



Squid

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jnlin

# Proxy

## – SQUID

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- ❑ A web proxy server & cache daemon.
  - Supports HTTP, FTP
  - Limited support for TLS, SSL, Gopher, HTTPS
- ❑ Port install: `/usr/ports/www/squid{,30,31}`
- ❑ Startup:
  - `/etc/rc.conf`
    - `squid_enable="YES"`
  - `/usr/local/etc/rc.d/squid start`
- ❑ Configuration Sample/Documents:
  - `/usr/local/etc/squid/squid.conf.default`

# Proxy

## – SQUID Configuration (1)

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### ❑ Listen Port

- Service Port
  - `http_port 3128`
- Neighbored Communication
  - `icp_port 3130`

### ❑ Logs

- `access_log`
  - `access_log /var/log/squid/access.log squid`
- `cache_log`
  - `cache_log /var/log/squid/cache.log`
- `cache_store_log`
  - `cache_store_log /var/log/squid/store.log`

# Proxy

## – SQUID Configuration (2)

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### ❑ Access Control

- `acl` – define an access control list
  - Format: `acl acl-name acl-type data`

```
acl all src 0.0.0.0/0.0.0.0
acl NCTU srcdomain .nctu.edu.tw
acl YAHOO dstdomain .yahoo.com
acl allowhost src “/usr/local/etc/squid.squid.allow”
```
- `http_access` – define the control rule
  - Format: `http_access allow|deny acl-name`

```
http_access allow NCTU
http_access allow allowhost
http_access deny all
```

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## – SQUID Configuration (3)

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### □ Proxy Relationship

- Protocol: ICP (Internet Cache Protocol)  
RFC 2186 2187, using *UDP*
- Related Configuration
  - `cache_peer hostname type http_port icp_port [options]`
  - `cache_peer_domain cache-host domain [domain ...]`
  - `cache_peer_access cache-host allow|deny acl-name`

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## – SQUID Configuration (4)

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### ❑ Cache Control

- `cache_mem` 256 MB
- `cache_dir` ufs /usr/local/squid/cache 100 16 256
- `cache_swap_low` 93
- `cache_swap_high` 98
- `maximum_object_size` 4096 KB
- `maximum_object_size_in_memory` 8 KB

# Proxy

## – SQUID Configuration (5)

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### ❑ Sample: Proxy Configuration

```
http_port 3128
icp_port 3130

cache_mem 32 MB
cache_dir ufs /usr/local/squid/cache 100 16 256

access_log /var/log/squid/access.log squid
cache_log /var/log/squid/cache.log
cache_store_log /var/log/squid/store.log
pid_filename /usr/local/squid/logs/squid.pid

visible_hostname nabsd.cs.nctu.edu.tw
acl allowhosts src "/usr/local/etc/squid/squid.allow"
http_access allow allowhosts
http_access deny all
```

# Proxy

## – SQUID Configuration (6)

### ❑ Sample: Reverse Proxy Configuration

```
http_port 80 vhost
icp_port 3130

cache_mem 32 MB
cache_dir ufs /usr/local/squid/cache 100 16 256

access_log /var/log/squid/access.log squid
cache_log /var/log/squid/cache.log
cache_store_log /var/log/squid/store.log
pid_filename /usr/local/squid/logs/squid.pid

visible_hostname nabsd.cs.nctu.edu.tw
url_rewrite_program /usr/local/squid/bin/redirect.sh
acl cswww dstdomain csws1 csws2
http_access allow all cswww
always_direct allow cswww
```



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## – SQUID Configuration (7)

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```
% cat /usr/local/squid/bin/redirect.sh

#!/bin/sh

while read line
do
    TIME=`date "+%S"`
    SERV=`expr $TIME % 2 + 1`
    echo $line | sed -e \ "s/^http:\/\www\.cs\.nctu\.edu\.tw\/http:\/\csws$SERV\.cs\.nctu\.edu\.tw\/"
done
```