

StorageWorks SAN Switch 调试

前面板



此交换机有两个 RJ-45 端口，其中左边的端口为串口。右边为网络端口，通过网线把此端口连接到上联的网络交换机上。

管理方式：超级终端、telnet 或 SSH、Web

- 超级终端：使用串口线连接到左边端口（上图左端口）。
- telnet 或 SSH：通过网络口 telnet 或 SSH 到 SAN 交换机（上图右端口）。
- Web：用浏览器连接该交换机。使用 IE 或者火狐浏览器，需要 JAVA 环境支持。

此交换机的网络端口默认地址为：10.77.77.77，用户名为 admin，密码为 password。

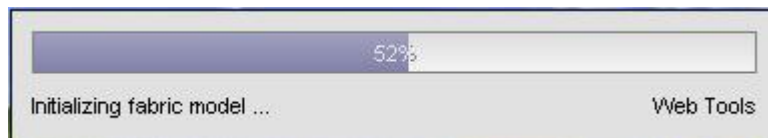
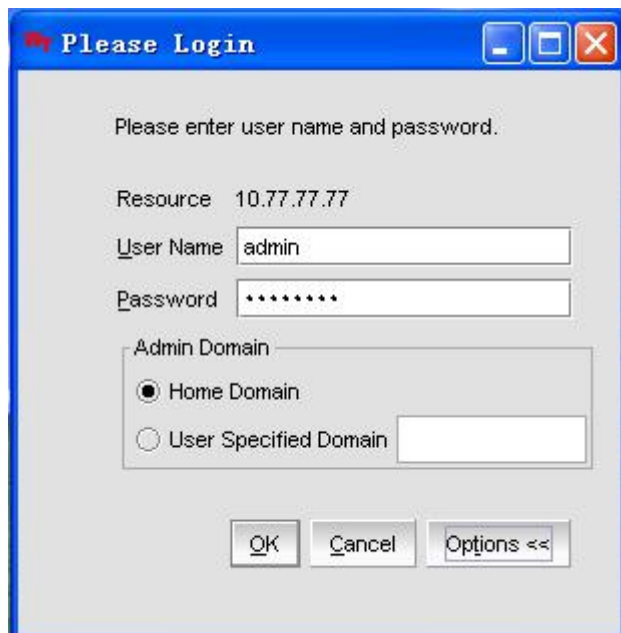
通过 Web 配置交换机：

使用浏览器输入 10.77.77.77 这个地址登陆交换机：

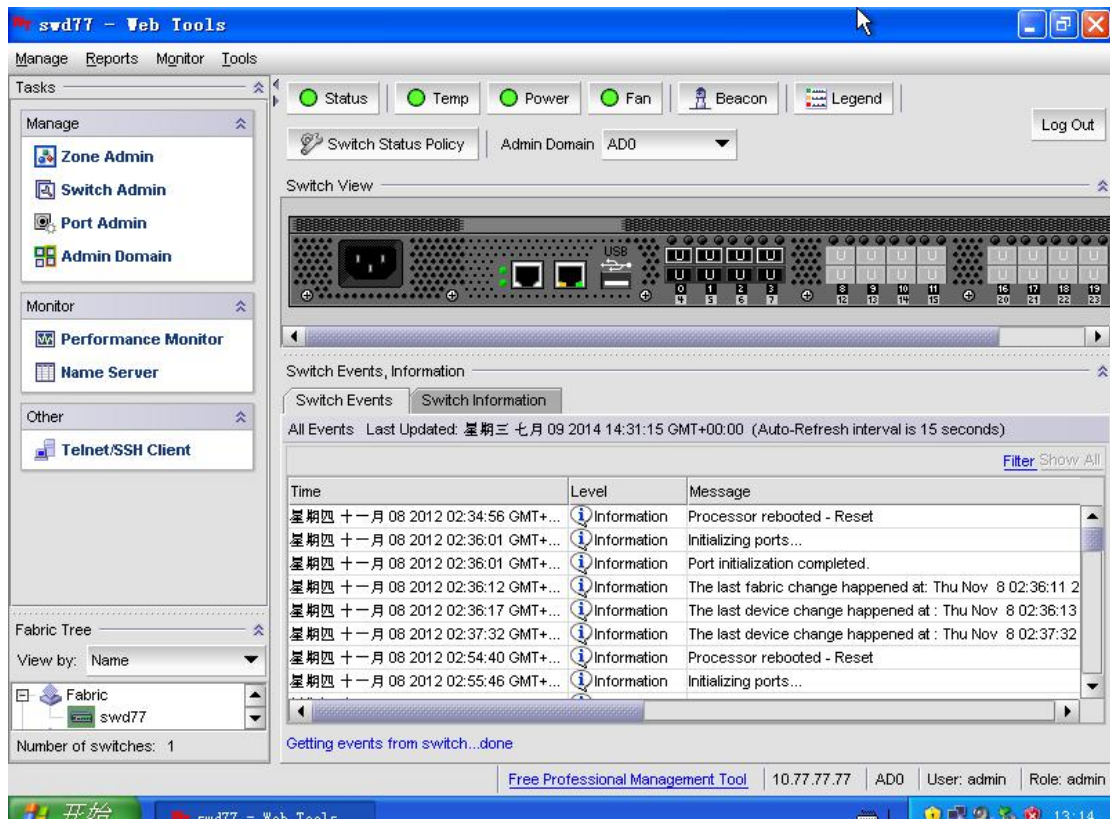




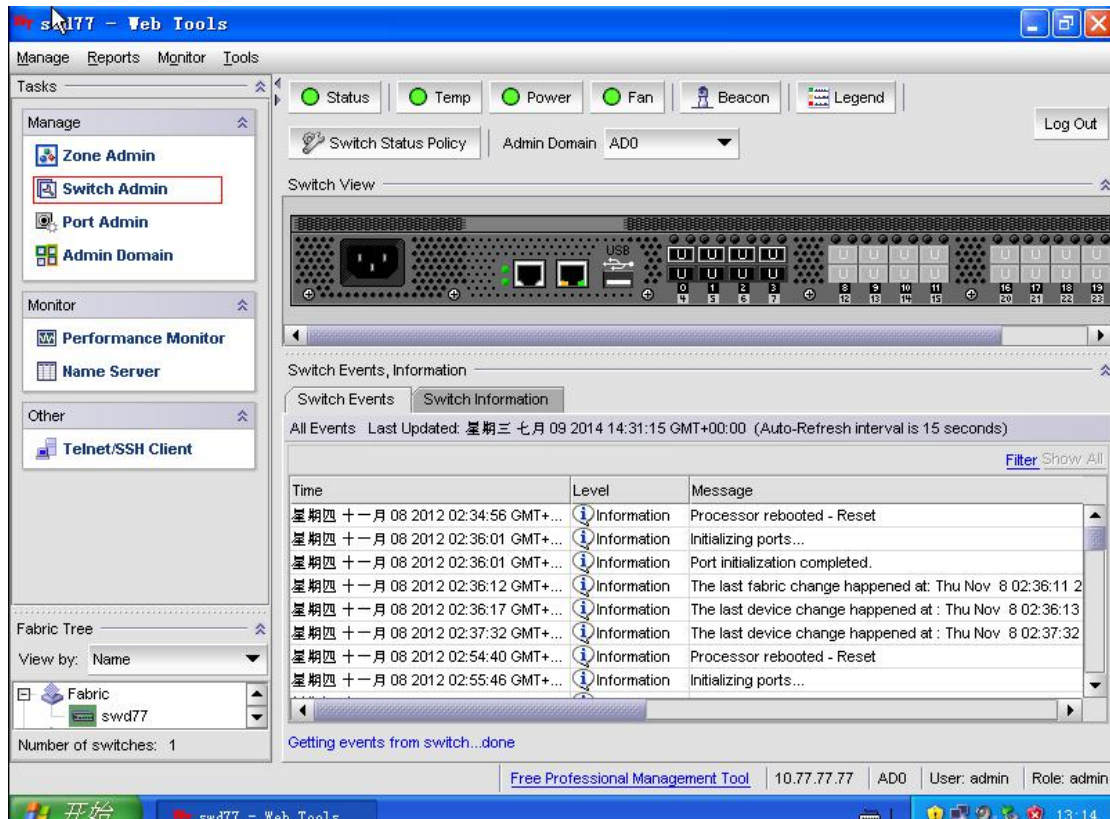
输入用户名密码:

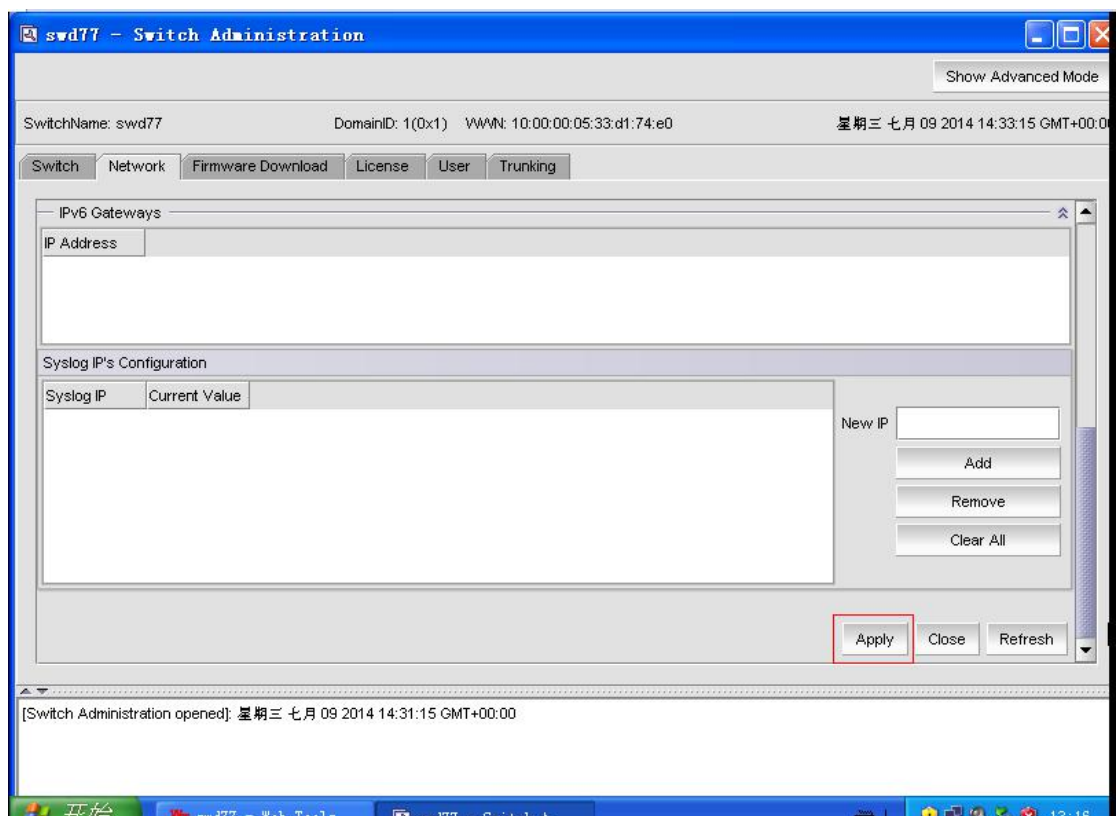
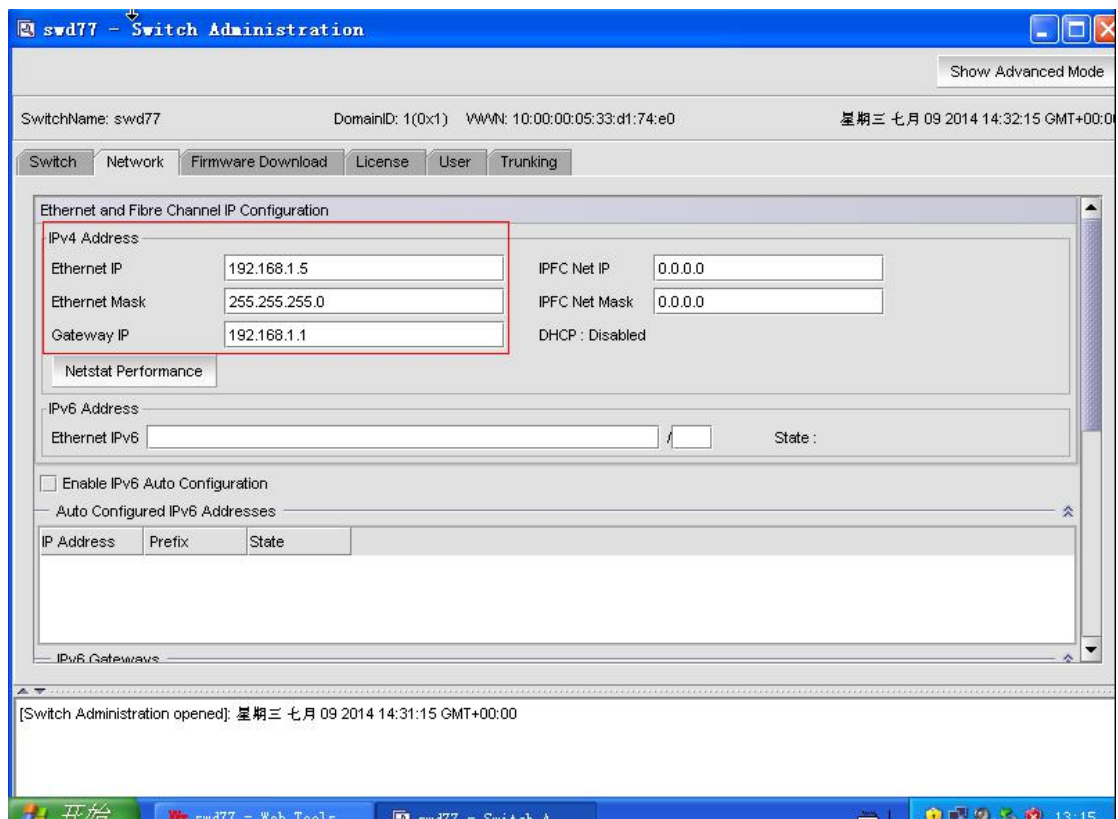


此图为刚登陆到管理界面的主页面, 在这里可以看到 SAN 交换机的一些健康状态:



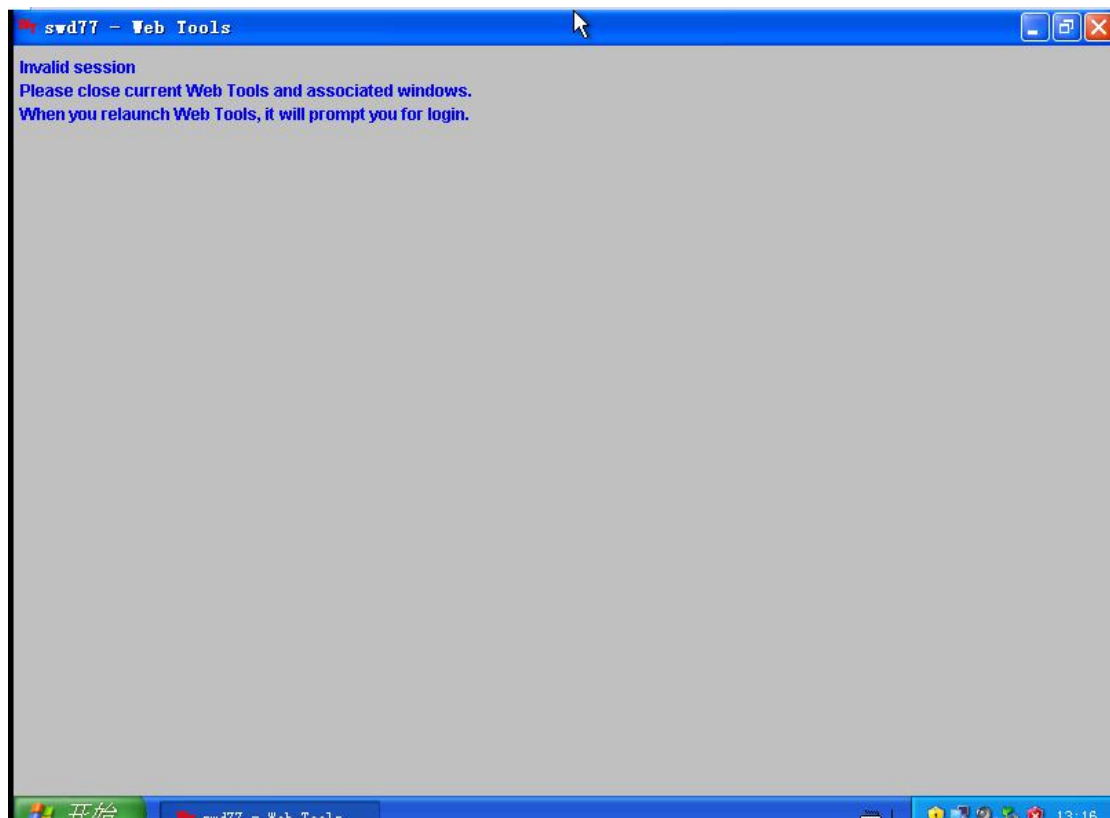
修改 SAN 交换机管理地址如下：



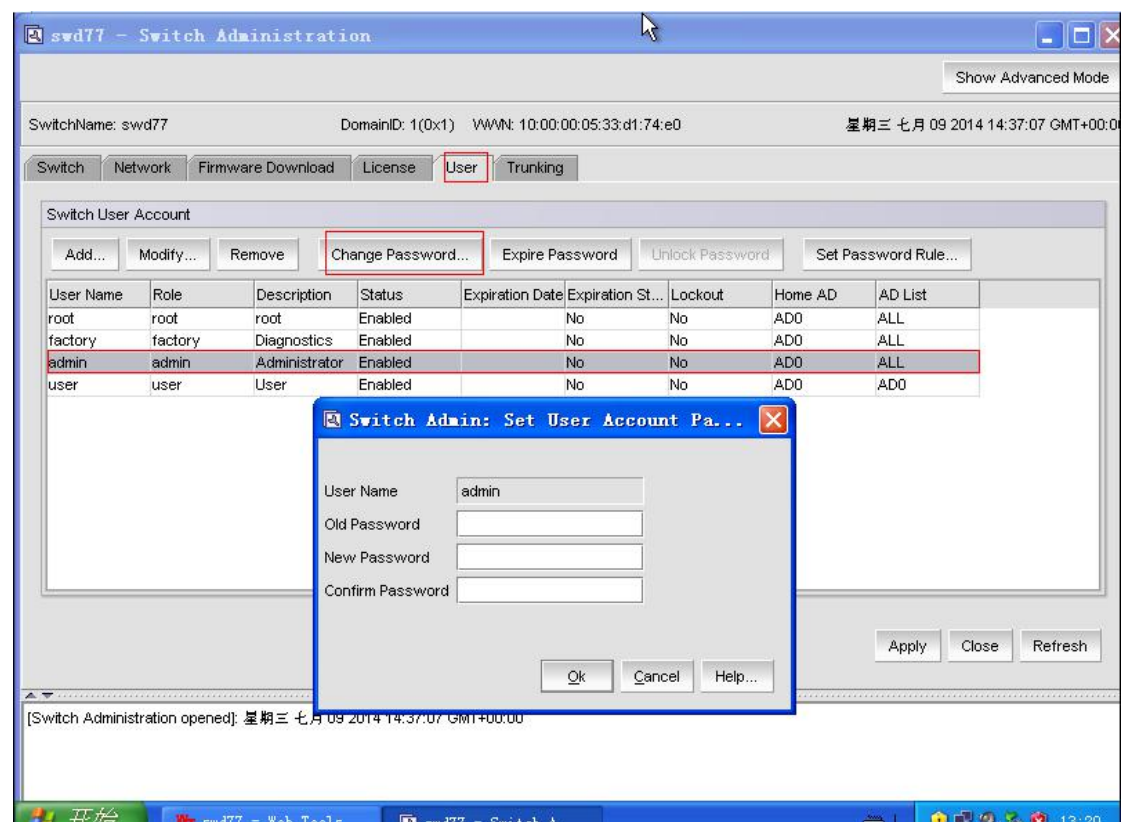
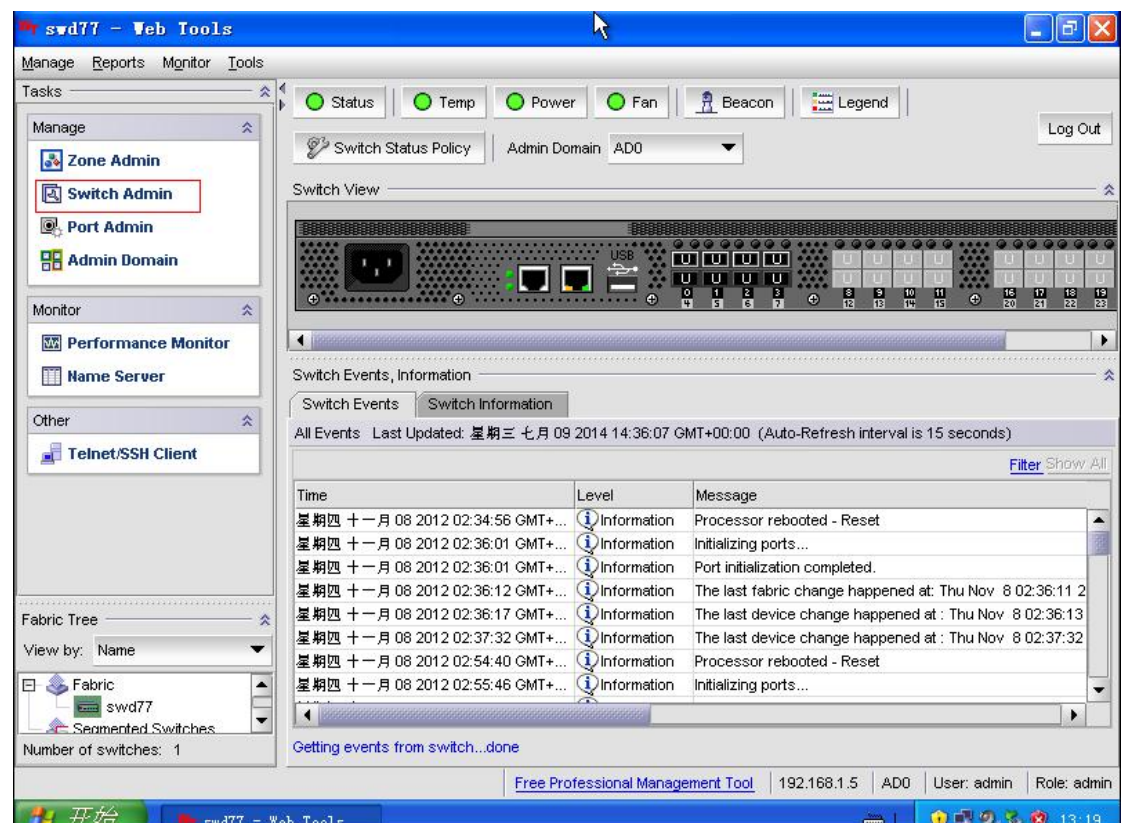


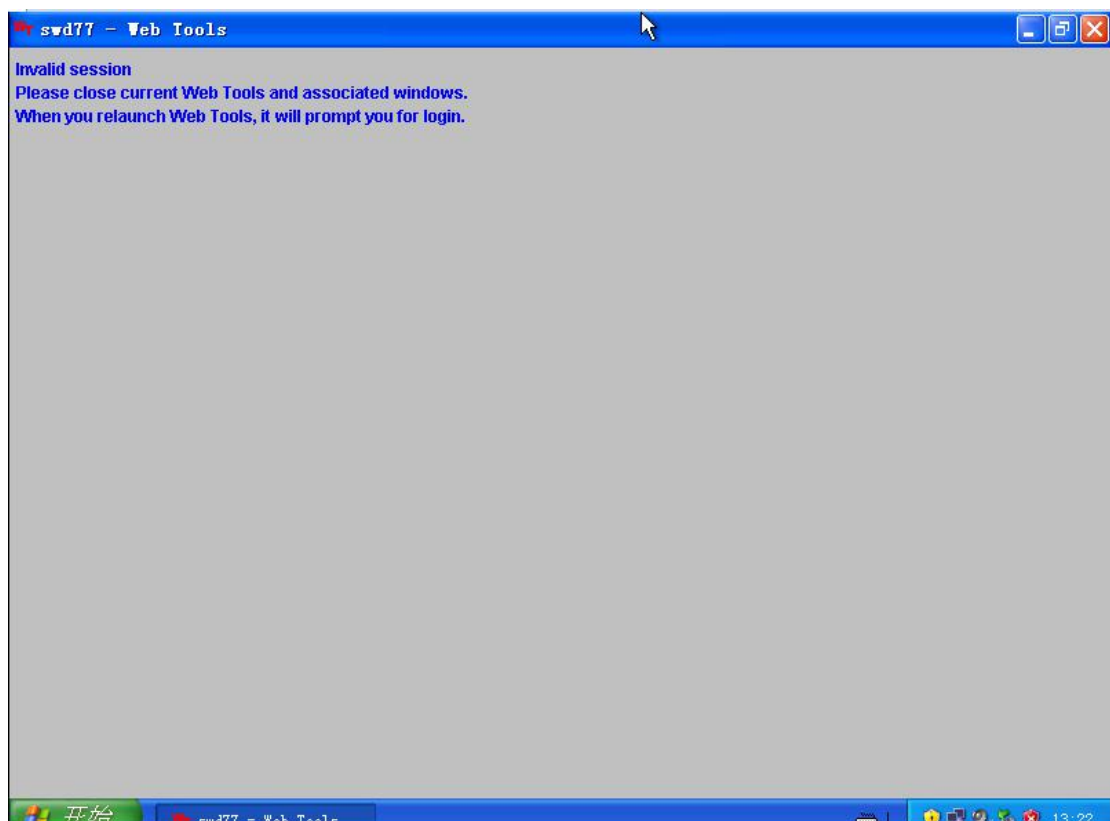
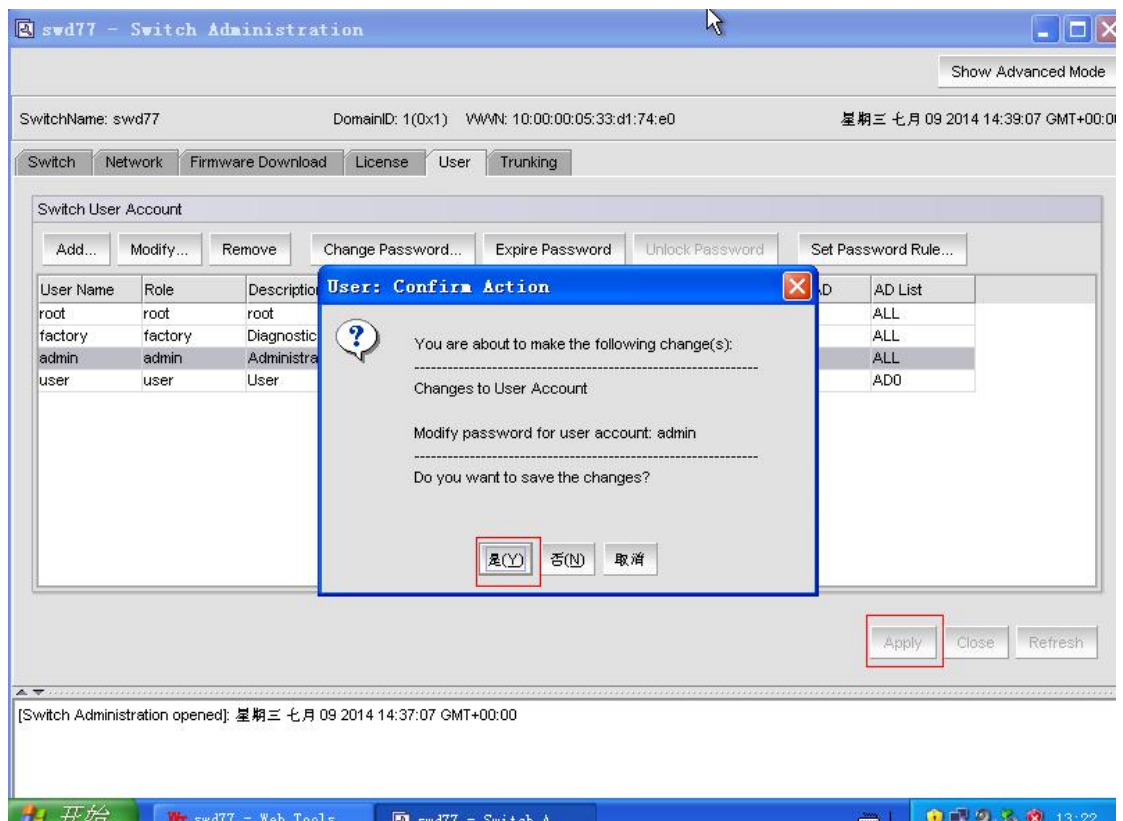


修改成功后需要重新连接该管理界面:

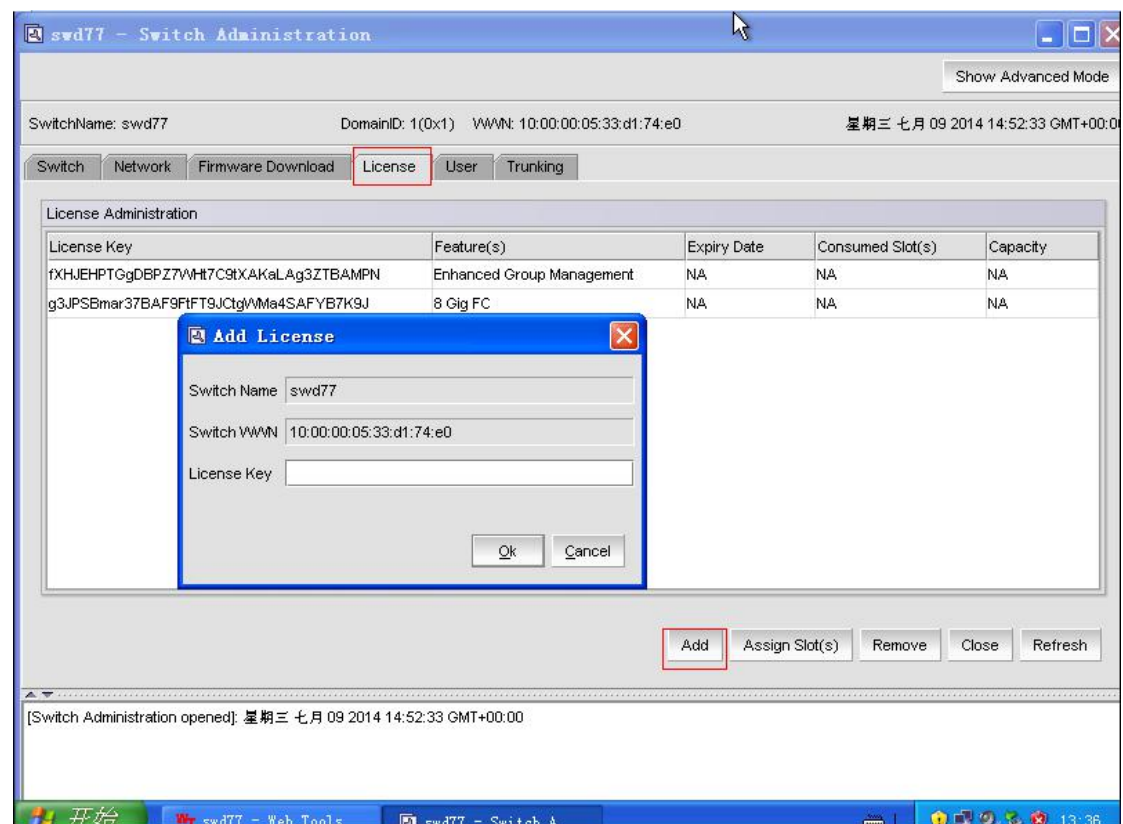
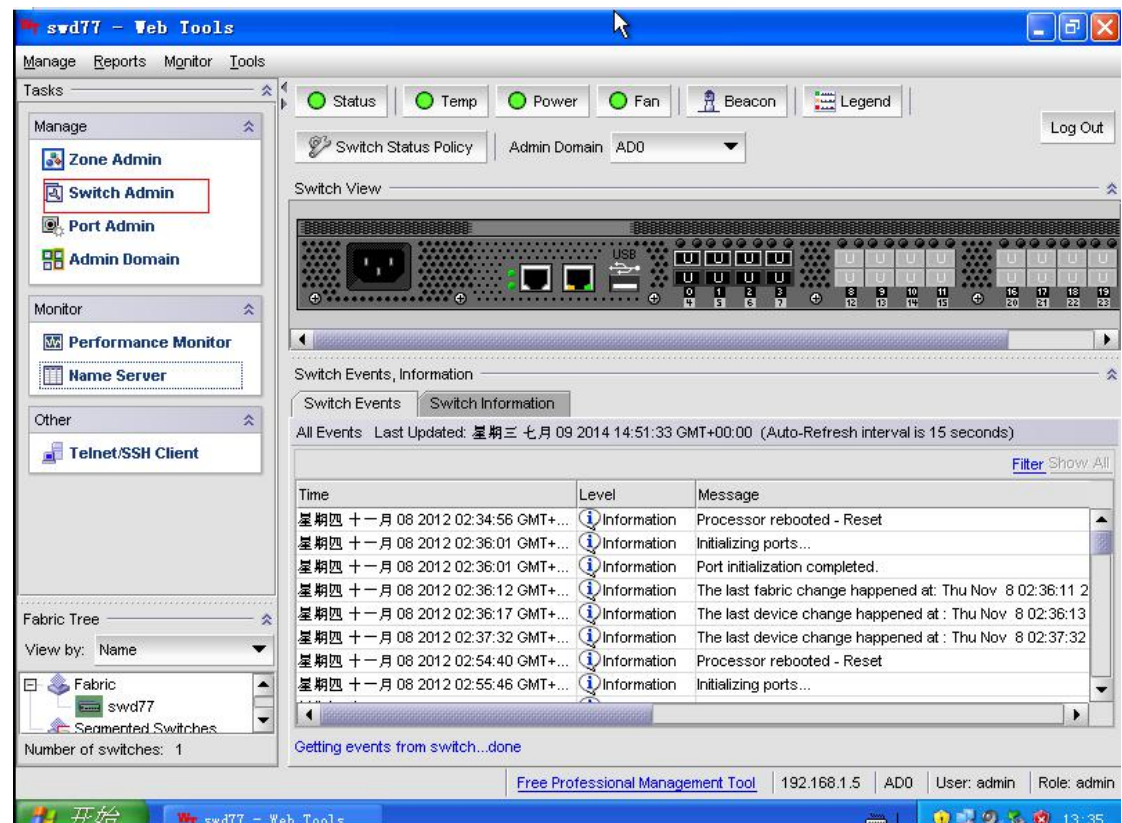


修改 admin 管理员密码如下:

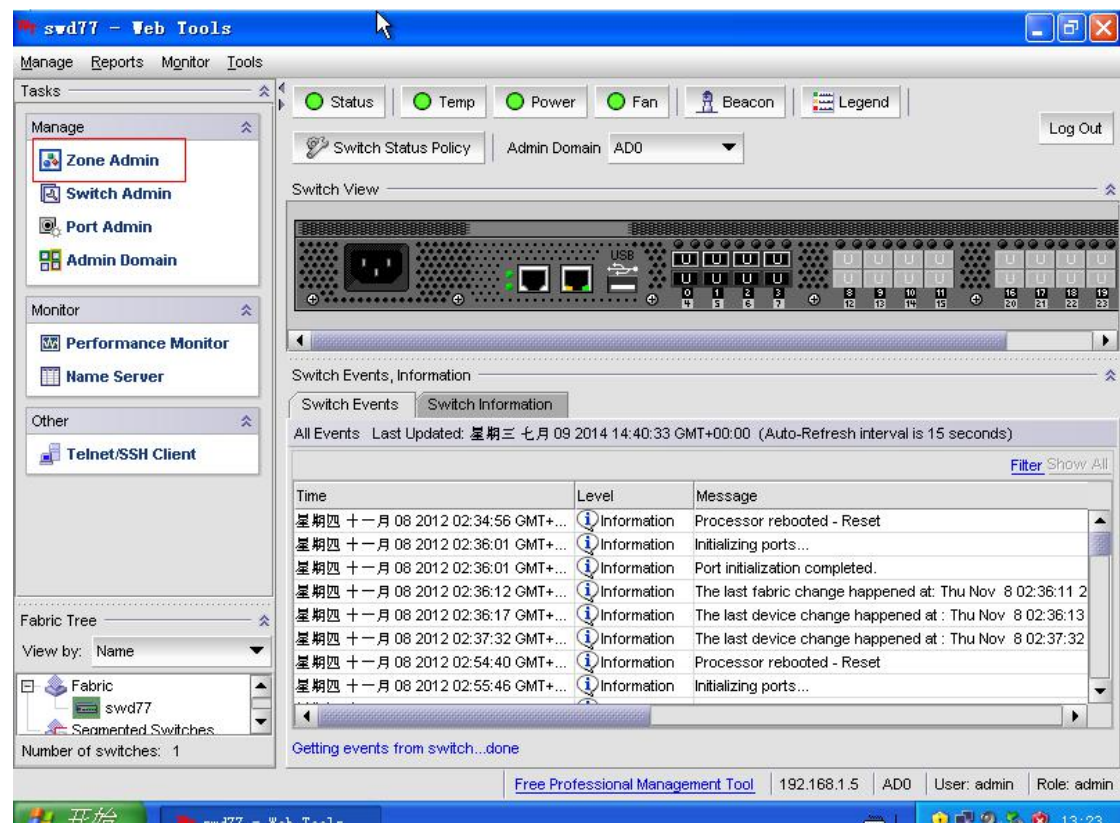




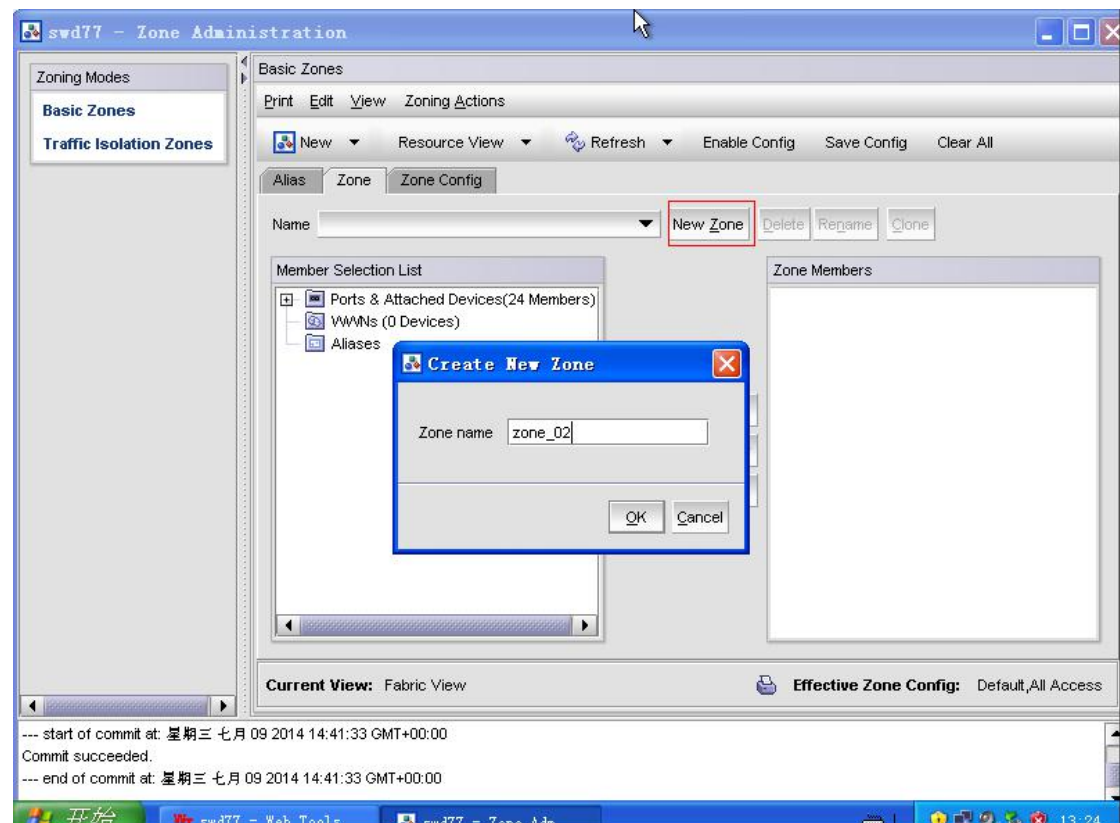
添加 SAN 交换机 License 如下：



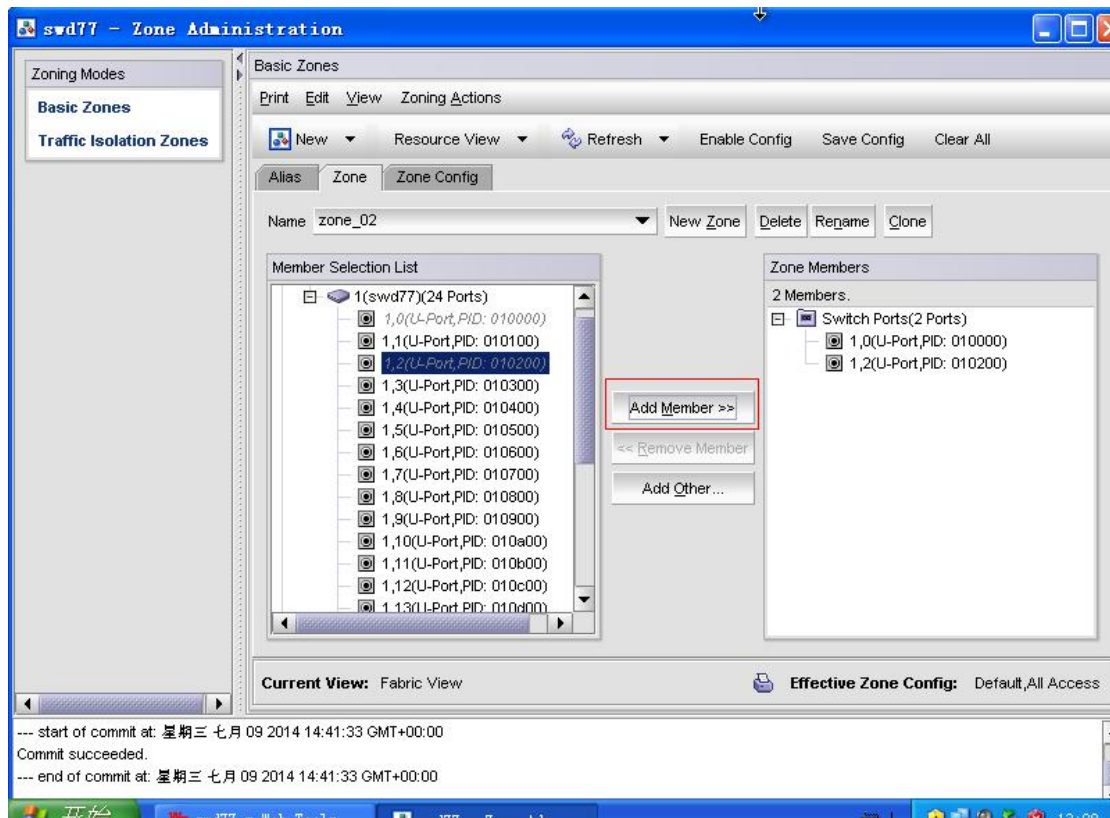
划分 Zone 步骤如下:



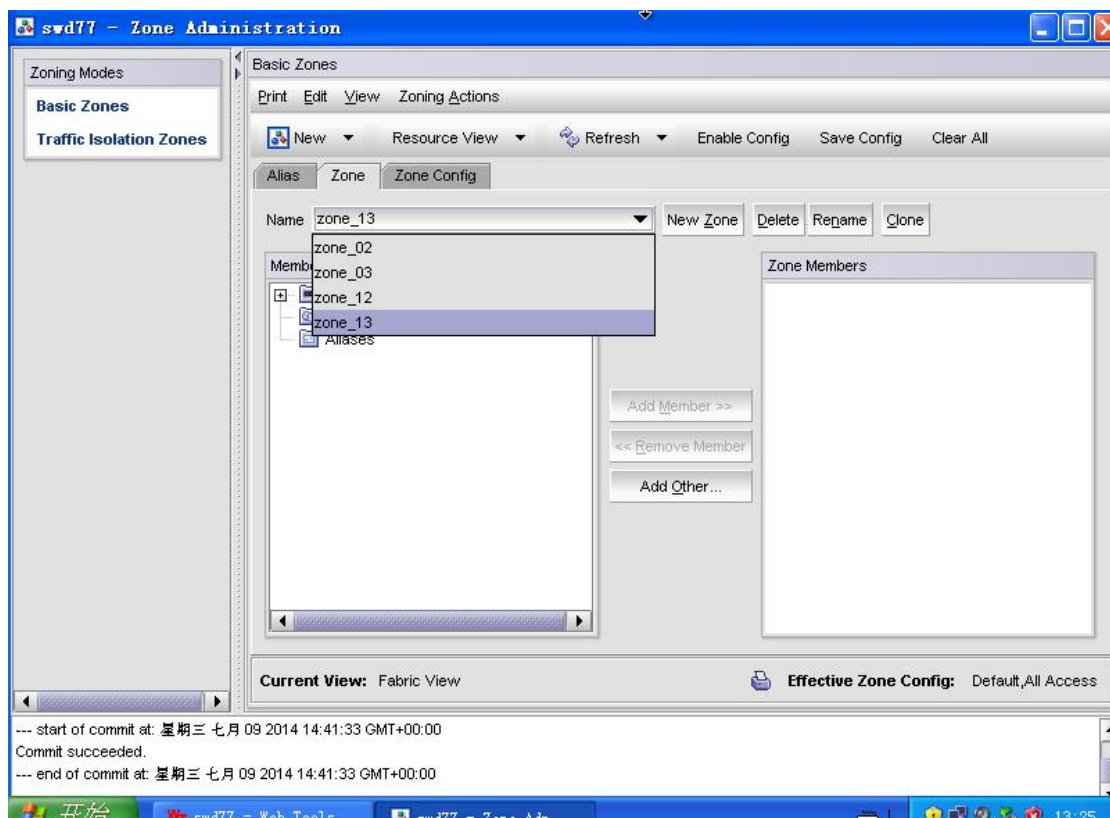
新建 Zone:



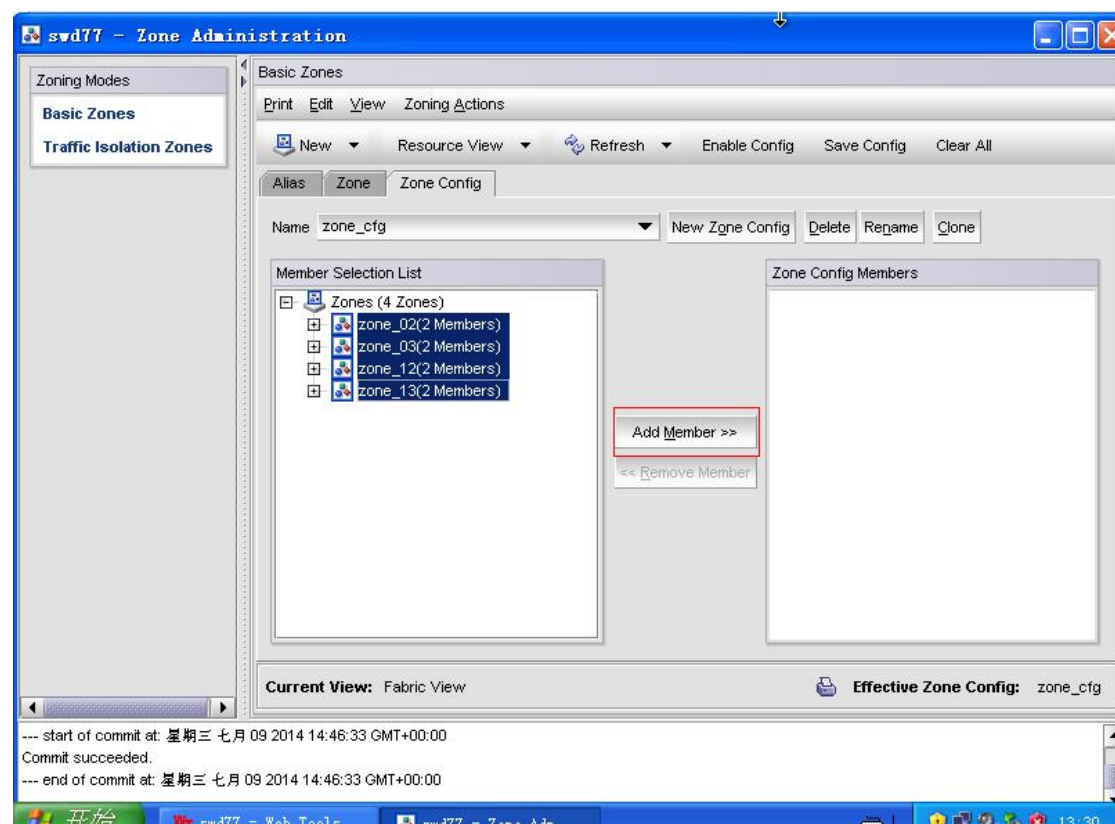
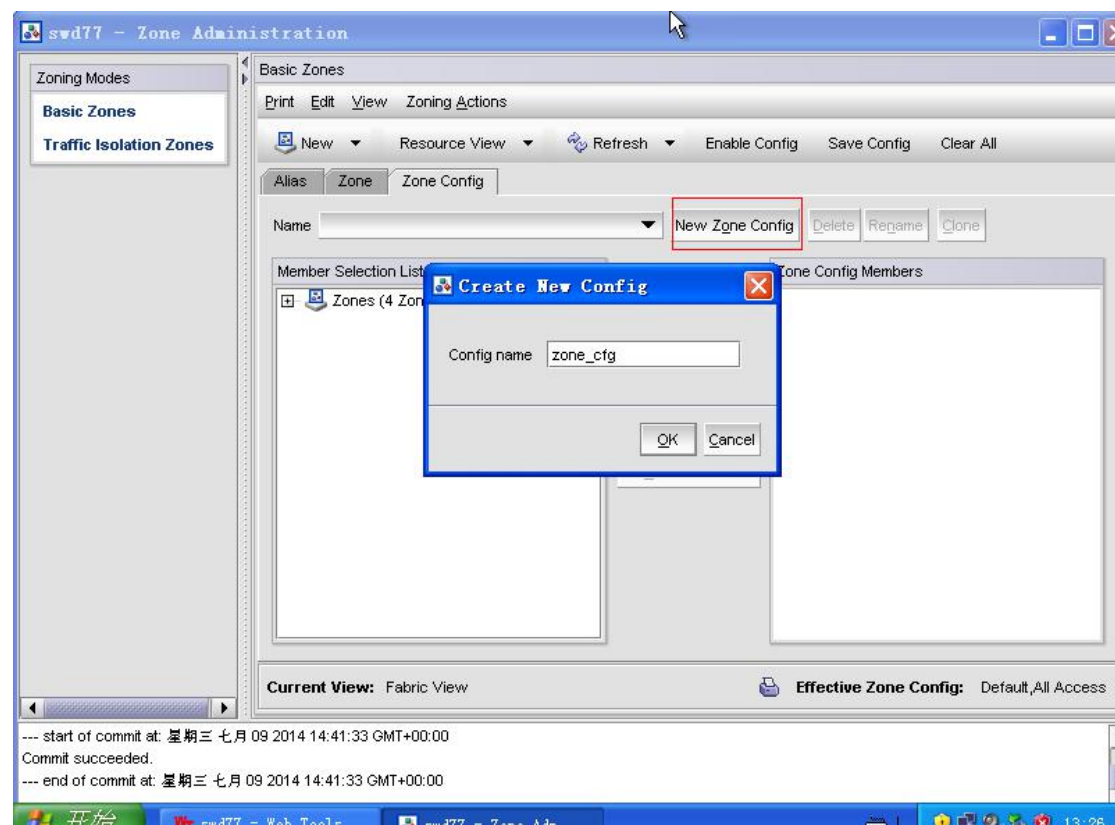
把端口加入到新建的 Zone 中：

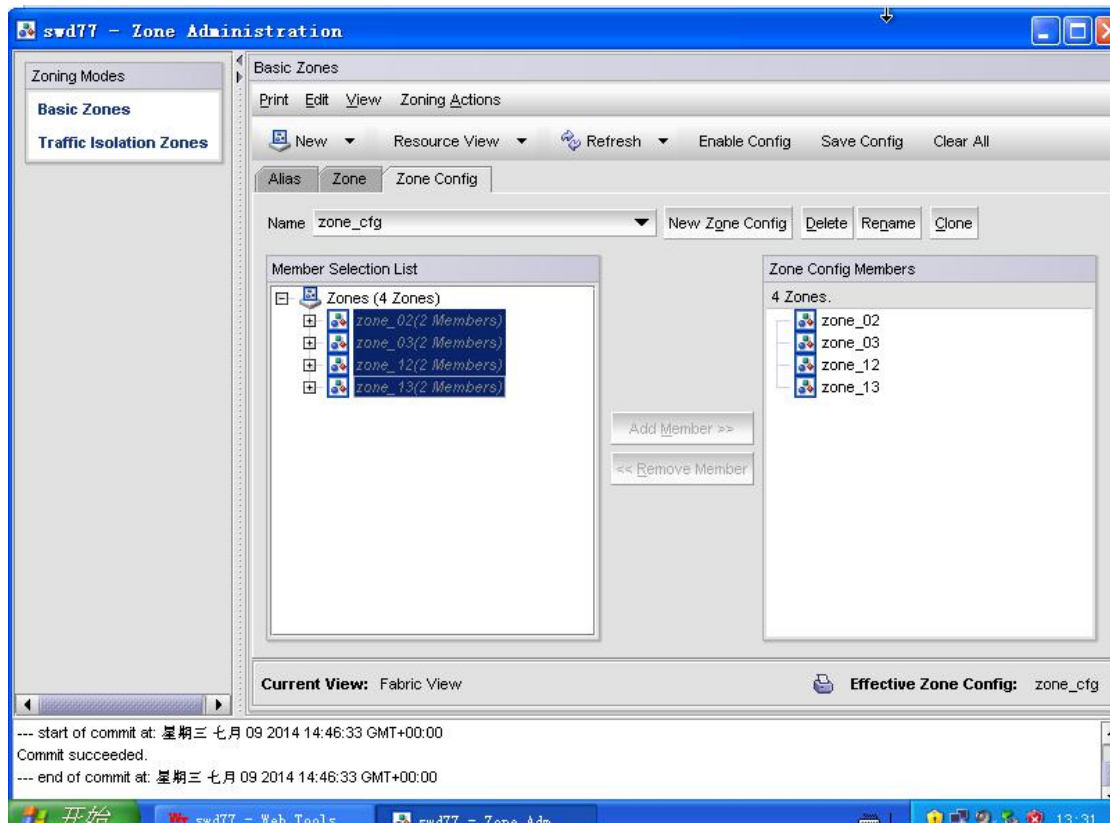


可以看见新建的四个 Zone：

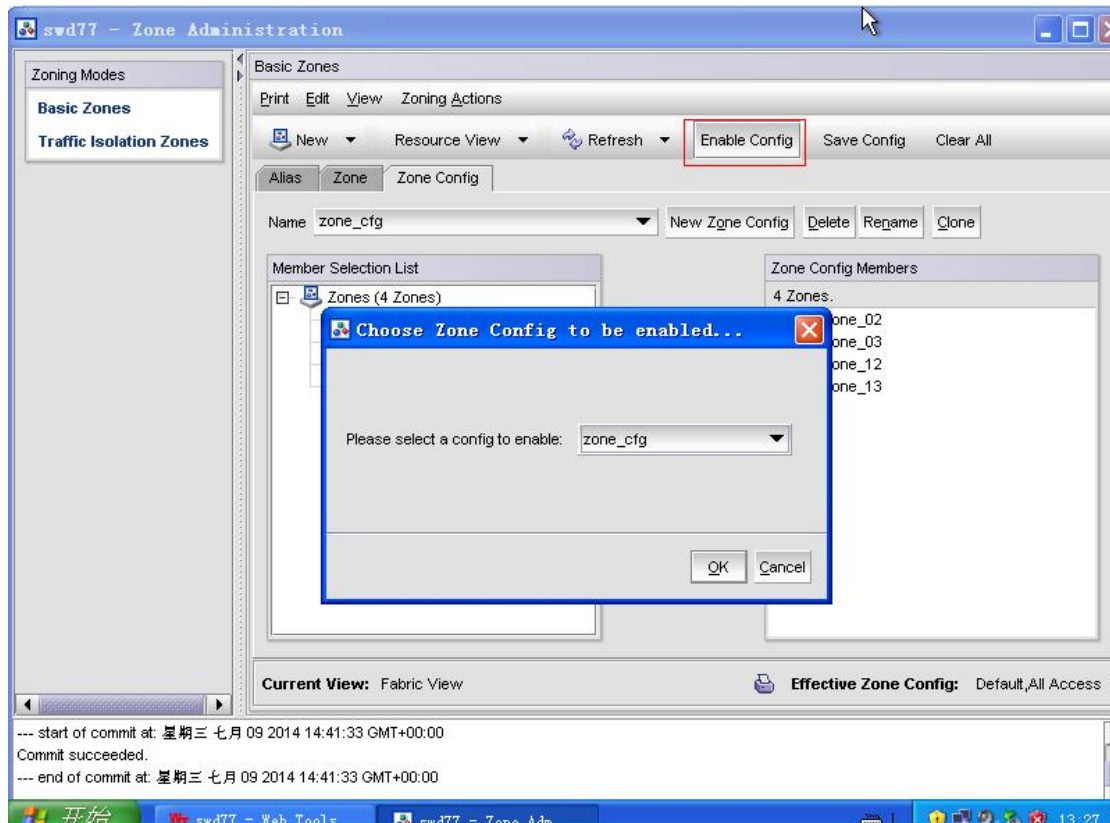


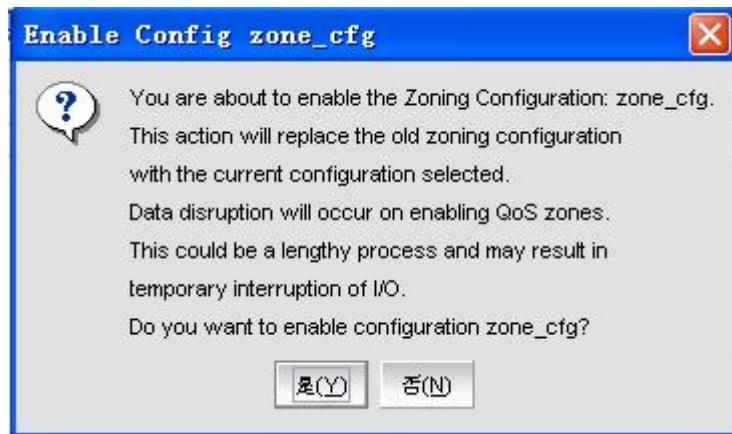
新建 Zone 配置文件，把新建的 Zone 都加入到该配置文件中：



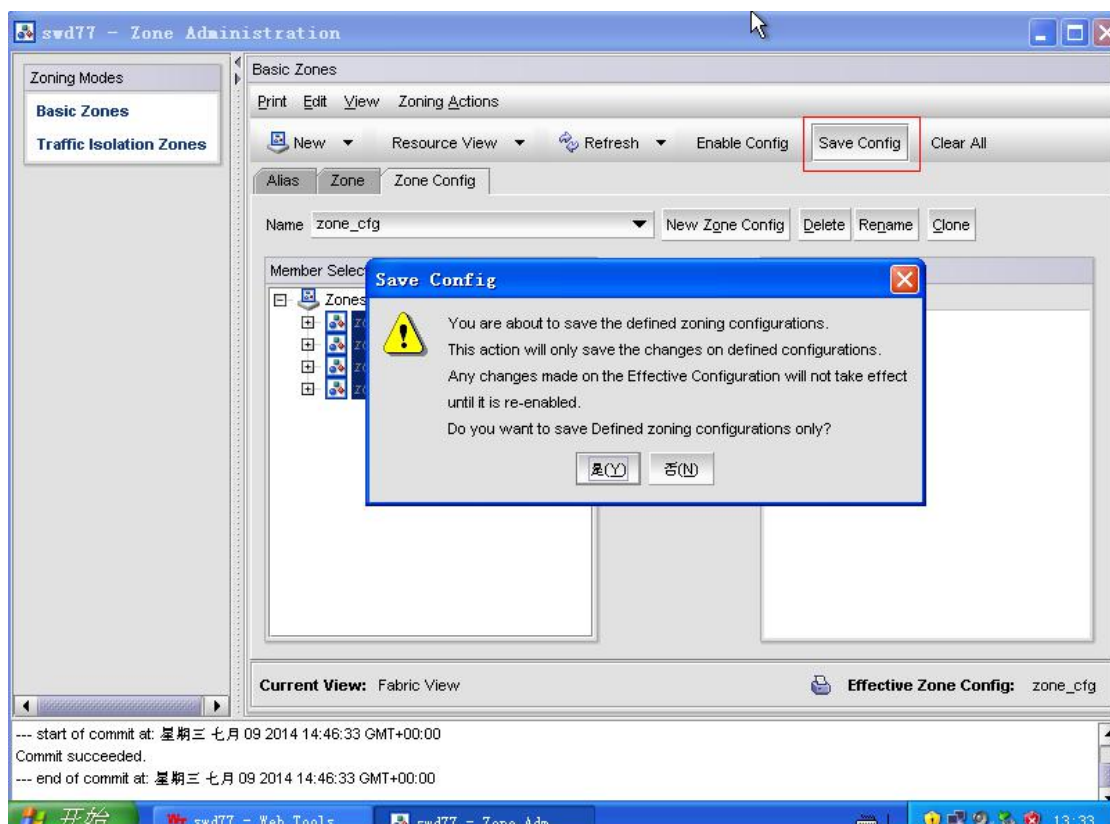


启用 Zone 配置: (该操作会使得 I/O 闪断)

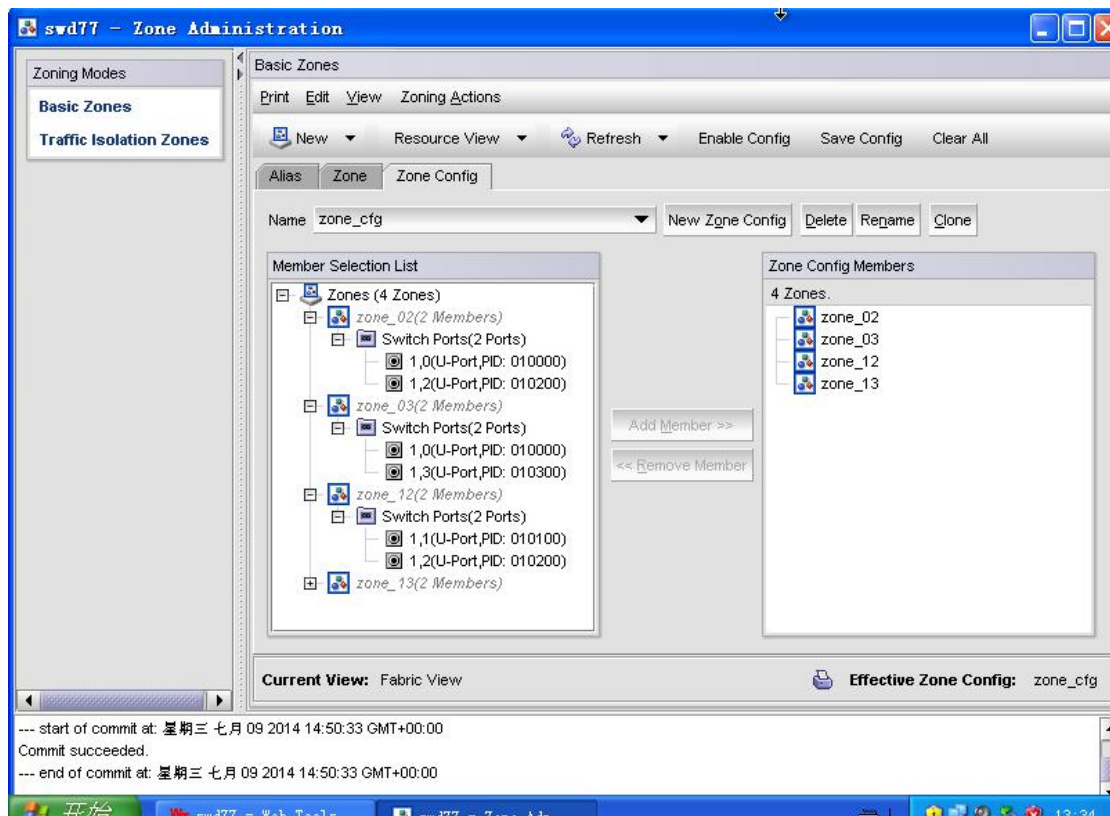




最后保存以上配置：



下图为配置好之后的概览：



划分原则：把连接服务器 HBA 卡的每个端口都分别和连接存储的两个端口单独划分到一个 Zone 中，其如上配置是 0 和 1 端口分别连接存储的两个控制器上。2 和 3 端口则连接服务器的 HBA 卡上。也可以把 0123 四个端口划分在一个 Zone 中，此方法不如第一种方法标准。

以下为命令行下配置 SAN 交换机：

缺省的串口参数是：9600，N，8，1

划分 Zone：

```
swd77:admin> zonecreate "zone_02","1,0;1,2"
swd77:admin> zonecreate "zone_03","1,0;1,3"
swd77:admin> zonecreate "zone_12","1,1;1,2"
swd77:admin> zonecreate "zone_13","1,1;1,3"
swd77:admin> zoneshow
Defined configuration:
zone: zone_02 1,0; 1,2
zone: zone_03 1,0; 1,3
zone: zone_12 1,1; 1,2
zone: zone_13 1,1; 1,3
Effective configuration:
no configuration in effect
```

新建 Zone 配置文件，将 Zone 加入到该配置文件：

```
swd77:admin> cfgcreate "zone_cfg","zone_02;zone_03;zone_12;zone_13"
```

启用配置:

```
swd77:admin> cfgenable zone_cfg
You are about to enable a new zoning configuration.
This action will replace the old zoning configuration with the
current configuration selected. If the update includes changes
to one or more traffic isolation zones, the update may result in
localized disruption to traffic on ports associated with
the traffic isolation zone changes
Do you want to enable 'zone_cfg' configuration (yes, y, no, n): [no] yes
zone config "zone_cfg" is in effect
Updating flash ...
```

保存配置:

```
swd77:admin> cfgsave
You are about to save the Defined zoning configuration. This
action will only save the changes on Defined configuration.
Any changes made on the Effective configuration will not
take effect until it is re-enabled.
Do you want to save Defined zoning configuration only? (yes, y, no, n): [no] yes
Nothing changed: nothing to save, returning ...
swd77:admin>
```

显示交换机管理地址:

```
swd77:admin> ipaddrshow

SWITCH
Ethernet IP Address: 192.168.1.5
Ethernet Subnetmask: 255.255.255.0
Gateway IP Address: 192.168.1.1
DHCP: Off
```

设置交换机管理地址:

```
swd77:admin> ipaddrset
Ethernet IP Address [192.168.1.5]:192.168.1.5
Ethernet Subnetmask [255.255.255.0]:255.255.255.0
Gateway IP Address [192.168.1.1]:192.168.1.1
DHCP [Off]:
swd77:admin>
```

更改 admin 密码:

```
swd77:admin> passwd
Changing password for admin
Enter old password:
Enter new password:
Re-type new password:
passwd: all authentication tokens updated successfully
Saving password to stable storage.
Password saved to stable storage successfully.
swd77:admin>
```

显示交换机 License:

```
swd77:admin> licenseshow
fXHJEHPTGgDBPZ7Wht7C9tXAKaLAg3ZTBAMPN:
Enhanced Group Management license
g3JPSBmar37BAF9FtFT9JCtgWma4SAFYB7K9J:
8 Gig FC license
```

添加 License:

```
swd77:admin> licenseadd xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
invalid license-key "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"
```

显示交换机 Hostname:

```
swd77:admin> switchname  
swd77
```

更改交换机 Hostname:

```
swd77:admin> switchname swd88  
Committing configuration...  
Done.  
swd77:admin>
```

```
swd77:admin> switchname  
swd88  
swd77:admin>
```

查看交换机一些基本信息:

```
swd88:admin> switchshow  
switchName:      swd88  
switchType:      71.2  
switchState:     Online  
switchMode:      Native  
switchRole:      Principal  
switchDomain:    1  
switchId:        fffc01  
switchWwn:       10:00:00:05:33:d1:74:e0  
zoning:          ON <zone_cfg>  
switchBeacon:    OFF
```

Index	Port	Address	Media	Speed	State	Proto
0	0	010000	id	N4	No_Light	FC
1	1	010100	id	N4	No_Light	FC
2	2	010200	id	N8	No_Light	FC
3	3	010300	id	N4	No_Light	FC
4	4	010400	--	N8	No_Module	FC
5	5	010500	--	N8	No_Module	FC
6	6	010600	--	N8	No_Module	FC
7	7	010700	--	N8	No_Module	FC
8	8	010800	--	N8	No_Module	FC <No POD License> Disabled
9	9	010900	--	N8	No_Module	FC <No POD License> Disabled
10	10	010a00	--	N8	No_Module	FC <No POD License> Disabled
11	11	010b00	--	N8	No_Module	FC <No POD License> Disabled
12	12	010c00	--	N8	No_Module	FC <No POD License> Disabled

交换机启动时间:

```
swd88:admin> switchuptime  
6:15pm   up for 12 mins
```

重启交换机:

```
swd88:admin> reboot  
Warning: This command would cause the switch to reboot  
and result in traffic disruption.  
Are you sure you want to reboot the switch [y/n]?y  
  
Broadcast message from root <pts/0> Wed Jul  9 18:18:58 2014...  
  
The system is going down for reboot NOW !!  
swd88:admin>
```

遗失对主机的连接。