

## Workshop 11: Squid

### 1. Basic Installation Squid

```
#yum install squid  
# rpm -q squid  
# vim /etc/squid/squid.conf  
Add Line #3007: visible_hostname localhost.localdomain  
# service squid start  
# chkconfig squid on
```

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### 2. Basic ACL (Squid): Allow local network to access the Cache Server:

```
# vim /etc/squid/squid.conf  
Line 632: acl our_networks src 192.168.0.0/24  
Line 633: http_access allow our_networks  
  
# Service squid restart
```

open a sample url on firefox : www.yahoo.com & count ...

Firefox: Edit-> Preferences -> Advanced -> Network -> Manual Proxy  
Address IP: 127.0.0.1 Port: 3128  
Use This Proxy server for all... -> checked

clean cache firefox & restart the application!

open the same url again : www.yahoo.com and count again

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### 3. Performance tunning squid (Storage, Memory, Objects/Packets)

```
# vim /etc/squid/squid.conf  
Line 1579: cache_mem 128 MB  
Line 1588: maximum_object_size_in_memory 256 KB  
Line 1786: cache_dir aufs /var/spool/squid 100000 16 256  
Line 1825: maximum_object_size 50 MB  
# service squid restart
```

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### 4. Transparent cache (iptables NAT, redirect)

**Step1:**  
Running the server as a router

**Step 2:**  
# iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to 3128  
# iptables-save > /etc/sysconfig/iptables  
# vim /etc/squid/squid.conf:  
Line 921: http\_port 3128 transparent  
# service squid restart

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### 5. Squid logging:

**Part 1:**  
**Step1:** Default Directory

```
# cd /var/log/squid
```

**Step2:**

Check errors and debugging information

```
# tail -f cache.log
```

```
# /etc/init.d/squid restart
```

**Step3:**

Check access log information (main user log file)

```
# tail -f access.log
```

Browse a website from a client connected to squid server.

```
# firefox www.msn.com
```

**Access.log fields:**

1. Request\_Time (Unix Epoch)
2. Elapsed\_time(ms) of page/object delivery
3. Remotehost(IP)
4. Code(squid actions)/status(http errors)
5. Bytes delivered to client
6. Method (Get/Post/Connect)
7. URL
8. IDENT
9. hierarchy (Direct/IP)
10. Type (MINE)

**Step4:**

check store log (store objects in cache)

```
# tail -f store.log
```

**Store.log fields:**

1. Time
2. action (Release,Create,Swapout,Swapin)
3. file number ( Location on disk /var/spool/squid)
4. HTTP status
5. HTTP Date
6. Last Modified
7. Expiration of content
8. MIME status
9. Size of content\_length/actual size read
10. Method (Get/Post/Connect)
11. URL