DWG2008 Using With FreeSwitch

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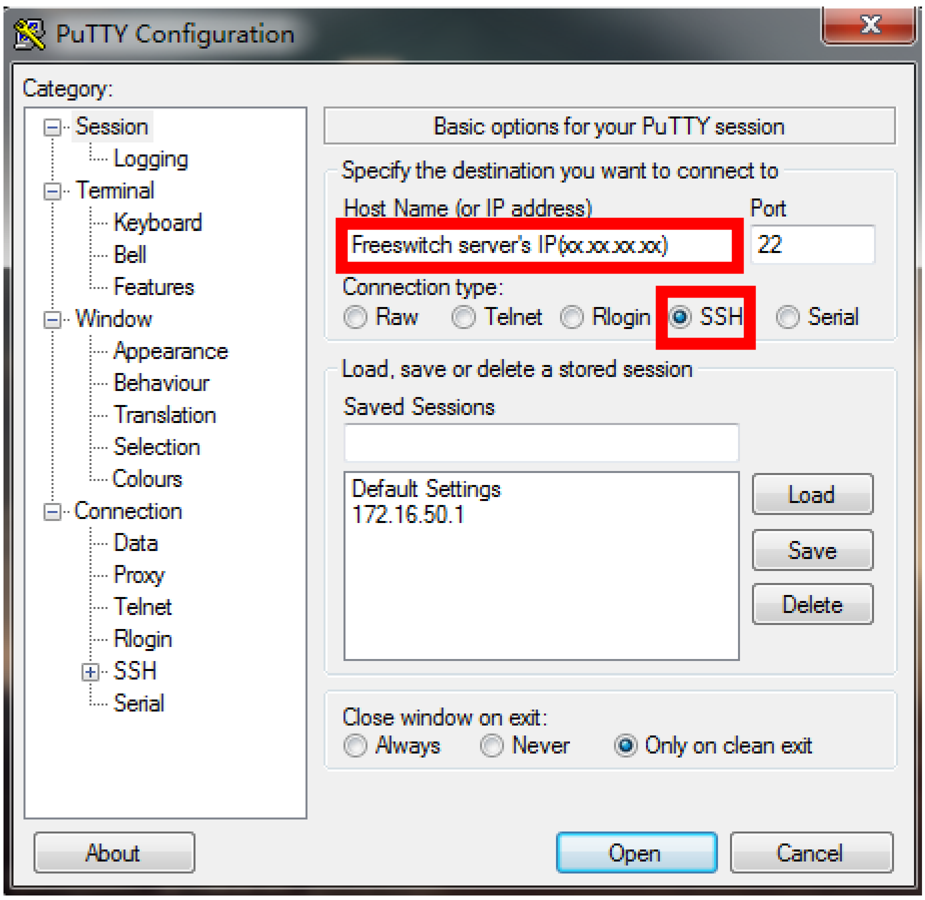
1. User SSH to login to the FreeSwitch server, here we use putty, enter your server's IP address, chose SSH:



2. Enter the directory the freeswitch's default configuration directory, add the gateway's configuration in /usr/local/freeswitch/conf/directory/default/, Because the DWG2008's gsm ports will receive the incoming call which send to freeswitch with sip protocol, so the DWG2008's gsm port should register to the freeswitch. Here i just config one gsm ports of DWG2008, if you have more gsm ports which insert the sim card, please add other sip users.

   vi /usr/local/freeswitch/conf/directory/default/dag-fxo.xml

   add those in this file:

```
<include>
  <user id="dwg2008">
    <params>
      <param name="password" value="$${default_password}"/>
      <param name="vm-password" value="9999"/><!--if vm-password is omitted
password param is used-->
    </params>
    <variables>
      <!--all variables here will be set on all inbound calls that originate from this user -->
      <variable name="user_context" value="public"/>
      <variable name="effective_caller_id_name" value=" dwg2008"/>
      <variable name="effective_caller_id_number" value="2008"/>
      <!-- Don't write a CDR if this is false valid values are: true, false, a_leg and b_leg -->
      <variable name="process_cdr" value="true"/>
    </variables>
  </user>
</include>
```

Note: the default_password is “1234”, default in freeswitch, of course you can change it to any number you want.

3. Edit the outband dialplan in /usr/local/freeswitch/conf/dialplan/default.xml

   vi /usr/local/freeswitch/conf/dialplan/default.xml

   here we set number’s prefix which you want to send to the gateway is “0”, add one extension:

```
<extension name="dwg2008_gateway">
    <condition field="destination_number" expression="^0(\d+)$">
       <action application="answer"/>
       <action application="set" data="ringback=${us-ring}"/>
       <action application="bridge" data="sofia/internal/$1@Gateway’s IP"/>
    </condition>
  </extension>
```

   Please note the red line, the IP address is your gateway’s IP.

4. Edit the outband dialplan in /usr/local/freeswitch/conf/dialplan/public/00_inbound_did.xml. Modify this file:

```
<include>
  <extension name="public_did">
    <condition field="destination_number" expression="^(900)$">
      <action application="set" data="domain_name=$${domain}"/>
```

```
            <action application="transfer" data="1000 XML default"/>
        </condition>
    </extension>
</include>
```

This configuration match the DID "900", when there is a incoming call, ring the extension 1000.

5. Press "F6" in freeswitch's console to refresh configuration:

```
freeswitch@debian> 2011-05-31 19:17:56.635307 [INFO] mod_enum.c:808 ENUM Reloaded
2011-05-31 19:17:56.638435 [INFO] switch_time.c:915 Timezone reloaded 530 definitions
```

6. Now we have finished the configuration of the freeswitch, let's config the DWG2008, first enter the IP address of the DWG2008 in the browser, the default username and password is the same: "admin".

Mobile Information

Port	Type	IMSI	Status	Remaining Call Duration(min)	Carrier	Signal Quality	ASR(%)	ACD(s)	PDD(s)	Call Status
0	GSM	460029197588834	Mobile Registered	No Limit	CHINA MOBILE		0	0	0	Active
1	GSM		No SIM Card	No Limit			0	0	0	Idle
2	GSM		No SIM Card	No Limit			0	0	0	Idle
3	GSM		No SIM Card	No Limit			0	0	0	Idle
4	GSM		No SIM Card	No Limit			0	0	0	Idle
5	GSM		No SIM Card	No Limit			0	0	0	Idle
6	GSM		No SIM Card	No Limit			0	0	0	Idle
7	GSM		No SIM Card	No Limit			0	0	0	Idle

SIP Information

Port	SIP User ID	Register Status	Status	Port	SIP User ID	Register Status	Status
0	dwg2008	Registered	offhook	1		Unregistered	onhook
2		Unregistered	onhook	3		Unregistered	onhook
4		Unregistered	onhook	5		Unregistered	onhook
6		Unregistered	onhook	7		Unregistered	onhook

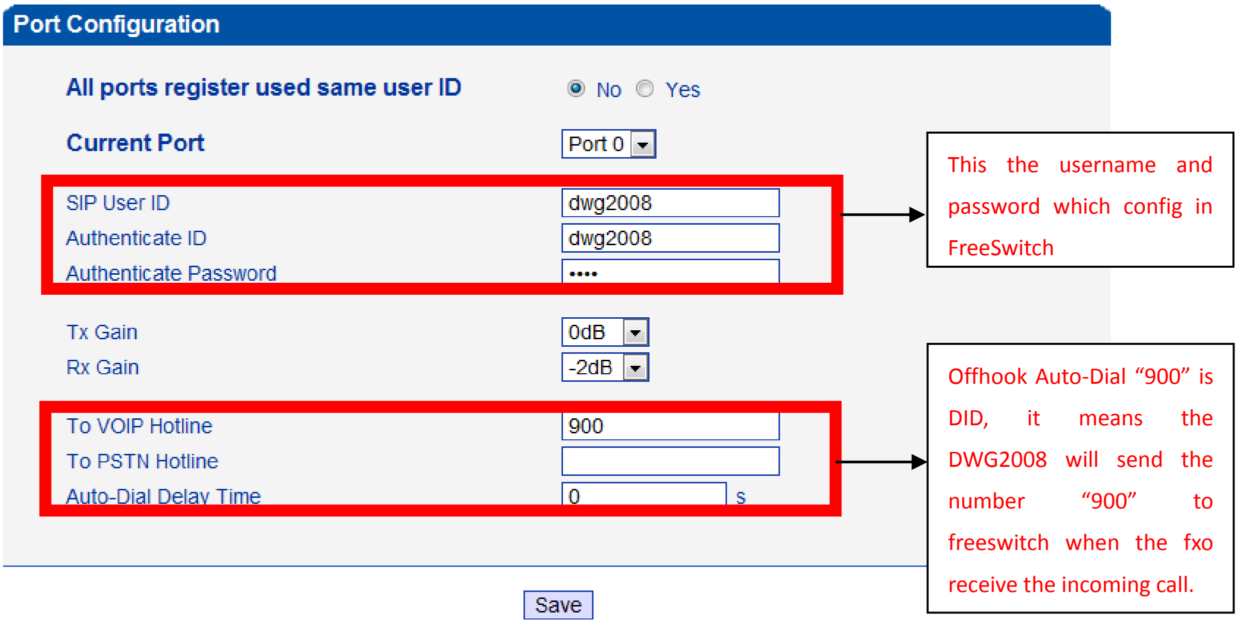
7. Chose the "SIP config" option under the "System Parameter", then modify like below:

SIP Configuration

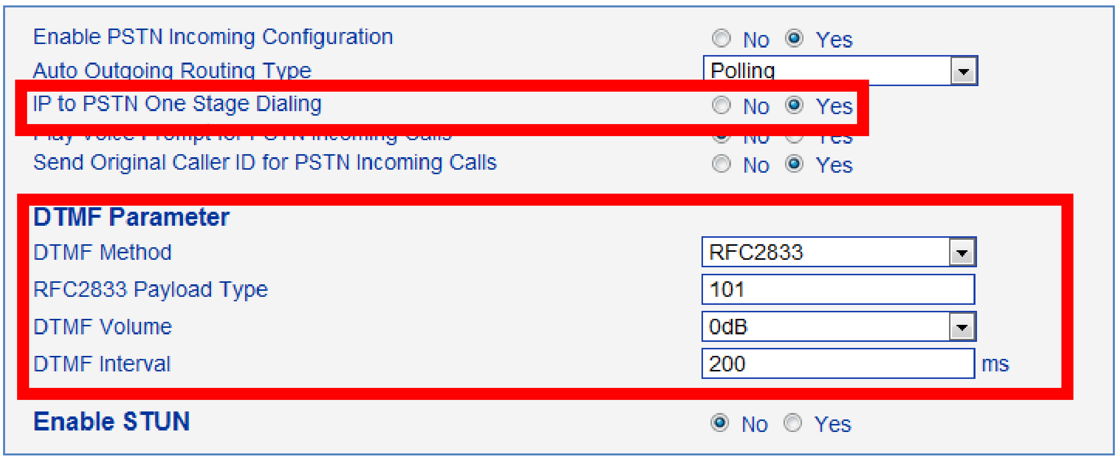
SIP Proxy		
SIP Server Address	freeswitch's IP	
SIP Server Port(default: 5060)	5060	
Outbound Proxy		
Outbound Proxy Address		
Outbound Proxy Port	5060	
Use Random Port	(•) No ( ) Yes	
Local SIP Port	5060	
Is Register	( ) No (•) Yes	
Register Interval(range: 1 - 3600s)	1800	s
T1	500	ms
T2	4000	ms
T4	5000	ms
TMAX	32000	ms
Keepalive Interval(range:0 - 3600s,0 means disable)	10	s
Enable 100rel	(•) No ( ) Yes	
Refer to Use Target Contact	(•) No ( ) Yes	

Then click the “save” option to save this page.

8. Chose the “Port Config” option to config the fxo port, I just have one analog pstn line which insert to the port0, so the configuration should like this:

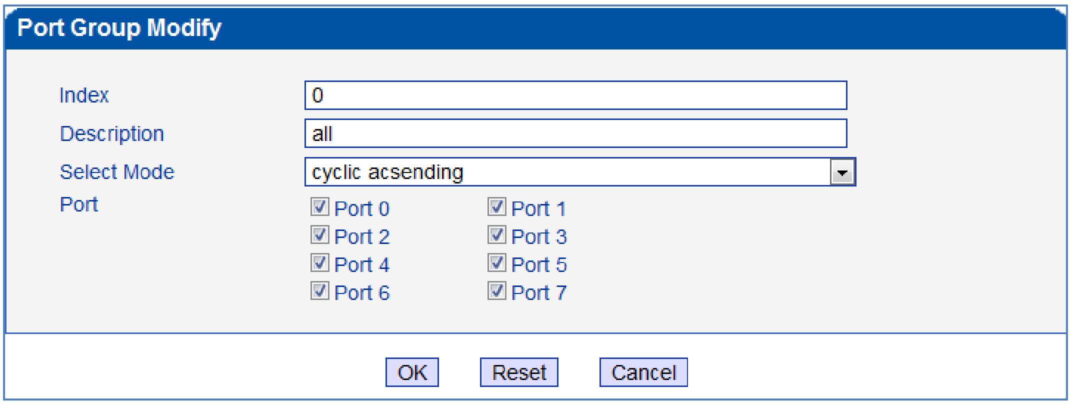


9. Chose the “Service Config” option to modify the last step:



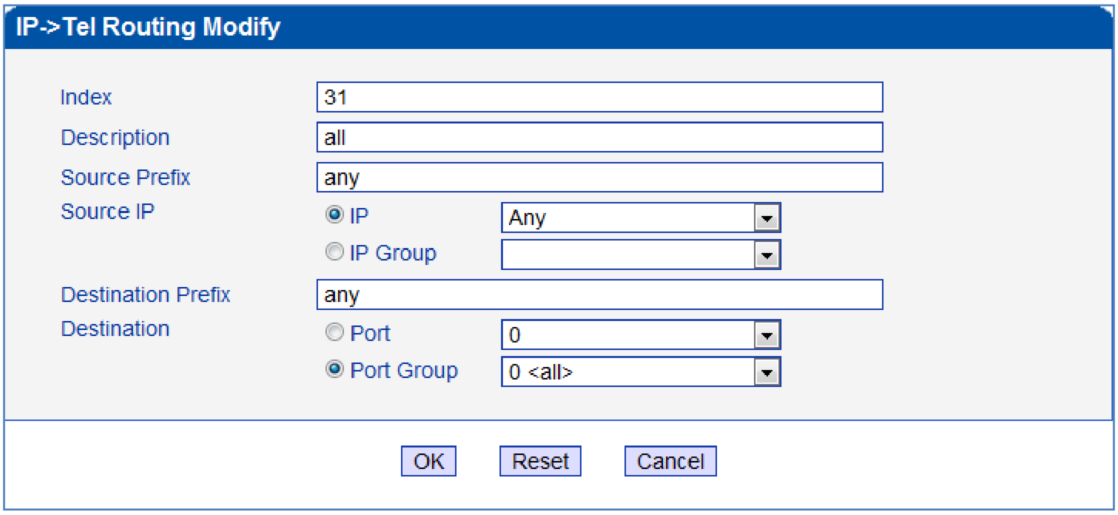
Then save the webpage.

10. Chose “Port Group” option under the “Port Group Configuration”, add a gsm port group:

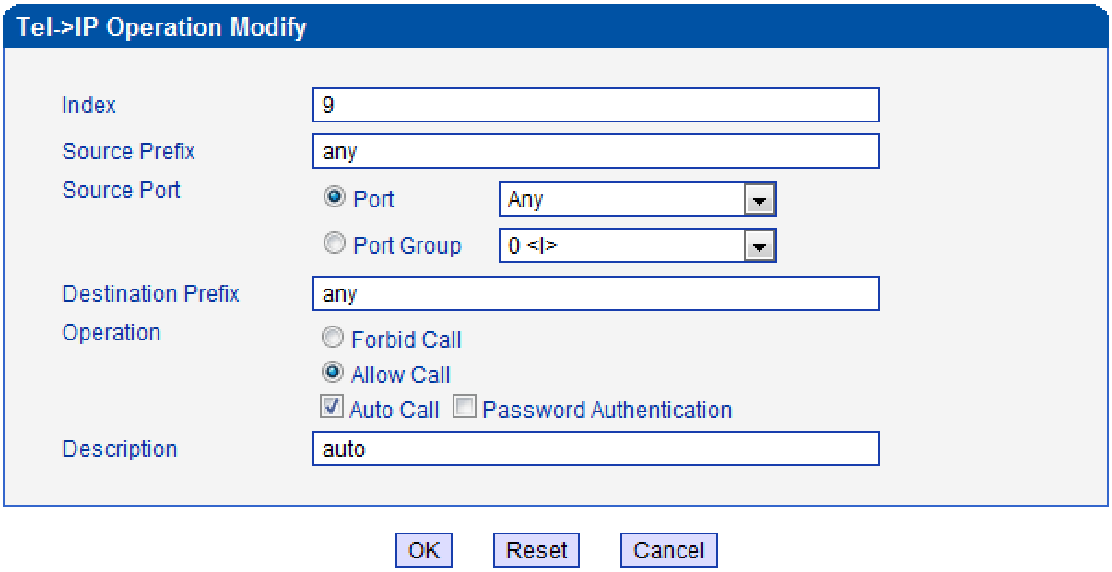


Then click “OK”.

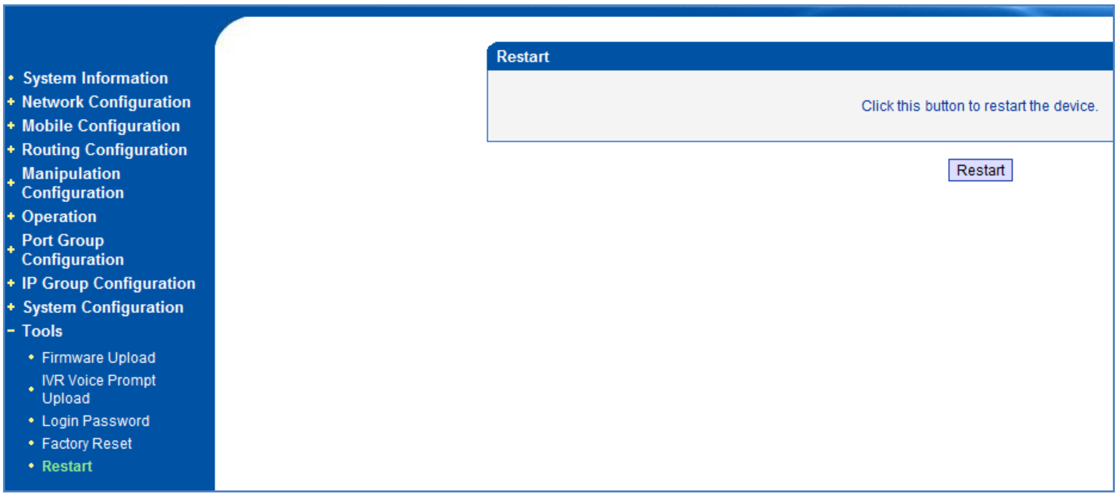
11. Chose “IP->Tel Routing” option under the “Routing Configuration”, add a routing group:



12. Chose “Tel->IP Operation” under “Operation”, Add one:



13. The last step is to restart the DWG2008, chose the “Restart” option under “Tools”, click the Restart.



Wait just one minute. Then use the sip phone which register with freeswitch to call out.

14. Use command “sofia status profile internal” in freeswitch console to check whether the gateway register to freeswitch:

```
Call-ID:         07129518405fe410cbfb86aba03b263f@172.16.50.3
User:            dwg2008@172.16.50.19
Contact:         "user" <sip:dwg2008@172.16.50.3>
Agent:           dunno
Status:          Registered(UDP)(unknown) EXP(2011-05-31 23:08:34)
Host:            debian
IP:              172.16.50.3
Port:            5060
Auth-User:       dwg2008
Auth-Realm:      172.16.50.19
MWI-Account:     dwg2008@172.16.50.19
```

15. Use command “show calls” to show the call status:

```
freeswitch@debian> show calls

call_created,call_created_epoch,function,caller_cid_name,caller_cid_num,caller_dest_num,caller_chan_name,caller_uuid,callee_cid_name,callee_cid_num,callee_dest_num,cal
lee_chan_name,callee_uuid,hostname
2011-05-31 22:15:27,1306851327,switch_ivr_multi_threaded_bridge,1234,1234,010010,sofia/internal/1234@172.16.50.19,6cd5c04a-8b90-11e0-b6fa-6f81408a8e6c,Extension 1234,1
234,10010,sofia/internal/10010@172.16.50.3,6ce99c96-8b90-11e0-b6fb-6f81408a8e6c,debian

1 total.
```