```
WELCOME TO SQUID 2.6.STABLE6
```

This is the default Squid configuration file. You may wish to look at the Squid home page (http://www.squid-cache.org/) for the FAQ and other documentation.

The default Squid config file shows what the defaults for various options happen to be. If you don't need to change the default, you shouldn't uncomment the line. Doing so may cause run-time problems. In some cases "none" refers to no default setting at all, while in other cases it refers to a valid option - the comments for that keyword indicate if this is the case.

NETWORK OPTIONS

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TAG: http_port

Usage: port [options]

hostname:port [options]
1.2.3.4:port [options]

The socket addresses where Squid will listen for HTTP client requests. You may specify multiple socket addresses. There are three forms: port alone, hostname with port, and IP address with port. If you specify a hostname or IP address, Squid binds the socket to that specific address. This replaces the old 'tcp_incoming_address' option. Most likely, you do not need to bind to a specific address, so you can use the port number alone.

The default port number is 3128.

If you are running Squid in accelerator mode, you probably want to listen on port 80 also, or instead.

The -a command line option will override the *first* port number listed here. That option will NOT override an IP address, however.

You may specify multiple socket addresses on multiple lines.

options are:

transparent Support for transparent proxies vhost Accelerator using Host directive

rather than the http_port number.
Main web site name for accelerators.

urlgroup= Default urlgroup to mark requests with (see also acl urlgroup and

url_rewrite_program)

no-connection-auth

defaultsite=

Prevent forwarding of Microsoft connection oriented authentication (NTLM, Negotiate and Kerberos) Support Linux TPROXY for spoofing outgoing connections using the client

IP address.

If you run Squid on a dual-homed machine with an internal and an external interface we recommend you to specify the internal address:port in http_port. This way Squid will only be visible on the internal address.

Squid normally listens to port 3128 http_port 3128

tproxy

```
#
  TAG: https_port
        Usage: [ip:]port cert=certificate.pem [key=key.pem] [options...]
#
#
#
        The socket address where Squid will listen for HTTPS client
#
        requests.
#
#
        This is really only useful for situations where you are running
#
        squid in accelerator mode and you want to do the SSL work at the \,
#
        accelerator level.
#
#
        You may specify multiple socket addresses on multiple lines,
#
        each with their own SSL certificate and/or options.
#
#
        Options:
#
           defaultsite= The name of the https site presented on
#
#
                        this port.
#
           urlgroup=
                        Default urlgroup to mark requests with (see
#
                        also acl urlgroup and url_rewrite_program)
#
#
           protocol=
                        Protocol to reconstruct accelerated requests
#
                        with. Defaults to https.
#
                        Path to SSL certificate (PEM format)
           cert=
#
#
                        Path to SSL private key file (PEM format)
           key=
#
                        if not specified, the certificate file is
#
                        assumed to be a combined certificate and
#
                        key file
#
                        The version of SSL/TLS supported
#
           version=
                               automatic (default)
                            1
#
                            2
                                SSLv2 only
#
                            3
                                SSLv3 only
#
                                TLSv1 only
#
#
           cipher=
                        Colon separated list of supported ciphers
#
                        Various SSL engine options. The most important
#
           options=
#
#
                            NO_SSLv2 Disallow the use of SSLv2
#
                            NO_SSLv3 Disallow the use of SSLv3
#
                            NO TLSv1 Disallow the use of TLSv1
#
                            SINGLE_DH_USE Always create a new key when using
                                       temporary/ephemeral DH key exchanges
#
#
                        See src/ssl_support.c or OpenSSL SSL_CTX_set_options
                        documentation for a complete list of options.
#
#
           clientca=
                        File containing the list of CAs to use when
#
                        requesting a client certificate
#
#
           cafile=
                        File containing additional CA certificates to
                        use when verifying client certificates. If unset
#
#
                        clientca will be used.
#
                        Directory containing additional CA certificates
           capath=
#
                        and CRL lists to use when verifying client certificates
#
#
           crlfile=
                        File of additional CRL lists to use when verifying
#
                        the client certificate, in addition to CRLs stored in
#
                        the capath. Implies VERIFY_CRL flag below.
#
           dhparams=
                        File containing DH parameters for temporary/ephemeral
#
                        DH key exchanges
#
#
           sslflags=
                        Various flags modifying the use of SSL:
#
                            DELAYED_AUTH
#
                                 Don't request client certificates
                                 immediately, but wait until acl processing
#
#
                                 requires a certificate (not yet implemented)
#
                            NO_DEFAULT_CA
#
                                Don't use the default CA lists built in
```

```
#
                                to OpenSSL.
#
                            NO_SESSION_REUSE
#
                                Don't allow for session reuse. Each connection
#
                                will result in a new SSL session.
#
                            VERIFY CRL
#
                                Verify CRL lists when accepting client
#
                                certificates
#
                            VERIFY_CRL_ALL
                                Verify CRL lists for all certificates in the
#
                                client certificate chain
#
#
           sslcontext= SSL session ID context identifier.
#
#Default:
# none
  TAG: ssl_unclean_shutdown
#
        Some browsers (especially MSIE) bugs out on SSL shutdown
#
        messages.
#
#Default:
# ssl_unclean_shutdown off
  TAG: ssl engine
#
        The OpenSSL engine to use. You will need to set this if you
#
        would like to use hardware SSL acceleration for example.
#
#Default:
# none
  TAG: sslproxy_client_certificate
        Client SSL Certificate to use when proxying https:// URLs
#
#Default:
# none
  TAG: sslproxy_client_key
        Client SSL Key to use when proxying https:// URLs
#
#Default:
# none
  TAG: sslproxy version
        SSL version level to use when proxying https:// URLs
#
#
#Default:
# sslproxy_version 1
#
  TAG: sslproxy_options
#
        SSL engine options to use when proxying https:// URLs
#Default:
# none
  TAG: sslproxy_cipher
#
        SSL cipher list to use when proxying https:// URLs
#
#Default:
# none
  TAG: sslproxy_cafile
  TAG: sslproxy_capath
  TAG: sslproxy_flags
  TAG: sslpassword_program
#
        Specify a program used for entering SSL key passphrases
#
        when using encrypted SSL certificate keys. If not specified
        keys must either be unencrypted, or Squid started with the -N
#
        option to allow it to query interactively for the passphrase.
#Default:
# none
```

```
# TAG: icp_port
        The port number where Squid sends and receives ICP queries to
        and from neighbor caches. Default is 3130. To disable use
        "O". May be overridden with -u on the command line.
#Default:
# icp_port 3130
# TAG: htcp_port
# Note: This option is only available if Squid is rebuilt with the
        --enable-htcp option
#
#
       The port number where Squid sends and receives HTCP queries to
#
        and from neighbor caches. Default is 4827. To disable use
        "0".
#
#Default:
# htcp_port 4827
# TAG: mcast_groups
        This tag specifies a list of multicast groups which your server
#
#
        should join to receive multicasted ICP queries.
#
#
        NOTE! Be very careful what you put here! Be sure you
        understand the difference between an ICP guery and an ICP
#
        _reply_. This option is to be set only if you want to RECEIVE
#
        multicast queries. Do NOT set this option to SEND multicast
        ICP (use cache_peer for that). ICP replies are always sent via
#
#
        unicast, so this option does not affect whether or not you will
       receive replies from multicast group members.
#
#
       You must be very careful to NOT use a multicast address which
#
       is already in use by another group of caches.
#
#
       If you are unsure about multicast, please read the Multicast
#
       chapter in the Squid FAQ (http://www.squid-cache.org/FAQ/).
#
#
       Usage: mcast_groups 239.128.16.128 224.0.1.20
#
        By default, Squid doesn't listen on any multicast groups.
#Default:
# none
  TAG: udp_incoming_address
# TAG: udp_outgoing_address
#
       udp_incoming_address
                                is used for the ICP socket receiving packets
#
                                from other caches.
                                is used for ICP packets sent out to other
#
       udp_outgoing_address
#
                                caches.
#
#
       The default behavior is to not bind to any specific address.
#
       A udp_incoming_address value of 0.0.0.0 indicates Squid
#
#
       should listen for UDP messages on all available interfaces.
#
        If udp_outgoing_address is set to 255.255.255.255 (the default)
        it will use the same socket as udp_incoming_address. Only
#
        change this if you want to have ICP queries sent using another
#
#
        address than where this Squid listens for ICP queries from other
#
       caches.
#
        NOTE, udp incoming address and udp outgoing address can not
        have the same value since they both use port 3130.
#Default:
# udp_incoming_address 0.0.0.0
# udp_outgoing_address 255.255.255.255
```

OPTIONS WHICH AFFECT THE NEIGHBOR SELECTION ALGORITHM

```
#
  TAG: cache_peer
        To specify other caches in a hierarchy, use the format:
#
#
#
                cache_peer hostname type http_port icp_port [options]
#
#
        For example,
#
#
        #
                                                  proxy icp
#
        #
                   hostname
                                                  port port options
                                         type
#
#
        cache_peer parent.foo.net parent 3128 3130 [proxy-only]
#
        cache_peer sib1.foo.net
                                       sibling 3128 3130 [proxy-only]
#
        cache_peer sib2.foo.net
                                        sibling 3128 3130 [proxy-only]
#
              type: either 'parent', 'sibling', or 'multicast'.
#
#
#
       proxy_port: The port number where the cache listens for proxy
                     requests.
#
#
          icp_port: Used for querying neighbor caches about
                     objects. To have a non-ICP neighbor specify '7' for the ICP port and make sure the
#
#
                     neighbor machine has the UDP echo port
#
                     enabled in its /etc/inetd.conf file.
#
            options: proxy-only
#
#
                     weight=n
#
                     ttl=n
#
                     no-query
#
                     default
                     round-robin
#
#
                     multicast-responder
                     closest-only
#
                     no-digest
#
                     no-netdb-exchange
#
                     no-delay
#
                     login=user:password | PASS | *:password
#
                     connect-timeout=nn
#
                     digest-url=url
                     allow-miss
#
#
                     max-conn
#
                     htcp
#
                     htcp-oldsquid
#
                     carp-load-factor
#
                     originserver
#
                     userhash
#
                     sourcehash
                     name=xxx
#
                     monitorurl=url
#
                     monitorsize=sizespec
#
                     monitorinterval=seconds
#
                     monitortimeout=seconds
#
                     group=name
#
                     forceddomain=name
#
                     ssl
                     sslcert=/path/to/ssl/certificate
#
                     sslkey=/path/to/ssl/key
                     sslversion=1|2|3|4
#
#
                     sslcipher=...
#
                     ssloptions=...
#
                     front-end-https[=on|auto]
#
                     connection-auth[=on|off|auto]
#
                     use 'proxy-only' to specify objects fetched
#
                     from this cache should not be saved locally.
#
                     use 'weight=n' to specify a weighted parent.
#
                     The weight must be an integer. The default weight
#
                     is 1, larger weights are favored more.
#
                     use 'ttl=n' to specify a IP multicast TTL to use
#
                     when sending an ICP queries to this address.
#
                     Only useful when sending to a multicast group.
```

#

Because we don't accept ICP replies from random hosts, you must configure other group members as peers with the 'multicast-responder' option below.

use 'no-query' to NOT send ICP queries to this neighbor.

use 'default' if this is a parent cache which can be used as a "last-resort." You should probably only use 'default' in situations where you cannot use ICP with your parent cache(s).

use 'round-robin' to define a set of parents which should be used in a round-robin fashion in the absence of any ICP queries.

'multicast-responder' indicates the named peer is a member of a multicast group. ICP queries will not be sent directly to the peer, but ICP replies will be accepted from it.

'closest-only' indicates that, for ICP_OP_MISS replies, we'll only forward CLOSEST_PARENT_MISSes and never FIRST_PARENT_MISSes.

use 'no-digest' to NOT request cache digests from this neighbor.

'no-netdb-exchange' disables requesting ICMP RTT database (NetDB) from the neighbor.

use 'no-delay' to prevent access to this neighbor from influencing the delay pools.

use 'login=user:password' if this is a personal/workgroup proxy and your parent requires proxy authentication. Note: The string can include URL escapes (i.e. %20 for spaces). This also means % must be written as %%.

use 'login=PASS' to forward authentication to the peer. Needed if the peer requires login.
Note: To combine this with local authentication the Basic authentication scheme must be used, and both servers must share the same user database as HTTP only allows for a single login (one for proxy, one for origin server).

use 'login=*:password' to pass the username to the upstream cache, but with a fixed password. This is meant to be used when the peer is in another administrative domain, but it is still needed to identify each user. The star can optionally be followed by some extra information which is added to the username. This can be used to identify this proxy to the peer, similar to the login=username:password option above.

use 'connect-timeout=nn' to specify a peer specific connect timeout (also see the peer_connect_timeout directive)

use 'digest-url=url' to tell Squid to fetch the cache digest (if digests are enabled) for this host from the specified URL rather than the Squid default location.

use 'allow-miss' to disable Squid's use of only-if-cached when forwarding requests to siblings. This is primarily useful when icp_hit_stale is used by the sibling. To extensive use of this option may result in forwarding loops, and you should avoid having two-way peerings with this option. (for example to deny peer usage on requests from peer by denying cache_peer_access if the source is a peer)

#

use 'max-conn' to limit the amount of connections Squid may open to this peer.

use 'htcp' to send HTCP, instead of ICP, queries to the neighbor. You probably also want to set the "icp port" to 4827 instead of 3130.

use 'htcp-oldsquid' to send HTCP to old Squid versions

use 'carp-load-factor=f' to define a parent cache as one participating in a CARP array. The 'f' values for all CARP parents must add up to 1.0.

'originserver' causes this parent peer to be contacted as a origin server. Meant to be used in accelerator setups.

use 'userhash' to load-balance amongst a set of parents based on the client proxy_auth or ident username.

use 'sourcehash' to load-balanse amongs a set of parents based on the client source ip.

use 'name=xxx' if you have multiple peers on the same host but different ports. This name can then be used to differentiate the peers in cache_peer_access and similar directives.

use 'monitorurl=url' to have periodically request a given URL from the peer, and only consider the peer as alive if this monitoring is successful (default none)

use 'monitorsize=min[-max]' to limit the size range of 'monitorurl' replies considered valid. Defaults to 0 to accept any size replies as valid.

use 'monitorinterval=seconds' to change frequency of how often the peer is monitored with 'monitorurl' (default 300 for a 5 minute interval). If set to 0 then monitoring is disabled even if a URL is defined.

use 'monitortimeout=seconds' to change the timeout of 'monitorurl'. Defaults to 'monitorinterval'.

use 'forceddomain=name' to forcibly set the Host header of requests forwarded to this peer. Useful in accelerator setups where the server (peer) expects a certain domain name and using redirectors to feed this domain name is not feasible.

use 'ssl' to indicate that connections to this peer should bs SSL/TLS encrypted.

use 'sslcert=/path/to/ssl/certificate' to specify a client SSL certificate to use when connecting to this peer.

use 'sslkey=/path/to/ssl/key' to specify the private SSL key corresponding to sslcert above. If 'sslkey' is not specified then 'sslcert' is assumed to reference a combined file containing both the certificate and the key.

use sslversion=1|2|3|4 to specify the SSL version to use when connecting to this peer

- 1 = automatic (default)
- 2 = SSL v2 only
- 3 = SSL v3 only
- 4 = TLS v1 only

use sslcipher=... to specify the list of valid SSL ciphers to use when connecting to this peer.

use ssloptions=... to specify various SSL engine options: NO_SSLv2 Disallow the use of SSLv2

NO SSLv3 Disallow the use of SSLv3 NO_TLSv1 Disallow the use of TLSv1 # # See src/ssl_support.c or the OpenSSL documentation for # a more complete list. # # use sslcafile=... to specify a file containing # additional CA certificates to use when verifying the # peer certificate. # use sslcapath=... to specify a directory containing # additional CA certificates to use when verifying the # peer certificate. # # use sslcrlfile=... to specify a certificate revocation # list file to use when verifying the peer certificate. # # use sslflags=... to specify various flags modifying the SSL implementation: # DONT_VERIFY_PEER # Accept certificates even if they fail to # verify. # NO_DEFAULT_CA Don't use the default CA list built in # # to OpenSSL. # use ssldomain= to specify the peer name as advertised # in it's certificate. Used for verifying the correctness # of the received peer certificate. If not specified the # peer hostname will be used. # use front-end-https to enable the "Front-End-Https: On" # header needed when using Squid as a SSL frontend in front of Microsoft OWA. See MS KB document Q307347 for details # on this header. If set to auto then the header will # only be added if the request is forwarded as a https:// # URL. # use connection-auth=off to tell Squid that this peer does # not support Microsoft connection oriented authentication, and any such challenges received from there should be ignored. Default is auto to automatically determine the # status of the peer. # NOTE: non-ICP/HTCP neighbors must be specified as 'parent'. #Default: # none # TAG: cache_peer_domain # Use to limit the domains for which a neighbor cache will be # queried. Usage: # # cache_peer_domain cache-host domain [domain ...] # cache_peer_domain cache-host !domain # # For example, specifying # # cache_peer_domain parent.foo.net .edu # # has the effect such that UDP query packets are sent to # 'bigserver' only when the requested object exists on a # server in the .edu domain. Prefixing the domain name with '!' means the cache will be queried for objects # NOT in that domain. # # NOTE: * Any number of domains may be given for a cache-host, either on the same or separate lines. \star When multiple domains are given for a particular # cache-host, the first matched domain is applied. * Cache hosts with no domain restrictions are queried for all requests. * There are no defaults. * There is also a 'cache_peer_access' tag in the ACL

```
#
                  section.
#
#Default:
# none
  TAG: neighbor_type_domain
#
        usage: neighbor_type_domain neighbor parent|sibling domain domain ...
#
#
        Modifying the neighbor type for specific domains is now
#
        possible. You can treat some domains differently than the the
#
        default neighbor type specified on the 'cache_peer' line.
#
        Normally it should only be necessary to list domains which
#
        should be treated differently because the default neighbor type
#
        applies for hostnames which do not match domains listed here.
#
#EXAMPLE:
#
        cache_peer parent cache.foo.org 3128 3130
#
        neighbor_type_domain cache.foo.org sibling .com .net
#
        neighbor_type_domain cache.foo.org sibling .au .de
#Default:
# none
  TAG: icp_query_timeout
                                 (msec)
        Normally Squid will automatically determine an optimal ICP
#
        query timeout value based on the round-trip-time of recent ICP
#
        queries. If you want to override the value determined by
        Squid, set this 'icp_query_timeout' to a non-zero value. This value is specified in MILLISECONDS, so, to use a 2-second
#
#
#
        timeout (the old default), you would write:
#
                icp_query_timeout 2000
#Default:
# icp_query_timeout 0
  TAG: maximum_icp_query_timeout
                                          (msec)
        Normally the ICP query timeout is determined dynamically. But
#
#
        sometimes it can lead to very large values (say 5 seconds).
        Use this option to put an upper limit on the dynamic timeout
#
#
        value. Do NOT use this option to always use a fixed (instead
        of a dynamic) timeout value. To set a fixed timeout see the
#
        'icp_query_timeout' directive.
#Default:
# maximum_icp_query_timeout 2000
  TAG: mcast_icp_query_timeout (msec)
#
        For multicast peers, Squid regularly sends out ICP "probes" to
4
        count how many other peers are listening on the given multicast
        address. This value specifies how long Squid should wait to
#
#
        count all the replies. The default is 2000 msec, or 2
        seconds.
#Default:
# mcast_icp_query_timeout 2000
41-
  TAG: dead_peer_timeout
                                 (seconds)
        This controls how long Squid waits to declare a peer cache
#
#
        as "dead." If there are no ICP replies received in this
        amount of time, Squid will declare the peer dead and not
#
#
        expect to receive any further ICP replies. However, it
        continues to send ICP queries, and will mark the peer as
#
#
        alive upon receipt of the first subsequent ICP reply.
#
#
        This timeout also affects when Squid expects to receive ICP
        replies from peers. If more than 'dead_peer' seconds have passed since the last ICP reply was received, Squid will not
#
#
        expect to receive an ICP reply on the next query. Thus, if
#
#
        your time between requests is greater than this timeout, you
        will see a lot of requests sent DIRECT to origin servers
#
        instead of to your parents.
#
```

```
#Default:
# dead_peer_timeout 10 seconds
# TAG: hierarchy_stoplist
       A list of words which, if found in a URL, cause the object to
       be handled directly by this cache. In other words, use this
       to not query neighbor caches for certain objects. You may
       list this option multiple times. Note: never_direct overrides
       this option.
#We recommend you to use at least the following line.
hierarchy_stoplist cgi-bin ?
# TAG: cache
       A list of ACL elements which, if matched, cause the request to
#
       not be satisfied from the cache and the reply to not be cached.
       In other words, use this to force certain objects to never be cached.
#
#
       You must use the word 'DENY' to indicate the ACL names which should
       NOT be cached.
       Default is to allow all to be cached
#We recommend you to use the following two lines.
acl QUERY urlpath_regex cgi-bin \?
cache deny QUERY
# TAG: cache_vary
1E
       Set to off to disable caching of Vary:in objects.
#Default:
# cache_vary on
# TAG: broken_vary_encoding
       Many servers have broken support for on-the-fly Content-Encoding,
#
       returning the same ETag on both plain and gzip:ed variants.
       Vary replies matching this access list will have the cache split
#
#
       on the Accept-Encoding header of the request and not trusting the
       ETag to be unique.
\# Apache mod_gzip and mod_deflate known to be broken so don't trust
# Apache to signal ETag correctly on such responses
acl apache rep_header Server ^Apache
broken_vary_encoding allow apache
# OPTIONS WHICH AFFECT THE CACHE SIZE
# ------
# TAG: cache_mem
                       (bytes)
       NOTE: THIS PARAMETER DOES NOT SPECIFY THE MAXIMUM PROCESS SIZE.
4
       IT ONLY PLACES A LIMIT ON HOW MUCH ADDITIONAL MEMORY SQUID WILL
       USE AS A MEMORY CACHE OF OBJECTS. SQUID USES MEMORY FOR OTHER
#
#
       THINGS AS WELL. SEE THE SQUID FAQ SECTION 8 FOR DETAILS.
#
       'cache_mem' specifies the ideal amount of memory to be used
#
#
       for:
               * In-Transit objects
#
               * Hot Objects
#
               * Negative-Cached objects
#
#
       Data for these objects are stored in 4 KB blocks. This
       parameter specifies the ideal upper limit on the total size of
#
#
       4 KB blocks allocated. In-Transit objects take the highest
#
       priority.
#
#
       In-transit objects have priority over the others. When
#
       additional space is needed for incoming data, negative-cached
       and hot objects will be released. In other words, the
#
#
       negative-cached and hot objects will fill up any unused space
#
       not needed for in-transit objects.
       If circumstances require, this limit will be exceeded.
       Specifically, if your incoming request rate requires more than
       'cache_mem' of memory to hold in-transit objects, Squid will
```

```
#
        exceed this limit to satisfy the new requests. When the load
        decreases, blocks will be freed until the high-water mark is
#
#
        reached. Thereafter, blocks will be used to store hot
        objects.
#Default:
# cache_mem 8 MB
  TAG: cache_swap_low (percent, 0-100)
  TAG: cache_swap_high (percent, 0-100)
#
        The low- and high-water marks for cache object replacement.
#
        Replacement begins when the swap (disk) usage is above the
#
        low-water mark and attempts to maintain utilization near the
#
        low-water mark. As swap utilization gets close to high-water
        mark object eviction becomes more aggressive. If utilization is
#
#
        close to the low-water mark less replacement is done each time.
#
        Defaults are 90% and 95%. If you have a large cache, 5% could be
#
        hundreds of MB. If this is the case you may wish to set these
        numbers closer together.
#Default:
# cache_swap_low 90
# cache_swap_high 95
# TAG: maximum_object_size
                               (bytes)
        Objects larger than this size will NOT be saved on disk. The
#
#
        value is specified in kilobytes, and the default is 4MB.
#
        you wish to get a high BYTES hit ratio, you should probably
#
        increase this (one 32 MB object hit counts for 3200 10KB
#
        hits). If you wish to increase speed more than your want to
        save bandwidth you should leave this low.
#
#
        NOTE: if using the LFUDA replacement policy you should increase
#
        this value to maximize the byte hit rate improvement of LFUDA!
        See replacement_policy below for a discussion of this policy.
#Default:
# maximum_object_size 4096 KB
# TAG: minimum_object_size
                                (bytes)
4
        Objects smaller than this size will NOT be saved on disk. The
        value is specified in kilobytes, and the default is O KB, which
#
#
        means there is no minimum.
#Default:
# minimum_object_size 0 KB
  TAG: maximum_object_size_in_memory (bytes)
#
        Objects greater than this size will not be attempted to kept in
#
        the memory cache. This should be set high enough to keep objects
#
        accessed frequently in memory to improve performance whilst low
        enough to keep larger objects from hoarding cache_mem.
# maximum_object_size_in_memory 8 KB
# TAG: ipcache_size
                        (number of entries)
  TAG: ipcache_low
                        (percent)
  TAG: ipcache_high
                        (percent)
        The size, low-, and high-water marks for the IP cache.
#
#Default:
# ipcache_size 1024
# ipcache_low 90
# ipcache_high 95
#
  TAG: fqdncache_size (number of entries)
#
        Maximum number of FQDN cache entries.
#Default:
# fqdncache_size 1024
```

```
TAG: cache_replacement_policy
        The cache replacement policy parameter determines which
#
        objects are evicted (replaced) when disk space is needed.
#
#
                      : Squid's original list based LRU policy
            heap GDSF : Greedy-Dual Size Frequency
#
            heap LFUDA: Least Frequently Used with Dynamic Aging
#
#
            heap LRU : LRU policy implemented using a heap
#
        Applies to any cache_dir lines listed below this.
#
#
        The LRU policies keeps recently referenced objects.
#
#
        The heap GDSF policy optimizes object hit rate by keeping smaller
        popular objects in cache so it has a better chance of getting a
#
#
        hit. It achieves a lower byte hit rate than LFUDA though since
        it evicts larger (possibly popular) objects.
#
#
        The heap LFUDA policy keeps popular objects in cache regardless of
        their size and thus optimizes byte hit rate at the expense of
#
#
        hit rate since one large, popular object will prevent many
#
        smaller, slightly less popular objects from being cached.
#
        Both policies utilize a dynamic aging mechanism that prevents
#
        cache pollution that can otherwise occur with frequency-based
#
        replacement policies.
#
#
        NOTE: if using the LFUDA replacement policy you should increase
#
        the value of maximum_object_size above its default of 4096 KB to
#
        to maximize the potential byte hit rate improvement of LFUDA.
#
        For more information about the GDSF and LFUDA cache replacement
#
        policies see http://www.hpl.hp.com/techreports/1999/HPL-1999-69.html
        and http://fog.hpl.external.hp.com/techreports/98/HPL-98-173.html.
#
#Default:
# cache_replacement_policy lru
# TAG: memory_replacement_policy
#
        The memory replacement policy parameter determines which
#
        objects are purged from memory when memory space is needed.
#
#
        See cache replacement policy for details.
#Default:
# memory_replacement_policy lru
# LOGFILE PATHNAMES AND CACHE DIRECTORIES
#
   TAG: cache_dir
#
        Usage:
#
#
        cache_dir Type Directory-Name Fs-specific-data [options]
#
#
        You can specify multiple cache_dir lines to spread the
        cache among different disk partitions.
#
#
        Type specifies the kind of storage system to use. Only "ufs"
#
#
        is built by default. To enable any of the other storage systems
        see the --enable-storeio configure option.
#
#
        'Directory' is a top-level directory where cache swap
#
        files will be stored. If you want to use an entire disk
        for caching, this can be the mount-point directory.
#
#
        The directory must exist and be writable by the Squid
#
        process. Squid will NOT create this directory for you.
#
        Only using COSS, a raw disk device or a stripe file can
        be specified, but the configuration of the "cache_wap_log"
#
        tag is mandatory.
```

The ufs store type:

#

#

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#

"ufs" is the old well-known Squid storage format that has always been there.

cache dir ufs Directory-Name Mbytes L1 L2 [options]

'Mbytes' is the amount of disk space (MB) to use under this directory. The default is 100~MB. Change this to suit your configuration. Do NOT put the size of your disk drive here. Instead, if you want Squid to use the entire disk drive, subtract 20% and use that value.

'Level-1' is the number of first-level subdirectories which will be created under the 'Directory'. The default is 16.

'Level-2' is the number of second-level subdirectories which will be created under each first-level directory. The default is 256.

The aufs store type:

"aufs" uses the same storage format as "ufs", utilizing POSIX-threads to avoid blocking the main Squid process on disk-I/O. This was formerly known in Squid as async-io.

cache_dir aufs Directory-Name Mbytes L1 L2 [options]

see argument descriptions under ufs above

The diskd store type:

"diskd" uses the same storage format as "ufs", utilizing a separate process to avoid blocking the main Squid process on disk-I/O.

cache_dir diskd Directory-Name Mbytes L1 L2 [options] [Q1=n] [Q2=n]

see argument descriptions under ufs above

Q1 specifies the number of unacknowledged I/O requests when Squid stops opening new files. If this many messages are in the queues, Squid won't open new files. Default is 64

 ${\tt Q2}$ specifies the number of unacknowledged messages when Squid starts blocking. If this many messages are in the queues, Squid blocks until it receives some replies. Default is ${\tt 72}$

When Q1 < Q2 (the default), the cache directory is optimized for lower response time at the expense of a decrease in hit ratio. If Q1 > Q2, the cache directory is optimized for higher hit ratio at the expense of an increase in response time.

The COSS store type:

block-size=n defines the "block size" for COSS cache_dir's. Squid uses file numbers as block numbers. Since file numbers are limited to 24 bits, the block size determines the maximum size of the COSS partition. The default is 512 bytes, which leads to a maximum cache_dir size of 512<<24, or 8 GB. Note you should not change the COSS block size after Squid has written some objects to the cache dir.

overwrite-percent=n defines the percentage of disk that COSS must write to before a given object will be moved to the current stripe. A value of "n" closer to 100 will cause COSS to waste less disk space by having multiple copies of an object on disk, but will increase the chances of overwriting a popular object as COSS overwrites stripes. A value of "n" close to 0 will cause COSS to keep all current objects in the current COSS stripe at the expense of the hit rate. The default value of 50 will allow any given object to be stored on disk a maximum of

2 times.

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#

max-stripe-waste=n defines the maximum amount of space that COSS will waste in a given stripe (in bytes). When COSS writes data to disk, it will potentially waste up to "max-size" worth of disk space for each 1MB of data written. If "max-size" is set to a large value (ie >256k), this could potentially result in large amounts of wasted disk space. Setting this value to a lower value (ie 64k or 32k) will result in a COSS disk refusing to cache larger objects until the COSS stripe has been filled to within "max-stripe-waste" of the maximum size (1MB).

membufs=n defines the number of "memory-only" stripes that COSS will use. When an cache hit is performed on a COSS stripe before COSS has reached the overwrite-percent value for that object, COSS will use a series of memory buffers to hold the object in while the data is sent to the client. This will define the maximum number of memory-only buffers that COSS will use. The default value is 10, which will use a maximum of 10MB of memory for buffers.

maxfullbufs=n defines the maximum number of stripes a COSS partition will have in memory waiting to be freed (either because the disk is under load and the stripe is unwritten, or because clients are still transferring data from objects using the memory). In order to try and maintain a good hit rate under load, COSS will reserve the last 2 full stripes for object hits. (ie a COSS cache_dir will reject new objects when the number of full stripes is 2 less than maxfullbufs)

Common options:

read-only, this cache_dir is read only.

max-size=n, refers to the max object size this storedir supports. It is used to initially choose the storedir to dump the object. Note: To make optimal use of the max-size limits you should order the cache_dir lines with the smallest max-size value first and the ones with no max-size specification last.

Note that for coss, max-size must be less than COSS_MEMBUF_SZ (hard coded at 1 MB).

#Default:

cache_dir ufs /var/spool/squid 100 16 256

TAG: logformat Usage:

logformat <name> <format specification>

Defines an access log format.

The <format specification> is a string with embedded % format codes

% format codes all follow the same basic structure where all but the formatcode is optional. Output strings are automatically escaped as required according to their context and the output format modifiers are usually not needed, but can be specified if an explicit output format is desired.

 $% ["|[|'|#][-][[0]width][{argument}] formatcode$

- " output in quoted string format
 [output in squid text log format as used by log_mime_hdrs
 # output in URL quoted format
 ' output as-is
- left aligned
 width field width. If starting with 0 then the
 output is zero padded
 {arg} argument such as header name etc

Format codes:

```
Client FQDN
                > A
                >p
                        Client source port
                        Server IP address or peer name
                < A
#
                        Local IP address (http_port)
                l a
#
                        Local port number (http port)
                1 p
#
                ts
                        Seconds since epoch
#
                        subsecond time (milliseconds)
                t.u
#
                t.1
                        Local time. Optional strftime format argument
                        default %d/%b/%Y:%H:%M:%S %z
#
                        GMT time. Optional strftime format argument
#
                        default %d/%b/%Y:%H:%M:%S %z
#
                        Response time (milliseconds)
                t.r
#
                >h
                        Request header. Optional header name argument
#
                        on the format header[:[separator]element]
                        Reply header. Optional header name argument
#
                <h
#
                        as for >h
                        User name
#
                u1
                        User login
#
                        User ident
                иi
                        User SSL
#
                иs
                        User external acl
#
                ue
                        HTTP status code
#
                Нs
#
                        Squid request status (TCP_MISS etc)
                55
                        Squid hierarchy status (DEFAULT PARENT etc)
#
                mt
                        MIME content type
#
                        Request method (GET/POST etc)
                rm
#
                ru
                        Request URL
#
                        Request protocol version
                rv
#
                        Log string returned by external acl
                еa
                <st
                        Reply size including HTTP headers
                        a literal % character
#logformat squid %ts.%03tu %6tr %>a %Ss/%03Hs %<st %rm %ru %un %Sh/%<A %mt
#logformat squidmime %ts.%03tu %6tr %>a %Ss/%03Hs %<st %rm %ru %un %Sh/%<A %mt
[%>h] [%<h]
#logformat common %>a %ui %un [%tl] "%rm %ru HTTP/%rv" %Hs %<st %Ss:%Sh
#logformat combined %>a %ui %un [%tl] "%rm %ru HTTP/%rv" %Hs %<st "%{Referer}>h"
 "%{User-Agent}>h" %Ss:%Sh
#Default:
# none
  TAG: access log
  These files log client request activities. Has a line every HTTP or
# ICP request. The format is:
# access_log <filepath> [<logformat name> [acl acl ...]]
\# Will log to the specified file using the specified format (which
  must be defined in a logformat directive) those entries which match
  ALL the acl's specified (which must be defined in acl clauses).
  If no acl is specified, all requests will be logged to this file.
  To disable logging of a request use the filepath "none", in which case
  a logformat name should not be specified.
# To log the request via syslog specify a filepath of "syslog"
access_log /var/log/squid/access.log squid
  TAG: cache_log
        Cache logging file. This is where general information about
#
#
        your cache's behavior goes. You can increase the amount of data
        logged to this file with the "debug_options" tag below.
4
#Default:
# cache_log /var/log/squid/cache.log
# TAG: cache_store_log
#
       Logs the activities of the storage manager. Shows which
#
        objects are ejected from the cache, and which objects are
        saved and for how long. To disable, enter "none". There are
        not really utilities to analyze this data, so you can safely
#
        disable it.
```

#

>a

Client source IP address

```
#
#Default:
# cache_store_log /var/log/squid/store.log
  TAG: cache_swap_log
        Location for the cache "swap.state" file. This log file holds
#
        the metadata of objects saved on disk. It is used to rebuild
        the cache during startup. Normally this file resides in each
#
#
        'cache_dir' directory, but you may specify an alternate
        pathname here. Note you must give a full filename, not just
#
        a directory. Since this is the index for the whole object
#
        list you CANNOT periodically rotate it!
#
#
        If %s can be used in the file name it will be replaced with a
#
        a representation of the cache_dir name where each / is replaced
        with '.'. This is needed to allow adding/removing cache_dir
#
#
        lines when cache_swap_log is being used.
#
#
        If have more than one 'cache_dir', and %s is not used in the name
#
        these swap logs will have names such as:
#
#
                cache_swap_log.00
#
                cache_swap_log.01
#
                cache_swap_log.02
#
        The numbered extension (which is added automatically)
#
        corresponds to the order of the 'cache_dir' lines in this
        configuration file. If you change the order of the 'cache_dir' lines in this file, these log files will NOT correspond to
#
#
        the correct 'cache_dir' entry (unless you manually rename
#
        them). We recommend you do NOT use this option. It is
#
        better to keep these log files in each 'cache_dir' directory.
#Default:
# none
  TAG: emulate_httpd_log
                                 on off
        The Cache can emulate the log file format which many 'httpd'
        programs use. To disable/enable this emulation, set
#
        emulate_httpd_log to 'off' or 'on'. The default
        is to use the native log format since it includes useful
        information Squid-specific log analyzers use.
#Default:
# emulate_httpd_log off
  TAG: log_ip_on_direct
                                 on|off
        Log the destination IP address in the hierarchy log tag when going
#
        direct. Earlier Squid versions logged the hostname here. If you
#
        prefer the old way set this to off.
#Default:
# log_ip_on_direct on
# TAG: mime_table
        Pathname to Squid's MIME table. You shouldn't need to change
#
        this, but the default file contains examples and formatting
#
        information if you do.
#Default:
# mime_table /etc/squid/mime.conf
  TAG: log mime hdrs on off
#
        The Cache can record both the request and the response MIME
4
        headers for each HTTP transaction. The headers are encoded
#
        safely and will appear as two bracketed fields at the end of
        the access log (for either the native or httpd-emulated log
        formats). To enable this logging set log_mime_hdrs to 'on'.
#Default:
# log_mime_hdrs off
# TAG: useragent_log
```

```
#
        Squid will write the User-Agent field from HTTP requests
        to the filename specified here. By default useragent_log
#
#
        is disabled.
#Default:
# none
  TAG: referer_log
#
        Squid will write the Referer field from HTTP requests to the
        filename specified here. By default referer log is disabled.
#
        Note that "referer" is actually a misspelling of "referrer"
#
        however the misspelt version has been accepted into the HTTP RFCs
#
        and we accept both.
#Default:
# none
  TAG: pid_filename
        A filename to write the process-id to. To disable, enter "none".
#
#Default:
# pid_filename /var/run/squid.pid
  TAG: debug_options
        Logging options are set as section, level where each source file
#
        is assigned a unique section. Lower levels result in less
#
        output, Full debugging (level 9) can result in a very large
        log file, so be careful. The magic word "ALL" sets debugging levels for all sections. We recommend normally running with
#
#
#
        "ALL,1".
#Default:
# debug_options ALL,1
# TAG: log_fqdn
                        on|off
        Turn this on if you wish to log fully qualified domain names
        in the access.log. To do this Squid does a DNS lookup of all
        IP's connecting to it. This can (in some situations) increase
#
        latency, which makes your cache seem slower for interactive
        browsing.
#Default:
# log_fqdn off
# TAG: client netmask
        A netmask for client addresses in logfiles and cachemgr output.
#
#
        Change this to protect the privacy of your cache clients.
        A netmask of 255.255.255.0 will log all IP's in that range with
#
        the last digit set to '0'.
#Default:
# client_netmask 255.255.255.255
# OPTIONS FOR EXTERNAL SUPPORT PROGRAMS
4
  TAG: ftp_user
#
        If you want the anonymous login password to be more informative
#
        (and enable the use of picky ftp servers), set this to something
        reasonable for your domain, like www.user@somewhere.net
#
#
        The reason why this is domainless by default is the
#
        request can be made on the behalf of a user in any domain,
#
        depending on how the cache is used.
#
        Some ftp server also validate the email address is valid
        (for example perl.com).
#Default:
# ftp_user Squid@
# TAG: ftp_list_width
        Sets the width of ftp listings. This should be set to fit in
```

```
#
        the width of a standard browser. Setting this too small
        can cut off long filenames when browsing ftp sites.
#
#
#Default:
# ftp_list_width 32
# TAG: ftp_passive
        If your firewall does not allow Squid to use passive
#
        connections, turn off this option.
#Default:
# ftp_passive on
  TAG: ftp_sanitycheck
        For security and data integrity reasons Squid by default performs
#
        sanity checks of the addresses of FTP data connections ensure the
#
#
        data connection is to the requested server. If you need to allow
        FTP connections to servers using another IP address for the data
        connection turn this off.
#Default:
# ftp_sanitycheck on
  TAG: ftp_telnet_protocol
        The FTP protocol is officially defined to use the telnet protocol
#
        as transport channel for the control connection. However, many
#
        implementations are broken and does not respect this aspect of
#
        the FTP protocol.
#
#
        If you have trouble accessing files with ASCII code 255 in the
#
        path or similar problems involving this ASCII code you can
#
        try setting this directive to off. If that helps, report to the
        operator of the FTP server in question that their FTP server
        is broken and does not follow the FTP standard.
#Default:
# ftp_telnet_protocol on
# TAG: check_hostnames
#
        For security and stability reasons Squid by default checks
#
        hostnames for Internet standard RFC compliance. If you do not want
£.
        Squid to perform these checks then turn this directive off.
#Default:
# check_hostnames on
# TAG: allow_underscore
        Underscore characters is not strictly allowed in Internet hostnames
#
        but nevertheless used by many sites. Set this to off if you want
#
        Squid to be strict about the standard.
#Default:
# allow_underscore on
# TAG: cache_dns_program
# Note: This option is only available if Squid is rebuilt with the
        --disable-internal-dns option
#
#
        Specify the location of the executable for dnslookup process.
#Default:
# cache_dns_program /usr/lib/squid/dnsserver
# TAG: dns_children
\# Note: This option is only available if Squid is rebuilt with the
#
        --disable-internal-dns option
#
#
        The number of processes spawn to service DNS name lookups.
#
        For heavily loaded caches on large servers, you should
        probably increase this value to at least 10. The maximum
#
        is 32. The default is 5.
        You must have at least one dnsserver process.
#
```

```
#
#Default:
# dns_children 5
  TAG: dns_retransmit_interval
        Initial retransmit interval for DNS queries. The interval is
#
        doubled each time all configured DNS servers have been tried.
# dns_retransmit_interval 5 seconds
# TAG: dns_timeout
        DNS Query timeout. If no response is received to a DNS query
#
        within this time all DNS servers for the queried domain
        are assumed to be unavailable.
#
#
#Default:
# dns_timeout 2 minutes
#
  TAG: dns_defnames
                        on|off
#
        Normally the RES_DEFNAMES resolver option is disabled
#
        (see res_init(3)). This prevents caches in a hierarchy
        from interpreting single-component hostnames locally. To allow
4
        Squid to handle single-component names, enable this option.
#Default:
# dns_defnames off
  TAG: dns_nameservers
#
        Use this if you want to specify a list of DNS name servers
#
        (IP addresses) to use instead of those given in your
#
        /etc/resolv.conf file.
#
        On Windows platforms, if no value is specified here or in
        the /etc/resolv.conf file, the list of DNS name servers are
#
#
        taken from the Windows registry, both static and dynamic DHCP
#
        configurations are supported.
       Example: dns_nameservers 10.0.0.1 192.172.0.4
#Default:
# none
#
  TAG: hosts file
        Location of the host-local IP name-address associations
#
#
        database. Most Operating Systems have such a file on different
#
       default locations:
#
        - Un*X & Linux:
                           /etc/hosts
       - Windows NT/2000: %SystemRoot%\system32\drivers\etc\hosts
#
#
                           (%SystemRoot% value install default is c:\winnt)
#
       - Windows XP/2003: %SystemRoot%\system32\drivers\etc\hosts
#
                           (%SystemRoot% value install default is c:\windows)
#
       - Windows 9x/Me:
                           %windir%\hosts
#
                           (%windir% value is usually c:\windows)
#
       - Cygwin:
                           /etc/hosts
#
       The file contains newline-separated definitions, in the
#
        form ip_address_in_dotted_form name [name ...] names are
        whitespace-separated. Lines beginning with an hash (#)
#
#
        character are comments.
#
#
        The file is checked at startup and upon configuration.
       If set to 'none', it won't be checked.
#
        If append_domain is used, that domain will be added to
#
        domain-local (i.e. not containing any dot character) host
        definitions.
#Default:
# hosts_file /etc/hosts
  TAG: diskd_program
#
        Specify the location of the diskd executable.
#
        Note that this is only useful if you have compiled in
```

```
#
        diskd as one of the store io modules.
#
#Default:
# diskd_program /usr/lib/squid/diskd-daemon
# TAG: unlinkd_program
#
        Specify the location of the executable for file deletion process.
#Default:
# unlinkd program /usr/lib/squid/unlinkd
# TAG: pinger_program
\# Note: This option is only available if Squid is rebuilt with the
        --enable-icmp option
#
#
        Specify the location of the executable for the pinger process.
#
# pinger_program /usr/lib/squid/pinger
  TAG: url_rewrite_program
#
        Specify the location of the executable for the URL rewriter.
#
#
        Since they can perform almost any function there isn't one included.
#
        For each requested URL rewriter will receive on line with the format
#
#
#
        URL <SP> client_ip "/" fqdn <SP> user <SP> method <SP> urlgroup <NL>
#
#
        And the rewriter may return a rewritten URL. The other components of
#
        the request line does not need to be returned (ignored if they are).
#
        The rewriter can also indicate that a client-side redirect should
#
#
        be performed to the new URL. This is done by prefixing the returned
#
        URL with "301:" (moved permanently) or 302: (moved temporarily).
#
#
        It can also return a "urlgroup" that can subsequently be matched
#
        in cache_peer_access and similar ACL driven rules. An urlgroup is
        returned by prefixing the returned url with "!urlgroup!"
#
#
        By default, a URL rewriter is not used.
#Default:
# none
#
  TAG: url_rewrite_children
#
        The number of redirector processes to spawn. If you start
#
        too few Squid will have to wait for them to process a backlog of
#
        URLs, slowing it down. If you start too many they will use RAM
#
        and other system resources.
#Default:
# url_rewrite_children 5
# TAG: url_rewrite_concurrency
#
        The number of requests each redirector helper can handle in
#
        parallel. Defaults to 0 which indicates that the redirector
#
        is a old-style singlethreaded redirector.
#Default:
# url_rewrite_concurrency 0
#
  TAG: url_rewrite_host_header
#
        By default Squid rewrites any Host: header in redirected
#
        requests. If you are running an accelerator this may
4₽
        not be a wanted effect of a redirector.
#
        WARNING: Entries are cached on the result of the URL rewriting
        process, so be careful if you have domain-virtual hosts.
#Default:
# url_rewrite_host_header on
# TAG: url_rewrite_access
```

```
#
        If defined, this access list specifies which requests are
#
        sent to the redirector processes. By default all requests
#
        are sent.
#Default:
# none
  TAG: location_rewrite_program
#
        Specify the location of the executable for the Location rewriter,
        used to rewrite server generated redirects. Usually used in
#
#
        conjunction with a url_rewrite_program
#
#
        For each Location header received the location rewriter will receive
#
        one line with the format:
#
           location URL <SP> requested URL <SP> urlgroup <NL>
#
#
        And the rewriter may return a rewritten Location URL or a blank line.
#
        The other components of the request line does not need to be returned
#
        (ignored if they are).
#
#
        By default, a Location rewriter is not used.
#Default:
# none
# TAG: location_rewrite_children
        The number of location rewriting processes to spawn. If you start
#
        too few Squid will have to wait for them to process a backlog of
        URLs, slowing it down. If you start too many they will use RAM
#
4₽
        and other system resources.
#Default:
# location_rewrite_children 5
  TAG: location_rewrite_concurrency
        The number of requests each Location rewriter helper can handle in
#
        parallel. Defaults to 0 which indicates that the helper
#
        is a old-style singlethreaded helper.
#Default:
# location_rewrite_concurrency 0
  TAG: location_rewrite_access
        If defined, this access list specifies which requests are
#
        sent to the location rewriting processes. By default all Location
#
#
        headers are sent.
#Default:
# none
#
  TAG: auth_param
#
        This is used to define parameters for the various authentication
#
        schemes supported by Squid.
#
#
        format: auth_param scheme parameter [setting]
#
#
        The order in which authentication schemes are presented to the client is
        dependent on the order the scheme first appears in config file. IE
#
#
        has a bug (it's not RFC 2617 compliant) in that it will use the basic
#
        scheme if basic is the first entry presented, even if more secure
#
        schemes are presented. For now use the order in the recommended
       settings section below. If other browsers have difficulties (don't
#
#
       recognize the schemes offered even if you are using basic) either
#
       put basic first, or disable the other schemes (by commenting out their
#
        program entry).
#
#
        Once an authentication scheme is fully configured, it can only be
#
        shutdown by shutting squid down and restarting. Changes can be made on
#
        the fly and activated with a reconfigure. I.E. You can change to a
        different helper, but not unconfigure the helper completely.
```

Please note that while this directive defines how Squid processes

authentication it does not automatically activate authentication. To use authentication you must in addition make use of ACLs based on login name in http_access (proxy_auth, proxy_auth_regex or external with %LOGIN used in the format tag). The browser will be challenged for authentication on the first such acl encountered in http_access processing and will also be re-challenged for new login credentials if the request is being denied by a proxy_auth type acl.

WARNING: authentication can't be used in a transparently intercepting proxy as the client then thinks it is talking to an origin server and not the proxy. This is a limitation of bending the TCP/IP protocol to transparently intercepting port 80, not a limitation in Squid.

=== Parameters for the basic scheme follow. ===

"program" cmdline

#

#

#

#

#

#

#

#

#

#

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#

Specify the command for the external authenticator. Such a program reads a line containing "username password" and replies "OK" or "ERR" in an endless loop. "ERR" responses may optionally be followed by a error description available as %m in the returned error page.

By default, the basic authentication scheme is not used unless a program is specified.

If you want to use the traditional proxy authentication, jump over to the helpers/basic_auth/NCSA directory and type:

% make
% make install

Then, set this line to something like

auth_param basic program /usr/libexec/ncsa_auth /usr/etc/passwd

"children" numberofchildren

The number of authenticator processes to spawn. If you start too few squid will have to wait for them to process a backlog of credential verifications, slowing it down. When credential verifications are done via a (slow) network you are likely to need lots of authenticator processes.

auth_param basic children 5

"concurrency" numberofconcurrentrequests

The number of concurrent requests/channels the helper supports. Changes the protocol used to include a channel number first on the request/response line, allowing multiple requests to be sent to the same helper in parallell without wating for the response. Must not be set unless it's known the helper supports this.

"realm" realmstring

Specifies the realm name which is to be reported to the client for the basic proxy authentication scheme (part of the text the user will see when prompted their username and password). auth_param basic realm Squid proxy-caching web server

"credentialsttl" timetolive

Specifies how long squid assumes an externally validated username:password pair is valid for — in other words how often the helper program is called for that user. Set this low to force revalidation with short lived passwords. Note that setting this high does not impact your susceptibility to replay attacks unless you are using an one—time password system (such as SecureID). If you are using such a system, you will be vulnerable to replay attacks unless you also use the max_user_ip ACL in an http_access rule. auth_param basic credentialsttl 2 hours

"casesensitive" on|off

Specifies if usernames are case sensitive. Most user databases are case insensitive allowing the same username to be spelled using both lower and upper case letters, but some are case sensitive. This makes a big difference for user_max_ip ACL processing and similar. auth_param basic casesensitive off

```
#
        "blankpassword" onloff
#
        Specifies if blank passwords should be supported. Defaults to off
#
        as there is multiple authentication backends which handles blank
#
        passwords as "guest" access.
#
#
        === Parameters for the digest scheme follow ===
#
#
        "program" cmdline
#
        Specify the command for the external authenticator. Such a program
        reads a line containing "username": "realm" and replies with the
#
        appropriate H(A1) value base64 encoded or ERR if the user (or his H(A1)
#
        hash) does not exists. See RFC 2616 for the definition of H(A1).
#
        "ERR" responses may optionally be followed by a error description
#
       available as %m in the returned error page.
#
#
       By default, the digest authentication scheme is not used unless a
#
       program is specified.
#
       If you want to use a digest authenticator, jump over to the
#
        helpers/digest_auth/ directory and choose the authenticator to use.
#
        It it's directory type
#
                % make
#
                % make install
#
       Then, set this line to something like
#
#
       auth_param digest program /usr/libexec/digest_auth_pw /usr/etc/digpass
#
#
        "children" numberofchildren
#
#
        The number of authenticator processes to spawn. If you start too few
        squid will have to wait for them to process a backlog of credential
#
        verifications, slowing it down. When credential verifications are
#
       done via a (slow) network you are likely to need lots of
#
       authenticator processes.
#
       auth_param digest children 5
#
#
        "concurrency" numberofconcurrentrequests
#
        The number of concurrent requests/channels the helper supports.
        Changes the protocol used to include a channel number first on
#
#
        the request/response line, allowing multiple requests to be sent
#
        to the same helper in parallell without wating for the response.
#
       Must not be set unless it's known the helper supports this.
#
        "realm" realmstring
#
#
        Specifies the realm name which is to be reported to the client for the
#
        digest proxy authentication scheme (part of the text the user will see
        when prompted their username and password).
#
        auth_param digest realm Squid proxy-caching web server
#
#
        "nonce_garbage_interval" timeinterval
#
        Specifies the interval that nonces that have been issued to clients are
#
        checked for validity.
#
        auth_param digest nonce_garbage_interval 5 minutes
#
#
        "nonce_max_duration" timeinterval
#
        Specifies the maximum length of time a given nonce will be valid for.
#
        auth_param digest nonce_max_duration 30 minutes
#
        "nonce_max_count" number
#
#
        Specifies the maximum number of times a given nonce can be used.
#
        auth_param digest nonce_max_count 50
#
#
        "nonce strictness" on off
#
        Determines if squid requires strict increment-by-1 behavior for nonce
#
        counts, or just incrementing (off – for use when useragents generate \ensuremath{\mathsf{S}}
#
        nonce counts that occasionally miss 1 (ie, 1,2,4,6)).
#
       auth_param digest nonce_strictness off
#
#
        "check_nonce_count" on|off
        This directive if set to off can disable the nonce count check
        completely to work around buggy digest qop implementations in certain
#
        mainstream browser versions. Default on to check the nonce count to
```

protect from authentication replay attacks. # auth_param digest check_nonce_count on # # "post_workaround" on|off # This is a workaround to certain buggy browsers who sends an incorrect # request digest in POST requests when reusing the same nonce as acquired earlier in response to a GET request. # # auth_param digest post_workaround off # # === NTLM scheme options follow === # # "program" cmdline # Specify the command for the external NTLM authenticator. Such a # program participates in the NTLMSSP exchanges between Squid and the client and reads commands according to the Squid NTLMSSP helper # protocol. See helpers/ntlm_auth/ for details. Recommended ntlm # # authenticator is ntlm auth from Samba-3.X, but a number of other # ntlm authenticators is available. # By default, the ntlm authentication scheme is not used unless a # # program is specified. # # auth_param ntlm program /path/to/samba/bin/ntlm_auth --helper-protocol=s quid-2.5-ntlmssp # "children" numberofchildren The number of authenticator processes to spawn. If you start too few # squid will have to wait for them to process a backlog of credential # # verifications, slowing it down. When credential verifications are # done via a (slow) network you are likely to need lots of # authenticator processes. auth_param ntlm children 5 # # # "keep_alive" on|off # This option enables the use of keep-alive on the initial # authentication request. It has been reported some versions of MSIE # have problems if this is enabled, but performance will be increased # if enabled. # # auth_param ntlm keep_alive on # # === Negotiate scheme options follow === # # "program" cmdline # Specify the command for the external Negotiate authenticator. Such a # program participates in the SPNEGO exchanges between Squid and the # client and reads commands according to the Squid ntlmssp helper # protocol. See helpers/ntlm_auth/ for details. Recommended SPNEGO # authenticator is ntlm auth from Samba-4.X. # # By default, the Negotiate authentication scheme is not used unless a # program is specified. auth_param negotiate program /path/to/samba/bin/ntlm_auth --helper-proto # col=gss-spnego # "children" numberofchildren # The number of authenticator processes to spawn. If you start too few squid will have to wait for them to process a backlog of credential # # verifications, slowing it down. When credential verifications are # done via a (slow) network you are likely to need lots of # authenticator processes. auth param negotiate children 5 # # # "keep_alive" on|off # If you experience problems with PUT/POST requests when using the # Negotiate authentication scheme then you can try setting this to # off. This will cause Squid to forcibly close the connection on # the initial requests where the browser asks which schemes are # supported by the proxy. # auth_param negotiate keep_alive on

```
#Recommended minimum configuration per scheme:
#auth_param negotiate program <uncomment and complete this line to activate>
#auth_param negotiate children 5
#auth_param negotiate keep_alive on
\#auth_param ntlm program <uncomment and complete this line to activate>
#auth param ntlm children 5
#auth_param ntlm keep_alive on
#auth_param digest program <uncomment and complete this line>
#auth_param digest children 5
#auth_param digest realm Squid proxy-caching web server
#auth_param digest nonce_garbage_interval 5 minutes
#auth_param digest nonce_max_duration 30 minutes
#auth_param digest nonce_max_count 50
#auth_param basic program <uncomment and complete this line>
#auth_param basic children 5
#auth_param basic realm Squid proxy-caching web server
#auth_param basic credentialsttl 2 hours
#auth_param basic casesensitive off
# TAG: authenticate_cache_garbage_interval
        The time period between garbage collection across the username cache.
#
        This is a tradeoff between memory utilization (long intervals - say
        2 days) and CPU (short intervals - say 1 minute). Only change if you
        have good reason to.
#Default:
# authenticate_cache_garbage_interval 1 hour
  TAG: authenticate_ttl
#
        The time a user & their credentials stay in the logged in user cache
#
        since their last request. When the garbage interval passes, all user
        credentials that have passed their TTL are removed from memory.
#
#Default:
# authenticate_ttl 1 hour
  TAG: authenticate_ip_ttl
        If you use proxy authentication and the 'max_user_ip' ACL, this
#
        directive controls how long Squid remembers the IP addresses
        associated with each user. Use a small value (e.g., 60 seconds) if
#
#
        your users might change addresses quickly, as is the case with
        dialups. You might be safe using a larger value (e.g., 2 hours) in a
#
        corporate LAN environment with relatively static address assignments.
#Default:
# authenticate_ip_ttl 0 seconds
  TAG: external_acl_type
#
        This option defines external acl classes using a helper program to
#
        look up the status
#
#
          external_acl_type name [options] FORMAT.. /path/to/helper [helper argu
ments..]
#
#
        Options:
#
#
                        TTL in seconds for cached results (defaults to 3600
          ttl=n
#
                        for 1 hour)
#
          negative_ttl=n
#
                        TTL for cached negative lookups (default same
#
                        as ttl)
#
          children=n
                        number of processes spawn to service external acl
                        lookups of this type. (default 5).
          concurrency=n concurrency level per process. Only used with helpers
#
                        capable of processing more than one query at a time.
#
                        Note: see compatibility note below
                        result cache size, 0 is unbounded (default)
          cache=n
#
                        Percentage remaining of TTL where a refresh of a
          grace=
#
                        cached entry should be initiated without needing to
#
                        wait for a new reply. (default 0 for no grace period)
          protocol=2.5 Compatibility mode for Squid-2.5 external acl helpers
        FORMAT specifications
```

```
#
          %LOGIN
#
                        Authenticated user login name
#
          %IDENT
                        Ident user name
                        Client IP
#
          %SRC
#
          %SRCPORT
                        Client source port
#
                        Requested host
          %DST
#
          %PROTO
                        Requested protocol
#
          %PORT
                        Requested port
#
          %METHOD
                        Request method
#
                        Squid interface address
          %MYADDR
#
          %MYPORT
                        Squid http_port number
#
          %PATH
                        Requested URL-path (including query-string if any)
#
          %USER CERT
                        SSL User certificate in PEM format
#
          %USER_CERTCHAIN SSL User certificate chain in PEM format
#
          %USER_CERT_xx SSL User certificate subject attribute xx
          %USER_CA_xx SSL User certificate issuer attribute xx
#
#
          %{Header}
                       HTTP request header
          %{Hdr:member} HTTP request header list member
#
          %{Hdr:;member}
#
                        HTTP request header list member using; as
#
                        list separator.; can be any non-alphanumeric
#
                        character.
#
         %ACL
                        The ACL name
#
         %DATA
                        The ACL arguments. If not used then any arguments
#
                        is automatically added at the end
#
#
        The request sent to the helper consists of the data in the format
#
        specification in the order specified, plus any values specified in
        the referencing acl (see the "acl external" directive).
#
#
#
        The helper receives lines per the above format specification,
        and returns lines starting with OK or ERR indicating the validity
#
#
        of the request and optionally followed by additional keywords with
#
       more details.
#
#
       General result syntax:
#
#
          OK/ERR keyword=value ...
#
#
       Defined keywords:
#
#
          user=
                        The users name (login also understood)
          password=
#
                        The users password (for PROXYPASS login= cache_peer)
                        Error message or similar used as %o in error messages
#
         message=
#
                        (error also understood)
#
                        String to be logged in access.log. Available as
         log=
#
                        %ea in logformat specifications
#
       If protocol=3.0 (the default) then URL escaping is used to protect
#
        each value in both requests and responses.
#
#
        If using protocol=2.5 then all values need to be enclosed in quotes
#
        if they may contain whitespace, or the whitespace escaped using \.
        And quotes or \ characters within the keyword value must be \ escaped.
#
#
#
        When using the concurrency= option the protocol is changed by
#
        introducing a query channel tag infront of the request/response.
#
        The query channel tag is a number between 0 and concurrency-1.
#
#
        Compatibility Note: The children= option was named concurrency= in
#
        Squid-2.5.STABLE3 and earlier, and was accepted as an alias for the
        duration of the Squid-2.5 releases to keep compatibility. However,
#
        the meaning of concurrency= option has changed in Squid-2.6 to match
        that of Squid-3 and the old syntax no longer works.
#Default:
# none
# OPTIONS FOR TUNING THE CACHE
```

```
#
  TAG: wais_relay_port
#
        Relay WAIS request to host (1st arg) at port (2 arg).
#Default:
# wais_relay_port 0
  TAG: request_header_max_size (KB)
        This specifies the maximum size for HTTP headers in a request.
#
        Request headers are usually relatively small (about 512 bytes).
        Placing a limit on the request header size will catch certain
#
        bugs (for example with persistent connections) and possibly
        buffer-overflow or denial-of-service attacks.
#Default:
# request_header_max_size 20 KB
  TAG: request_body_max_size
                               (KB)
        This specifies the maximum size for an HTTP request body.
#
        In other words, the maximum size of a PUT/POST request.
#
        A user who attempts to send a request with a body larger
        than this limit receives an "Invalid Request" error message.
#
#
        If you set this parameter to a zero (the default), there will
        be no limit imposed.
#Default:
# request_body_max_size 0 KB
# TAG: refresh_pattern
#
        usage: refresh_pattern [-i] regex min percent max [options]
#
#
        By default, regular expressions are CASE-SENSITIVE. To make
#
        them case-insensitive, use the -i option.
#
#
        'Min' is the time (in minutes) an object without an explicit
#
        expiry time should be considered fresh. The recommended
#
        value is 0, any higher values may cause dynamic applications
#
        to be erroneously cached unless the application designer
#
        has taken the appropriate actions.
#
#
        'Percent' is a percentage of the objects age (time since last
#
        modification age) an object without explicit expiry time
#
       will be considered fresh.
#
#
        'Max' is an upper limit on how long objects without an explicit
#
        expiry time will be considered fresh.
#
#
       options: override-expire
                 override-lastmod
#
                 reload-into-ims
#
                 ignore-reload
#
                 ignore-no-cache
#
                 ignore-private
#
                 ignore-auth
#
#
                override-expire enforces min age even if the server
                sent a Expires: header. Doing this VIOLATES the HTTP
#
                standard. Enabling this feature could make you liable
#
                for problems which it causes.
#
#
                override-lastmod enforces min age even on objects
#
                that were modified recently.
#
                reload-into-ims changes client no-cache or ``reload''
                to If-Modified-Since requests. Doing this VIOLATES the
#
                HTTP standard. Enabling this feature could make you
#
                liable for problems which it causes.
                ignore-reload ignores a client no-cache or ``reload''
#
#
                header. Doing this VIOLATES the HTTP standard. Enabling
#
                this feature could make you liable for problems which
                it causes.
#
#
                ignore-no-cache ignores any ``Pragma: no-cache'' and
```

``Cache-control: no-cache'' headers received from a server. The HTTP RFC never allows the use of this (Pragma) header from a server, only a client, though plenty of servers send it anyway. # ignore-private ignores any ``Cache-control: private'' headers received from a server. Doing this VIOLATES the HTTP standard. Enabling this feature could make you # # liable for problems which it causes. # ignore-auth caches responses to requests with authorization, # irrespective of ``Cache-control'' headers received from # a server. Doing this VIOLATES the HTTP standard. Enabling # this feature could make you liable for problems which # it causes. # # Basically a cached object is: # FRESH if expires < now, else STALE # STALE if age > max FRESH if 1m-factor < percent, else STALE # # FRESH if age < min # else STALE # The refresh pattern lines are checked in the order listed here. # The first entry which matches is used. If none of the entries match the default will be used. # # # Note, you must uncomment all the default lines if you want # to change one. The default setting is only active if none is 4 used. #Suggested default: refresh_pattern ^ftp: 1440 20% 10080 refresh_pattern ^gopher: 1440 0% 1440 refresh_pattern . 0 20% 4320 TAG: quick_abort_min (KB) TAG: quick_abort_max (KB) TAG: quick_abort_pct (percent) # The cache by default continues downloading aborted requests # which are almost completed (less than 16 KB remaining). This # may be undesirable on slow (e.g. SLIP) links and/or very busy # caches. Impatient users may tie up file descriptors and # bandwidth by repeatedly requesting and immediately aborting # downloads. # When the user aborts a request, Squid will check the # quick_abort values to the amount of data transfered until # then. # # If the transfer has less than 'quick_abort_min' KB remaining, # it will finish the retrieval. # If the transfer has more than 'quick_abort_max' KB remaining, # it will abort the retrieval. # # If more than 'quick_abort_pct' of the transfer has completed, it will finish the retrieval. # # If you do not want any retrieval to continue after the client # has aborted, set both 'quick_abort_min' and 'quick_abort_max' # to '0 KB'. # # # If you want retrievals to always continue if they are being cached set 'quick_abort_min' to '-1 KB'. #Default: # quick_abort_min 16 KB # quick_abort_max 16 KB # quick_abort_pct 95 # TAG: read_ahead_gap buffer-size

```
#
        The amount of data the cache will buffer ahead of what has been
        sent to the client when retrieving an object from another server.
#
#
#Default:
# read_ahead_gap 16 KB
  TAG: negative_ttl
                        time-units
        Time-to-Live (TTL) for failed requests. Certain types of
#
        failures (such as "connection refused" and "404 Not Found") are
        negatively-cached for a configurable amount of time. The
        default is 5 minutes. Note that this is different from
       negative caching of DNS lookups.
#Default:
# negative_ttl 5 minutes
# TAG: positive_dns_ttl
                                time-units
        Upper limit on how long Squid will cache positive DNS responses.
#
        Default is 6 hours (360 minutes). This directive must be set
#
        larger than negative_dns_ttl.
#Default:
# positive_dns_ttl 6 hours
# TAG: negative dns ttl
                               time-units
        Time-to-Live (TTL) for negative caching of failed DNS lookups.
#
        This also makes sets the lower cache limit on positive lookups.
        Minimum value is 1\ \text{second}, and it is not recommendable to go
#
#
       much below 10 seconds.
#
#Default:
# negative_dns_ttl 1 minute
# TAG: range_offset_limit
                                (bytes)
        Sets a upper limit on how far into the the file a Range request
#
        may be to cause Squid to prefetch the whole file. If beyond this
#
#
        limit Squid forwards the Range request as it is and the result
        is NOT cached.
#
#
       This is to stop a far ahead range request (lets say start at 17MB)
#
#
       from making Squid fetch the whole object up to that point before
#
       sending anything to the client.
#
        A value of -1 causes Squid to always fetch the object from the
#
        beginning so it may cache the result. (2.0 style)
#
#
#
        A value of O causes Squid to never fetch more than the
        client requested. (default)
#Default:
# range_offset_limit 0 KB
  TAG: collapsed_forwarding
                               (on|off)
        This option enables multiple requests for the same URI to be
#
#
        processed as one request. Normally disabled to avoid increased
        latency on dynamic content, but there can be benefit from enabling
       this in accelerator setups where the web servers are the bottleneck
4
        and reliable and returns mostly cacheable information.
#Default:
# collapsed_forwarding off
  TAG: refresh stale hit
                                (time)
        This option changes the refresh algorithm to allow concurrent
#
        requests while an object is being refreshed to be processed as
#
        cache hits if the object expired less than X seconds ago. Default
        is O to disable this feature. This option is mostly interesting
        in accelerator setups where a few objects is accessed very
        frequently.
#Default:
# refresh_stale_hit 0 seconds
```

```
# TIMEOUTS
  TAG: forward_timeout time-units
        This parameter specifies how long Squid should at most attempt in
        finding a forwarding path for the request before giving up.
#Default:
# forward timeout 4 minutes
# TAG: connect_timeout time-units
        This parameter specifies how long to wait for the TCP connect to
#
#
        the requested server or peer to complete before Squid should
#
        attempt to find another path where to forward the request.
#
#Default:
# connect_timeout 1 minute
  TAG: peer_connect_timeout
                                time-units
        This parameter specifies how long to wait for a pending TCP connection to a peer cache. The default is 30 seconds.
#
#
        may also set different timeout values for individual neighbors
        with the 'connect-timeout' option on a 'cache_peer' line.
#Default:
# peer_connect_timeout 30 seconds
  TAG: read_timeout
                        time-units
#
        The read_timeout is applied on server-side connections. After
#
        each successful read(), the timeout will be extended by this
        amount. If no data is read again after this amount of time,
#
        the request is aborted and logged with ERR_READ_TIMEOUT. The
        default is 15 minutes.
#Default:
# read_timeout 15 minutes
  TAG: request_timeout
        How long to wait for an HTTP request after initial
#
#
        connection establishment.
#Default:
# request_timeout 5 minutes
  TAG: persistent_request_timeout
#
        How long to wait for the next HTTP request on a persistent
#
        connection after the previous request completes.
#
#Default:
# persistent_request_timeout 1 minute
  TAG: client_lifetime time-units
        The maximum amount of time a client (browser) is allowed to
#
#
        remain connected to the cache process. This protects the Cache
#
        from having a lot of sockets (and hence file descriptors) tied up
#
        in a CLOSE_WAIT state from remote clients that go away without
#
        properly shutting down (either because of a network failure or
#
        because of a poor client implementation). The default is one
#
        day, 1440 minutes.
#
#
        NOTE: The default value is intended to be much larger than any
        client would ever need to be connected to your cache. You
#
        should probably change client_lifetime only as a last resort.
#
        If you seem to have many client connections tying up
#
        filedescriptors, we recommend first tuning the read_timeout,
        request_timeout, persistent_request_timeout and quick_abort values.
#Default:
# client_lifetime 1 day
  TAG: half_closed_clients
        Some clients may shutdown the sending side of their TCP
```

```
Squid can not tell the difference between a half-closed and a
#
        fully-closed TCP connection. By default, half-closed client
#
        connections are kept open until a read(2) or write(2) on the
#
        socket returns an error. Change this option to 'off' and Squid
        will immediately close client connections when read(2) returns
        "no more data to read."
#Default:
# half_closed_clients on
# TAG: pconn_timeout
#
       Timeout for idle persistent connections to servers and other
#
        proxies.
#
#Default:
# pconn_timeout 120 seconds
# TAG: ident_timeout
#
       Maximum time to wait for IDENT lookups to complete.
#
#
        If this is too high, and you enabled IDENT lookups from untrusted
        users, you might be susceptible to denial-of-service by having
       many ident requests going at once.
#Default:
# ident_timeout 10 seconds
# TAG: shutdown_lifetime
                               time-units
        When SIGTERM or SIGHUP is received, the cache is put into
#
        "shutdown pending" mode until all active sockets are closed.
#
        This value is the lifetime to set for all open descriptors
#
        during shutdown mode. Any active clients after this many
        seconds will receive a 'timeout' message.
#Default:
# shutdown_lifetime 30 seconds
# ACCESS CONTROLS
#
  TAG: acl
#
       Defining an Access List
#
#
        acl aclname acltype string1 ...
        acl aclname acltype "file" ...
#
#
#
        when using "file", the file should contain one item per line
#
#
        acltype is one of the types described below
#
#
        By default, regular expressions are CASE-SENSITIVE. To make
#
        them case-insensitive, use the -i option.
#
#
        acl aclname src
                            ip-address/netmask ... (clients IP address)
#
        acl aclname src
                             addr1-addr2/netmask ... (range of addresses)
#
        acl aclname dst
                            ip-address/netmask ... (URL host's IP address)
#
       acl aclname myip
                            ip-address/netmask ... (local socket IP address)
#
#
        acl aclname arp
                            mac-address ... (xx:xx:xx:xx:xx notation)
         # The arp ACL requires the special configure option --enable-arp-acl.
#
#
          \# Furthermore, the arp ACL code is not portable to all operating syste
          \# It works on Linux, Solaris, FreeBSD and some other *BSD variants.
#
#
#
          \# NOTE: Squid can only determine the MAC address for clients that are
on
#
          \# the same subnet. If the client is on a different subnet, then Squid
cannot
#
          \# find out its MAC address.
#
        acl aclname srcdomain .foo.com ... # reverse lookup, client IP
#
```

connections, while leaving their receiving sides open. Sometimes,

```
acl aclname dstdomain .foo.com ...
#
                                              # Destination server from URL
       acl aclname srcdom_regex [-i] xxx ... # regex matching client name
       acl aclname dstdom_regex [-i] xxx ... # regex matching server
         # For dstdomain and dstdom_regex a reverse lookup is tried if a IP
#
         # based URL is used and no match is found. The name "none" is used
         # if the reverse lookup fails.
#
                            [day-abbrevs] [h1:m1-h2:m2]
       acl aclname time
#
#
            day-abbrevs:
               S - Sunday
#
               M - Monday
#
               T - Tuesday
#
               W - Wednesday
               H - Thursday
F - Friday
#
#
               A - Saturday
           h1:m1 must be less than h2:m2
       acl aclname url_regex [-i] ^http:// \dots # regex matching on whole URL
#
       acl aclname urlpath_regex [-i] \.gif$ ...
                                                       # regex matching on URL
path
       acl aclname urllogin [-i] [^a-zA-Z0-9] ... # regex matching on URL
#
login field
#
       acl aclname port
                             80 70 21 ...
                            0-1024 ...
       acl aclname port
                                               # ranges allowed
#
       acl aclname myport 3128 ...
                                               # (local socket TCP port)
#
       acl aclname proto HTTP FTP ...
       acl aclname method GET POST ...
#
#
       acl aclname browser [-i] regexp ...
#
        # pattern match on User-Agent header (see also req_header below)
       acl aclname referer_regex [-i] regexp ...
#
        # pattern match on Referer header
#
#
         # Referer is highly unreliable, so use with care
       acl aclname ident username ...
#
       acl aclname ident_regex [-i] pattern ...
        # string match on ident output.
#
#
         # use REQUIRED to accept any non-null ident.
       acl aclname src_as number ... acl aclname dst_as number ...
#
#
#
        # Except for access control, AS numbers can be used for
         # routing of requests to specific caches. Here's an
         # example for routing all requests for AS#1241 and only
#
         # those to mycache.mydomain.net:
#
        # acl asexample dst_as 1241
#
         # cache peer access mycache.mydomain.net allow asexample
#
         # cache_peer_access mycache_mydomain.net deny all
#
#
       acl aclname proxy_auth [-i] username ...
       acl aclname proxy_auth_regex [-i] pattern ...
#
        # list of valid usernames
#
         # use REQUIRED to accept any valid username.
#
#
         # NOTE: when a Proxy-Authentication header is sent but it is not
#
         # needed during ACL checking the username is NOT logged
        # in access.log.
#
        # NOTE: proxy_auth requires a EXTERNAL authentication program
        # to check username/password combinations (see
#
        # auth_param directive).
#
         # WARNING: proxy_auth can't be used in a transparent proxy. It
#
#
         # collides with any authentication done by origin servers. It may
#
        # seem like it works at first, but it doesn't.
       acl aclname snmp_community string ...
#
         # A community string to limit access to your SNMP Agent
#
          # Example:
#
                acl snmppublic snmp_community public
         #
       acl aclname maxconn number
         # This will be matched when the client's IP address has
          # more than <number> HTTP connections established.
#
```

```
#
        acl aclname max_user_ip [-s] number
         # This will be matched when the user attempts to log in from more
#
         # than <number> different ip addresses. The authenticate_ip_ttl
         # parameter controls the timeout on the ip entries.
         \# If -s is specified the limit is strict, denying browsing
#
         # from any further IP addresses until the ttl has expired. Without
#
         # -s Squid will just annoy the user by "randomly" denying requests.
#
         \# (the counter is reset each time the limit is reached and a
#
#
         # request is denied)
         # NOTE: in acceleration mode or where there is mesh of child proxies.
#
         # clients may appear to come from multiple addresses if they are
#
         \# going through proxy farms, so a limit of 1 may cause user problems.
#
       acl aclname req_mime_type mime-type1 ...
#
#
          # regex match against the mime type of the request generated
         # by the client. Can be used to detect file upload or some
#
#
         # types HTTP tunneling requests.
         # NOTE: This does NOT match the reply. You cannot use this
#
         # to match the returned file type.
#
#
       acl aclname req_header header-name [-i] any\.regex\.here
#
         # regex match against any of the known request headers. May be
          # thought of as a superset of "browser", "referer" and "mime-type"
#
#
         # ACLs.
#
       acl aclname rep_mime_type mime-type1 ...
#
         # regex match against the mime type of the reply received by
#
          # squid. Can be used to detect file download or some
#
         # types HTTP tunneling requests.
#
         # NOTE: This has no effect in http_access rules. It only has
#
         \# effect in rules that affect the reply data stream such as
        # http_reply_access.
#
#
       acl aclname rep_header header-name [-i] any\.regex\.here
#
         # regex match against any of the known response headers.
#
          # Example:
#
#
         # acl many_spaces rep_header Content-Disposition -i [[:space:]]{3,}
#
#
       acl acl_name external class_name [arguments...]
#
         # external ACL lookup via a helper class defined by the
#
         # external_acl_type directive.
#
       acl urlgroup group1 ...
#
#
         # match against the urlgroup as indicated by redirectors
#
#
       acl aclname user_cert attribute values...
         # match against attributes in a user SSL certificate
#
         \# attribute is one of DN/C/O/CN/L/ST
#
       acl aclname ca_cert attribute values...
#
#
         # match against attributes a users issuing CA SSL certificate
#
          # attribute is one of DN/C/O/CN/L/ST
#
       acl aclname ext_user
                                 username ...
        acl aclname ext_user_regex [-i] pattern ...
          # string match on username returned by external acl
          # use REQUIRED to accept any user name.
#Examples:
#acl macaddress arp 09:00:2b:23:45:67
#acl myexample dst_as 1241
#acl password proxy_auth REQUIRED
#acl fileupload req_mime_type -i ^multipart/form-data$
#acl javascript rep_mime_type -i ^application/x-javascript$
#Recommended minimum configuration:
acl all src 0.0.0.0/0.0.0.0
acl manager proto cache_object
acl localhost src 127.0.0.1/255.255.255.255
acl to_localhost dst 127.0.0.0/8
acl SSL_ports port 443
                                # http
acl Safe_ports port 80
acl Safe_ports port 21
                                # ftp
```

```
acl Safe_ports port 443
                                # https
acl Safe_ports port 70
                                # gopher
acl Safe_ports port 210
                                # wais
acl Safe_ports port 1025-65535 # unregistered ports
acl Safe_ports port 280
                               # http-mgmt
acl Safe_ports port 488
                                # gss-http
acl Safe_ports port 591
                                # filemaker
acl Safe_ports port 777
                                # multiling http
acl CONNECT method CONNECT
  TAG: follow_x_forwarded_for
#
        Allowing or Denying the X-Forwarded-For header to be followed to
#
        find the original source of a request.
#
#
        Requests may pass through a chain of several other proxies
        before reaching us. The X-Forwarded-For header will contain a
#
#
        comma-separated list of the IP addresses in the chain, with the
#
        rightmost address being the most recent.
#
#
       If a request reaches us from a source that is allowed by this
#
        configuration item, then we consult the X-Forwarded-For header
#
        to see where that host received the request from. If the
#
        X-Forwarded-For header contains multiple addresses, and if
#
       acl_uses_indirect_client is on, then we continue backtracking
       until we reach an address for which we are not allowed to
#
       follow the X-Forwarded-For header, or until we reach the first
#
       address in the list. (If acl_uses_indirect_client is off, then
#
        it's impossible to backtrack through more than one level of
#
       X-Forwarded-For addresses.)
#
#
       The end result of this process is an IP address that we will
       refer to as the indirect client address. This address may
#
       be treated as the client address for access control, delay
#
        pools and logging, depending on the acl_uses_indirect_client,
#
       delay_pool_uses_indirect_client and log_uses_indirect_client
#
       options.
#
       SECURITY CONSIDERATIONS:
#
#
                Any host for which we follow the X-Forwarded-For header
#
#
                can place incorrect information in the header, and Squid
#
                will use the incorrect information as if it were the
#
                source address of the request. This may enable remote
#
                hosts to bypass any access control restrictions that are
                based on the client's source addresses.
#
#
#
       For example:
#
                acl localhost src 127.0.0.1
                acl my_other_proxy srcdomain .proxy.example.com
                follow_x_forwarded_for allow localhost
                follow_x_forwarded_for allow my_other_proxy
#Default:
# follow_x_forwarded_for deny all
# TAG: acl_uses_indirect_client
                                        on off
41-
       Controls whether the indirect client address
        (see follow_x_forwarded_for) is used instead of the
#
#
        direct client address in acl matching.
#Default:
# acl_uses_indirect_client on
# TAG: delay_pool_uses_indirect_client on|off
#
        Controls whether the indirect client address
        (see follow_x_forwarded_for) is used instead of the
#
#
        direct client address in delay pools.
#Default:
# delay_pool_uses_indirect_client on
# TAG: log_uses_indirect_client
                                        on off
```

```
#
        Controls whether the indirect client address
        (see follow_x_forwarded_for) is used instead of the
#
#
        direct client address in the access log.
#Default:
# log_uses_indirect_client on
  TAG: http_access
#
        Allowing or Denying access based on defined access lists
#
#
        Access to the HTTP port:
#
        http_access allow|deny [!]aclname ...
#
#
        NOTE on default values:
#
        If there are no "access" lines present, the default is to deny
#
#
        the request.
#
#
        If none of the "access" lines cause a match, the default is the
#
        opposite of the last line in the list. If the last line was
#
        deny, the default is allow. Conversely, if the last line
        is allow, the default will be deny. For these reasons, it is a good idea to have an "deny all" or "allow all" entry at the end
#
        of your access lists to avoid potential confusion.
#Default:
# http_access deny all
#Recommended minimum configuration:
# Only allow cachemgr access from localhost
http_access allow manager localhost
http_access deny manager
# Deny requests to unknown ports
http_access deny !Safe_ports
# Deny CONNECT to other than SSL ports
http_access deny CONNECT !SSL_ports
\# We strongly recommend the following be uncommented to protect innocent
\# web applications running on the proxy server who think the only
# one who can access services on "localhost" is a local user
#http_access deny to_localhost
# INSERT YOUR OWN RULE(S) HERE TO ALLOW ACCESS FROM YOUR CLIENTS
# Example rule allowing access from your local networks. Adapt
\# to list your (internal) IP networks from where browsing should
# be allowed
#acl our_networks src 192.168.0.0/16
acl MyLocalNetwork src 192.168.1.0/24
acl MyRemoteSite src [address_removed]/255.255.255.255
acl MyOtherRemoteSite src [address_removed]/255.255.255
http_access allow MyLocalNetwork
http_access allow MyRemoteSite
http_access allow MyOtherRemoteSite
# And finally deny all other access to this proxy
http_access allow localhost
http_access deny all
# TAG: http_access2
#
        Allowing or Denying access based on defined access lists
#
        Identical to http_access, but runs after redirectors. If not set
        then only http_access is used.
#Default:
# none
#
  TAG: http_reply_access
#
        Allow replies to client requests. This is complementary to http_access.
#
        http_reply_access allow|deny [!] aclname ...
#
```

```
#
        NOTE: if there are no access lines present, the default is to allow
#
        all replies
#
#
        If none of the access lines cause a match the opposite of the
        last line will apply. Thus it is good practice to end the rules with an "allow all" or "deny all" entry.
#
#Default:
# http_reply_access allow all
#Recommended minimum configuration:
# Insert your own rules here.
#
# and finally allow by default
http_reply_access allow all
# TAG: icp_access
#
        Allowing or Denying access to the ICP port based on defined
#
        access lists
#
#
        icp_access allow|deny [!]aclname ...
        See http_access for details
#Default:
# icp_access deny all
#Allow ICP queries from everyone
icp_access allow all
# TAG: htcp_access
# Note: This option is only available if Squid is rebuilt with the
        --enable-htcp option
#
#
#
        Allowing or Denying access to the HTCP port based on defined
#
        access lists
#
#
        htcp_access allow|deny [!]aclname ...
        See http_access for details
##Allow HTCP queries from everyone
#htcp_access allow all
#Default:
# htcp_access deny all
# TAG: htcp_clr_access
\# Note: This option is only available if Squid is rebuilt with the
        --enable-htcp option
#
#
        Allowing or Denying access to purge content using HTCP based
#
        on defined access lists
#
        htcp_clr_access allow|deny [!]aclname ...
#
#
        See http_access for details
##Allow HTCP CLR requests from trusted peers
#acl htcp_clr_peer src 172.16.1.2
#htcp_clr_access allow htcp_clr_peer
#Default:
# htcp_clr_access deny all
# TAG: miss_access
#
        Use to force your neighbors to use you as a sibling instead of
#
        a parent. For example:
                acl localclients src 172.16.0.0/16
#
                miss_access allow localclients
```

```
#
                miss_access deny !localclients
#
#
        This means only your local clients are allowed to fetch
#
        MISSES and all other clients can only fetch HITS.
#
        By default, allow all clients who passed the http access rules
        to fetch MISSES from us.
#Default setting:
# miss access allow all
#
  TAG: cache_peer_access
#
        Similar to 'cache_peer_domain' but provides more flexibility by
#
        using ACL elements.
#
        cache_peer_access cache-host allow|deny [!]aclname ...
#
#
        The syntax is identical to 'http_access' and the other lists of
        ACL elements. See the comments for 'http_access' below, or
#
        the Squid FAQ (http://www.squid-cache.org/FAQ/FAQ-10.html).
#Default:
∦ none
  TAG: ident lookup access
        A list of ACL elements which, if matched, cause an ident
#
#
        (RFC931) lookup to be performed for this request. For
#
        example, you might choose to always perform ident lookups
#
        for your main multi-user Unix boxes, but not for your Macs
#
        and PCs. By default, ident lookups are not performed for
#
        any requests.
#
       To enable ident lookups for specific client addresses, you
#
        can follow this example:
#
#
        acl ident_aware_hosts src 198.168.1.0/255.255.255.0
#
        ident_lookup_access allow ident_aware_hosts
#
        ident_lookup_access deny all
#
        Only src type ACL checks are fully supported. A src domain
#
#
        ACL might work at times, but it will not always provide
<u> H</u>
        the correct result.
#Default:
# ident_lookup_access deny all
#
  TAG: tcp_outgoing_tos
        Allows you to select a TOS/Diffserv value to mark outgoing
#
        connections with, based on the username or source address
#
        making the request.
#
#
        tcp_outgoing_tos ds-field [!]aclname ...
#
        Example where normal_service_net uses the TOS value 0x00
#
#
        and normal_service_net uses 0x20
#
#
        acl normal_service_net src 10.0.0.0/255.255.255.0
#
        acl good_service_net src 10.0.1.0/255.255.255.0
        tcp outgoing tos 0x00 normal service net 0x00
#
#
        tcp_outgoing_tos 0x20 good_service_net
#
#
        TOS/DSCP values really only have local significance - so you should
        know what you're specifying. For more information, see RFC2474 and
#
#
        RFC3260.
#
#
        The TOS/DSCP byte must be exactly that - a octet value \, 0 - 255, or
#
        "default" to use whatever default your host has. Note that in
        practice often only values 0 - 63 is usable as the two highest bits
#
#
        have been redefined for use by ECN (RFC3168).
#
        Processing proceeds in the order specified, and stops at first fully
#
        matching line.
```

#

```
#
        Note: The use of this directive using client dependent ACLs is
        incompatible with the use of server side persistent connections. To
#
#
        ensure correct results it is best to set server_persisten_connections
        to off when using this directive in such configurations.
#Default:
# none
  TAG: tcp_outgoing_address
        Allows you to map requests to different outgoing IP addresses
#
        based on the username or source address of the user making
#
        the request.
#
#
        tcp_outgoing_address ipaddr [[!]aclname] ...
#
        Example where requests from 10.0.0.0/24 will be forwarded
#
#
        with source address 10.1.0.1, 10.0.2.0/24 forwarded with
        source address 10.1.0.2 and the rest will be forwarded with
#
        source address 10.1.0.3.
#
        acl normal_service_net src 10.0.0.0/255.255.255.0
#
#
        acl good_service_net src 10.0.1.0/255.255.255.0
#
        tcp_outgoing_address 10.0.0.1 normal_service_net
        tcp_outgoing_address 10.0.0.2 good_service_net
#
        tcp_outgoing_address 10.0.0.3
#
#
        Processing proceeds in the order specified, and stops at first fully
#
        matching line.
#
#
        Note: The use of this directive using client dependent ACLs is
#
        incompatible with the use of server side persistent connections. To
        ensure correct results it is best to set server_persistent_connections
        to off when using this directive in such configurations.
#Default:
# none
  TAG: reply_header_max_size
                               (KB)
#
        This specifies the maximum size for HTTP headers in a reply.
#
        Reply headers are usually relatively small (about 512 bytes).
#
        Placing a limit on the reply header size will catch certain
<u> H</u>
        bugs (for example with persistent connections) and possibly
#
        buffer-overflow or denial-of-service attacks.
#Default:
# reply_header_max_size 20 KB
# TAG: reply_body_max_size
                                bytes allow|deny acl acl...
#
        This option specifies the maximum size of a reply body in bytes.
#
        It can be used to prevent users from downloading very large files,
#
        such as MP3's and movies. When the reply headers are received,
#
        the reply_body_max_size lines are processed, and the first line with
        a result of "allow" is used as the maximum body size for this reply.
#
        This size is checked twice. First when we get the reply headers,
#
        we check the content-length value. If the content length value exists
#
        and is larger than the allowed size, the request is denied and the
#
        user receives an error message that says "the request or reply
#
        is too large." If there is no content-length, and the reply
        size exceeds this limit, the client's connection is just closed
#
#
        and they will receive a partial reply.
#
#
        WARNING: downstream caches probably can not detect a partial reply
        if there is no content-length header, so they will cache
#
        partial responses and give them out as hits. You should NOT
#
        use this option if you have downstream caches.
#
        If you set this parameter to zero (the default), there will be
        no limit imposed.
#Default:
# reply_body_max_size 0 allow all
                       allow|deny acl acl...
# TAG: log_access
```

```
#
        This options allows you to control which requests gets logged
        to access.log (see access_log directive). Requests denied for
#
#
        logging will also not be accounted for in performance counters.
#Default:
# none
# ADMINISTRATIVE PARAMETERS
# TAG: cache_mgr
        Email-address of local cache manager who will receive
        mail if the cache dies. The default is "root".
#
#Default:
# cache_mgr root
# TAG: mail_from
#
        From: email-address for mail sent when the cache dies.
        The default is to use 'appname@unique_hostname'.
#
        Default appname value is "squid", can be changed into
#
       src/globals.h before building squid.
#Default:
# none
  TAG: mail_program
#
        Email program used to send mail if the cache dies.
#
        The default is "mail". The specified program must complain
#
       with the standard Unix mail syntax:
#
#
       mail_program recipient < mailfile</pre>
        Optional command line options can be specified.
#Default:
# mail_program mail
# TAG: cache_effective_user
#
       If you start Squid as root, it will change its effective/real
        UID/GID to the user specified below. The default is to change
#
#
        to UID to "squid". If you define cache_effective_user, but not
#
       cache_effective_group, Squid sets the GID to the effective
       user's default group ID (taken from the password file) and
#
        supplementary group list from the from groups membership of
        cache_effective_user.
#cache_effective_user squid
#Default:
# cache_effective_user squid
  TAG: cache_effective_group
        If you want Squid to run with a specific GID regardless of
#
        the group memberships of the effective user then set this
        to the group (or GID) you want Squid to run as. When set
#
       all other group privileges of the effective user is ignored
        and only this GID is effective. If Squid is not started as
       root the user starting Squid must be member of the specified
       aroup.
#cache_effective_group squid
#Default:
# cache_effective_group squid
  TAG: httpd_suppress_version_string on|off
4
        Suppress Squid version string info in HTTP headers and HTML error pages.
#
#Default:
# httpd_suppress_version_string off
 TAG: visible_hostname
       If you want to present a special hostname in error messages, etc,
#
        define this. Otherwise, the return value of gethostname()
#
        will be used. If you have multiple caches in a cluster and
```

```
#
        get errors about IP-forwarding you must set them to have individual
#
        names with this setting.
#
#Default:
# none
   TAG: unique_hostname
        If you want to have multiple machines with the same
        'visible_hostname' you must give each machine a different
        'unique hostname' so forwarding loops can be detected.
#Default:
# none
# TAG: hostname_aliases
        A list of other DNS names your cache has.
#
#
#Default:
# none
  TAG: umask
        Minimum umask which should be enforced while the proxy
#
        is running, in addition to the umask set at startup.
4
        Note: Should start with a O to indicate the normal octal
        representation of umasks
#Default:
# umask 027
# OPTIONS FOR THE CACHE REGISTRATION SERVICE
#
        This section contains parameters for the (optional) cache
#
        announcement service. This service is provided to help
#
        cache administrators locate one another in order to join or
#
#
        create cache hierarchies.
#
        An 'announcement' message is sent (via UDP) to the registration
#
#
        service by Squid. By default, the announcement message is NOT
        SENT unless you enable it with 'announce_period' below.
#
#
#
        The announcement message includes your hostname, plus the
#
        following information from this configuration file:
#
#
                http_port
                icp_port
#
                cache_mgr
#
#
        All current information is processed regularly and made
#
        available on the Web at http://www.ircache.net/Cache/Tracker/.
#
   TAG: announce_period
#
        This is how frequently to send cache announcements. The
#
        default is `O' which disables sending the announcement
#
        messages.
#
#
        To enable announcing your cache, just uncomment the line
        below.
#Default:
# announce_period 0
#To enable announcing your cache, just uncomment the line below.
#announce_period 1 day
# TAG: announce_host
  TAG: announce_file
  TAG: announce_port
        announce_host and announce_port set the hostname and port
#
        number where the registration message will be sent.
#
```

```
#
       Hostname will default to 'tracker.ircache.net' and port will
       default default to 3131. If the 'filename' argument is given,
#
#
       the contents of that file will be included in the announce
       message.
#Default:
# announce_host tracker.ircache.net
# announce_port 3131
# HTTPD-ACCELERATOR OPTIONS
# TAG: httpd_accel_no_pmtu_disc
                                      on|off
       In many setups of transparently intercepting proxies Path-MTU
#
       discovery can not work on traffic towards the clients. This is
#
      the case when the intercepting device does not fully track
       connections and fails to forward ICMP must fragment messages
#
       to the cache server.
#
       If you have such setup and experience that certain clients
       sporadically hang or never complete requests set this to on.
#Default.
# httpd accel no pmtu disc off
# MISCELLANEOUS
# TAG: dns_testnames
       The DNS tests exit as soon as the first site is successfully looked up
#
       This test can be disabled with the -D command line option.
#Default:
# dns_testnames netscape.com internic.net nlanr.net microsoft.com
# TAG: logfile_rotate
#
       Specifies the number of logfile rotations to make when you
#
       type 'squid -k rotate'. The default is 10, which will rotate
#
       with extensions 0 through 9. Setting logfile_rotate to 0 will
       disable the rotation, but the logfiles are still closed and
#
       re-opened. This will enable you to rename the logfiles
#
#
       yourself just before sending the rotate signal.
#
#
       Note, the 'squid -k rotate' command normally sends a USR1
       signal to the running squid process. In certain situations
#
       (e.g. on Linux with Async I/O), USR1 is used for other
#
       purposes, so -k rotate uses another signal. It is best to get
       in the habit of using 'squid -k rotate' instead of 'kill -USR1
#
       <pid>'.
#logfile_rotate 0
#Default:
# logfile_rotate 0
# TAG: append_domain
       Appends local domain name to hostnames without any dots in
#
       them. append_domain must begin with a period.
#
       Be warned there are now Internet names with no dots in
#
       them using only top-domain names, so setting this may
       cause some Internet sites to become unavailable.
#
#Example:
# append_domain .yourdomain.com
#Default:
# none
# TAG: tcp_recv_bufsize (bytes)
```

```
#
        Size of receive buffer to set for TCP sockets. Probably just
        as easy to change your kernel's default. Set to zero to use
#
#
        the default buffer size.
#Default:
# tcp_recv_bufsize 0 bytes
  TAG: error_map
#
        Map errors to custom messages
#
#
            error_map message_url http_status ...
#
#
        http_status ... is a list of HTTP status codes or Squid error
#
        messages.
#
        Use in accelerators to substitute the error messages returned
#
#
        by servers with other custom errors.
#
            error_map http://your.server/error/404.shtml 404
#
        Requests for error messages is a GET request for the configured
#
#
        URL with the following special headers
#
                                  The received HTTP status code (i.e. 404)
#
             X-Error-Status:
            X-Request-URI:
                                  The requested URI where the error occurred
#
#
        In Addition the following headers are forwarded from the client
#
        request:
#
#
             User-Agent, Cookie, X-Forwarded-For, Via, Authorization,
#
            Accept, Referer
#
        And the following headers from the server reply:
#
#
            Server, Via, Location, Content-Location
#
#
        The reply returned to the client will carry the original HTTP
#
        headers from the real error message, but with the reply body
#
        of the configured error message.
#Default:
# none
#
  TAG: err_html_text
        HTML text to include in error messages. Make this a "mailto"
#
#
        URL to your admin address, or maybe just a link to your
#
        organizations Web page.
#
        To include this in your error messages, you must rewrite the error template files (found in the "errors" directory).
#
#
        Wherever you want the 'err_html_text' line to appear,
#
        insert a %L tag in the error template file.
#Default:
# none
#
  TAG: deny_info
#
        Usage: deny_info err_page_name acl
#
                  deny_info http://... acl
#
        Example: deny_info ERR_CUSTOM_ACCESS_DENIED bad_guys
#
        This can be used to return a ERR_ page for requests which
#
        do not pass the 'http_access' rules. A single ACL will cause the http_access check to fail. If a 'deny_info' line exists
#
#
#
        for that ACL Squid returns a corresponding error page.
#
        You may use ERR_ pages that come with Squid or create your own pages
#
        and put them into the configured errors/ directory.
#
#
        Alternatively you can specify an error URL. The browsers will
#
        get redirected (302) to the specified URL. %s in the redirection
        URL will be replaced by the requested URL.
#
```

```
#
        Alternatively you can tell Squid to reset the TCP connection
#
#
        by specifying TCP_RESET.
#Default:
# none
  TAG: memory_pools
                        on|off
#
        If set, Squid will keep pools of allocated (but unused) memory
        available for future use. If memory is a premium on your
#
#
        system and you believe your malloc library outperforms Squid
4₽
        routines, disable this.
#
#Default:
# memory_pools on
  TAG: memory_pools_limit
                                 (bytes)
        Used only with memory_pools on:
#
        memory_pools_limit 50 MB
#
#
        If set to a non-zero value, Squid will keep at most the specified
#
        limit of allocated (but unused) memory in memory pools. All free()
#
        requests that exceed this limit will be handled by your malloc
#
        library. Squid does not pre-allocate any memory, just safe-keeps
#
        objects that otherwise would be free()d. Thus, it is safe to set
#
        memory_pools_limit to a reasonably high value even if your
#
        configuration will use less memory.
#
#
        If set to zero, Squid will keep all memory it can. That is, there
#
        will be no limit on the total amount of memory used for safe-keeping.
#
#
        To disable memory allocation optimization, do not set
#
        memory_pools_limit to 0. Set memory_pools to "off" instead.
#
#
        An overhead for maintaining memory pools is not taken into account
#
        when the limit is checked. This overhead is close to four bytes per
        object kept. However, pools may actually _save_ memory because of reduced memory thrashing in your malloc library.
#
#Default:
# memory_pools_limit 5 MB
#
  TAG: via
               on|off
        If set (default), Squid will include a Via header in requests and
#
#
        replies.
1Ł
#Default:
∦ via on
#
  TAG: forwarded_for on|off
#
        If set, Squid will include your system's IP address or name
#
        in the HTTP requests it forwards. By default it looks like
#
        this:
#
#
                X-Forwarded-For: 192.1.2.3
#
        If you disable this, it will appear as
#
#
                X-Forwarded-For: unknown
#Default:
# forwarded_for on
  TAG: log_icp_queries on|off
4₽
        If set, ICP queries are logged to access.log. You may wish
#
        do disable this if your ICP load is VERY high to speed things
#
        up or to simplify log analysis.
#Default:
# log_icp_queries on
  TAG: icp_hit_stale on|off
        If you want to return ICP_HIT for stale cache objects, set this
```

```
option to 'on'. If you have sibling relationships with caches
#
        in other administrative domains, this should be 'off'. If you only
        have sibling relationships with caches under your control,
        it is probably okay to set this to 'on'.
#
        If set to 'on', your siblings should use the option "allow-miss"
        on their cache_peer lines for connecting to you.
#Default:
# icp_hit_stale off
# TAG: minimum_direct_hops
        If using the ICMP pinging stuff, do direct fetches for sites
#
#
        which are no more than this many hops away.
#
#Default:
# minimum_direct_hops 4
  TAG: minimum_direct_rtt
        If using the ICMP pinging stuff, do direct fetches for sites
#
        which are no more than this many rtt milliseconds away.
#
#Default:
# minimum_direct_rtt 400
  TAG: cachemgr passwd
#
        Specify passwords for cachemgr operations.
#
#
        Usage: cachemgr_passwd password action action ...
#
#
        Some valid actions are (see cache manager menu for a full list):
#
                5min
#
                60min
                asndb
#
                authenticator
#
                cbdata
#
                client_list
#
                comm_incoming
#
                config *
#
                counters
#
                delay
#
                digest_stats
#
                dns
#
                events
#
                filedescriptors
#
                fqdncache
#
                histograms
#
                http_headers
                info
#
                iо
#
                ipcache
#
                mem
#
                menu
#
                netdb
#
                non_peers
#
                objects
                offline_toggle *
#
                pconn
#
                peer_select
#
                redirector
#
                refresh
#
                server_list
#
                shutdown *
                store digest
#
                storedir
#
                utilization
#
                via_headers
#
                vm_objects
#
#
        * Indicates actions which will not be performed without a
#
          valid password, others can be performed if not listed here.
        To disable an action, set the password to "disable".
        To allow performing an action without a password, set the
```

```
#
        password to "none".
#
#
        Use the keyword "all" to set the same password for all actions.
#Example:
# cachemgr_passwd secret shutdown
# cachemgr_passwd lesssssssecret info stats/objects
# cachemgr_passwd disable all
#Default:
# none
# TAG: store_avg_object_size (kbytes)
        Average object size, used to estimate number of objects your
        cache can hold. The default is 13 KB.
#
#
#Default:
# store_avg_object_size 13 KB
# TAG: store_objects_per_bucket
        Target number of objects per bucket in the store hash table.
#
        Lowering this value increases the total number of buckets and
        also the storage maintenance rate. The default is 50.
#Default:
# store_objects_per_bucket 20
# TAG: client_db
                        on|off
        If you want to disable collecting per-client statistics,
#
#
        turn off client_db here.
#Default:
# client_db on
# TAG: netdb_low
  TAG: netdb_high
        The low and high water marks for the ICMP measurement
#
        database. These are counts, not percents. The defaults are
#
        900 and 1000. When the high water mark is reached, database
        entries will be deleted until the low mark is reached.
#Default:
# netdb_low 900
# netdb_high 1000
# TAG: netdb_ping_period
#
        The minimum period for measuring a site. There will be at
        least this much delay between successive pings to the same
#
        network. The default is five minutes.
#Default:
# netdb_ping_period 5 minutes
  TAG: query_icmp
                        on|off
#
        If you want to ask your peers to include ICMP data in their ICP
#
        replies, enable this option.
#
#
        If your peer has configured Squid (during compilation) with
        '--enable-icmp' that peer will send ICMP pings to origin server
#
        sites of the URLs it receives. If you enable this option the ICP replies from that peer will include the ICMP data (if available).
#
#
#
        Then, when choosing a parent cache, Squid will choose the parent with
        the minimal RTT to the origin server. When this happens, the
        hierarchy field of the access.log will be
#
        "CLOSEST_PARENT_MISS". This option is off by default.
#Default:
# query_icmp off
                                on|off
  TAG: test_reachability
        When this is 'on', ICP MISS replies will be ICP_MISS_NOFETCH
#
        instead of ICP_MISS if the target host is NOT in the ICMP
#
        database, or has a zero RTT.
```

```
#
#Default:
# test_reachability off
  TAG: buffered_logs on|off
        cache.log log file is written with stdio functions, and as such
#
        it can be buffered or unbuffered. By default it will be unbuffered.
        Buffering it can speed up the writing slightly (though you are
        unlikely to need to worry unless you run with tons of debugging
        enabled in which case performance will suffer badly anyway..).
#Default:
# buffered_logs off
# TAG: reload_into_ims on|off
        When you enable this option, client no-cache or ``reload''
#
#
        requests will be changed to If-Modified-Since requests.
#
        Doing this VIOLATES the HTTP standard. Enabling this
#
        feature could make you liable for problems which it
#
        causes.
#
#
        see also refresh_pattern for a more selective approach.
#Default.
# reload into ims off
# TAG: always_direct
#
        Usage: always_direct allow|deny [!]aclname ...
#
#
        Here you can use ACL elements to specify requests which should
        ALWAYS be forwarded by Squid to the origin servers without using
#
#
        any peers. For example, to always directly forward requests for
#
        local servers ignoring any parents or siblings you may have use
#
        something like:
#
#
                acl local-servers dstdomain my.domain.net
#
                always_direct allow local-servers
#
#
       To always forward FTP requests directly, use
#
#
                acl FTP proto FTP
#
                always_direct allow FTP
#
#
        {\sf NOTE:} There is a similar, but opposite option named
#
        'never_direct'. You need to be aware that "always_direct deny
        foo" is NOT the same thing as "never_direct allow foo". You
#
#
        may need to use a deny rule to exclude a more-specific case of
        some other rule. Example:
#
#
                acl local-external dstdomain external.foo.net
#
                acl local-servers dstdomain .foo.net
#
                always_direct deny local-external
#
                always_direct allow local-servers
#
#
        NOTE: If your goal is to make the client forward the request
#
        directly to the origin server bypassing Squid then this needs
#
        to be done in the client configuration. Squid configuration
#
        can only tell Squid how Squid should fetch the object.
#
#
        NOTE: This directive is not related to caching. The replies
#
        is cached as usual even if you use always_direct. To not cache
#
        the replies see no_cache.
#
#
       This option replaces some v1.1 options such as local_domain
4₽
       and local_ip.
#Default:
# none
#
  TAG: never_direct
#
        Usage: never_direct allow|deny [!]aclname ...
#
#
        never_direct is the opposite of always_direct. Please read
```

```
#
        the description for always_direct if you have not already.
#
#
        With 'never_direct' you can use ACL elements to specify
#
        requests which should NEVER be forwarded directly to origin
#
        servers. For example, to force the use of a proxy for all
#
        requests, except those in your local domain use something like:
#
                acl local-servers dstdomain .foo.net
#
#
                acl all src 0.0.0.0/0.0.0.0
                never direct deny local-servers
#
                never direct allow all
#
#
       or if Squid is inside a firewall and there are local intranet
#
        servers inside the firewall use something like:
#
                acl local-intranet dstdomain .foo.net
#
                acl local-external dstdomain external.foo.net
                always_direct deny local-external
                always_direct allow local-intranet
#
                never_direct allow all
#
#
       This option replaces some v1.1 options such as inside_firewall
       and firewall_ip.
#Default:
# none
# TAG: header_access
#
        Usage: header_access header_name allow|deny [!]aclname ...
#
#
        WARNING: Doing this VIOLATES the HTTP standard. Enabling
        this feature could make you liable for problems which it
#
#
        causes.
#
#
        This option replaces the old 'anonymize_headers' and the
#
        older 'http_anonymizer' option with something that is much
#
        more configurable. This new method creates a list of ACLs
#
        for each header, allowing you very fine-tuned header
#
        mangling.
#
#
       You can only specify known headers for the header name.
#
        Other headers are reclassified as 'Other'. You can also
#
        refer to all the headers with 'All'.
#
#
        For example, to achieve the same behavior as the old
        'http_anonymizer standard' option, you should use:
#
#
                header_access From deny all
#
                header_access Referer deny all
#
                header_access Server deny all
#
                header_access User-Agent deny all
#
                header_access WWW-Authenticate deny all
#
                header_access Link deny all
#
#
        Or, to reproduce the old 'http_anonymizer paranoid' feature
        you should use:
#
                header_access Allow allow all
#
#
                header access Authorization allow all
#
                header_access WWW-Authenticate allow all
                header_access Proxy-Authorization allow all
#
#
                header_access Proxy-Authenticate allow all
                header access Cache-Control allow all
                header_access Content-Encoding allow all
#
                header_access Content-Length allow all
#
                header_access Content-Type allow all
                header_access Date allow all
#
                header_access Expires allow all
#
                header_access Host allow all
                header_access If-Modified-Since allow all
#
                header_access Last-Modified allow all
#
                header_access Location allow all
```

header_access Pragma allow all

#

```
#
                header_access Accept allow all
                header_access Accept-Charset allow all
                header_access Accept-Encoding allow all
                header_access Accept-Language allow all
#
                header_access Content-Language allow all
                header_access Mime-Version allow all
#
                header_access Retry-After allow all
                header_access Title allow all
#
#
                header_access Connection allow all
                header access Proxy-Connection allow all
#
                header_access All deny all
#
#
        By default, all headers are allowed (no anonymizing is
#
        performed).
#
#Default:
# none
#
  TAG: header_replace
#
        Usage: header_replace header_name message
#
        Example: header_replace User-Agent Nutscrape/1.0 (CP/M; 8-bit)
#
#
        This option allows you to change the contents of headers
        denied with header\_access above, by replacing them with
#
        some fixed string. This replaces the old fake_user_agent
#
        option.
#
#
        By default, headers are removed if denied.
#Default:
# none
  TAG: icon_directory
        Where the icons are stored. These are normally kept in
#
        /usr/share/squid/icons
#Default:
# icon_directory /usr/share/squid/icons
  TAG: global_internal_static
        This directive controls is Squid should intercept all requests for
#
        /squid-internal-static/ no matter which host the URL is requesting
        (default on setting), or if nothing special should be done for
#
        such URLs (off setting). The purpose of this directive is to make
#
#
        icons etc work better in complex cache hierarchies where it may
        not always be possible for all corners in the cache mesh to reach
#
#
        the server generating a directory listing.
#Default:
# global_internal_static on
# TAG: short_icon_urls
#
        If this is enabled Squid will use short URLs for icons.
#
        If off the URLs for icons will always be absolute URLs
        including the proxy name and port.
#Default:
# short_icon_urls off
#
  TAG: error_directory
        Directory where the error files are read from.
#
#
        /usr/lib/squid/errors contains sets of error files
#
        in different languages. The default error directory
#
       is /etc/squid/errors, which is a link to one of these
#
       error sets.
#
       If you wish to create your own versions of the error files,
#
        either to customize them to suit your language or company,
#
        copy the template English files to another
        directory and point this tag at them.
#error_directory /usr/share/squid/errors/English
```

```
#
#Default:
# error_directory /usr/share/squid/errors/English
  TAG: maximum_single_addr_tries
        This sets the maximum number of connection attempts for a
#
#
        host that only has one address (for multiple-address hosts,
#
        each address is tried once).
#
        The default value is one attempt, the (not recommended)
#
#
        maximum is 255 tries. A warning message will be generated
#
        if it is set to a value greater than ten.
#
#
        Note: This is in addition to the request re-forwarding which
        takes place if Squid fails to get a satisfying response.
#
#
#Default:
# maximum_single_addr_tries 1
#
  TAG: retry_on_error
        If set to on Squid will automatically retry requests when
#
#
        receiving an error response. This is mainly useful if you
#
        are in a complex cache hierarchy to work around access
        control errors.
#Default:
# retry_on_error off
  TAG: snmp_port
#
        Squid can now serve statistics and status information via SNMP.
        A value of "O" disables SNMP support. If you wish to use SNMP,
#
#
        set this to "3401" to use the normal SNMP support.
#Default:
snmp_port 3401
  TAG: snmp_access
#
        Allowing or denying access to the SNMP port.
#
#
        All access to the agent is denied by default.
#
        usage:
£.
#
        snmp_access allow|deny [!]aclname ...
#Example:
snmp_access allow localhost
snmp_access deny all
#Default:
snmp_access deny all
  TAG: snmp_incoming_address
#
  TAG: snmp_outgoing_address
        Just like 'udp_incoming_address' above, but for the SNMP port.
#
#
#
                                is used for the SNMP socket receiving
        snmp_incoming_address
#
                                messages from SNMP agents.
#
        snmp_outgoing_address
                                is used for SNMP packets returned to SNMP
#
                                agents.
#
#
        The default snmp_incoming_address (0.0.0.0) is to listen on all
#
        available network interfaces.
#
#
        If snmp_outgoing_address is set to 255.255.255.255 (the default)
#
        it will use the same socket as snmp_incoming_address. Only
#
        change this if you want to have SNMP replies sent using another
#
        address than where this Squid listens for SNMP queries.
#
#
        NOTE, snmp_incoming_address and snmp_outgoing_address can not have
        the same value since they both use port 3401.
#Default:
# snmp_incoming_address 0.0.0.0
```

```
# snmp_outgoing_address 255.255.255.255
  TAG: as_whois_server
        WHOIS server to query for AS numbers. NOTE: AS numbers are
#
        queried only when Squid starts up, not for every request.
#Default:
# as_whois_server whois.ra.net
# as_whois_server whois.ra.net
# TAG: wccp_router
  TAG: wccp2_router
#
        Use this option to define your WCCP ``home'' router for
#
        Squid.
#
#
       wccp_router supports a single WCCP(v1) router
#
        wccp2_router supports multiple WCCPv2 routers
#
#
       only one of the two may be used at the same time and defines
       which version of WCCP to use.
#Default:
\# wccp_router 0.0.0.0
# TAG: wccp_version
       This directive is only relevant if you need to set up WCCP(v1)
#
        to some very old and end-of-life Cisco routers. In all other
#
        setups it must be left unset or at the default setting.
        It defines an internal version in the WCCP(v1) protocol,
#
#
       with version 4 being the officially documented protocol.
#
       According to some users, Cisco IOS 11.2 and earlier only
#
       support WCCP version 3. If you're using that or an earlier
#
       version of IOS, you may need to change this value to 3, otherwise
       do not specify this parameter.
#Default:
# wccp_version 4
# TAG: wccp2_rebuild_wait
       If this is enabled Squid will wait for the cache dir rebuild to finish
JŁ
        before sending the first wccp2 HereIAm packet
#
#Default:
# wccp2_rebuild_wait on
# TAG: wccp2_forwarding_method
        WCCP2 allows the setting of forwarding methods between the
       router/switch and the cache. Valid values are as follows:
4₽
#
#
       1 - GRE encapsulation (forward the packet in a GRE/WCCP tunnel)
#
        2 - L2 redirect (forward the packet using Layer 2/MAC rewriting)
        Currently (as of IOS 12.4) cisco routers only support GRE.
        Cisco switches only support the L2 redirect assignment method.
#Default:
# wccp2_forwarding_method 1
# TAG: wccp2_return_method
       WCCP2 allows the setting of return methods between the
#
#
       router/switch and the cache for packets that the cache
#
        decides not to handle. Valid values are as follows:
#
       1 - GRE encapsulation (forward the packet in a GRE/WCCP tunnel)
#
        2 - L2 redirect (forward the packet using Layer 2/MAC rewriting)
#
#
       Currently (as of IOS 12.4) cisco routers only support GRE.
#
        Cisco switches only support the L2 redirect assignment.
       If the "ip wccp redirect exclude in" command has been
#
        enabled on the cache interface, then it is still safe for
```

```
#
        the proxy server to use a 12 redirect method even if this
#
        option is set to GRE.
#
#Default:
# wccp2_return_method 1
  TAG: wccp2_assignment_method
        WCCP2 allows the setting of methods to assign the WCCP hash
#
#
        Valid values are as follows:
#
#
       1 - Hash assignment
#
       2 - Mask assignment
#
#
       As a general rule, cisco routers support the hash assignment method
#
        and cisco switches support the mask assignment method.
#Default:
# wccp2_assignment_method 1
# TAG: wccp2_service
        WCCP2 allows for multiple traffic services. There are two
#
        types: "standard" and "dynamic". The standard type defines
#
        one service id - http (id 0). The dynamic service ids can be from
#
#
        51 to 255 inclusive. In order to use a dynamic service id
        one must define the type of traffic to be redirected; this is done
#
        using the wccp2_service_info option.
#
#
        The "standard" type does not require a wccp2_service_info option,
#
        just specifying the service id will suffice.
#
#
        MD5 service authentication can be enabled by adding
        "password=<password>" to the end of this service declaration.
#
#
#
       Examples:
#
#
       wccp2_service standard 0
                                         # for the 'web-cache' standard service
#
        wccp2_service dynamic 80
                                         # a dynamic service type which will be
#
                                         # fleshed out with subsequent options.
#
        wccp2_service standard 0 password=foo
#Default:
# wccp2_service standard 0
# TAG: wccp2_service_info
        Dynamic WCCPv2 services require further information to define the
#
#
        traffic you wish to have diverted.
#
#
       The format is:
#
#
       wccp2_service_info <id> protocol=<protocol> flags=<flag>,<flag>..
#
            priority=<priority> ports=<port>,<port>..
#
#
       The relevant WCCPv2 flags:
#
       + src_ip_hash, dst_ip_hash
#
       + source_port_hash, dest_port_hash
#
       + src_ip_alt_hash, dst_ip_alt_hash
#
       + src_port_alt_hash, dst_port_alt_hash
#
       + ports_source
#
#
       The port list can be one to eight entries.
#
#
       Example:
#
#
        wccp2_service_info 80 protocol=tcp flags=src_ip_hash,ports_source
#
            priority=240 ports=80
#
#
        Note: the service id must have been defined by a previous
        'wccp2_service dynamic <id>' entry.
#Default:
# none
```

```
#
  TAG: wccp2_weight
        Each cache server gets assigned a set of the destination
#
#
        hash proportional to their weight.
#Default:
# wccp2_weight 10000
# TAG: wccp_address
# TAG: wccp2_address
       Use this option if you require WCCP to use a specific
#
       interface address.
#
#
       The default behavior is to not bind to any specific address.
#Default:
# wccp_address 0.0.0.0
# wccp2_address 0.0.0.0
# DELAY POOL PARAMETERS (all require DELAY_POOLS compilation option)
# TAG: delay_pools
        This represents the number of delay pools to be used. For example,
        if you have one class 2 delay pool and one class 3 delays pool, you
#
       have a total of 2 delay pools.
£.
#Default:
# delay_pools 0
# TAG: delay_class
       This defines the class of each delay pool. There must be exactly one
        delay_class line for each delay pool. For example, to define two
#
        delay pools, one of class 2 and one of class 3, the settings above
#
       and here would be:
#Example:
# delay_pools 2
                    # 2 delay pools
# delay_class 1 2
                    # pool 1 is a class 2 pool
# delay_class 2 3
                  # pool 2 is a class 3 pool
#
       The delay pool classes are:
#
#
                                Everything is limited by a single aggregate
                class 1
#
                                bucket.
#
#
                class 2
                                Everything is limited by a single aggregate
                                bucket as well as an "individual" bucket chosen
                                from bits 25 through 32 of the IP address.
#
#
#
                class 3
                                Everything is limited by a single aggregate
#
                                bucket as well as a "network" bucket chosen
                                from bits 17 through 24 of the IP address and a
#
                                "individual" bucket chosen from bits 17 through
#
#
                                32 of the IP address.
#
       NOTE: If an IP address is a.b.c.d
#
                \rightarrow bits 25 through 32 are "d"
                -> bits 17 through 24 are "c"
#
                -> bits 17 through 32 are "c * 256 + d"
#Default:
# none
# TAG: delay_access
#
        This is used to determine which delay pool a request falls into.
#
#
        delay_access is sorted per pool and the matching starts with pool 1,
        then pool 2, ..., and finally pool N. The first delay pool where the
#
#
        request is allowed is selected for the request. If it does not allow
        the request to any pool then the request is not delayed (default).
#
        For example, if you want some_big_clients in delay
```

```
#
        pool 1 and lotsa_little_clients in delay pool 2:
#
#Example:
# delay_access 1 allow some_big_clients
# delay_access 1 deny all
# delay_access 2 allow lotsa_little_clients
# delay_access 2 deny all
#Default:
# none
# TAG: delay_parameters
        This defines the parameters for a delay pool. Each delay pool has
#
        a number of "buckets" associated with it, as explained in the
        description of delay_class. For a class 1 delay pool, the syntax is:
#
#delay_parameters pool aggregate
#
        For a class 2 delay pool:
#delay_parameters pool aggregate individual
#
        For a class 3 delay pool:
#delay parameters pool aggregate network individual
#
        The variables here are:
#
#
                                a pool number - ie, a number between 1 and the
                pool
                                number specified in delay_pools as used in
#
#
                                delay_class lines.
#
                                the "delay parameters" for the aggregate bucket
                aggregate
#
                                (class 1, 2, 3).
#
#
                individual
                                the "delay parameters" for the individual
#
                                buckets (class 2, 3).
#
#
                                the "delay parameters" for the network buckets
                network
#
                                (class 3).
#
#
        A pair of delay parameters is written restore/maximum, where restore is
#
        the number of bytes (not bits - modem and network speeds are usually
#
        quoted in bits) per second placed into the bucket, and maximum is the
#
        maximum number of bytes which can be in the bucket at any time.
#
#
        For example, if delay pool number 1 is a class 2 delay pool as in the
        above example, and is being used to strictly limit each host to 64kbps
#
        (plus overheads), with no overall limit, the line is:
#delay_parameters 1 -1/-1 8000/8000
#
        Note that the figure -1 is used to represent "unlimited".
#
#
        And, if delay pool number 2 is a class 3 delay pool as in the above
#
        example, and you want to limit it to a total of 256kbps (strict limit)
#
        with each 8-bit network permitted 64kbps (strict limit) and each
        individual host permitted 4800bps with a bucket maximum size of 64kb
#
        to permit a decent web page to be downloaded at a decent speed
#
#
        (if the network is not being limited due to overuse) but slow down
#
        large downloads more significantly:
#delay parameters 2 32000/32000 8000/8000 600/8000
#
        There must be one delay_parameters line for each delay pool.
#
#Default:
# none
  TAG: delay_initial_bucket_level
                                        (percent, 0-100)
        The initial bucket percentage is used to determine how much is put
#
        in each bucket when squid starts, is reconfigured, or first notices
#
        a host accessing it (in class 2 and class 3, individual hosts and
```

```
#
        networks only have buckets associated with them once they have been
#
        "seen" by squid).
#
#Default:
# delay_initial_bucket_level 50
# TAG: incoming_icp_average
# TAG: incoming_http_average
# TAG: incoming_dns_average
# TAG: min_icp_poll_cnt
  TAG: min_dns_poll_cnt
# TAG: min_http_poll_cnt
#
       Heavy voodoo here. I can't even believe you are reading this.
        Are you crazy? Don't even think about adjusting these unless
#
       you understand the algorithms in comm_select.c first!
#
#Default:
# incoming_icp_average 6
# incoming_http_average 4
# incoming_dns_average 4
# min_icp_poll_cnt 8
# min_dns_poll_cnt 8
# min_http_poll_cnt 8
  TAG: max open disk fds
        To avoid having disk as the I/O bottleneck Squid can optionally
#
#
        bypass the on-disk cache if more than this amount of disk file
#
       descriptors are open.
#
#
        A value of O indicates no limit.
#Default:
# max_open_disk_fds 0
# TAG: offline_mode
#
        Enable this option and Squid will never try to validate cached
#
        objects.
#Default:
# offline mode off
# TAG: uri_whitespace
4₽
        What to do with requests that have whitespace characters in the
#
        URI. Options:
#
#
        strip: The whitespace characters are stripped out of the URL.
#
                This is the behavior recommended by RFC2396.
        deny:
                The request is denied. The user receives an "Invalid
#
                Request" message.
        allow:
#
               The request is allowed and the URI is not changed. The
#
                whitespace characters remain in the URI. Note the
#
                whitespace is passed to redirector processes if they
#
                are in use.
       encode: The request is allowed and the whitespace characters are
#
#
                encoded according to RFC1738. This could be considered
                a violation of the {\rm HTTP}/1.1
#
                RFC because proxies are not allowed to rewrite URI's.
#
       chop:
                The request is allowed and the URI is chopped at the
                first whitespace. This might also be considered a
#
                violation.
#Default:
# uri_whitespace strip
#
  TAG: broken_posts
#
        A list of ACL elements which, if matched, causes Squid to send
#
        an extra CRLF pair after the body of a PUT/POST request.
#
#
        Some HTTP servers has broken implementations of PUT/POST,
#
        and rely on an extra CRLF pair sent by some WWW clients.
#
        Quote from RFC2068 section 4.1 on this matter:
#
```

```
Note: certain buggy \operatorname{HTTP}/1.0 client implementations generate an
#
          extra CRLF's after a POST request. To restate what is explicitly
#
          forbidden by the BNF, an HTTP/1.1 client must not preface or follow
          a request with an extra CRLF.
#Example:
# acl buggy_server url_regex ^http://....
# broken_posts allow buggy_server
#Default:
# none
# TAG: mcast_miss_addr
# Note: This option is only available if Squid is rebuilt with the
        --enable-multicast-miss option
#
#
       If you enable this option, every "cache miss" URL will
#
       be sent out on the specified multicast address.
#
       Do not enable this option unless you are are absolutely
       certain you understand what you are doing.
#Default:
# mcast_miss_addr 255.255.255.255
# TAG: mcast_miss_ttl
\# Note: This option is only available if Squid is rebuilt with the
       --enable-multicast-miss option
#
#
       This is the time-to-live value for packets multicasted
#
       when multicasting off cache miss URLs is enabled. By
       default this is set to 'site scope', i.e. 16.
#Default:
# mcast_miss_ttl 16
# TAG: mcast_miss_port
\# Note: This option is only available if Squid is rebuilt with the
       --enable-multicast-miss option
#
#
       This is the port number to be used in conjunction with
£.
       'mcast_miss_addr'.
#Default:
# mcast_miss_port 3135
# TAG: mcast_miss_encode_key
# Note: This option is only available if Squid is rebuilt with the
       --enable-multicast-miss option
4₽
#
       The URLs that are sent in the multicast miss stream are
#
       encrypted. This is the encryption key.
#Default:
TAG: nonhierarchical_direct
#
       By default, Squid will send any non-hierarchical requests
#
       (matching hierarchy_stoplist or not cacheable request type) direct
#
       to origin servers.
#
#
       If you set this to off, Squid will prefer to send these
#
       requests to parents.
#
#
       Note that in most configurations, by turning this off you will only
#
       add latency to these request without any improvement in global hit
       ratio.
       If you are inside an firewall see never_direct instead of
       this directive.
#Default:
# nonhierarchical_direct on
```

```
Normally Squid tries to use parents for most requests. If you for some
#
        reason like it to first try going direct and only use a parent if
#
        going direct fails set this to on.
#
#
        By combining nonhierarchical_direct off and prefer_direct on you
#
       can set up Squid to use a parent as a backup path if going direct
#
        fails.
#
       Note: If you want Squid to use parents for all requests see
#
        the never_direct directive. prefer_direct only modifies how Squid
        acts on cacheable requests.
#Default:
# prefer_direct off
  TAG: strip_query_terms
        By default, Squid strips query terms from requested URLs before
#
        logging. This protects your user's privacy.
#Default:
# strip_query_terms on
# TAG: coredump dir
        By default Squid leaves core files in the directory from where
        it was started. If you set 'coredump_dir' to a directory
#
#
        that exists, Squid will chdir() to that directory at startup
#
        and coredump files will be left there.
#Default:
# coredump_dir none
# Leave coredumps in the first cache dir
coredump_dir /var/spool/squid
  TAG: redirector_bypass
#
        When this is 'on', a request will not go through the
        redirector if all redirectors are busy. If this is 'off'
#
       and the redirector queue grows too large, Squid will exit
#
        with a FATAL error and ask you to increase the number of
#
       redirectors. You should only enable this if the redirectors
       are not critical to your caching system. If you use
#
       redirectors for access control, and you enable this option,
#
       users may have access to pages they should not
#
       be allowed to request.
#Default:
# redirector_bypass off
  TAG: ignore_unknown_nameservers
        By default Squid checks that DNS responses are received
        from the same IP addresses they are sent to. If they
#
        don't match, Squid ignores the response and writes a warning
#
        message to cache.log. You can allow responses from unknown
        nameservers by setting this option to 'off'.
#Default:
# ignore_unknown_nameservers on
# TAG: digest_generation
       This controls whether the server will generate a Cache Digest
#
        of its contents. By default, Cache Digest generation is
        enabled if Squid is compiled with USE_CACHE_DIGESTS defined.
#Default:
# digest_generation on
# TAG: digest_bits_per_entry
#
        This is the number of bits of the server's Cache Digest which
        will be associated with the Digest entry for a given HTTP
#
        Method and URL (public key) combination. The default is 5.
#
```

TAG: prefer_direct

```
#Default:
# digest_bits_per_entry 5
# TAG: digest_rebuild_period
                              (seconds)
        This is the number of seconds between Cache Digest rebuilds.
#Default:
# digest_rebuild_period 1 hour
  TAG: digest rewrite period
                              (seconds)
        This is the number of seconds between Cache Digest writes to
4₽
        disk.
#
#Default:
# digest_rewrite_period 1 hour
  TAG: digest_swapout_chunk_size
                                        (bytes)
        This is the number of bytes of the Cache Digest to write to
#
        disk at a time. It defaults to 4096 bytes (4KB), the Squid
#
        default swap page.
#Default:
# digest_swapout_chunk_size 4096 bytes
  TAG: digest rebuild chunk percentage (percent, 0-100)
        This is the percentage of the Cache Digest to be scanned at a
£.
        time. By default it is set to 10% of the Cache Digest.
#
#Default:
# digest_rebuild_chunk_percentage 10
  TAG: chroot
        Use this to have Squid do a chroot() while initializing. This
#
        also causes Squid to fully drop root privileges after
#
        initializing. This means, for example, that if you use a HTTP
#
        port less than 1024 and try to reconfigure, you will get an
        error.
#Default:
# none
# TAG: client_persistent_connections
  TAG: server_persistent_connections
        Persistent connection support for clients and servers. By
#
#
        default, Squid uses persistent connections (when allowed)
        with its clients and servers. You can use these options to
#
        disable persistent connections with clients and/or servers.
#
#Default:
# client_persistent_connections on
# server_persistent_connections on
#
  TAG: persistent_connection_after_error
        With this directive the use of persistent connections after
#
#
        HTTP errors can be disabled. Useful if you have clients
        who fail to handle errors on persistent connections proper.
#Default.
# persistent_connection_after_error off
#
  TAG: detect_broken_pconn
        Some servers have been found to incorrectly signal the use
#
#
        of HTTP/1.0 persistent connections even on replies not
#
        compatible, causing significant delays. This server problem
#
        has mostly been seen on redirects.
#
        By enabling this directive Squid attempts to detect such
#
#
        broken replies and automatically assume the reply is finished
        after 10 seconds timeout.
#Default:
# detect_broken_pconn off
```

```
TAG: balance_on_multiple_ip
        Some load balancing servers based on round robin DNS have been
#
        found not to preserve user session state across requests
#
       to different IP addresses.
#
        By default Squid rotates IP's per request. By disabling
        this directive only connection failure triggers rotation.
#Default:
# balance_on_multiple_ip on
  TAG: pipeline_prefetch
#
        To boost the performance of pipelined requests to closer
#
        match that of a non-proxied environment Squid can try to fetch
#
        up to two requests in parallel from a pipeline.
#
#
        Defaults to off for bandwidth management and access logging
        reasons.
#Default:
# pipeline_prefetch off
# TAG: extension_methods
4
        Squid only knows about standardized HTTP request methods.
        You can add up to 20 additional "extension" methods here.
#Default:
# none
#
  TAG: request_entities
#
        Squid defaults to deny GET and HEAD requests with request entities,
#
        as the meaning of such requests are undefined in the HTTP standard
        even if not explicitly forbidden.
#
#
       Set this directive to on if you have clients which insists
#
        on sending request entities in GET or HEAD requests. But be warned
#
        that there is server software (both proxies and web servers) which
        can fail to properly process this kind of request which may make you
        vulnerable to cache pollution attacks if enabled.
#Default:
# request_entities off
  TAG: high_response_time_warning
                                        (msec)
#
        If the one-minute median response time exceeds this value,
#
        Squid prints a WARNING with debug level 0 to get the
#
        administrators attention. The value is in milliseconds.
#Default:
# high_response_time_warning 0
  TAG: high_page_fault_warning
#
        If the one-minute average page fault rate exceeds this
        value, Squid prints a WARNING with debug level O to get
#
        the administrators attention. The value is in page faults
        per second.
#Default:
# high_page_fault_warning 0
# TAG: high_memory_warning
       If the memory usage (as determined by mallinfo) exceeds
#
4
        value, Squid prints a WARNING with debug level O to get
#
        the administrators attention.
#Default:
# high_memory_warning 0
# TAG: store_dir_select_algorithm
#
        Set this to 'round-robin' as an alternative.
#Default:
# store_dir_select_algorithm least-load
```

```
# TAG: forward_log
# Note: This option is only available if Squid is rebuilt with the
        --enable-forward-log option
#
#
        Logs the server-side requests.
       This is currently work in progress.
#Default:
# none
  TAG: ie_refresh
#
                        on|off
        Microsoft Internet Explorer up until version 5.5 Service
#
        Pack 1 has an issue with transparent proxies, wherein it
        is impossible to force a refresh. Turning this on provides
#
#
        a partial fix to the problem, by causing all IMS-REFRESH
#
        requests from older IE versions to check the origin server
#
        for fresh content. This reduces hit ratio by some amount
#
       (~10% in my experience), but allows users to actually get
       fresh content when they want it. Note that because Squid
#
        cannot tell if the user is using 5.5 or 5.5SP1, the behavior
#
       of 5.5 is unchanged from old versions of Squid (i.e. a
#
#
       forced refresh is impossible). Newer versions of IE will,
       hopefully, continue to have the new behavior and will be
#
       handled based on that assumption. This option defaults to
#
       the old Squid behavior, which is better for hit ratios but
#
       worse for clients using IE, if they need to be able to
#
       force fresh content.
#Default:
# ie_refresh off
# TAG: vary_ignore_expire
                                on|off
#
        Many HTTP servers supporting Vary gives such objects
#
        immediate expiry time with no cache-control header
#
        when requested by a HTTP/1.0 client. This option
#
        enables Squid to ignore such expiry times until
        \ensuremath{\mathsf{HTTP/1.1}} is fully implemented.
#
        WARNING: This may eventually cause some varying
        objects not intended for caching to get cached.
#Default.
# vary_ignore_expire off
# TAG: sleep_after_fork
                                (microseconds)
#
        When this is set to a non-zero value, the main Squid process
#
        sleeps the specified number of microseconds after a fork()
#
        system call. This sleep may help the situation where your
#
        system reports fork() failures due to lack of (virtual)
#
       memory. Note, however, that if you have a lot of child
#
        processes, these sleep delays will add up and your
#
       Squid will not service requests for some amount of time
       until all the child processes have been started.
#
        On Windows value less then 1000 (1 milliseconds) are
        rounded to 1000.
#Default:
# sleep_after_fork 0
# TAG: minimum_expiry_time
                                (seconds)
        The minimum caching time according to (Expires - Date)
#
        Headers Squid honors if the object can't be revalidated
4
#
        defaults to 60 seconds. In reverse proxy enorinments it
4₽
        might be desirable to honor shorter object lifetimes. It
#
        is most likely better to make your server return a
        meaningful Last-Modified header however.
#
#Default:
# minimum_expiry_time 60 seconds
# TAG: relaxed_header_parser on|off|warn
        In the default "on" setting Squid accepts certain forms
```

```
#
       of non-compliant HTTP messages where it is unambiguous
#
        what the sending application intended even if the message
#
       is not correctly formatted. The messages is then normalized
#
       to the correct form when forwarded by Squid.
#
#
       If set to "warn" then a warning will be emitted in cache.log
#
       each time such HTTP error is encountered.
       If set to "off" then such HTTP errors will cause the request
       or response to be rejected.
#Default:
# relaxed_header_parser on
# TAG: max_filedesc
#
       The maximum number of open file descriptors.
#
#
       WARNING: Changes of this value isn't respected by reconfigure
#
        command. This value should be changed only if there isn't
#
       any active squid process.
#
#
       NOTE: This option is only supported by system with poll()
#
       or epoll(). You can set this value by --with-maxfd during
#
       compilation on system whith uses select().
#
       The maximum value for max_filedesc is set by --with-maxfd during
#
       compilation.
#Default:
```

max_filedesc 1024