



ПРИМЕРЫ RSE

Семинар TRIPLE “E”

POLICY ACL

```
> !
> policy access-list QoS-Out
> seq 10 permit ip 10.0.0.0 0.255.255.255 any class Peering
> seq 20 permit ip 192.168.0.0 0.0.255.255 any class Peering
> seq 30 permit ip 172.16.0.0 0.15.255.255 any class Peering
> ....
> seq 110 permit ip any any class Internet
> !
> policy access-list QoS-In
> seq 10 permit ip any 10.0.0.0 0.255.255.255 class Peering
> seq 20 permit ip any 192.168.0.0 0.0.255.255 class Peering
> seq 30 permit ip any 172.16.0.0 0.15.255.255 class Peering
> ...
> seq 110 permit ip any any class Internet
> !
```

QOS POLICY

- › !
- › qos policy METERING metering radius-guided
- › access-group QoS-Out local
- › class Peering
- › rate 64 burst 8333
- › class Internet
- › rate 64 burst 8333
- › !
- › qos policy POLICING policing radius-guided
- › access-group QoS-In local
- › class Peering
- › rate 64 burst 8333
- › class Internet
- › rate 64 burst 8333
- › !

PEERING SERVICE

- › !
- › radius service profile Peering
- › parameter value InRate
- › parameter value InBurst
- › parameter value OutRate
- › parameter value OutBurst
- › parameter list Dir "in out"
- › foreach Dir
 - › attribute Dynamic-Policy-Filter "ip \$Dir forward class Peering qos"
 - › attribute Dynamic-Qos-Parameter "police-class-rate Peering rate-absolute \$InRate"
 - › attribute Dynamic-Qos-Parameter "police-class-burst Peering \$InBurst"
 - › attribute Dynamic-Qos-Parameter "meter-class-rate Peering rate-absolute \$OutRate"
 - › attribute Dynamic-Qos-Parameter "meter-class-burst Peering \$OutBurst"
- › !

INTERNET SERVICE

- › !
- › radius service profile Inet-Unlimit
- › parameter value InRate
- › parameter value InBurst
- › parameter value OutRate
- › parameter value OutBurst
- › parameter list Dir "in out"
- › parameter value InterimTime
- › accounting out qos Internet
- › accounting in qos Internet
- ›

INTERNET SERVICE (PART 2)

- › foreach Dir
 - › attribute Dynamic-Policy-Filter "ip \$Dir forward class Internet qos"
- › attribute Dynamic-Qos-Parameter "police-class-rate Internet rate-absolute \$InRate"
- › attribute Dynamic-Qos-Parameter "police-class-burst Internet \$InBurst"
- › attribute Dynamic-Qos-Parameter "meter-class-rate Internet rate-absolute \$OutRate"
- › attribute Dynamic-Qos-Parameter "meter-class-burst Internet \$OutBurst"
- › attribute Service-Interim-Accounting \$InterimTime
- › !

QUOTA EXAMPLE

- › !
- › radius service profile Inet-Limit
- › parameter value InLimit
- › parameter value OutLimit
- ›
- › attribute Service-Volume-Limit out \$OutLimit
- › attribute Service-Volume-Limit in \$InLimit
- › ...
- › service-option traffic-limit acct-alive

TIME CONDITION

```
> !
> policy access-list QoS-Out-DayNight
>   condition 1 time-range
>     periodic weekend weekdays 00:00 to 08:00 class InternetNight
> ...
> ...
> ...
> seq 120 permit ip any any class InternetDay condition 1
> !
> policy access-list QoS-In-DayNight
>   condition 1 time-range
>     periodic weekend weekdays 00:00 to 08:00 class InternetNight
> ...
> ...
> ...
> seq 120 permit ip any any class InternetDay condition 1
> !
```

TIME CONDITION (CONT.)

- > !
- > qos policy METERING metering radius-guided
- > access-group QoS-In-DayNight local
- > class Peering
- > rate 64 burst 8333
- > class InternetDay
- > rate 64 burst 8333
- > class InternetNight
- > rate 64 burst 8333
- > !
- > qos policy POLICING policing radius-guided
- > access-group QoS-Out-DayNight local
- > class Peering
- > rate 64 burst 8333
- > class InternetNight
- > rate 64 burst 8333
- > class InternetDay
- > rate 64 burst 8333
- > !

TIME CONDITION (CONT.)

```
> !
> radius service profile Inet-Unlim-DayNight
> parameter value DayInRate
> parameter value DayInBurst
> parameter value DayOutRate
> parameter value DayOutBurst
> parameter value NightInRate
> parameter value NightInBurst
> parameter value NightOutRate
> parameter value NightOutBurst
> parameter list Dir "in out"
> parameter list InDN "InternetNight InternetDay"
> parameter value InterimTime
> accounting out qos $InternetDN
> accounting in qos $InternetDN
> foreach Dir
>   attribute Dynamic-Policy-Filter "ip $Dir forward class InternetDay qos"
>   attribute Dynamic-Policy-Filter "ip $Dir forward class InternetNight qos"
>   attribute Dynamic-Qos-Parameter "police-class-rate InternetDay rate-absolute $DayInRate"
>   attribute Dynamic-Qos-Parameter "police-class-burst InternetDay $DayInBurst"
>   attribute Dynamic-Qos-Parameter "meter-class-rate InternetDay rate-absolute $DayOutRate"
>   attribute Dynamic-Qos-Parameter "meter-class-burst InternetDay $DayOutBurst"
>   attribute Dynamic-Qos-Parameter "police-class-rate InternetNight rate-absolute $NightInRate"
>   attribute Dynamic-Qos-Parameter "police-class-burst InternetNight $NightInBurst"
>   attribute Dynamic-Qos-Parameter "meter-class-rate InternetNight rate-absolute $NightOutRate"
>   attribute Dynamic-Qos-Parameter "meter-class-burst InternetNight $NightOutBurst"
>   attribute Service-Interim-Accounting $InterimTime
> !

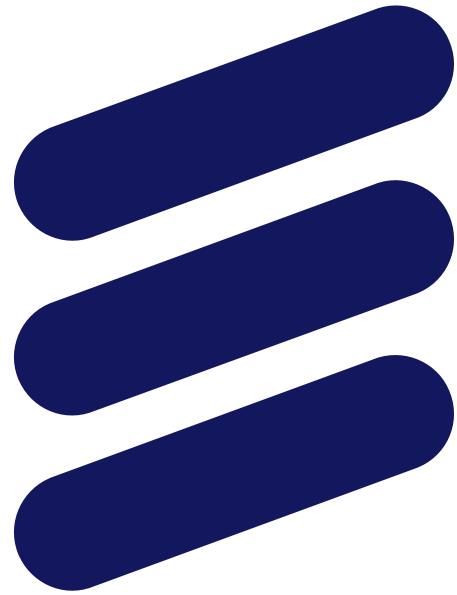
```

ЗАПИСЬ ПОЛЬЗОВАТЕЛЯ В RADIUS

- › username Password = "userpass"
- › Service-Type= Framed-User,
- › Framed-Protocol = PPP,
- › Context-Name = local,
- › Framed-IP-Address = 255.255.255.254,
- › Qos-Policy-Policing = “POLICING”,
- › Qos-Policy-Metering = “METERING”,
- › RB-Service-Name += 1:Inet-Unlimit,
- › RB-Service-Option += 1:1,
- › RB-Service-Parameter += 1:"InRate=64 InBurst=8333 OutRate=64 \
OutBurst=8333 InterimTime=900"
- › RB-Service-Name += 2:Peering,
- › RB-Service-Option += 2:0,
- › RB-Service-Name-Parameter += "2: InRate=50000 InBurst=128000
OutRate=50000 OutBurst=128000",

ПРИМЕР СОА

- › radclient -f coa_commands 10.64.2.21:3799 coa redback
- › Состав файла coa_commands:
 - › User-Name = user,
 - › Reauth-Service-Name:1 = "Inet-Unlimit"
 - › RB-Service-Name-Parameter:1 = "InRate=512
InBurst=12000 OutRate=512 OutBurst=12000"



ERICSSON