Videocache

May 17, 2011

Name and Description

Videocache (http://cachevideos.com/) - A Squid url rewriter plugin to cache dynamic audio/video content from different video portals/websites.

Videocache is a Squid url rewriter plugin written in Python to facilitate caching youtube, facebook, metacafe, dailymotion, vimeo, cnn, aol, myspace, bing, blip.tv, break, wrzuta.pl, xhamster, xvideos, pornhub, spankwire, hardsextube, keezmovies, slutload, extremetube, redtube, xtube, youporn and tube8 videos. It can cache videos from various websites in a separate directory (other than Squid cache), in a browsable fashion and can serve the subsequent requests from the cache. It helps in saving bandwidth and reducing load time of the videos. Videocache is currently used by a number of ISPs in various parts of the world.

NOTE : If you are new to Squid or you are willing to explore Squid in details, please check my new book **Squid Proxy Server 3.1: Beginner's Guide** at http://tinyurl.com/squidbook.

Dependencies

1. Squid >= 2.6
2. python >= 2.4
3. python-iniparse
4. Apache or any other Web Server

Installation & Configuration

See INSTALL file in Videocache source or visit http://cachevideos.com/installation for installation instructions.

Squid Configuration

Add the following lines to your squid.conf which is generally located at */etc/squid/squid.conf*

```
# --BEGIN-- videocache config for squid
copy_to_squid.conf
# --END-- videocache config for squid
```

Save squid.conf and reload the squid service using the following command

```
[root@proxy root]# /etc/init.d/squid reload
```

Running or Updating Videocache

If you update your Videocache configuration file located at */etc/videocache.conf* or you just finished installing Videocache, then you need to perform the following four steps. These steps are mandatory and Videocache will not work properly unless you perform these steps.

1. Update Script (vc-update)

NOTE : Please check http://cachevideos.com/vc-update for latest documentation.

Once you are done updating the Videocache configuration file and ready to deploy the new options, you should, first of all, run the update script (vc-update) which will update your cache directories, Apache configuration file and other system file accordingly. You can run this command as follows

```
[root@proxy root]# vc-update
```

To know the available options, please use the following command

```
[root@proxy root]# vc-update -h
```

2. Videocache Scheduler

NOTE : Please check http://cachevideos.com/vc-scheduler for latest documenation.

Make sure that the Videocache scheduler (vc-scheduler) is running. Restart vc-scheduler using the following command

```
[root@proxy root]# vc-scheduler -s restart
```

To see the list of options availbale, please use the following command

```
[root@proxy root]# vc-scheduler -h
```

3. Apache Web Server

Restart the Apache web server using the following command

```
[root@proxy root]# apachectl -k restart
```

4. Squid Proxy Server

Once all the above steps have succeeded, you need to reload or restart your proxy server daemon which will run Videocache with the updating configuration.

To reload Squid proxy server, use the following command

```
[root@proxy root]# /etc/init.d/squid reload
```

Or to restart Squid proxy server, use the following command

```
[root@proxy root]# /etc/init.d/squid restart
```

Videocache Global Configuration

Below is a description of various options you can use to configure Videocache. A description of these options is also available at http://cachevideos.com/configure.

Config file : /etc/videocache.conf

enable_videocache This option controls the global behavior of Videocache plugin. If it is 0, Videocache will stop caching or serving anything. This option's value can be either 0 or 1. Default: 1.

client_email Please set this option to the email address using which you purchased Videocache license.

IMPORTANT : This must be set appropriately otherwise Videocache will not work.

offline_mode When Offline Mode is enabled, Videocache will serve the videos already in cache and will skip caching the new videos. When set to 0, Videocache will cache new video and when set to 1, Videocache will serve the already cached videos and will not cache the new videos is encounters. Default: 0.

videocache_user Use this option to set the user which should be running Videocache scheduler. This user must be same as the Squid user. On RedHat/CentOS/SuSE, it's generally *squid* and on Debian/Ubuntu/BSDs, it generally *proxy*. Default: *squid*.

IMPORTANT : This must be set appropriately otherwise Videocache will not work.

cache_host The hostname or IP address of the system on which caching is being done. This is used for serving the videos from the cache.

IMPORTANT : Please dont use http:// or slashes (/). Just specify the domain name or IP address. Additionally you can select an alternative port to use.

```
Example : proxy.example.com
or 192.168.36.204
or 192.168.36.204:81
or <Proxy_Server_IP_OR_Domain:HTTP_PORT>
```

Default: 127.0.0.1.

base_dir Base directories for caching the videos. You can specify multiple caching directories here separated by '|' symbol. Please try to avoid special characters in directory names like spaces, $ etc.

```
Example : base_dir = /var/spool/videocache/ | /videocache2/stuff-new/|/new_videocache.
```

Default: */var/spool/videocache/*.

max_cache_processes The maximum number of parallel cache processes allowed. If all connections are consumed, videos will be queued for caching. Default: 10.

max_cache_speed The maximum bandwidth allocated to a cache process. For example, when *max_cache_speed* is set to 100, a cache process can cache a video at a maximum speed of 100 kilobytes per second. Set this to zero (0) if you want a cache process to use unlimited bandwidth.

```
Example: max_cache_speed = 100 (Please don't append KB or MB).
```

Default: 0

IMPORTANT : The maximum bandwidth used by Videocache at any time can not exceed *max_cache_processes* x *max_cache_speed* kilobytes per second. So, you can configure these options depending on bandwidth availability.

proxy Warning : **USE THIS ONLY IF** Videocache Server should go via anohter proxy.

Proxy for http content. Default: <blank>.

```
Example : http_proxy = http://<Proxy_Server_IP_OR_Domain>:<Proxy_port>/
or http://proxy.example.com:3128/
```

proxy_username If the above proxy requires authentication, please specify the username. Default: <blank>.

proxy_password If the above proxy requires authentication, please specify the password. Default: <blank>.

hit_threshold No of times a video should be requested before we start caching it. Default: 1

max_video_size The video of size more than *max_video_size* (MegaBytes) will not be cached. Default: 0.

```
EXAMPLE: If max_video_size = 50, Videocache will not cache videos of size more than 50M
```

min_video_size The video of size less than *min_video_size* (MegaBytes) will not be cached. Default: 0.

```
EXAMPLE: If min_video_size = 2, Videocache will not cache videos of size less than 2MB.
```

disk_avail_threshold This option sets the minimum available free space in Mega Bytes that is left in a partition containing a cache directory before Videocache treats that partition as FULL. Default: 1000.

```
EXAMPLE: If disk_avail_threshold = 200, Videocache will stop caching videos in a cache
```

enable_videocache_cleaner Enables the Videocache cleaner script which will remove videos from cache which have not been used since long. The value of this option can be 0 or 1. Default: 1.

video_lifetime The maximum life of a video in cache without being used. If the video was not accessed for more than *video_lifetime* days, it'll be removed from the cache. The unit of video_lifetime is days. Default: 30.

```
Example : video_lifetime = 15 will remove videos which were not used since last 15 or m
```

logformat, scheduler_logformat, cleaner_logformat Logformat allows you to get log messages in your preferred format. The *logformat*, *scheduler_logformat*, *cleaner_logformat* are applicable to main Videocache log, scheduler log and cleaner log respectively. Use the format codes described below.

```
%  - A literal % character
ts - Seconds since epoch
tu - Time in millisecond
tl - Local Time
tg - GMT Time
p  - Process ID of the process logging the message
s  - Severity level of the log message
i  - Client's IP address
w  - Website ID (eg. YOUTUBE/FACEBOOK/VIMEO etc.)
c  - Status Code (CACHE_HIT/CACHE_MISS etc.)
v  - Video ID of current video
m  - Additional Message (for verbose logs)
d  - Debug message (for debugging purpose)

Example: logformat = %ts %i %w %c %v
```

Default logformats:

```
logformat = %tl %p %s %i %w %c %v %m %d
scheduler_logformat =  %tl %p %s %i %w %c %v %m %d
cleaner_logformat = %tl %p %s %w %c %v %m %d
```

timeformat You can use a custom format for displaying time in log messages. Use the format codes described below

IMPORTANT : This format will be applicable to localtime and GMT time in the log messages.

```
%a    Abbreviated weekday name (Sun, Mon, Tue, Wed, Thu, Fri, Sat)
%A    Full weekday name (Sunday, Monday, ...)
%b    Abbreviated month name (Jan, Feb, Mar, ...)
```

```
%B    Full month name (January, February, ...)
%d    Day of the month as a decimal number [01..31]
%H    Hour (24-hour clock) as a decimal number [00..23]
%I    Hour (12-hour clock) as a decimal number [01..12]
%j    Day of the year as a decimal number [001..366]
%m    Month as a decimal number [01..12]
%M    Minute as a decimal number [00..59]
%p    Either AM or PM
%S    Second as a decimal number [00..59]
%y    Year without century as a decimal number [00..99]
%Y    Year with century as a decimal number

Example: timeformat = %B %d, %Y %H:%M:%S
```

Default: %d/%b/%Y:%H:%M:%S

logdir Directory where Videocache logs will be stored. Default: */var/log/videocache/*.

logfile, scheduler_logfile, cleaner_logfile, tracefile The name of log file can be specified using different logfile options. Please avoid any special characters in filename.

Default logfile names:

```
logfile : videocache.log
scheduler_logfile : scheduler.log
cleaner_logfile : cleaner.log
tracefile : trace.log
```

max_logfile_size, max_scheduler_logfile_size, max_cleaner_logfile_size, max_tracefile_size Maximum size of logfiles specified above. The size is in mega bytes.

IMPORTANT : Please don't use max_logfile_size = 10MB. Don't append MB.

Default logfile sizes:

```
max_logfile_size : 10
max_scheduler_logfile_size : 10
max_cleaner_logfile_size : 10
max_tracefile_size : 10
```

max_logfile_backups, max_scheduler_logfile_backups, max_cleaner_logfile_backups, max_tracefile_
The logfiles are automatically rotated once they have exceeded the *max_logfile_size*.
The *max_logfile_backups* is the number of backup files you want to keep.

```
Example: max_logfile_backups = 2 will keep videocache.log and videocache.log.1 and vide
```

Default logfile backups:

```
max_logfile_backups : 10
max_scheduler_logfile_backups : 10
max_cleaner_logfile_backups : 5
max_tracefile_backups : 1
```

scheduler_pidfile The *scheduler_logfile* option can be used to specify the location of a file which will be used to track process ID of the currently running Videocache scheduler. Default: */var/run/videocache.pid*.

enable_youtube_cache This option enables the caching of Youtube videos. This options value can be either 0 or 1. Default: 1.

max_youtube_video_quality This option forces the maximum video quality from Youtube. If a user browses a video in higher quality mode, videocache will still cache the video in the format specified below or a lower quality format depending on the availability.

```
Valid values : 240p, 360p, 480p, 720p, 1080p, 3072p (Please don't use quotes)
```

Default: 480p

temp_dir Directory to store partially downloaded videos. Directory name is relative to *base_dir*. Default: *tmp*.

```
Example: If temp_dir = tmp, actual path for storing partially downloaded videos would b
```

rpc_host XMLRPCServer is used for memory sharing across different instances of Videocache. Leave these settings as it is if you dont have a fair idea of XMLRPCServer. This will be same as cache_host in almost all the cases. Default: 127.0.0.1.

rpc_port Please make sure this port is not currently in use. If it is in use by some other program, change this to some port above 1024 which is not in use by any other program. Default: 9100.

Videocache Files

```
/etc/videocache.conf
/etc/httpd/conf.d/videocache.conf OR /etc/apache2/conf.d/videocache.conf
/usr/share/videocache/
/usr/share/man/man8/videocache.8.gz
/usr/sbin/vc-update
/usr/sbin/vc-scheduler
/usr/sbin/vc-cleaner
/var/log/videocache/
/var/spool/videocache/
/var/run/videocache.pid
```

See Also

`squid (8)`

- Squid Proxy Server 3.1: Beginner's Guide : http://tinyurl.com/squidbook
- Project Website : http://cachevideos.com/
- How to configure Squid : http://gofedora.com/how-to-configure-squid-proxy-server/

Author

Kulbir Saini <saini AT saini.co.in>. Check http://saini.co.in/ for more information on author.

Bugs, Suggestions, Comments

Please visit http://cachevideos.com/forum/.

Copyright