# SIP和PSTN互通配置案例

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**VOIP与PSTN互通案例**

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**一、组网图：**

**二、网络描述：**

此案例为内蒙古民政厅一个测试需求，要实现的功能就是通过上面的组网图来把客户原有的PSTN电话和将来要上的VOIP电话相融合。

**三、实现步骤：**

　　首先要实现的是将IP电话通过SIP注册到XE2000服务器上，注册方法如下：

在配置IP话机的时候需要注意一点（以EP201为例），当从H323版本升级到SIP版本的时候，必须要把IP话机重新恢复一下默认值，否则EP201在注册到XE2000的时候，注册报文发的还是H323报文，导致EP201无法注册到XE2000上。

　　将VG10-40通过动态注册到XE2000上，并采用XE2000放号方式，使VG10-40下的模拟话机可以和EP201互通。XE2000放号配置如下：

```
gateway vga
  dynamic-ip enable
  device-type h323
  #
  subscriber #1 1000
```

现在EP201和VG10-40都可以注册到XE2000上，互通已经没有问题，客户需要所有和PSTN的通话在全网都走3108的出口，这个时候VG3108已经通过动态注册到了XE2000上，通过VG3108发布默认号码，在XE2000上通过做VG3108的号码路由可以解决这个问题。具体配置如下：

```
gateway vgk
  dynamic-ip enable
  device-type h323
  prefix 0...........
```

至此，本组网中PSTN电话和VOIP中的EP201，普通模拟话机通话效果良好。具体配置模板如下：

```
<XE>dis cur
#
 sysname XE
#
 FTP server enable
#
 local-user ftp password simple ftp
 local-user ftp level 3
#
interface Aux0
 async mode flow
#
interface GigabitEthernet0/0
 ip address 192.168.0.1 255.255.255.0
#
interface GigabitEthernet0/1
#
interface NULL0
#
user-interface con 0
user-interface aux 0
user-interface vty 0 4
 user privilege level 3
 set authentication password simple telnet
#
process-server
 ps-config gk interface GigabitEthernet0/0
 heartbeat password key0
 ls-mode 0 local
 start
#
 gatekeeper
```

```
 start
 #
 sip
 start
#
location-server
 #
 process-server gk
 heartbeat password key0
#
 gateway PHONE1
 ip-address 192.168.0.5
 #
 subscriber #1 6666
#
 gateway PHONE2
 ip-address 192.168.0.10
 #
 subscriber #1 8888
#
 gateway vga
 dynamic-ip enable
 device-type h323
#
 gateway vgk
 dynamic-ip enable
 device-type h323
 #
 prefix 0...........
 start
#
return
<XE>  telnet 192.168.0.50
Trying 192.168.0.50 ...
Press CTRL+K to abort
Connected to 192.168.0.50 ...
Username:telnet
Password:
User telnet logged in

[vg3108]
[vg3108]dis cur
 Now create configuration...
 Current configuration
 !
  version 1.80
  local-user telnet service-type administrator password simple telnet
  sysname vg3108
 !
 interface Ethernet0
  ip address 192.168.0.50 255.255.255.0
 !
 voice-setup
  !
  dial-program
   !
   entity 5000 pots
    match-template 0T
    line 0
    send-number all
   !
   entity 6000 voip
    match-template T
    address ras
```

```
        !
      gk-client
        gk-id gk gk-addr 192.168.0.1
        gw-address ip 192.168.0.50
        gw-id vgk
        ras-on
      !
      subscriber-line 0
        cid type simple
      !
      subscriber-line 1
      !
      subscriber-line 2
      !
      subscriber-line 3
      !
      quit
    !
    quit
    return
[vg3108] q

[vg3108]logout
The connection was closed by the remote host!
<XE>telnet 192.168.0.100
Trying 192.168.0.100 ...
Press CTRL+K to abort
Connected to 192.168.0.100 ...
Username:telnet
Password:
User telnet logged in

[vg1041]
[vg1041]dis cur
  Now create configuration...
  Current configuration
  !
    version 1.80
    local-user telnet service-type administrator password simple telnet
    sysname vg1041
  !
  interface Ethernet0
  !
  interface Ethernet1
    ip address 192.168.0.100 255.255.255.0
  !
  voice-setup
   !
   dial-program
     !
     entity 1000 pots
       match-template #1
       line 0
     !
     entity 2000 voip
       match-template T
       address ras
     !
     entity 3000 pots
       match-template 2000
       line 1
     !
     entity 4000 pots
       match-template 3000
```

```
      line 2
   !
   entity 5000 voip
      match-template 0471.......
 !
 gk-client
   gk-id gk gk-addr 192.168.0.1
   gw-address ip 192.168.0.100
   gw-id vga
   ras-on
 !
 subscriber-line 0
 !
 subscriber-line 1
 !
 subscriber-line 2
 !
 subscriber-line 3
  !
  quit
 !
quit
 !
return
```