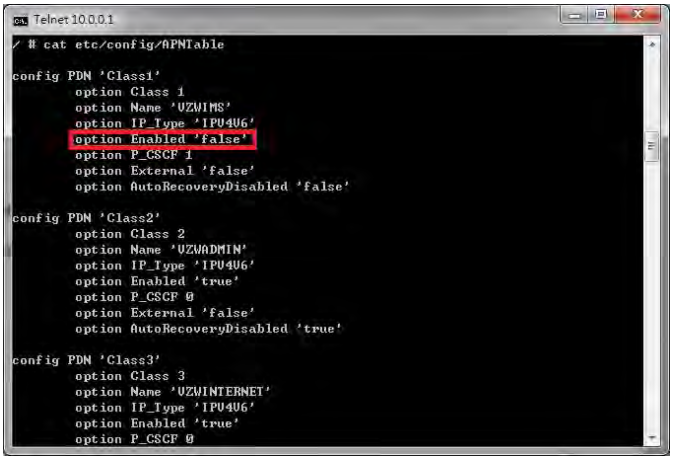
14. Please check if “VZWIMS” APN is disabled.

    Option Enabled ‘false’

15. Please enter “**reboot**” command to reboot device in order to take effect of the configuration.

16. You can also follow above procedures to enable/disable other APNs.

    NOTE: Please make sure to reboot device in order to take effect of your setting.



6.3. How to Modify OMA-DM Server URL

1. Please make sure your device has disconnected from network.

2. If you would like to edit OMA-DM server URL, it's necessary to telnet to embedded connection manager. (Please refer to section 3.1.1)

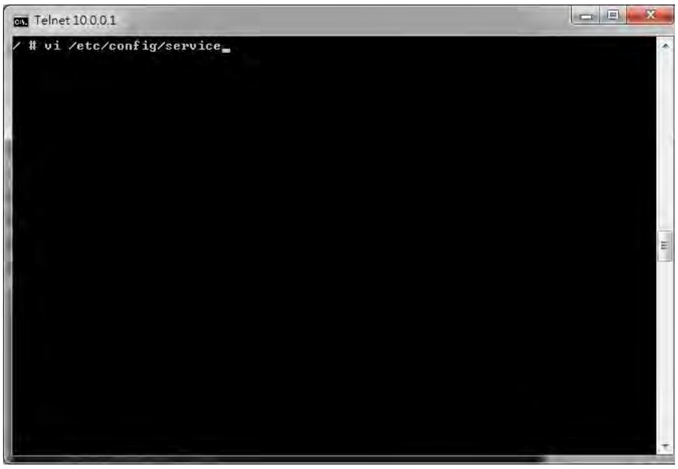
3. Please open command console.

4. Please key in "**telnet 10.0.0.1**" and press enter.

5. If you failed to telnet 10.0.0.1, please manually set your IP address to 10.0.0.133.

6. Please key in

   "**vi etc/config/service**" and press enter.

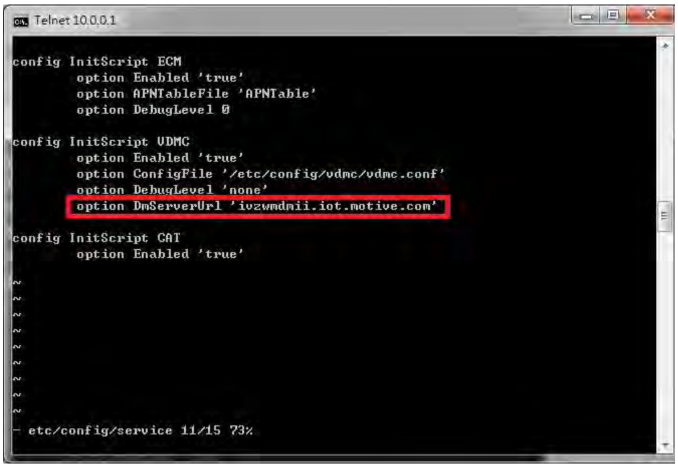


7. Please modify the server URL to

"ivzwmdmii.iot.motive.com"

8. Please enter "**Shift+z**" twice to save file.

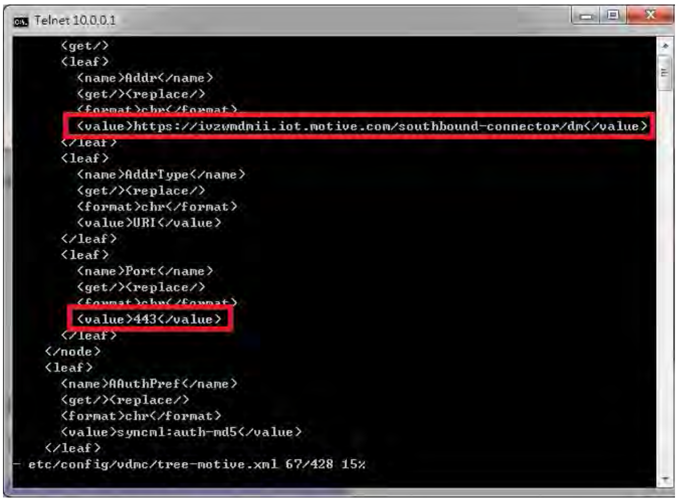
9. Please key in "**cat /etc/config/service**" and check if the server URL is set up correctly.



10. Please key in

    "**vi etc/config/vdmc/tree-motive.xml**"

    and press enter.



11. Please key in "**/https**" to search the server URL.

12. Please modify the server URL to

https://ivzwmdmii.iot.motive.com/southbound-connector/dm

13. Please also check if port number is “**443**”.

14. Please enter “**Shift+z**” twice to save file.

6.4. How to Online Enable/Disable Internet APN

1. Please check if your device has connected to LTE network successfully.

2. If you would like to online enable/disable “INTERNET” APN (see NOTE), it’s necessary to enter specific AT command.

   NOTE: Online enable/disable “INTERNET” APN means it’s not mandatory to reboot device to take effect of “INTERNET” APN. Please note that this method is applicable to “INTERNET” APN only, and this configuration will be lost after device reboots.

3. If you enter “**at%dpdnact=0**” to disable “INTERNET” APN, the LTE connection will be lost. On the contrary, if you enter “**at%dpdnact=1**” to enable “INTERNET” APN, device will reconnect to LTE network.

6.5. How to Enable/Disable OMA-DM log

1. Please make sure your device has disconnected from network.

2. If you would like to enable/disable OMA-DM log, it's necessary to telnet to embedded connection manager. (Please refer to section 3.1.1)

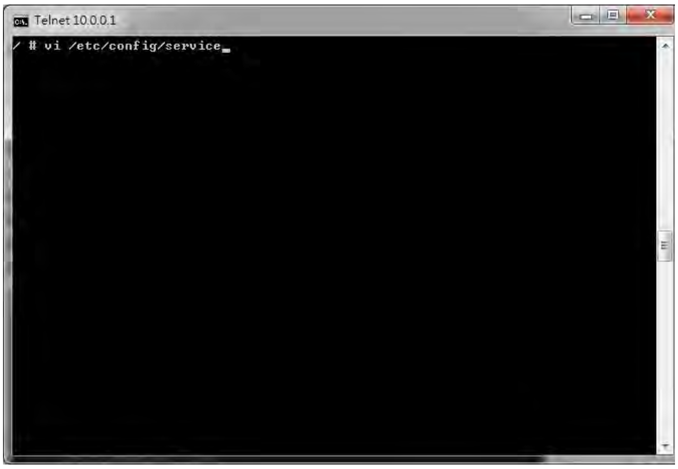
3. Please open command console.

4. Please key in "**telnet 10.0.0.1**" and press enter.

5. If you failed to telnet 10.0.0.1, please manually set your IP address to 10.0.0.133.

6. Please key in

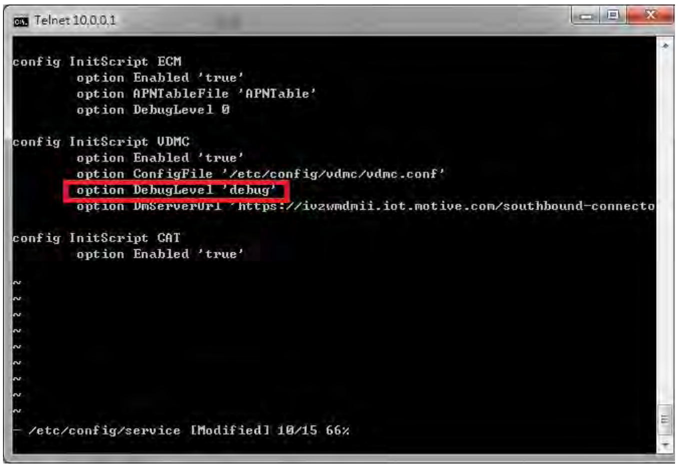
   "**vi etc/config/service**" and press enter.



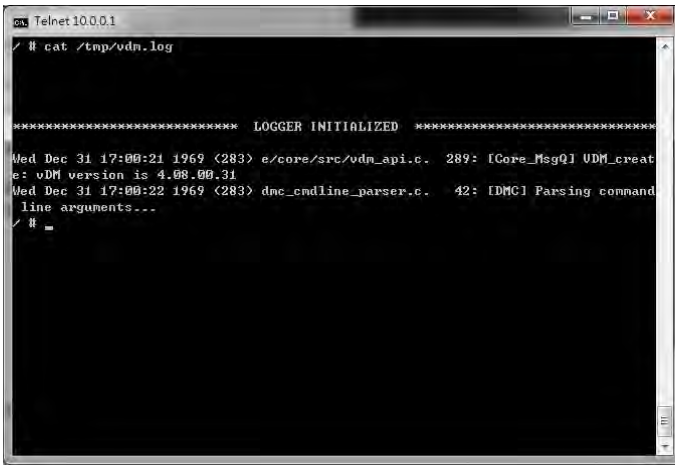
7. Please modify the value of DebugLevel to "**debug**".

8. Please enter "**Shift+z**" twice to save file.

9. Please enter "**reboot**" command to reboot device.



10. Please enter "**cat /tmp/vdm.log**" and check OMA-DM logs.



6.6. How to Use VI editor

Please google search “vi manual” or by clicking below URL directly.
http://glaciated.org/vi/

FCC Regulations:

●This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

●This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user‘s authority to operate the equipment.

‣ RF Exposure Information

This Modular Approval is limited to OEM installation for mobile and fixed applications only. The antenna installation and operating configurations of this transmitter, including any applicable source-based time-averaging duty factor, antenna gain and cable loss must satisfy MPE categorical Exclusion Requirements of §2.1091.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons, must not be collocated or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

The end user has no manual instructions to remove or install the device and a separate approval is required for all other operating configurations, including portable configurations with respect to 2.1093 and different antenna configurations.

Maximum antenna gain allowed for use with this device is 2.02 dBi.
When the module is installed in the host device, the FCC ID label must be visible through a window on the final device or it must be visible when an access panel, door or cover is easily re-moved. If not, a second label must be placed on the outside of the final device that contains the following text: “Contains FCC ID: HFS-LI170”.