



Provedor de Internet e Serviços - (41) 3673-5879

Mikrotik + Debian + Squid + ThunderCache 3 = "SuperCache"

ATENÇÃO

Por alguns motivos, fui obrigado a "fechar" o script (não será mais possível "ler" o que tem dentro dele):

Algumas pessoas estavam "vendendo" configuração de servidores usando o script e alterando os créditos e/ou referencia contidas no mesmo, por esse motivo, se alguém tiver informações sobre o "mau uso" do script e do tuto favor encaminhar para suporte@microcenterweb.com.br

Segue texto original (do primeiro tuto e script).

Olá pessoal "navegando pelos fóruns's da vida" venho notando que muitas pessoas "se batem" para implantar uma solução de Proxy paralelo junto ao Mikrotik. Vou tentar ajudar a todos com um script que irá instalar e configurar o Squid + ThunderCache3. Junto a esse artigo tem as regras para serem usadas no Mikrotik para fazer web-proxy com cache-full via Parent Proxy.

Não sou nenhum especialista em Linux, então caso alguém ache erros ou simplesmente queira ajudar a melhorar o script e as regras do mikrotik fique a vontade para dar sugestões (críticas construtivas são bem vindas).

Tudo que está descrito abaixo uso em meu provedor:

O cenário é o seguinte:

Trabalho com 3 Servidores:

- 1 servidor Mikrotik 3.28 para balance via PCC de 3 link (dois de 8mb e um de 2mb).
- 1 servidor Mikrotik 2.9.27 para controle dos clientes por hotspot.
- 1 servidor Linux Debian para o Squid + ThunderCache 3.

Os hardwares usados:

Mikrotik Balance = Placa mãe ASUS, Processador P4 3.0, 256 mb de ram, hd de 10 gb (eu não tinha um menor que esse) e placas de rede 3com.

Mikrotik Hotspot = Placa mãe ASUS, Processador P4 3.0, 512 mb de ram, hd de 80 gb (eu não tinha um menor que esse) e placas de rede 3com.

Linux Debian = Placa mãe ASUS, Processador Core 2 Quad Q8200, 4 gb de ram, hd de 1,5 tb e placas de rede 3com.

Os IP's são:

Modens:

Modem 01 8mb = 10.1.1.1 (link1)

Modem 02 8mb = 10.2.2.1 (link2)

Modem 03 2mb = 10.3.3.1 (link3)

Mikrotik Balance:

Interface link1 = 10.1.1.2 (recebe um dos links de 8mb).

Interface link2 = 10.2.2.2 (recebe o outro link de 8mb).

Interface link3 = 10.3.3.2 (recebe o link de 2mb).

Interface saída = 172.16.0.1 (é ligada ao Mikrotik Hotspot via cabo cross)

Mikrotik Hotspot:

Interface link = 172.16.0.2 (recebe o link de internet do Mikrotik Balance).

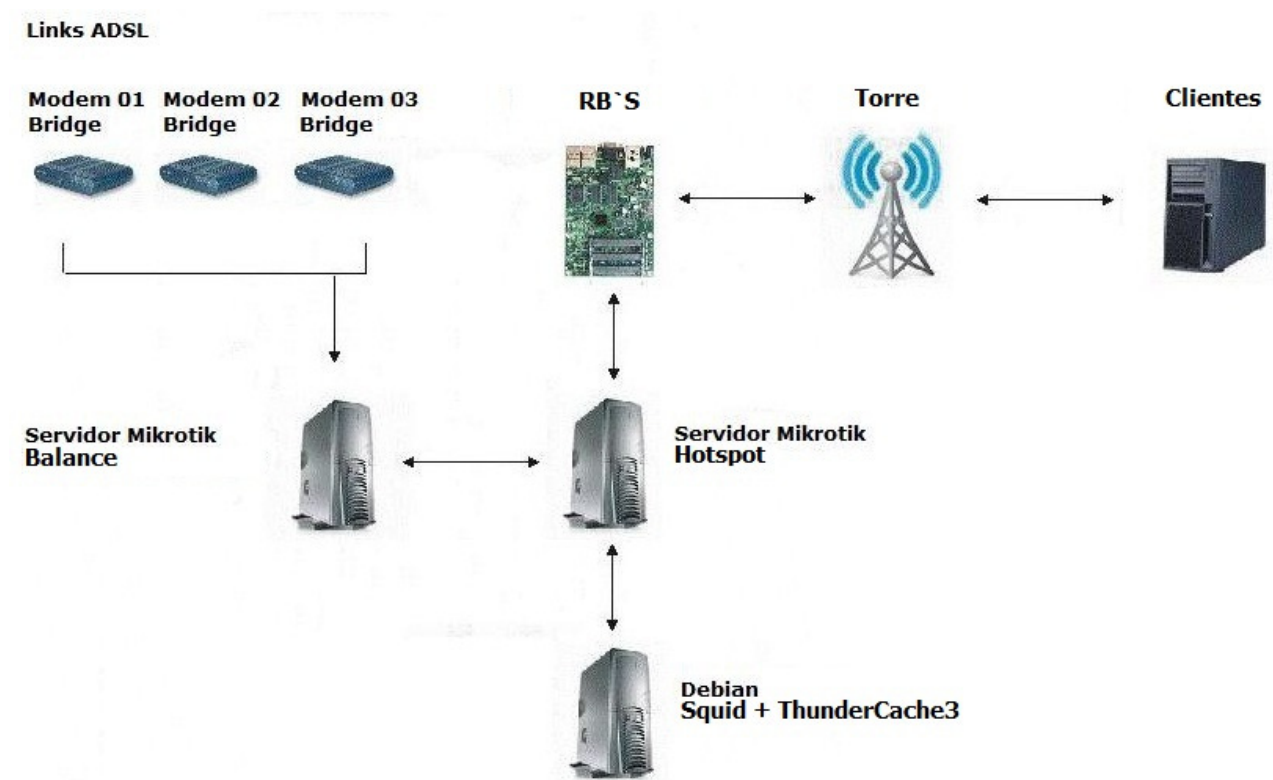
Interface clientes = 192.168.1.1 (saída para os clientes).

Interface thundercache = 192.168.10.253 (é ligada no Debian).

Linux Debian = 192.168.10.250 (Interface que é ligada no mikrotik).

Na torre trabalho com duas RB`s 433 em bridge só transmitindo o sinal com 2 cartões cada RB e 4 antenas painel de 12dbi e 90°.

A topologia fica + ou - assim:



Vamos agora ao que interessa.

Primeiros Passos:

Acesse: <http://www.microcenterweb.com.br/mikrotik>

No menu Download tem o link para baixar o Linux Debian Netinst v.5.0.3.

Baixe ele e “queime” um cd.

No menu vídeos tem um que mostra como fazer a instalação básica do debian, apenas com os pacotes básicos, siga o vídeo que o resto será instalado via apt-get.

Depois do Debian instalado:

Faça login como root.

Agora vamos baixar o script que fará a instalação dos pacotes necessários para o funcionamento do squid + thundercache3:

```
wget http://www.microcenterweb.com.br/thunder/ThunderCacheMweb.tar
```

Descompacte o arquivo com o comando:

```
tar -zxvf ThunderCacheMweb.tar (tecle enter)
```

Após o arquivo ser descompactado, de permissão de execução para o script com o comando:

```
chmod +x ThunderCacheMweb.sh (tecle enter)
```

Agora “rode” o script:

```
./ThunderCacheMweb.sh (tecle enter)
```

Tudo que for perguntado confirme com S e tecle enter.

Ao final o servidor ira rebootar, quando ele “voltar” seu ip (eth0) será 192.168.10.250

Você deverá editar os seguintes arquivos conforme suas necessidades:

```
/etc/squid/squid.conf  
/etc/thunder/clean.php
```

Faça a ligação entre o Debian e o Mikrotik via cabo cross.

Atenção: No mikrotik deverá ter uma placa de rede exclusiva para fazer a ligação entre o mikrotik e o debian e o ip dessa placa deverá ser 192.168.10.253.

Agora as configurações do Mikrotik com regras de “cache-full” para uso com Parent Proxy (imagino que seu mikrotik esteja configurado e funcionando).

Adicionei algumas regras que uso em meu provedor:
(Leia até o final, pois tem algumas coisas para mudar).

Regras para o “cache-full”:

```
/ ip firewall mangle  
add chain=output protocol=tcp src-port=5128 content="X-Cache: HIT" \  
    action=mark-connection new-connection-mark=conn_squid-up passthrough=yes \  
    comment="CACHE FULL" disabled=no  
add chain=output connection-mark=conn_squid-up action=mark-packet \  
    new-packet-mark=pacotes_squid-up passthrough=yes comment="" disabled=no  
add chain=prerouting protocol=tcp dst-port=5128 action=mark-connection \  
    new-connection-mark=conn_squid-down passthrough=yes comment="" disabled=no  
add chain=prerouting connection-mark=conn_squid-down action=mark-packet \  
    new-packet-mark=pacotes_squid-down passthrough=yes comment="" disabled=no
```

Nat e redirecionamento para o Proxy:

```
/ ip firewall nat  
add chain=srcnat src-address=192.168.10.0/24 action=masquerade comment="MASQUERADE  
THUNDER" \  

```

```
disabled=no
add chain=dstnat in-interface=clientes src-address=192.168.1.0/24 protocol=tcp \
dst-port=80 action=redirect to-ports=5128 comment="REDIRECIONAR PROXY" \
disabled=no
```

clientes é o nome da interface que atende os clientes (troque pelo nome da sua interface).
192.168.1.0/24 é a faixa de ip usada pelos clientes (troque pela sua faixa).

Bloquear proxy externo e aceitar conexões vindas do Proxy:

```
/ ip firewall filter
add chain=input in-interface=link protocol=tcp dst-port=5128 action=drop \
comment="BLOQUEIO DO PROXY EXTERNO Link" disabled=no
add chain=input protocol=tcp dst-port=5128 action=accept comment="ACEITAR \
CONEXOES PROXY" disabled=no
```

Link é o nome da interface que recebe o link da internet (troque pelo nome da sua interface).
(Essas regras devem estar no topo da lista ip / Firewall / Filter Rules).

Limitar velocidade do “cache-full”

```
/ queue tree
add name="[CACHE-FULL] - Download" parent=global-in \
packet-mark=pacotes_squid-down limit-at=0 queue=default priority=1 \
max-limit=0 burst-limit=0 burst-threshold=0 burst-time=0s disabled=no
add name="[CACHE-FULL] - Upload" parent=global-out \
packet-mark=pacotes_squid-up limit-at=1024000 queue=default priority=1 \
max-limit=1526000 burst-limit=0 burst-threshold=0 burst-time=0s \
disabled=no
```

1024000 = 1 mb
1526000 = 1,5 mb

Configurações do Web-Proxy:

```
/ ip web-proxy
set enabled=yes src-address=0.0.0.0 port=5128 hostname="proxy" \
transparent-proxy=yes parent-proxy=192.168.10.250:3128 \
cache-administrator="webmaster" max-object-size=153600KiB \
cache-drive=system max-cache-size=none max-ram-cache-size=none
```

Bloqueio de “Sites Perigosos”:

```
/ ip web-proxy access
add url=".ebkn.com" action=deny comment="" disabled=no
add url=".ebky.com" action=deny comment="" disabled=no
add url=".eblv.com" action=deny comment="" disabled=no
add url=".ebmu.com" action=deny comment="" disabled=no
add url=".ebvr.com" action=deny comment="" disabled=no
add url=".ecmh.com" action=deny comment="" disabled=no
add url=".ecmp.com" action=deny comment="" disabled=no
add url=".ecpm.com" action=deny comment="" disabled=no
add url=".ecwz.com" action=deny comment="" disabled=no
add url=".ecyb.com" action=deny comment="" disabled=no
add url=".edhq.com" action=deny comment="" disabled=no
add url=".edty.com" action=deny comment="" disabled=no
add url=".00hq.com" action=deny comment="" disabled=no
```

add url=".75tz.com" action=deny comment="" disabled=no
add url=".aavc.com" action=deny comment="" disabled=no
add url=".acjp.com" action=deny comment="" disabled=no
add url=".count.cc" action=deny comment="" disabled=no
add url=".ebav.com" action=deny comment="" disabled=no
add url=".ebaw.com" action=deny comment="" disabled=no
add url=".ebch.com" action=deny comment="" disabled=no
add url=".ebdv.com" action=deny comment="" disabled=no
add url=".ebdw.com" action=deny comment="" disabled=no
add url=".ebgo.com" action=deny comment="" disabled=no
add url=".ebjp.com" action=deny comment="" disabled=no
add url=".ebkb.com" action=deny comment="" disabled=no
add url=".eduy.com" action=deny comment="" disabled=no
add url=".eeev.com" action=deny comment="" disabled=no
add url=".emch.com" action=deny comment="" disabled=no
add url=".farse.com" action=deny comment="" disabled=no
add url=".ibmx.com" action=deny comment="" disabled=no
add url=".icwb.com" action=deny comment="" disabled=no
add url=".icwo.com" action=deny comment="" disabled=no
add url=".icwp.com" action=deny comment="" disabled=no
add url=".iddh.com" action=deny comment="" disabled=no
add url=".idhh.com" action=deny comment="" disabled=no
add url=".iefeadsl.com" action=deny comment="" disabled=no
add url=".ifiz.com" action=deny comment="" disabled=no
add url=".iguu.com" action=deny comment="" disabled=no
add url=".lop.com" action=deny comment="" disabled=no
add url=".rf104.com" action=deny comment="" disabled=no
add url=".roar.com" action=deny comment="" disabled=no
add url=".samz.com" action=deny comment="" disabled=no
add url=".saoe.com" action=deny comment="" disabled=no
add url=".sbee.com" action=deny comment="" disabled=no
add url=".sblr.com" action=deny comment="" disabled=no
add url=".sbnl.com" action=deny comment="" disabled=no
add url=".sbnt.com" action=deny comment="" disabled=no
add url=".sbvr.com" action=deny comment="" disabled=no
add url=".scbm.com" action=deny comment="" disabled=no
add url=".sckr.com" action=deny comment="" disabled=no
add url=".scrk.com" action=deny comment="" disabled=no
add url=".sdry.com" action=deny comment="" disabled=no
add url=".seld.com" action=deny comment="" disabled=no
add url=".sfux.com" action=deny comment="" disabled=no
add url=".sipo.com" action=deny comment="" disabled=no
add url=".smds.com" action=deny comment="" disabled=no
add url=".srib.com" action=deny comment="" disabled=no
add url=".srox.com" action=deny comment="" disabled=no
add url=".srsf.com" action=deny comment="" disabled=no
add url=".ssaw.com" action=deny comment="" disabled=no
add url=".ssby.com" action=deny comment="" disabled=no
add url=".surj.com" action=deny comment="" disabled=no
add url=".tbvg.com" action=deny comment="" disabled=no
add url=".tdak.com" action=deny comment="" disabled=no
add url=".tdko.com" action=deny comment="" disabled=no
add url=".tdmy.com" action=deny comment="" disabled=no
add url=".tefs.com" action=deny comment="" disabled=no
add url=".torc.com" action=deny comment="" disabled=no
add url=".wabq.com" action=deny comment="" disabled=no
add url=".wabu.com" action=deny comment="" disabled=no

add url="/topx.cc" action=deny comment="" disabled=no
add url="/torc.com" action=deny comment="" disabled=no
add url="/wabq.com" action=deny comment="" disabled=no
add url="/wabu.com" action=deny comment="" disabled=no
add url="/wbkb.com" action=deny comment="" disabled=no
add url="/wfix.com" action=deny comment="" disabled=no
add url="/wflu.com" action=deny comment="" disabled=no
add url="008i.com" action=deny comment="" disabled=no
add url="008k.com" action=deny comment="" disabled=no
add url="00hq.com" action=deny comment="" disabled=no
add url="1.httptdads.com" action=deny comment="" disabled=no
add url="100sexlinks.com" action=deny comment="" disabled=no
add url="157.238.62.14" action=deny comment="" disabled=no
add url="171203.com" action=deny comment="" disabled=no
add url="17-plus.com" action=deny comment="" disabled=no
add url="193.125.201.50" action=deny comment="" disabled=no
add url="1-domains-registrations.com" action=deny comment="" disabled=no
add url="1sexparty.com" action=deny comment="" disabled=no
add url="1stpagehere.com" action=deny comment="" disabled=no
add url="2020search.com" action=deny comment="" disabled=no
add url="207-87-18-203.wsmg.digex.net" action=deny comment="" disabled=no
add url="209.66.114.130" action=deny comment="" disabled=no
add url="213.131.225.2" action=deny comment="" disabled=no
add url="216.65.3.68" action=deny comment="" disabled=no
add url="24teen.com" action=deny comment="" disabled=no
add url="2ndpower.com" action=deny comment="" disabled=no
add url="36site.com" action=deny comment="" disabled=no
add url="39-93.com" action=deny comment="" disabled=no
add url="4corn.net" action=deny comment="" disabled=no
add url="66.117.14.138" action=deny comment="" disabled=no
add url="66.197.100.83" action=deny comment="" disabled=no
add url="66.197.138.235" action=deny comment="" disabled=no
add url="66.250.107.100" action=deny comment="" disabled=no
add url="66.250.107.101" action=deny comment="" disabled=no
add url="66.250.107.99" action=deny comment="" disabled=no
add url="66.250.130.194" action=deny comment="" disabled=no
add url="66.250.170.107" action=deny comment="" disabled=no
add url="66.250.57.26" action=deny comment="" disabled=no
add url="66.250.57.27" action=deny comment="" disabled=no
add url="66.250.57.28" action=deny comment="" disabled=no
add url="a.tribalfusion.com" action=deny comment="" disabled=no
add url="a207.p.f.qz3.net" action=deny comment="" disabled=no
add url="a3.suntimes.com" action=deny comment="" disabled=no
add url="aboutclicker.com" action=deny comment="" disabled=no
add url="abrp.net" action=deny comment="" disabled=no
add url="accessthefuture.net" action=deny comment="" disabled=no
add url="acemedic.com" action=deny comment="" disabled=no
add url="ace-webmaster.com" action=deny comment="" disabled=no
add url="actionbreastcancer.org" action=deny comment="" disabled=no
add url="actionsplash.com" action=deny comment="" disabled=no
add url="activexupdate.com" action=deny comment="" disabled=no
add url="ad.abcnews.com" action=deny comment="" disabled=no
add url="ad.adsmart.net" action=deny comment="" disabled=no
add url="ad.adtraq.com" action=deny comment="" disabled=no
add url="ad.atlas.cz" action=deny comment="" disabled=no
add url="ad.au.doubleclick.net" action=deny comment="" disabled=no
add url="ad.be.doubleclick.net" action=deny comment="" disabled=no

add url="ad.blm.net" action=deny comment="" disabled=no
add url="ad.ca.doubleclick.net" action=deny comment="" disabled=no
add url="ad.ch.doubleclick.net" action=deny comment="" disabled=no
add url="ad.de.doubleclick.net" action=deny comment="" disabled=no
add url="ad.dogpile.com" action=deny comment="" disabled=no
add url="ad.doubleclick.com" action=deny comment="" disabled=no
add url="ad.doubleclick.net" action=deny comment="" disabled=no
add url="ad.fr.doubleclick.net" action=deny comment="" disabled=no
add url="ad.harmony-central.com" action=deny comment="" disabled=no
add url="ad.horvitznewspapers.net" action=deny comment="" disabled=no
add url="ad.howstuffworks.com" action=deny comment="" disabled=no
add url="ad.img.yahoo.co.kr" action=deny comment="" disabled=no
add url="ad.infoseek.com" action=deny comment="" disabled=no
add url="ad.iwin.com" action=deny comment="" disabled=no
add url="ad.jp.doubleclick.net" action=deny comment="" disabled=no
add url="ad.kimo.com.tw" action=deny comment="" disabled=no
add url="/edhq.com" action=deny comment="" disabled=no
add url="/edty.com" action=deny comment="" disabled=no
add url="/eduy.com" action=deny comment="" disabled=no
add url="/eeev.com" action=deny comment="" disabled=no
add url="/emch.com" action=deny comment="" disabled=no
add url="/farse.com" action=deny comment="" disabled=no
add url="/ibmx.com" action=deny comment="" disabled=no
add url="/icwb.com" action=deny comment="" disabled=no
add url="/icwo.com" action=deny comment="" disabled=no
add url="/icwp.com" action=deny comment="" disabled=no
add url="/iddh.com" action=deny comment="" disabled=no
add url="/idhh.com" action=deny comment="" disabled=no
add url="/iefeadsl.com" action=deny comment="" disabled=no
add url="/ifiz.com" action=deny comment="" disabled=no
add url="/iguu.com" action=deny comment="" disabled=no
add url="/rf104.com" action=deny comment="" disabled=no
add url="ad.linkexchange.com" action=deny comment="" disabled=no
add url="ad.linksynergy.com" action=deny comment="" disabled=no
add url="ad.moscowtimes.ru" action=deny comment="" disabled=no
add url="ad.net-service.de" action=deny comment="" disabled=no
add url="ad.nl.doubleclick.net" action=deny comment="" disabled=no
add url="ad.no.doubleclick.net" action=deny comment="" disabled=no
add url="ad.openfind.com.tw" action=deny comment="" disabled=no
add url="ad.preferences.com" action=deny comment="" disabled=no
add url="ad.preferences.com" action=deny comment="" disabled=no
add url="search-space.com" action=deny comment="" disabled=no
add url="search-dot.com" action=deny comment="" disabled=no
add url="search-and-go.com" action=deny comment="" disabled=no
add url="search-1.net" action=deny comment="" disabled=no
add url="rightfinder.net" action=deny comment="" disabled=no
add url="power-search.info" action=deny comment="" disabled=no
add url="onet.pl" action=deny comment="" disabled=no
add url="omega-search.com" action=deny comment="" disabled=no
add url=".ohcorea.com" action=deny comment="" disabled=no
add url=".novafuck.com" action=deny comment="" disabled=no
add url=".nkvd.us" action=deny comment="" disabled=no
add url=".naver.com" action=deny comment="" disabled=no
add url=".maxxxhosters.com" action=deny comment="" disabled=no
add url=".lookfor.cc" action=deny comment="" disabled=no
add url=".iquicksearch.com" action=deny comment="" disabled=no
add url="58q.com" action=deny comment="" disabled=no

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add url=".hugesearch.net" action=deny comment="" disabled=no
add url=".hotwebsearch.com" action=deny comment="" disabled=no
add url=".hotsearchbox.com" action=deny comment="" disabled=no
add url=".hao123.com" action=deny comment="" disabled=no
add url=".hand-book.com" action=deny comment="" disabled=no
add url=".gajai.com" action=deny comment="" disabled=no
add url=".firstbookmark.com" action=deny comment="" disabled=no
add url=".find4u.net" action=deny comment="" disabled=no
add url=".find-itnow.com" action=deny comment="" disabled=no
add url=".dreamwiz.com" action=deny comment="" disabled=no
add url=".daum.net" action=deny comment="" disabled=no
add url=".cracks.am" action=deny comment="" disabled=no
add url=".couldnotfind.com" action=deny comment="" disabled=no
add url=".boredlife.com" action=deny comment="" disabled=no
add url="aifind.cc" action=deny comment="" disabled=no
add url=".alfa-search.com" action=deny comment="" disabled=no
add url=".8095.com" action=deny comment="" disabled=no
add url=".2fastsearch.net" action=deny comment="" disabled=no
add url="wmmse.com" action=deny comment="" disabled=no
add url="webcoolsearch.com" action=deny comment="" disabled=no
add url="tits.hardcore4ever.net" action=deny comment="" disabled=no
add url="allneedsearch.com" action=deny comment="" disabled=no
add url="teenhqpics.com" action=deny comment="" disabled=no
add url="teen-biz.com" action=deny comment="" disabled=no
add url="t.rack.cc" action=deny comment="" disabled=no
add url="super-spider.com" action=deny comment="" disabled=no
add url="searchmyrequest.com" action=deny comment="" disabled=no
add url="searchcentrix.com" action=deny comment="" disabled=no
add url="approvedlinks.com" action=deny comment="" disabled=no
add url="searchbar.findthewebsitelyouneed.com" action=deny comment="" \
  disabled=no
add url="search.psn.cn" action=deny comment="" disabled=no
add url="auto.ie.searchforge.com" action=deny comment="" disabled=no
add url="qwertysearch123.biz" action=deny comment="" disabled=no
add url="nativehardcore.com" action=deny comment="" disabled=no
add url="awebfind.biz" action=deny comment="" disabled=no
add url="mysearchnow.com" action=deny comment="" disabled=no
add url="best.royalsearch.net" action=deny comment="" disabled=no
add url="link.startmake.com" action=deny comment="" disabled=no
add url="just.find-itnow.com" action=deny comment="" disabled=no
add url="itseasy.us" action=deny comment="" disabled=no
add url="in.webcounter.cc" action=deny comment="" disabled=no
add url="ie-search.com" action=deny comment="" disabled=no
add url="i-lookup.com" action=deny comment="" disabled=no
add url="freshvideogals.com" action=deny comment="" disabled=no
add url="find4u.net" action=deny comment="" disabled=no
add url="cracks.am" action=deny comment="" disabled=no
add url="find.microgirls.com" action=deny comment="" disabled=no
add url="default-homepage-network.com" action=deny comment="" disabled=no
```

Faixa de IP que pode usar o Proxy:

/ ip web-proxy access

```
add src-address=192.168.1.0/24 action=allow comment="" disabled=no
```

192.168.1.0/24 é a faixa usada pelos clientes (troque pela sua faixa).

Sem cache de sites dinâmicos e alguns outros:

```
/ ip web-proxy cache
add url=":cgi-bin \?" action=deny comment="don't cache dynamic http pages" \
  disabled=no
add url="start.com.br" action=deny comment="" disabled=no
add url="http://speed" action=deny comment="" disabled=no
add url="https://" action=deny comment="Dont cache Dynamic HTTPS Pages" \
  disabled=no
add url="http://www.meuip.com.br" action=deny comment="Sem Cache MeuIP" \
  disabled=no
add url="http://www.google" action=deny comment="Sem Cache para Google" \
  disabled=no
add url="http://www.gmail" action=deny comment="Sem Cache para Gmail" \
  disabled=no
add url=":\.exe\$" action=allow comment="Super Proxy" disabled=no
add url=":\.zip\$" action=allow comment="" disabled=no
add url=":\.mpeg\$" action=allow comment="" disabled=no
add url=":\.avi\$" action=allow comment="" disabled=no
add url=":\.pdf\$" action=allow comment="" disabled=no
add url=":\.css\$" action=allow comment="" disabled=no
add url=":\.rar\$" action=allow comment="" disabled=no
add url=":\.mov\$" action=allow comment="" disabled=no
add url=":\.mpg\$" action=allow comment="" disabled=no
add url=":\.iso\$" action=allow comment="" disabled=no
add url=":\.bin\$" action=allow comment="" disabled=no
add url=":\.dat\$" action=allow comment="" disabled=no
add url=":\.swf\$" action=allow comment="" disabled=no
```

Pronto se você fez tudo certo já deve estar “cacheando” tando no squid como no thundercache

Para acessar o relatório do ThunderCache3

Abra seu navegador e na barra de endereços digite:

192.168.10.250/thunder3.php

ou:

192.168.10.250/thunder

(esse é um outro relatório, mais completo e com opção de ver os vídeos em cache).

O squid também tem um relatório que pode ser acessado pelo endereço:

192.168.10.250/squid-reports

O script ThunderCacheMweb.sh foi criado com base no tutorial de Rodrigo Minelli, disponível em:

<http://www.biazus.com/forum/viewtopic.php?f=30&t=666>

O script clean.php foi feito por Marcos Ferreira e esta disponível em:

<http://www.biazus.com/forum/viewtopic.php?f=6&t=905&hilit=clean.php&sid=ac70d2376dee598a8bf9eef44e06373>

O “novo relatório” foi feito por Marcos Ferreira e esta disponível em:

<http://www.biazus.com/forum/viewtopic.php?f=30&t=1006&sid=e8a680d1fc82865222477b558e3ca7da>

O script limpamemoria.sh foi feito por f4b3nny e esta disponível em:

<http://www.biazus.com/forum/viewtopic.php?f=21&t=760&sid=5f43517c0a8b2870866ce3ff9cabb591>

É isso aí pessoal o script ThunderCacheMweb.sh é livre para uso (por isso não dou garantia alguma e nem suporte). Peço que toda e qualquer modificação seja informada pelo e-mail: suporte@microcenterweb.com.br

Dicas, sugestões e melhorias são bem vindas.

Veja também o tutorial Servidor Mikrotik Básico que esta disponível em:

[http://www.microcenterweb.com.br/mikrotik/MicrocenterWEB%20-%20\(41\)%203673-5879%20-%20Mikrotik%20Servidor%20Basico.pdf](http://www.microcenterweb.com.br/mikrotik/MicrocenterWEB%20-%20(41)%203673-5879%20-%20Mikrotik%20Servidor%20Basico.pdf)

Aguardem novos tutoriais.

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www.microcenterweb.com.br/mikrotik