



Troubleshooting GPRS Modem GMS-xx

Abstract

The document helps troubleshooting using a GPRS Modem.

Document Revision

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1	12.12.2012	First release	THL		

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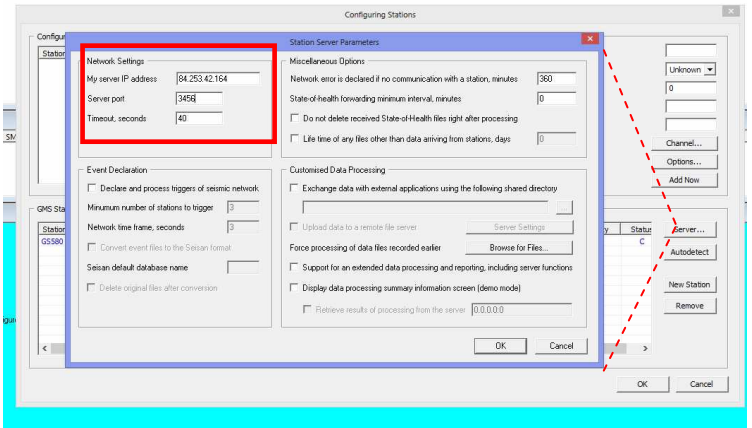
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1. Troubleshooting

<p>1.1. Hardware check</p>	
<ul style="list-style-type: none"> • Make sure the antenna is properly connected 	
<ul style="list-style-type: none"> • In case of using directional antennas, make sure the antenna is looking in straight direction to the access point 	
<ul style="list-style-type: none"> • Jumpers are set correct 	<div data-bbox="791 745 1458 1081" data-label="Image"> </div> <p data-bbox="940 1090 1230 1122">Fig. 1 Jumper settings</p> <p data-bbox="735 1153 861 1335"> JMP1: 2-3 JMP2: 2-3 JMP3: 2-3 JMP4: 2-3 JMP5: 1-2 JMP6: 1-2 </p>
<ul style="list-style-type: none"> • Check modem cable 	<p>Make sure that cable is properly connected</p>
<p>1.2. SIM card</p>	
<ul style="list-style-type: none"> • SIM card is active and in case of a prepaid card, there is enough credit 	<p>May verify it with a mobile phone</p>
<ul style="list-style-type: none"> • PIN is disabled on the SIM card 	<p>May verify it with a mobile phone</p>
<ul style="list-style-type: none"> • Teltonika ModemCOM10: 	<p>The modem does only support SIM cards of the format "Mini", no "Standard", "Micro" or "Nano"</p> <div data-bbox="735 1731 1415 1942" data-label="Image"> </div> <p data-bbox="922 1966 1251 1998">Fig. 2 SIM Card overview</p>

<h3>1.3. Configuration</h3>	
<ul style="list-style-type: none">• Chatscript is correct set	<p>The chatscript is located on the CF card in the folder "dialup"</p> <p>Open the file "chatscript-gprs" with Notepad++ (Windows Notepad usually adds line feed characters which the GMS (LinuX) can interpret)</p> <p>The "Vodafone" ISP used in this EXAMPLE, where the following settings must be set</p> <ul style="list-style-type: none">• APN: <i>internet</i>• Username: is empty (field inside of first red empty quotation-marks).• Password: is empty (field inside of second red empty quotation-marks). <p>The chatscript file content is:</p> <pre>ABORT "BUSY" ABORT "ERROR" ABORT "Username/Password Incorrect" "" "ATZ" "OK" "AT" "OK" "AT+IFC=1,1" # Here is an APN must be specified. # Vodafone Italy "OK" 'AT+CGDCONT=1,"IP", "internet" ' # Swisscom #"OK" 'AT+CGDCONT=1,"IP", "gprs.swisscom.ch" ' # Attach to the GPRS service. Strictly, we don't need this step, # as AT+CGDATA will do it for us, but doing it explicitly makes it # a little easier to debug. OK 'AT+CGATT=1' SAY "\n + attaching to GPRS" # Enter data state # Teltonika ModemCOM/G10 doesn't do the CGDATA command, use the magic number instead "OK" "ATDT*99#" TIMEOUT 30 CONNECT # wait for the login prompt and send a username ": " "" # wait for the colon and send a password ": " ""</pre> <p> Save it after changing and make sure to "eject" the CF card on the PC, instead of just plug out of the card reader.</p> <p> May check also GMS-xx manual chapter 8.8.2ff</p>

<ul style="list-style-type: none"> • Make sure the server and port settings are correct (Address and number depends on your IT network) • Make sure PPP Link is used to connect 	<p>Select <A>...<R>. <Esc> back to Main Menu Communication j J</p> <p>Main Menu Communication Server</p> <p>A) Server IP Address 84.253.42.164</p> <p>B) Protocol Custom</p> <p>C) Port 3456 (0x3A99)</p> <p>H) Transfer timeout, sec 20 (0x14)</p> <p>I) Network triggers No</p> <p>J) Connect through PPP link Yes</p> <p>K) Use PPP only if main link fails No</p> <p>L) Preferable PPP link type External GPRS modem</p> <p>M) Number of failures to give up 3 (0x03)</p> <p>N) Try alternate PPP link on failure ... No</p> <p>O) Startup time for analog modem 2 (0x02)</p> <p>P) Startup time for GPRS modem 60 (0x14)</p> <p>Q) Connect time for analog modem 30 (0x1E)</p> <p>R) Connect time for GPRS modem 60 (0x05)</p>
<ul style="list-style-type: none"> • Use ttyS02 to connect (not needed anymore from FW version 20.02.05 and higher) 	<p>Main Menu Triggerset</p> <p>A) Triggerset name Trigger1</p> <p>B) Event recording Yes</p> <p>C) Record on network triggers only No</p> <p>D) Alarm activation No</p> <p>E) SMS Alarm Yes</p> <p>F) SMS Alarm Configuration -></p> <p>G) Pre-Event, seconds 5 (0x05)</p> <p>H) Post-Event, seconds 10 (0x0A)</p> <p>I) Trigger time frame, sec 3 (0x03)</p> <p>J) Max. event duration, sec 60 (0x3C)</p> <p>K) Monitored channels 3</p> <p>L) Trigger settings -></p> <p>M) Stored channels 3</p> <p>N) List of stored channels -></p> <p>O) Be a source of network triggers (received from LAN) ... No</p> <p>P) Activate on network triggers (received from LAN) No</p> <p>Q) Be a source of network triggers (Interconnection) No</p> <p>R) Activate on network triggers (Interconnection) No</p> <p>S) Event processing None</p> <p>Select <A>...<C>. <Esc> back to Main Menu Triggerset</p> <p>→ Main Menu Triggerset SMS Alarm Config</p> <p>A) Serial Port of Modem ... ttyS02</p>

	<p>B) Number of Recipients ... 1 C) Recipient -></p>
<p>1.4. No SMS message sent</p>	
<ul style="list-style-type: none"> • Check point 1.1 -1.3 	
<ul style="list-style-type: none"> • Make sure a mobile number has been set • Make sure to use the correct format 	<p>Main Menu TriggerSet SMS Alarm Config</p> <p>A) Serial Port of Modem ... ttyS02 B) Number of Recipients ... 1 C) Recipient -></p> <p>C</p> <p>Main Menu TriggerSet SMS Alarm Config SMS Recipient Config</p> <p>A) Recipient ... 0791112233</p>
<p>1.5. Server / GeoDAS</p>	
<ul style="list-style-type: none"> • Make sure the incoming port is forwarded to the PC where GeoDAS is running 	<p>Adjust the router settings if needed or check with your IT administrator</p>
<ul style="list-style-type: none"> • Make sure the proper IP address and port is set in GeoDAS 	<p>Under “Settings > Configure Stations > Server” set the correct address and port</p> 
	<p>Fig. 3 GeoDAS settings</p>