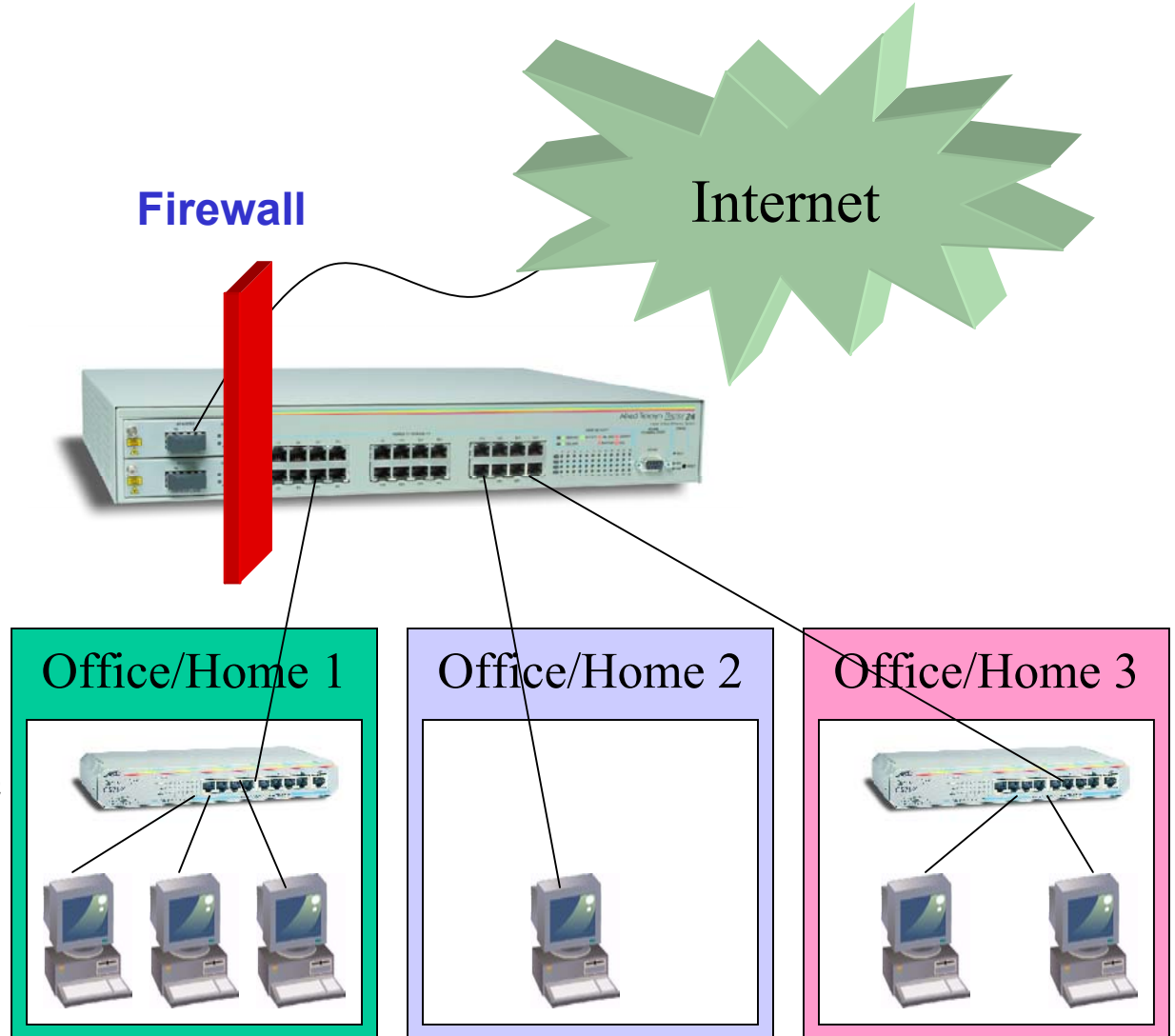


MDU/MTU

A configuration in which multiple homes/offices share an Internet connection using the Rapiert. No IP connectivity is allowed between the homes/offices.

```
#
# VLAN general configuration
#
create vlan="v2" vid=2
#
# VLAN port configuration
#
add vlan="v2" port=49
#
# SWITCH (post-VLAN) configuration
#
ena swi l3f
add swi l3f ma=dip dc=host
add swi l3f=1 ent dip=10.1.1.1 ac=sendc
add swi l3f ma=dip,sip sc=c dc=c
add swi l3f=2 ent sip=10.1.1.0 dip=10.1.1.0 ac=deny
#
# IP configuration
#
enable ip
enable ip remote
add ip fil=1 so=0.0.0.0 log=head ac=include
add ip int=vlan1 ip=10.1.1.1 mask=255.255.255.0 fil=1
add ip int=vlan2 ip=149.35.29.172 mask=255.255.252.0
set ip loc ip=10.1.1.1
add ip rou=0.0.0.0 mask=0.0.0.0 int=vlan2 next=149.35.28.1
#
# FIREWALL configuration
#
enable firewall
create firewall policy="greg"
enable firewall policy="greg" icmp_f=all
add firewall policy="greg" int=vlan1 type=private
add firewall policy="greg" int=vlan2 type=public
add firewall poli="greg" nat=enhanced int=vlan1 gblin=vlan2
#
# DHCP configuration
#
enable dhcp
create dhcp poli="g" lease=430000
add dhcp poli="g" subn=255.255.255.0
add dhcp poli="g" rou=10.1.1.1
create dhcp ran="office" poli="g" ip=10.1.1.10 num=10
```



Physical Redundancy

Triggers: quicker alternative to STP for a simple (2 switch) configuration

```
#  
# SWITCH (pre-VLAN) configuration  
#  
disable switch port=1  
  
#  
# TRIGGER Configuration  
#  
  
enable trigger  
create trigger=1 module=switch event=linkdown port=25 script=link1up.scp  
create trigger=2 module=switch event=linkup port=25 script=link1dn.scp
```

file: link1dn.scp

disable switch port=1

file: link1up.scp

enable switch port=1

Port 25

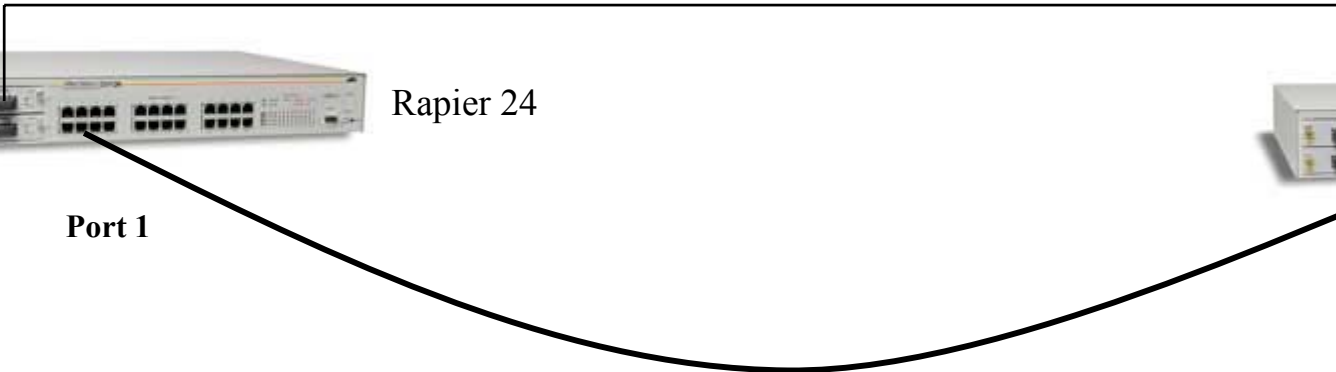


Rapiere 24

Port 1



Backup Link



PPPoE Access Concentrator

A configuration in which an organization such as a university requires PPPoE client authentication before access to the network is allowed.

```
set system name="Rapier_PPPoE"  
set system location="ATI Lab Bothell"  
set system contact="Dave Hornstein (206)555-5555"  
set system territory=usa
```

```
# For Covad client  
# login=sheldon  
# password= friend
```

```
add user=sheldon@covad.net pass=500c801b3d5a7a4d98a528c3b38a9a0ff677e97ea33e7a4d38a528f3b38a9a0c log=no  
add user=jesse@covad.net pass=friend log=no
```

```
set switch port=1-22 description="PPPoE connections"  
set switch port=23 description="Plug in PC here for management"  
set switch port=24 description="uplink"
```

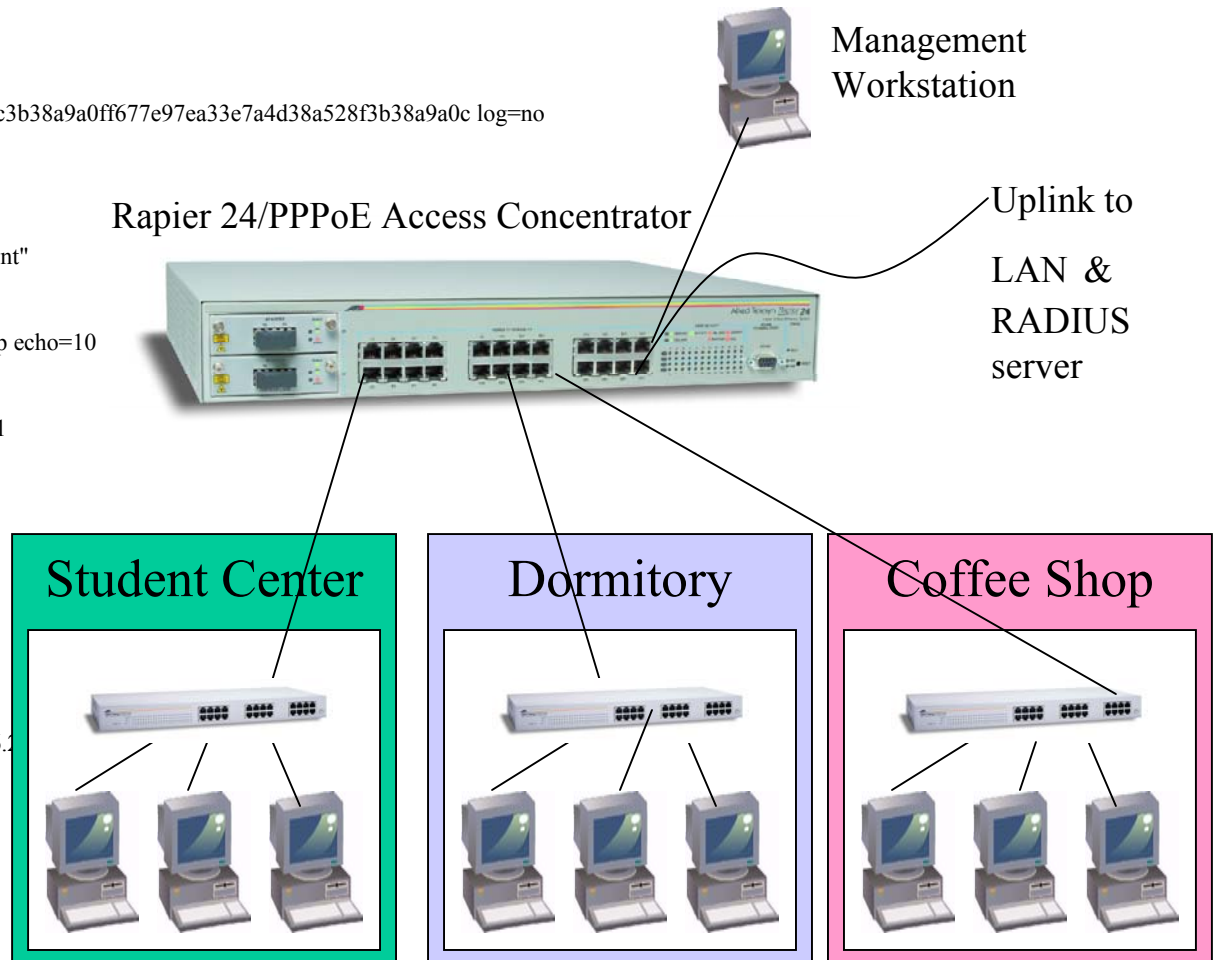
```
create ppp template=1 bap=off ippool="ip" authentication=chap echo=10
```

```
# the Covad PPPoE client service name will be called Nforce  
add ppp acservice=Nforce template=1 maxsessions=512 vlan=1  
ena ppp accessconcentrator
```

```
create vlan="vlan2" vid=2  
add vlan="vlan2" port=23,24
```

```
enable ip  
set ip nameserver=24.0.224.33  
add ip int=vlan2 ip=10.11.16.1 mask=255.255.255.0  
set ip local ip=10.11.16.1  
add ip route=0.0.0.0 mask=0.0.0.0 int=vlan2 nexthop=10.11.16.1  
create ip pool="ip" ip=10.11.16.3-10.11.16.252
```

```
add radius server=10.11.17.1 secret=56tghj89hjr
```



Firewall Redirection

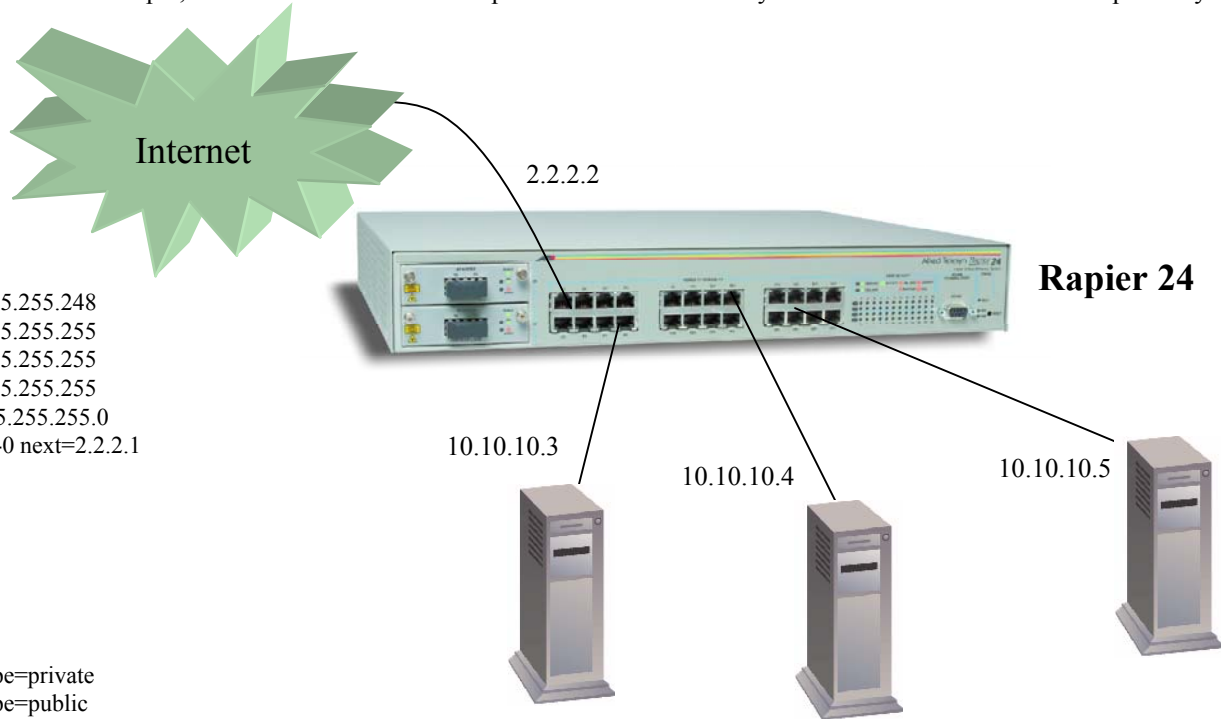
A Firewall configuration for public access to multiple hosts

```
set system name="Firewall"  
set system location="ATI Lab Bothell"  
set system contact="Greg Ensminger"
```

```
#  
# VLAN general configuration  
#  
create vlan=v2 vid=2  
add vlan=2 po=2-24  
  
#  
# IP configuration  
#  
enable ip  
add ip int=vlan1-0 ip=2.2.2.2 mask=255.255.255.248  
add ip int=vlan1-1 ip=2.2.2.3 mask=255.255.255.255  
add ip int=vlan1-2 ip=2.2.2.4 mask=255.255.255.255  
add ip int=vlan1-3 ip=2.2.2.5 mask=255.255.255.255  
add ip int=vlan2-0 ip=10.10.10.1 mask=255.255.255.0  
add ip rou=0.0.0.0 mask=0.0.0.0 int=vlan1-0 next=2.2.2.1
```

```
#  
# FIREWALL configuration  
#  
enable firewall  
create firewall policy="angel"  
enable firewall policy="angel" icmp_f=all  
add firewall policy="angel" int=vlan2-0 type=private  
add firewall policy="angel" int=vlan1-2 type=public  
add firewall policy="angel" int=vlan1-1 type=public  
add firewall policy="angel" int=vlan1-0 type=public  
add firewall policy="angel" int=vlan1-3 type=public  
add firewall poli="angel" nat=enhanced int=vlan2-0 gblin=vlan1-0  
add firewall poli="angel" nat=enhanced int=vlan2-0 gblin=vlan1-1  
add firewall poli="angel" nat=enhanced int=vlan2-0 gblin=vlan1-2  
add firewall poli="angel" nat=enhanced int=vlan2-0 gblin=vlan1-3  
add firewall poli="angel" ru=1 ac=allo int=vlan1-1 prot=tcp po=23 ip=10.10.10.3 gblip=2.2.2.3 gblp=23  
add firewall poli="angel" ru=2 ac=allo int=vlan1-1 prot=tcp po=80 ip=10.10.10.3 gblip=2.2.2.3 gblp=80  
add firewall poli="angel" ru=3 ac=allo int=vlan1-2 prot=tcp po=23 ip=10.10.10.4 gblip=2.2.2.4 gblp=23  
add firewall poli="angel" ru=4 ac=allo int=vlan1-2 prot=tcp po=80 ip=10.10.10.4 gblip=2.2.2.4 gblp=80  
add firewall poli="angel" ru=5 ac=allo int=vlan1-3 prot=tcp po=23 ip=10.10.10.5 gblip=2.2.2.5 gblp=23  
add firewall poli="angel" ru=6 ac=allo int=vlan1-3 prot=tcp po=80 ip=10.10.10.5 gblip=2.2.2.5 gblp=80
```

In this example, the customer has a bank of public IP's for which they wish to do 1 to 1 redirection to privately addressed servers



L2TP Access Concentrator

A configuration in which an organization such as a library which requires L2TP client authentication before access to the network is allowed.

```
set system name="Rapier_L2TP"  
set system location="ATI Lab Bothell"  
set system contact="Greg Ensminger"  
set system territory=usa  
  
add user=greg pass=500c801b3d5a7a4d98a528c3b38a9a0ff677e97ea33e7a4d38a528f3b38a9a0c lo=no
```

```
set switch port=1 description="Uplink"  
set switch port=2-24 description="User Port"
```

```
create ppp template=1  
set ppp template=1 bap=off ippool="dialin" authentication=chap echo=10
```

```
enable l2tp  
enable l2tp server=both  
add l2tp ip=0.0.0.0-255.255.255.254 pptemplate=1
```

```
create vlan="v2" vid=2  
add vlan="v2" port=2-24
```

```
ena swi l3f  
add swi l3f ma=dip de=host  
add swi l3f=1 ent dip=10.1.1.1 ac=sendc  
add swi l3f ma=dip,sip sc=c dc=c  
add swi l3f=2 ent sip=10.1.1.0 dip=10.1.1.0 ac=deny
```

```
enable ip  
add ip int=vlan2 ip=10.1.1.1 mask=255.255.255.0  
add ip int=vlan1 ip=149.35.29.172 mask=255.255.252.0  
add ip rou=0.0.0.0 mask=0.0.0.0 int=vlan1 next=149.35.28.1  
create ip pool="dialin" ip=149.35.29.173-149.35.29.175
```

```
enable dhcp  
create dhcp poli="g" lease=430000  
add dhcp poli="g" subn=255.255.255.0  
add dhcp poli="g" rou=10.1.1.1  
create dhcp ran="o" poli="g" ip=10.1.1.10 num=100
```

Uplink to

LAN &
RADIUS
server



Rapier 24/L2TP
Access Concentrator

