Application Note
GSM0000AN005

Enabler Modems Automated Network Connection Configuration and Use

Revision 1.02

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Objective: To provide modem settings that allow for automated GSM and GPRS network connectivity.

Equipment Needed:

In this example the requirements are:

- An Enfora, Inc. Enabler-G Modem loaded with firmware version 1.4.0 or above is required.

- A notebook or desktop computer with any version of Microsoft Windows that has HyperTerminal. If this hardware is not available, the user could use a DOS terminal emulation program or DUMB ASCII terminal.

Procedures:

1. Start **HyperTerminal** and create a new session with the following settings:

Connection Name =	**Enabler Automated Connection Test**
Connect Using =	**Direct connect to COMx**, COMx is the communications port that the Enfora, Inc. Enabler-G Modem is physically attached to.
Bits Per Second =	**115200**
Flow control =	**None**

2. Type **AT** and press **<ENTER>** the modem should respond with **OK**. This will verify that you are communicating with the modem. If you cannot see characters entered on the screen, enter **ATE1V1**.

3. The following examples provide the AT commands and responses for setting modem parameters. For more information about the commands and response codes, see the *GSM0107AT001 – Enfora Enabler IIG AT Command Set*.

4. The default setting for the Enabler-G modem is to *automatically* register on a GSM network. To change this default, enter the following command:

AT$AREG=0	AT command to turn off the automated GSM registration feature.
OK	Modem Response.

5. If **AT$AREG=0**, the following commands will have to be issued to turn the radio on and register on a GSM network:

AT+CFUN=1	Turn the radio on.
OK	Modem Response.
AT+COPS=0	Select network operator for registration.
OK	Modem Response.

6. The default setting for the Enabler-G modem is to *manually* attach and activate on a GPRS network. The following command will attach the modem to a GPRS network.

    AT+CGATT=1   AT command to start the ATTACH sequence.

    OK   Successfully ATTACHed.

7. If the network is a transparent network, then you can activate using HyperTerminal. If it is non transparent, you have to use a PPP link to activate. See Application Note *GSM0000AN001 - Enabler-G PPP Configuration for Windows 98* or *GSM0000AN002 - Enabler-G PPP Configuration for Windows 2000* for creation of a PPP entry in Windows. To perform a PDP context activation on a transparent network, the following commands need to be used.

    AT+CGDCONT=1,"IP","APN","",0,0   *APN* value will be provided by carrier.

    OK   Modem Response.

    AT+CGACT=1,1   Request context activation.

    OK   Successful context activation.

8. To deactivate, enter the following:

    AT+CGACT=0,1   AT command to deactivate.

    OK   Successful deactivation.

9. To detach, enter the following:

    AT+CGATT=0   AT command to detach.

    OK   Successful detach.

10. The Enabler-G can be configured to automatically attach to a GPRS network. The following command will configure the modem to auto-attach on power-up:

    AT%CGAATT=0,1   AT command to automatically attach to a GPRS network on power-up and detach manually.

    OK   Modem Response.

11. If the Enabler-G is going to be used in conjunction with a PPP connection, as is the case with Windows Dial-Up Networking, the following command will need to be entered to provide automated context activation.

    AT+CGDCONT=1,"IP","APN","",0,0   *APN* value will be provided by carrier.

    OK   Modem Response.

    If a PPP connection is not being used, Step #7 will need to be executed to facilitate a manual context activation.

Revision History

Date	Rev	Author	Description
8/16/02	Draft	Matt Glover	Initial Draft.
9/3/02	1.00	Matt Glover	• Renamed the document to appropriately reflect the latest platform capability and use. • Added commands and steps required to automate GPRS attach sequence and requirements for automated PPP context activation. • Initial Release
10/15/02	1.01	Matt Glover	• Changed AT$AUTOREG to reflect syntax change of AT$AREG • Changed incorrect values for GPRS auto-registration command AT+CGAATT
11/8/02	1.02	Matt Glover	• Removed references to obsolete AT$APN command