

Huawei

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Configuração

Resetar configurações

```
<HUAWEI>reset saved-configuration
Warning: The action will delete the saved configuration on the device.
The configuration will be erased to reconfigure.Continue? [Y/N]:y
Warning: Now clearing the configuration on the device.
Info: Succeeded in clearing the configuration on the device.
```

```
<HUAWEI>reboot
IPU 3:
Next startup system software: cfcard:/V800R011C10SPC100-OC-NE-M2K-B.cc
Next startup saved-configuration file: NULL
Next startup paf file: default
Next startup patch package: cfcard:/NE40E-M2V800R011SPH023-C10SPC100.PAT
Warning: Current configuration will be saved to the next startup saved-configuration file! Continue? [Y/N]:n
System will reboot! Continue? [Y/N]:y
```

Comando:

```
reset saved-configuration
```

Comandos básicos

Entrar no modo de configuração:

```
<HUAWEI>system-view
```

Aplicar configurações:

```
[~HUAWEI]commit
```

Sair do modo de configuração ou voltar um nível de diretório:

```
<HUAWEI>quit
```

Salvar configurações:

```
<HUAWEI>save
```

Exibir configuração de um diretório:

```
[~HUAWEI-aaa]display this
```

Exibir configuração atual

```
[~HUAWEI-aaa]display current-configuration
```

Troubleshooting

Log do Radius

```
display aaa online-fail-record username teste nop
```

Verifica se o login está online:

```
display access-user username teste
```

Verifica se o login está online e exibi as informações IPv4, IPv6, Queue

```
display access-user username teste verbose
```

Monitorar consumo de banda

```
display access-user username teste verbose | begin velbras | refresh 1
```

Desconectar usuário:

```
system-view
aaa
cut access-user username teste all
```

Criando conta de usuário

Criando conta de usuário:

```
[~HUAWEI]aaa
```

```
[~HUAWEI-aaa]local-user clecio password irreversible-cipher @123@qweXX
```

```
[*HUAWEI-aaa]local-user clecio service-type ssh
```

```
[*HUAWEI-aaa]local-user clecio level 3
```

```
[*HUAWEI-aaa]commit
```

Comando:

```
aaa
local-user clecio password irreversible-cipher @123@qweXX
local-user clecio service-type ssh
local-user clecio level 3
commit
quit
```

Alterando a porta do serviço SSH

Desativando o SSH IPv6:

```
[~HUAWEI]undo ssh ipv6 server port
```

```
[*HUAWEI]commit
```

Comando:

```
undo ssh ipv6 server port
commit
```

Alterando a porta SSH IPv4:

```
[~HUAWEI]ssh ipv4 server port 2200
```

```
[*HUAWEI]commit
```

Comando:

```
ssh ipv4 server port 2200  
commit
```

IPv4

Configurando endereço IP

```
[~HUAWEI]interface GigabitEthernet 0/3/4
```

```
[~HUAWEI-GigabitEthernet0/3/4]ip address 191.243.12.18 30
```

```
[~HUAWEI-GigabitEthernet0/3/4]commit
```

```
[~HUAWEI-GigabitEthernet0/3/4]quit
```

Comandos:

```
interface GigabitEthernet 0/3/4  
ip address 191.243.12.18 30  
commit  
quit
```

Configurando rota estática

```
[*HUAWEI]ip route-static 0.0.0.0 0.0.0.0 191.243.12.17
```

```
[*HUAWEI]commit
```

Comando:

```
ip route-static 0.0.0.0 0.0.0.0 191.243.12.17  
commit
```

Configurar DNS

Configurar servidores DNS:

```
[~HUAWEI]dns server 191.243.12.35
```

```
[*HUAWEI]dns server 8.8.8.8
```

```
[*HUAWEI]commit
```

Comando:

```
dns server 191.243.12.35
dns server 8.8.8.8
commit
```

IPv6

Configurando endereço IPv6

```
[~HUAWEI]interface GigabitEthernet0/3/4
```

```
[~HUAWEI-GigabitEthernet0/3/4]ipv6 enable
```

```
[*HUAWEI-GigabitEthernet0/3/4]ipv6 address 2804:12A4:100::16/126
```

```
[*HUAWEI-GigabitEthernet0/3/4]ipv6 address auto link-local
```

```
[*HUAWEI-GigabitEthernet0/3/4]commit
```

```
[~HUAWEI-GigabitEthernet0/3/4]quit
```

Comando:

```
interface GigabitEthernet0/3/4
ipv6 enable
ipv6 address 2804:12A4:100::16/126
ipv6 address auto link-local
commit
quit
```

Configurando rota estática

```
[~HUAWEI]ipv6 route-static :: 0 GigabitEthernet0/3/4 2804:12A4:100::15
```

```
[*HUAWEI]commit
```

Comando:

```
ipv6 route-static :: 0 GigabitEthernet0/3/4 2804:12A4:100::15
commit
```

Configurar DNS

Configurar servidor DNS:

```
[*HUAWEI]dns server ipv6 2804:12A4:100:4::2
[*HUAWEI]dns server ipv6 2001:4860:4860::8888
[*HUAWEI]commit
```

Comando:

```
dns server ipv6 2804:12A4:100:4::2
dns server ipv6 2001:4860:4860::8888
commit
```

Concentrador PPPoE

Virtual template

Configurar o Virtual Template:

```
[~HUAWEI]interface Virtual-Template 1
```

```
[*HUAWEI-Virtual-Template1]ppp authentication-mode pap
```

```
[*HUAWEI-Virtual-Template1]ppp keepalive interval 30 retransmit 3 datacheck
```

```
[*HUAWEI-Virtual-Template1]pppoe-server service-name-parameter NAS-HUAWEI-VELBRAS
```

```
[*HUAWEI-Virtual-Template1]pppoe-server ac-name NAS-HUAWEI-VELBRAS
```

```
[*HUAWEI-Virtual-Template1] ip urpf strict enable check subnet
```

```
[*HUAWEI-Virtual-Template1] ipv6 urpf strict enable check subnet
```

```
[*HUAWEI-Virtual-Template1]commit
```

```
[*HUAWEI-Virtual-Template1]quit
```

Comando:

```
interface Virtual-Template1
ppp authentication-mode pap
ppp keepalive interval 30 retransmit 3 datacheck
pppoe-server service-name-parameter NAS-HUAWEI-VELBRAS
pppoe-server ac-name NAS-HUAWEI-VELBRAS
ip urpf strict enable check subnet
ipv6 urpf strict enable check subnet
commit
quit
```

Esquema de autenticação e accounting

Esquema de autenticação

Configuração de um esquema de autenticação

```
[~HUAWEI]aaa
```

```
[~HUAWEI-aaa]authentication-scheme auth1
```

```
[*HUAWEI-aaa-authen-auth1]authentication-mode radius
```

```
[*HUAWEI-aaa-authen-auth1]commit
```

```
[*HUAWEI-aaa-authen-auth1]quit
```

```
[~HUAWEI-aaa]quit
```

Comando:

```
aaa
authentication-scheme auth1
authentication-mode radius
commit
quit
quit
```

Esquema de accounting

Configuração de um esquema de accounting

```
[~HUAWEI]aaa
```

```
[~HUAWEI-aaa]accounting-scheme acct1
```

```
[*HUAWEI-aaa-accounting-acct1] accounting-mode radius
```

```
[*HUAWEI-aaa-accounting-acct1]commit
```

```
[*HUAWEI-aaa-accounting-acct1]quit
```

```
[*HUAWEI-aaa]quit
```

Comando:

```
aaa
accounting-scheme acct1
accounting-mode radius
commit
quit
quit
```

Servidor RADIUS e CoA

Servidor RADIUS

Configuração de um grupo de servidor RADIUS:

```
[~HUAWEI]radius-server group vigo

[*HUAWEI-radius-vigo]radius-server authentication 191.243.12.45 1812 weight 0

[*HUAWEI-radius-vigo]radius-server accounting 191.243.12.45 1813 weight 0

[*HUAWEI-radius-vigo]radius-server shared-key @vigo_radius_huaweiXX

[*HUAWEI-radius-vigo]radius-server user-name original

[*HUAWEI-radius-vigo]commit

[~HUAWEI-radius-vigo]radius-server accounting-stop-packet send force

[~HUAWEI-radius-vigo]radius-server retransmit 5 timeout 10

[*HUAWEI-radius-vigo]commit

[~HUAWEI-radius-vigo]radius-server accounting-start-packet resend 3

[~HUAWEI-radius-vigo]radius-server accounting-stop-packet resend 3

[~HUAWEI-radius-vigo]radius-server accounting-interim-packet resend 5

[~HUAWEI-radius-vigo]commit

[~HUAWEI-radius-vigo]quit
```

Comando:

```
radius-server group vigo
radius-server authentication 191.243.12.45 1812 weight 0
radius-server accounting 191.243.12.45 1813 weight 0
radius-server shared-key @vigo_radius_huaweiXX
radius-server user-name original
commit

radius-server accounting-stop-packet send force
radius-server retransmit 5 timeout 10
commit

radius-server accounting-start-packet resend 3
radius-server accounting-stop-packet resend 3
radius-server accounting-interim-packet resend 5
commit
quit
```


CoA/PoD

Configuração CoA/PoD:

```
[~HUAWEI]radius-server authorization 191.243.12.45 destination-port 3799 shared-key @vigo_radius_huaweiXX
```

```
[~HUAWEI]commit
```

Comando:

```
radius-server authorization 191.243.12.45 destination-port 3799 shared-key @vigo_radius_huaweiXX  
commit
```

Configurando pool

Pool IPv4

Configurando pool IPv4

```
[~HUAWEI]ip pool pool-cgnat bas local
```

```
[~HUAWEI-ip-pool-pool-cgnat] gateway 100.64.72.1 255.255.255.0
```

```
[~HUAWEI-ip-pool-pool-cgnat] section 0 100.64.72.2 100.64.72.254
```

```
[~HUAWEI-ip-pool-pool-cgnat] dns-server 191.243.12.35 8.8.8.8
```

```
[*HUAWEI-ip-pool-pool-cgnat]commit
```

```
[*HUAWEI-ip-pool-pool-cgnat]quit
```

Comando:

```
ip pool pool-cgnat bas local  
gateway 100.64.142.1 255.255.255.0  
section 0 100.64.142.2 100.64.142.254  
dns-server 191.243.12.35 8.8.8.8  
commit  
quit
```

Pool IPv6

Configurando pool IPv6

Prefixo local

Criando o prefixo de túnel:

```
[~HUAWEI]ipv6 prefix prefixo-tunel local
```

```
[~HUAWEI-ipv6-prefix-prefixo-tunel]prefix 2804:12A4:100:8000::/50
```

```
[~HUAWEI-ipv6-prefix-prefixo-tunel]commit
```

```
[~HUAWEI-ipv6-prefix-prefixo-tunel]quit
```

Comando:

```
ipv6 prefix prefixo-tunel local  
prefix 2804:12A4:100:8000::/50  
commit  
quit
```

Prefixo PD

Criando o prefixo de delegação:

```
[~HUAWEI]ipv6 prefix prefixo-pd delegation
```

```
[~HUAWEI-ipv6-prefix-prefixo-pd]prefix 2804:12A4:180::/42 delegating-prefix-length 56
```

```
[~HUAWEI-ipv6-prefix-prefixo-pd]commit
```

```
[~HUAWEI-ipv6-prefix-prefixo-pd]quit
```

Comando:

```
ipv6 prefix prefixo-pd delegation  
prefix 2804:12A4:180::/42 delegating-prefix-length 56  
commit  
quit
```

Pool Túnel

Configurando o pool de túnel:

```
[~HUAWEI-ipv6-prefix-prefixo-pd]ipv6 pool pool-tunel bas local
```

```
[~HUAWEI-ipv6-pool-pool-tunel]dns-server 2804:12A4:100:4::2 2001:4860:4860::8888
```

```
[~HUAWEI-ipv6-pool-pool-tunel]prefix prefixo-tunel
```

```
[~HUAWEI-ipv6-pool-pool-tunel]commit
```

```
[~HUAWEI-ipv6-pool-pool-tunel]quit
```

Comando:

```
ipv6 pool pool-tunnel bas local
dns-server 2804:12A4:100:4::2 2001:4860:4860::8888
prefix prefixo-tunnel
commit
quit
```

Pool PD

Configurando o pool de prefixos:

```
[~HUAWEI]ipv6 pool pool-pd bas delegation
```

```
[~HUAWEI-ipv6-pool-pool-pd]dns-server 2804:12A4:100:4::2 2001:4860:4860::8888
```

```
[~HUAWEI-ipv6-pool-pool-pd]prefix prefixo-pd
```

```
[~HUAWEI-ipv6-pool-pool-pd]commit
```

```
[~HUAWEI-ipv6-pool-pool-pd]quit
```

```
ipv6 pool pool-pd bas delegation
dns-server 2804:12A4:100:4::2 2001:4860:4860::8888
prefix prefixo-pd
commit
quit
```

DHCPv6

Configurar o DUID do servidor DHCPv6:

```
[~HUAWEI]dhcpv6 duid ll
```

```
[*HUAWEI]commit
```

Comando:

```
dhcpv6 duid ll
commit
```

Domínio

Configurando o domínio

```
[~HUAWEI]aaa
```

```
[~HUAWEI-aaa]domain velbras
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[~HUAWEI-aaa-domain-velbras]authentication-scheme auth1
```

```
[*HUAWEI-aaa-domain-velbras]accounting-scheme acct1
```

```
[*HUAWEI-aaa-domain-velbras]radius-server group vigo
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[~HUAWEI-aaa-domain-velbras]ip-pool pool-cgnat
```

```
[~HUAWEI-aaa-domain-velbras]ipv6-pool pool-tunel
```

```
[~HUAWEI-aaa-domain-velbras]ipv6-pool pool-pd
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[~HUAWEI-aaa-domain-velbras]dns primary-ip 191.243.12.35
```

```
[*HUAWEI-aaa-domain-velbras]dns second-ip 8.8.8.8
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[~HUAWEI-aaa-domain-velbras]dns primary-ipv6 2804:12A4:100:4::2
```

```
[~HUAWEI-aaa-domain-velbras]dns second-ipv6 2001:4860:4860::8888
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[*HUAWEI-aaa-domain-velbras]accounting-start-delay 3 online user-type ppp
```

```
[*HUAWEI-aaa-domain-velbras]commit
```

```
[*HUAWEI-aaa-domain-velbras]quit
```

```
[*HUAWEI-aaa]quit
```

Comando:

```
aaa
domain velbras
commit

authentication-scheme auth1
accounting-scheme acct1
radius-server group vigo
commit

ip-pool pool-cgnat
```

```
ipv6-pool pool-tunel
ipv6-pool pool-pd
commit

dns primary-ip 191.243.12.35
dns second-ip 8.8.8.8
commit

dns primary-ipv6 2804:12A4:100:4::2
dns second-ipv6 2001:4860:4860::8888
commit

accounting-start-delay 3 online user-type ppp
commit

quit
quit
```

Ativando o servidor PPPoE

Configuração da VLAN, habilitando o IPv6 e vinculação com o Virtual-Template:

```
[~HUAWEI]interface gigabitethernet 0/3/7.300
```

```
[*HUAWEI-GigabitEthernet0/3/7.300]commit
```

```
[~HUAWEI-GigabitEthernet0/3/7.300]user-vlan 300
```

```
[~HUAWEI-GigabitEthernet0/3/7.300-vlan-300-300]quit
```

```
[*HUAWEI-GigabitEthernet0/3/7.300]ipv6 enable
```

```
[*HUAWEI-GigabitEthernet0/3/7.300]ipv6 address auto link-local
```

```
[*HUAWEI-GigabitEthernet0/3/7.300]commit
```

```
[~HUAWEI-GigabitEthernet0/3/7.300]pppoe-server bind virtual-template 1
```

```
[*HUAWEI-GigabitEthernet0/3/7.300]commit
```

```
[~HUAWEI-GigabitEthernet0/3/7.300]bas
```

```
[~HUAWEI-GigabitEthernet0/3/7.300-bas]access-type layer2-subscriber default-domain authentication velbras
```

```
[~HUAWEI-GigabitEthernet0/3/7.300-bas]authentication-method ppp
```

```
[~HUAWEI-GigabitEthernet0/3/7.300-bas]commit
```

```
[~HUAWEI-GigabitEthernet0/3/7.300-bas]quit
```

```
[~HUAWEI-GigabitEthernet0/3/7.300]quit
```

Comando:

```
interface gigabitethernet 0/3/7.300
commit
user-vlan 300
quit
ipv6 enable
ipv6 address auto link-local
commit
pppoe-server bind virtual-template 1
commit
bas
access-type layer2-subscriber default-domain authentication velbras
authentication-method ppp
commit
quit
quit
```

Radius

Integrando o Radius

Profile/Queue dinâmica

Para usar a configuração de forma dinâmica dos planos de velocidade, basta utilizar os atributos na resposta de grupo do Radius. Dessa forma o Radius enviará os valores para controle de banda ao concentrador, no momento da autenticação do login.

```
Huawei-Input-Average-Rate
```

```
Huawei-Output-Average-Rate
```

Exemplo:

```
INSERT INTO radreply (Username, Attribute, op, Value) VALUES ('teste', 'Huawei-Input-Average-Rate', ':=', '30000')
INSERT INTO radreply (Username, Attribute, op, Value) VALUES ('teste', 'Huawei-Output-Average-Rate', ':=', '1000')
```

Profile/Queue estática

Esse tipo de configuração é usada para cenários onde o controle de velocidade já está criado no concentrador como demonstra o exemplo:

```
qos-profile plano_de_teste
user-queue cir 30720 pir 30720 inbound
user-queue cir 102400 cbs 102400 pir 102400 outband
```

Logo o nome do qos-profile deve ser inserido no cadastro do usuário que deseja vincular a esse profile:

```
Huawei-Qos-Profile-Name
```

Exemplo:

```
INSERT INTO radreply (Username, Attribute, op, Value) VALUES ('teste', 'Huawei-Qos-Profile-Name', ':=', 'plano_de_teste')
```

Nomenclaturas

CE: Customer Edge

PE: Provider Edge

CPE: Customer Premise Equipment

BNG: Broadband Network Gateway

RADIUS: Remote Authentication Dial In User Service (Autenticação Remota Dial-In User Service)

AAA: Authentication, Authorization and Accounting (Autenticação de Assinante, Autorização e Contabilidade)

ANP: Access Network Providers

ISP: Internet Service Provider (Provedor de Serviços de Internet)

NSP: Network Service Providers

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