

GS8 Modular Gateway Connecting to the SE Family IP PBX

Application note, 96-90000-00, July 2008

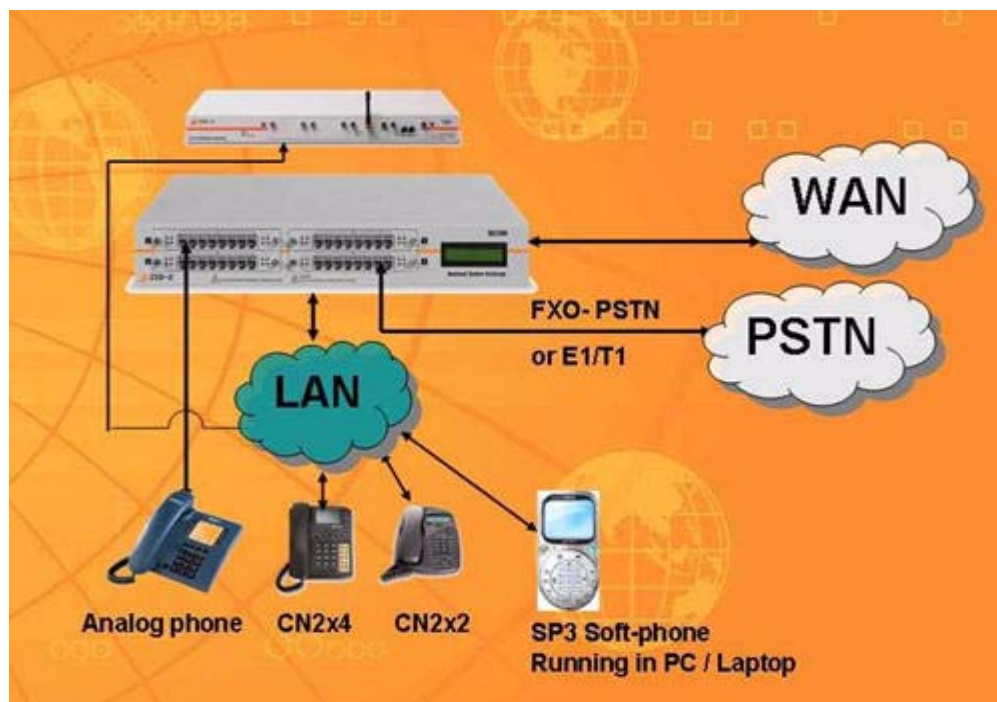
This document is an application note for connecting the GS8 modular gateway with Zed-3 SE family IP PBX.

1 Assumptions

We have an IP network to which a Zed-3 SE family IP PBX, several SIP telephones and a GS8 modular gateway, The connection instructions assume the following information.

- The Zed-3 SE family IP PBX, assume IP address is 192.168.10.254
- GSM Modular Gateway configure IP address in same subnet let say 192.168.10.240
- GSM module to use SIM card

The typical connection diagram shown in the below diagram:



2 Configuring the GS8 to work with Zed-3 SE family IP PBX

2.1 Logging In GS8

1. Connect your PC with GS8 with an straight Ethernet cable
2. Launch a web browser, Enter Default IP address of GS8 in side browser http://192.168.0.100
3. Enter user name and password in login window, Default user name and password id admin.

2.2 Configuring GS8 IP address

1. Select **Administration** menu| **Network settings**
 - Enter the IP address 192.168.10.240 (As per your network)
 - Subnet Mask 255.255.255.0 (As per your network)
 - Gateway: 192.168.10.1 (As per your network)
 - DNS: 125.22.47.125 (As per your network)
2. After entering all parameters click on **SET**.

The screenshot displays the Administration menu with the following tabs: Monitor, Line Settings, Call Settings, SMS, Administration (selected), and Maintenance. The main content area is titled 'Network Setting' and includes a sidebar with 'Common Tasks' (Change Password, Network Setting, Time Setting) and a timestamp '2008-07-22 16:51'. The configuration fields are as follows:

Field	Value
Work Mode	Static
IP Address	192.168.10.240
Net Mask	255.255.255.0
Default Gateway	192.168.10.1
Primary DNS	125.22.47.125
Secondary DNS	
Host Name	
VLAN	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled

A 'Set' button is located at the bottom of the configuration area.

2.3 Line Settings

Configuring the parameters to instruct GS8 Where to send the invite packet during a GSM-VoIP incoming call. And configuring the parameters to instruct GS8 from which IP address the GS8 may receive SIP packets.

1. Click on **Line settings | IP Line:**

- **Description:** To SE
- **Register:** Disable
- **Proxy :** SE IP PBX IP address 192.168.10.240
- **Phone Number:** Enter any virtual number
- **User name:** Enter any name
- **Password:** Select some digits
- **Outbound:** Keep it blank
- **Home Domain:** Keep it blank or you can enter SE IP address
- **MAX Connections:** 4
- **Enable AA:** Disable
- **Enable Port Forwarding:** Disable

2. Click on ADD.

The screenshot displays the 'Line Settings' tab in the ZED-3 interface. At the top, there are navigation tabs: Monitor, Line Settings (selected), Call Settings, SMS, Administration, and Maintenance. Below these is a table with columns: ID, Description, Register, Proxy, and AA. A single entry is shown with ID '1', Description 'SE150', Register 'Disable', Proxy '192.168.10.254', and AA 'Disable'. On the left, there is a sidebar with 'Common Tasks' and links for 'IP Line', 'GSM Line', and 'FXO Line'. Below the table, the 'IP Setting' form is visible, containing fields for Description (SE150), Register (Disable), Proxy (192.168.10.254), Phone Number (1234), Username (1234), Password (1234), Outbound (empty), Home Domain (192.168.10.254), Max Connections (10), Enable AA (radio buttons for Enable and Disable, with Disable selected), and Enable Port Forwarding (radio buttons for Enable and Disable, with Disable selected). At the bottom of the form are 'Add', 'Modify', and 'Remove' buttons.

ID	Description	Register	Proxy	AA
1	SE150	Disable	192.168.10.254	Disable

IP Setting

Description: SE150
Register: Disable
Proxy: 192.168.10.254
Phone Number: 1234
Username: 1234
Password: 1234
Outbound:
Home Domain: 192.168.10.254
Max Connections: 10
Enable AA: Enable Disable
Enable Port Forwarding: Enable Disable

Add Modify Remove

3. Click on GSM Line
 - **Phone Number:** Same SIM card number
 - **Enable AA:** Don't check this BOX, If you check this BOX GS8 AA will enabled
Recommended: Don't Check this box

Monitor	Line Settings	Call Settings	SMS	Administration	Maintenance
2008-07-22 17:09					
Common Tasks IP Line GSM Line FXO Line					
		ID	Phone Number	AA	
		slot1	9986794610	Disable	
		Phone Number	<input type="text" value="9986794610"/>		
		Enable AA	<input type="checkbox"/>		
		<input type="button" value="Modify"/>			

2.4 Routing Settings

Setting Routing in GS8 to instruct GS8 to send IP Incoming Call on GSM slot and GSM incoming call on IP PBX device.

1. From the **Call setting** menu | Click on **Route**

Enter the routing table. The following parameters have to configured to route GSM call on SE IP PBX And SE IP PBX call on GSM

- **Description:** GSM To SE
- **Source Line:** Check GSM slot on which you have inserted GSM module
- **Caller pattern:** leave it blank (Blank means all)
- **Callee pattern:** leave it blank (Blank means all)
- **Schedule:** Null (You can program if required)
- **Destination Line:** Check IP 1 Box

2. After entering all parameters, Click on **ADD**.

Monitor	Line Settings	Call Settings	SMS	Administration	Maintenance
2008-07-22 17:16					
Common Tasks					
Route					
Alter					
Filter					
Schedule					
System					
Description	Source	Destination	Caller Pattern	Callee Pattern	Schedule
GSM to IP	GSM/slot1	IP/1	ALL	ALL	NULL
IP to GSM	IP/1	GSM/slot1	ALL	ALL	NULL

Description	<input type="text" value="GSM to IP"/>
Source Line	GSM <input type="checkbox"/> ALL <input checked="" type="checkbox"/> slot1
	IP <input type="checkbox"/> ALL <input type="checkbox"/> 1
Caller Pattern	<input type="text"/>
Callee Pattern	<input type="text"/>
Schedule	<input type="text" value="NULL"/>
	GSM <input type="checkbox"/> ALL <input type="checkbox"/> slot1
Destination Line	IP <input type="checkbox"/> ALL <input checked="" type="checkbox"/> 1
	<input type="text" value="IP/1"/>

3. Add another Route SE IP PBX to GSM

- **Description:** SE to GSM
- **Source Line:** Check IP 1 BOX
- **Caller pattern:** Leave it Blank (Blank Means All)
- **Callee pattern:** Leave it blank (Blank Means All)
- **Schedule:** Null (You can program if required)
- **Destination Line:** Check GSM slot on which you have inserted GSM module

4. After entering all parameters, Click on ADD.

Monitor	Line Settings	Call Settings	SMS	Administration	Maintenance																		
2008-07-22 17:16																							
<table border="1"> <thead> <tr> <th>Description</th> <th>Source</th> <th>Destination</th> <th>Caller Pattern</th> <th>Callee Pattern</th> <th>Schedule</th> </tr> </thead> <tbody> <tr> <td>GSM to IP</td> <td>GSM/slot1</td> <td>IP/1</td> <td>ALL</td> <td>ALL</td> <td>NULL</td> </tr> <tr> <td>IP to GSM</td> <td>IP/1</td> <td>GSM/slot1</td> <td>ALL</td> <td>ALL</td> <td>NULL</td> </tr> </tbody> </table>						Description	Source	Destination	Caller Pattern	Callee Pattern	Schedule	GSM to IP	GSM/slot1	IP/1	ALL	ALL	NULL	IP to GSM	IP/1	GSM/slot1	ALL	ALL	NULL
Description	Source	Destination	Caller Pattern	Callee Pattern	Schedule																		
GSM to IP	GSM/slot1	IP/1	ALL	ALL	NULL																		
IP to GSM	IP/1	GSM/slot1	ALL	ALL	NULL																		
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Common Tasks</p> <ul style="list-style-type: none"> Route Alter Filter Schedule System </div> <div style="width: 85%;"> <p>Description: <input type="text" value="IP to GSM"/></p> <p>Source Line: GSM <input type="checkbox"/> ALL <input type="checkbox"/> slot1 IP <input type="checkbox"/> ALL <input checked="" type="checkbox"/> 1</p> <p>Caller Pattern: <input type="text"/></p> <p>Callee Pattern: <input type="text"/></p> <p>Schedule: <input type="text" value="NULL"/> ▼</p> <p>Destination Line: GSM <input type="checkbox"/> ALL <input checked="" type="checkbox"/> slot1 IP <input type="checkbox"/> ALL <input type="checkbox"/> 1</p> <p><input type="text" value="GSM/slot1"/></p> </div> </div>																							
<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Remove"/> <input type="button" value="Move Down"/> <input type="button" value="Move Up"/>																							

3 SE family IP PBX Configuration

Now we have to configure below parameters in SE family IP PBX to communicate with GS8 modular gateway. You have logged in SE family IP PBX to configure:

- Trunk
- Route

3.1 Trunk

- **Trunk ID:** Give one number in my Test case 43
- **Type:** IP
- **Numbering plan Name:** Not Use numbering plan
- **Max Concurrent Call:** 4
- **Description:** GS8
- **Phone Number:** Give one virtual number 1234
- **Proxy Address:** Enter IP address of GS8 192.168.1.240
- **Register Address:** Enter IP address of GS8 192.168.1.240
 - **Auth Required:** Keep the BOX unchecked
 - **Auth ID:** Live it Blank

- **Auth Passwd:** Live it Blank
 - **Registration Expiry (Sec):** 0
 - **Outbound Proxy Address:** Live it Blank
 - **Second Numbers:** Live it Blank
 - **Dial-in-Routing:** Route By request URI
 - **Direct Media:** Check Disabled box
 - Force to use local IP address In SIP/SDP: Don't check this BOX
- After entering all parameters, Click on ADD.

Trunk ID	Trunk Type	Numbering Plan
43	IP	

Trunk ID: 43
Type: IP
Numbering Plan Name: Not Use Numbering Plan
Max Concurrent Call: 10
Description: GS8
Phone Number: 1234
Proxy Address: 192.168.10.240:5060
Register Address: 192.168.10.240:5060 Auth Required
Registration Expiry (sec): 0
Outbound Proxy Address:
Second Numbers:
Dial-in Routing: Route by Request-URI
Direct Media: Enabled Disabled
Force to use local ip address in SIP/SDP:

Add Modify Remove

3.2 Route

Under route you have to configure following parameters to send outgoing call on GS8, to configure Route click on **Provision | Route**.

- **Sub Group ID:** Leave it Default one until you have not configure subscriber group inside SE family IP PBX
- **Digit pattern:** Enter the dialling digit pattern used by this route. Note:- the pattern is comprised of digits, N(2~9), Z(1~9), X(0~9) and + (any number of digits with following number) For Example 9 is a code to make call VIS GS8 then digit pattern will be 9+
- **Description:**GS8
- **Trunk List:** Select Trunk IDs to add to the "Used" field. Select trunk 43 as we configured 43 for GS8
- **Digit Translation:**
 - **Strip:** The number starting from the left stripped off from the dialled number, example: Suppose you entered "1" in this field and you dialled "9-99-161-00777". The dialled number will get translated in "99-161-00777"
 - **Prepend:** The number to add in front of the dialled number, (e.g.: Suppose you entered "9" for this field, and you dialled number "9-161-00777". The number will get translated into "99-161-00777")
 - **Append:** Here you can add number after the dialled number

Click on ADD.

Sub Group ID	Digit Pattern	Description	Trunk List
1	9+	GS8	43

Sub Group ID: 1 (default subscriber group)

Digit Pattern: 9+

Description: GS8

Trunk List: Unused [9, 10, 11, 12] Used [43]

Digit Translation: Strip 1 Prepend Append

Buttons: Add, Modify, Remove, Move UP, Move DOWN, Schedule Routing

SE family IP PBX is ready to make and receive call from GS8 modular gateway, Make few GSM call to verify the connectivity.

If you face any problem to configuring this please send a mail to Support@zed-3.com.