

# Nextcloud

[Nextcloud](#) is a suite of client-server software for creating and using file hosting services. It is functionally similar to Dropbox, although Nextcloud is free and open-source, allowing anyone to install and operate it on a private server. In contrast to proprietary services like Dropbox, the open architecture allows adding additional functionality to the server in form of applications.

[Maintenance and Release Schedule](#)

## Packages

```
pacman -S nextcloud php php-fpm php-gd php-imagick php-apcu php-igbinary  
php-redis ffmpeg libreoffice
```

## Redis

Install [redis](#).

## Create directories

### Data storage

The storage of all your data will be placed on a different drive.

```
mkdir -p /mnt/wolfs/nextcloud/data  
chown -R nextcloud: /mnt/wolfs/nextcloud/  
chmod 770 /mnt/wolfs/nextcloud/data
```

Don't forget to change the storage path in the following tutorial if you change it.

## Session

```
install --owner=nextcloud --group=nextcloud --mode=700 -d  
/var/lib/nextcloud/sessions
```

## PHP

## php.ini for occ commands

```
cp /etc/php/php.ini /etc/webapps/nextcloud/php.ini
chown nextcloud:nextcloud /etc/webapps/nextcloud/php.ini
nano /etc/webapps/nextcloud/php.ini
```

```
date.timezone = Pacific/Auckland
memory_limit = 2048M
open_basedir =
/mnt/wolfs/nextcloud:/var/lib/nextcloud:/tmp:/usr/share/webapps/nextcloud:/etc/webapps/nextcloud:/dev/urandom:/usr/lib/php/modules:/var/log/nextcloud:/proc/meminfo:/run/redis
extension=bcmath
extension=bz2
extension=exif
extension=gd
extension=iconv
extension=intl
extension=pdo_mysql
extension=imagick
extension=sysvsem
;extension=igbinary
;extension=redis
extension=apcu
apc.ttl=7200
apc.enable_cli = 1
```

```
export NEXTCLOUD_PHP_CONFIG=/etc/webapps/nextcloud/php.ini
nano ~/.bashrc
```

```
export NEXTCLOUD_PHP_CONFIG=/etc/webapps/nextcloud/php.ini
```

## Enable opcache

```
cp /etc/php/php.ini /etc/php/php-fpm.ini
chmod o+r /etc/php/php-fpm.ini
nano /etc/php/php-fpm.ini
```

```
zend_extension=opcache

[opcache]
opcache.enable = 1
opcache.interned_strings_buffer = 32
opcache.max_accelerated_files = 10000
opcache.memory_consumption = 1024
opcache.save_comments = 1
opcache.revalidate_freq = 1
```

## nextcloud.conf pool file

```
nano /etc/php/php-fpm.d/nextcloud.conf

; Start a new pool named 'nextcloud'.
; the variable $pool can be used in any directive and will be replaced by
the
; pool name ('nextcloud' here)
[nextcloud]

; Per pool prefix
; It only applies on the following directives:
; - 'access.log'
; - 'slowlog'
; - 'listen' (unixsocket)
; - 'chroot'
; - 'chdir'
; - 'php_values'
; - 'php_admin_values'
; When not set, the global prefix (or /usr) applies instead.
; Note: This directive can also be relative to the global prefix.
; Default Value: none
;prefix = /path/to/pools/$pool

; Unix user/group of processes
; Note: The user is mandatory. If the group is not set, the default user's
group
;       will be used.
user = nextcloud
group = nextcloud

; The address on which to accept FastCGI requests.
; Valid syntaxes are:
;   'ip.add.re.ss:port'      - to listen on a TCP socket to a specific IPv4
address on
;                           a specific port;
;   '[ip:6:addr:ess]:port'  - to listen on a TCP socket to a specific IPv6
address on
;                           a specific port;
;   'port'                  - to listen on a TCP socket to all addresses
;                           (IPv6 and IPv4-mapped) on a specific port;
;   '/path/to/unix/socket' - to listen on a unix socket.
; Note: This value is mandatory.
listen = /run/php-fpm/nextcloud.sock

; Set listen(2) backlog.
; Default Value: 511 (-1 on FreeBSD and OpenBSD)
;listen.backlog = 511

; Set permissions for unix socket, if one is used. In Linux, read/write
```

```
; permissions must be set in order to allow connections from a web server.  
Many  
; BSD-derived systems allow connections regardless of permissions. The owner  
; and group can be specified either by name or by their numeric IDs.  
; Default Values: user and group are set as the running user  
; mode is set to 0660  
listen.owner = nextcloud  
listen.group = http  
listen.mode = 0660  
; When POSIX Access Control Lists are supported you can set them using  
; these options, value is a comma separated list of user/group names.  
; When set, listen.owner and listen.group are ignored  
;listen.acl_users =  
;listen.acl_groups =  
  
; List of addresses (IPv4/IPv6) of FastCGI clients which are allowed to  
connect.  
; Equivalent to the FCGI_WEB_SERVER_ADDRS environment variable in the  
original  
; PHP FCGI (5.2.2+). Makes sense only with a tcp listening socket. Each  
address  
; must be separated by a comma. If this value is left blank, connections  
will be  
; accepted from any ip address.  
; Default Value: any  
;listen.allowed_clients = 127.0.0.1  
  
; Specify the nice(2) priority to apply to the pool processes (only if set)  
; The value can vary from -19 (highest priority) to 20 (lower priority)  
; Note: - It will only work if the FPM master process is launched as root  
; - The pool processes will inherit the master process priority  
; unless it specified otherwise  
; Default Value: no set  
; process.priority = -19  
  
; Set the process dumpable flag (PR_SET_DUMPABLE prctl) even if the process  
user  
; or group is different than the master process user. It allows to create  
process  
; core dump and ptrace the process for the pool user.  
; Default Value: no  
; process.dumpable = yes  
  
; Choose how the process manager will control the number of child processes.  
; Possible Values:  
; static - a fixed number (pm.max_children) of child processes;  
; dynamic - the number of child processes are set dynamically based on the  
; following directives. With this process management, there will  
be  
; always at least 1 children.  
; pm.max_children - the maximum number of children that can
```

```
;  
; pm.start_servers      - the number of children created on  
startup.  
;  
; pm.min_spare_servers - the minimum number of children in  
'idle'  
;  
; number                state (waiting to process). If the  
number  
;  
; created.               of 'idle' processes is less than this  
number then some children will be  
;  
; pm.max_spare_servers - the maximum number of children in  
'idle'  
;  
; number                state (waiting to process). If the  
number  
;  
; this                  of 'idle' processes is greater than  
this  
;  
; killed.                number then some children will be  
killed.  
;  
; pm.max_spawn_rate     - the maximum number of rate to spawn  
child  
;  
;                      processes at once.  
;  
; ondemand - no children are created at startup. Children will be forked  
when  
;  
; new requests will connect. The following parameter are used:  
;  
; pm.max_children        - the maximum number of children  
that  
;  
;                      can be alive at the same time.  
;  
; pm.process_idle_timeout - The number of seconds after which  
;  
;                      an idle process will be killed.  
;  
; Note: This value is mandatory.  
pm = dynamic  
  
;  
; The number of child processes to be created when pm is set to 'static' and  
the  
;  
; maximum number of child processes when pm is set to 'dynamic' or  
'ondemand'.  
;  
; This value sets the limit on the number of simultaneous requests that will  
be  
;  
; served. Equivalent to the ApacheMaxClients directive with mpm_prefork.  
;  
; Equivalent to the PHP_FCGI_CHILDREN environment variable in the original  
PHP  
;  
; CGI. The below defaults are based on a server without much resources.  
Don't  
;  
; forget to tweak pm.* to fit your needs.  
;  
; Note: Used when pm is set to 'static', 'dynamic' or 'ondemand'  
;  
; Note: This value is mandatory.  
pm.max_children = 15  
  
;  
; The number of child processes created on startup.  
;  
; Note: Used only when pm is set to 'dynamic'  
;  
; Default Value: (min_spare_servers + max_spare_servers) / 2
```

```
pm.start_servers = 2

; The desired minimum number of idle server processes.
; Note: Used only when pm is set to 'dynamic'
; Note: Mandatory when pm is set to 'dynamic'
pm.min_spare_servers = 1

; The desired maximum number of idle server processes.
; Note: Used only when pm is set to 'dynamic'
; Note: Mandatory when pm is set to 'dynamic'
pm.max_spare_servers = 3

; The number of rate to spawn child processes at once.
; Note: Used only when pm is set to 'dynamic'
; Note: Mandatory when pm is set to 'dynamic'
; Default Value: 32
;pm.max_spawn_rate = 32

; The number of seconds after which an idle process will be killed.
; Note: Used only when pm is set to 'ondemand'
; Default Value: 10s
;pm.process_idle_timeout = 10s;

; The number of requests each child process should execute before
; respawning.
; This can be useful to work around memory leaks in 3rd party libraries. For
; endless request processing specify '0'. Equivalent to
; PHP_FCGI_MAX_REQUESTS.
; Default Value: 0
;pm.max_requests = 500

; The URI to view the FPM status page. If this value is not set, no URI will
; be
; recognized as a status page. It shows the following information:
; pool - the name of the pool;
; process manager - static, dynamic or ondemand;
; start time - the date and time FPM has started;
; start since - number of seconds since FPM has started;
; accepted conn - the number of request accepted by the pool;
; listen queue - the number of request in the queue of pending
;                 connections (see backlog in listen(2));
; max listen queue - the maximum number of requests in the queue
;                     of pending connections since FPM has started;
; listen queue len - the size of the socket queue of pending
;                    connections;
; idle processes - the number of idle processes;
; active processes - the number of active processes;
; total processes - the number of idle + active processes;
; max active processes - the maximum number of active processes since FPM
;                        has started;
; max children reached - number of times, the process limit has been
```

```
reached,  
;                                     when pm tries to start more children (works only  
for  
;                                     pm 'dynamic' and 'ondemand');  
; Value are updated in real time.  
; Example output:  
;   pool:                 www  
;   process manager:      static  
;   start time:          01/Jul/2011:17:53:49 +0200  
;   start since:         62636  
;   accepted conn:       190460  
;   listen queue:        0  
;   max listen queue:   1  
;   listen queue len:   42  
;   idle processes:     4  
;   active processes:   11  
;   total processes:    15  
;   max active processes: 12  
;   max children reached: 0  
;  
; By default the status page output is formatted as text/plain. Passing  
either  
; 'html', 'xml' or 'json' in the query string will return the corresponding  
; output syntax. Example:  
;   http://www.foo.bar/status  
;   http://www.foo.bar/status?json  
;   http://www.foo.bar/status?html  
;   http://www.foo.bar/status?xml  
;  
; By default the status page only outputs short status. Passing 'full' in  
the  
; query string will also return status for each pool process.  
; Example:  
;   http://www.foo.bar/status?full  
;   http://www.foo.bar/status?json&full  
;   http://www.foo.bar/status?html&full  
;   http://www.foo.bar/status?xml&full  
; The Full status returns for each process:  
;   pid                  - the PID of the process;  
;   state                - the state of the process (Idle, Running, ...);  
;   start time           - the date and time the process has started;  
;   start since          - the number of seconds since the process has  
started;  
;   requests             - the number of requests the process has served;  
;   request duration     - the duration in µs of the requests;  
;   request method       - the request method (GET, POST, ...);  
;   request URI          - the request URI with the query string;  
;   content length        - the content length of the request (only with  
POST);  
;   user                 - the user (PHP_AUTH_USER) (or '-' if not set);  
;   script                - the main script called (or '-' if not set);
```

```
; last request cpu      - the %cpu the last request consumed
;                               it's always 0 if the process is not in Idle state
;                               because CPU calculation is done when the request
;                               processing has terminated;
; last request memory - the max amount of memory the last request
consumed
;                               it's always 0 if the process is not in Idle state
;                               because memory calculation is done when the
request
;                               processing has terminated;
; If the process is in Idle state, then informations are related to the
; last request the process has served. Otherwise informations are related to
; the current request being served.
; Example output:
; ****
; pid:          31330
; state:        Running
; start time:   01/Jul/2011:17:53:49 +0200
; start since:  63087
; requests:     12808
; request duration: 1250261
; request method:  GET
; request URI:   /test_mem.php?N=10000
; content length: 0
; user:          -
; script:        /home/fat/web/docs/php/test_mem.php
; last request cpu: 0.00
; last request memory: 0
;
; Note: There is a real-time FPM status monitoring sample web page available
;       It's available in: /usr/share/php/fpm/status.html
;
; Note: The value must start with a leading slash (/). The value can be
;       anything, but it may not be a good idea to use the .php extension or
it
;       may conflict with a real PHP file.
; Default Value: not set
;pm.status_path = /status

; The address on which to accept FastCGI status request. This creates a new
; invisible pool that can handle requests independently. This is useful
; if the main pool is busy with long running requests because it is still
possible
; to get the status before finishing the long running requests.
;
; Valid syntaxes are:
; 'ip.add.re.ss:port'    - to listen on a TCP socket to a specific IPv4
address on
;                               a specific port;
; '[ip:6:addr:ess]:port' - to listen on a TCP socket to a specific IPv6
address on
```

```
;  
;           a specific port;  
; 'port'      - to listen on a TCP socket to all addresses  
;                   (IPv6 and IPv4-mapped) on a specific port;  
; '/path/to/unix/socket' - to listen on a unix socket.  
; Default Value: value of the listen option  
;pm.status_listen = 127.0.0.1:9001  
  
; The ping URI to call the monitoring page of FPM. If this value is not set,  
no  
; URI will be recognized as a ping page. This could be used to test from  
outside  
; that FPM is alive and responding, or to  
; - create a graph of FPM availability (rrd or such);  
; - remove a server from a group if it is not responding (load balancing);  
; - trigger alerts for the operating team (24/7).  
; Note: The value must start with a leading slash (/). The value can be  
;       anything, but it may not be a good idea to use the .php extension or  
it  
;       may conflict with a real PHP file.  
; Default Value: not set  
;ping.path = /ping  
  
; This directive may be used to customize the response of a ping request.  
The  
; response is formatted as text/plain with a 200 response code.  
; Default Value: pong  
;ping.response = pong  
  
; The access log file  
; Default: not set  
;access.log = log/$pool.access.log  
access.log = /var/log/nextcloud/$pool.log  
  
; The access log format.  
; The following syntax is allowed  
; %%: the '%' character  
; %C: %CPU used by the request  
;       it can accept the following format:  
;       - %{user}C for user CPU only  
;       - %{system}C for system CPU only  
;       - %{total}C for user + system CPU (default)  
; %d: time taken to serve the request  
;       it can accept the following format:  
;       - %{seconds}d (default)  
;       - %{milliseconds}d  
;       - %{milli}d  
;       - %{microseconds}d  
;       - %{micro}d  
; %e: an environment variable (same as $_ENV or $_SERVER)  
;       it must be associated with braces to specify the name of the env  
variable. Some examples:
```

```
;      - server specifics like: %{REQUEST_METHOD}e or %{SERVER_PROTOCOL}e
;      - HTTP headers like: %{HTTP_HOST}e or %{HTTP_USER_AGENT}e
; %f: script filename
; %l: content-length of the request (for POST request only)
; %m: request method
; %M: peak of memory allocated by PHP
;      it can accept the following format:
;      - %{bytes}M (default)
;      - %{kilobytes}M
;      - %{kilo}M
;      - %{megabytes}M
;      - %{mega}M
; %n: pool name
; %o: output header
;      it must be associated with braces to specify the name of the
header:
;      - %{Content-Type}o
;      - %{X-Powered-By}o
;      - %{Transfert-Encoding}o
;
;      - ....
; %p: PID of the child that serviced the request
; %P: PID of the parent of the child that serviced the request
; %q: the query string
; %Q: the '?' character if query string exists
; %r: the request URI (without the query string, see %q and %Q)
; %R: remote IP address
; %s: status (response code)
; %t: server time the request was received
;      it can accept a strftime(3) format:
;      %d/%b/%Y:%H:%M:%S %z (default)
;      The strftime(3) format must be encapsulated in a
%{<strftime_format>}t tag
;      e.g. for a ISO8601 formatted timestamp, use: %{%Y-%m-%dT%H:%M:%S%z}t
; %T: time the log has been written (the request has finished)
;      it can accept a strftime(3) format:
;      %d/%b/%Y:%H:%M:%S %z (default)
;      The strftime(3) format must be encapsulated in a
%{<strftime_format>}t tag
;      e.g. for a ISO8601 formatted timestamp, use: %{%Y-%m-%dT%H:%M:%S%z}t
; %u: remote user
;
; Default: "%R - %u %t \"%m %r\" %s"
;access.format = "%R - %u %t \"%m %r%Q%q\" %s %f %{milli}d %{kilo}M %C%"
access.format = "%{%-m-%dT%H:%M:%S%z}t %R: \"%m %r%Q%q\" %s %f %{milli}d
%{kilo}M %C%"
;

; The log file for slow requests
; Default Value: not set
; Note: slowlog is mandatory if request_slowlog_timeout is set
;slowlog = log/$pool.log.slow
```

```
; The timeout for serving a single request after which a PHP backtrace will
be
; dumped to the 'slowlog' file. A value of '0s' means 'off'.
; Available units: s(econds)(default), m(inutes), h(ours), or d(ays)
; Default Value: 0
;request_slowlog_timeout = 0

; Depth of slow log stack trace.
; Default Value: 20
;request_slowlog_trace_depth = 20

; The timeout for serving a single request after which the worker process
will
; be killed. This option should be used when the 'max_execution_time' ini
option
; does not stop script execution for some reason. A value of '0' means
'off'.
; Available units: s(econds)(default), m(inutes), h(ours), or d(ays)
; Default Value: 0
;request_terminate_timeout = 0

; The timeout set by 'request_terminate_timeout' ini option is not engaged
after
; application calls 'fastcgi_finish_request' or when application has
finished and
; shutdown functions are being called (registered via
register_shutdown_function).
; This option will enable timeout limit to be applied unconditionally
; even in such cases.
; Default Value: no
;request_terminate_timeout_track_finished = no

; Set open file descriptor rlimit.
; Default Value: system defined value
;rlimit_files = 1024

; Set max core size rlimit.
; Possible Values: 'unlimited' or an integer greater or equal to 0
; Default Value: system defined value
;rlimit_core = 0

; Chroot to this directory at the start. This value must be defined as an
; absolute path. When this value is not set, chroot is not used.
; Note: you can prefix with '$prefix' to chroot to the pool prefix or one
; of its subdirectories. If the pool prefix is not set, the global prefix
; will be used instead.
; Note: chrooting is a great security feature and should be used whenever
;       possible. However, all PHP paths will be relative to the chroot
;       (error_log, sessions.save_path, ...).
; Default Value: not set
;chroot =
```

```
; Chdir to this directory at the start.  
; Note: relative path can be used.  
; Default Value: current directory or / when chroot  
;chdir = /srv/http  
chdir = /usr/share/webapps/$pool  
  
; Redirect worker stdout and stderr into main error log. If not set, stdout  
and  
; stderr will be redirected to /dev/null according to FastCGI specs.  
; Note: on highloaded environment, this can cause some delay in the page  
; process time (several ms).  
; Default Value: no  
;catch_workers_output = yes  
  
; Decorate worker output with prefix and suffix containing information about  
; the child that writes to the log and if stdout or stderr is used as well  
as  
; log level and time. This options is used only if catch_workers_output is  
yes.  
; Settings to "no" will output data as written to the stdout or stderr.  
; Default value: yes  
;decorate_workers_output = no  
  
; Clear environment in FPM workers  
; Prevents arbitrary environment variables from reaching FPM worker  
processes  
; by clearing the environment in workers before env vars specified in this  
; pool configuration are added.  
; Setting to "no" will make all environment variables available to PHP code  
; via getenv(), $_ENV and $_SERVER.  
; Default Value: yes  
;clear_env = no  
  
; Limits the extensions of the main script FPM will allow to parse. This can  
; prevent configuration mistakes on the web server side. You should only  
limit  
; FPM to .php extensions to prevent malicious users to use other extensions  
to  
; execute php code.  
; Note: set an empty value to allow all extensions.  
; Default Value: .php  
;security.limit_extensions = .php .php3 .php4 .php5 .php7  
  
; Pass environment variables like LD_LIBRARY_PATH. All $VARIABLEs are taken  
from  
; the current environment.  
; Default Value: clean env  
env[HOSTNAME] = $HOSTNAME  
env[PATH] = /usr/local/bin:/usr/bin  
env[TMP] = /tmp  
env[TMPDIR] = /tmp
```

```
env[TEMP] = /tmp

; Additional php.ini defines, specific to this pool of workers. These
settings
; overwrite the values previously defined in the php.ini. The directives are
the
; same as the PHP SAPI:
;   php_value/php_flag           - you can set classic ini defines which
can
;                                     be overwritten from PHP call 'ini_set'.
;   php_admin_value/php_admin_flag - these directives won't be overwritten
by
;                                     PHP call 'ini_set'
; For php_*flag, valid values are on, off, 1, 0, true, false, yes or no.

; Defining 'extension' will load the corresponding shared extension from
; extension_dir. Defining 'disable_functions' or 'disable_classes' will not
; overwrite previously defined php.ini values, but will append the new value
; instead.

; Note: path INI options can be relative and will be expanded with the
prefix
; (pool, global or /usr)

; Default Value: nothing is defined by default except the values in php.ini
and
;               specified at startup with the -d argument
;php_admin_value[sendmail_path] = /usr/sbin/sendmail -t -i -f
www@my.domain.com
;php_flag[display_errors] = off
;php_admin_value[error_log] = /var/log/fpm-php.www.log
;php_admin_flag[log_errors] = on
;php_admin_value[memory_limit] = 32M

php_value[date.timezone] = Pacific/Auckland

php_value[open_basedir] =
/mnt/wolfs/nextcloud:/var/lib/nextcloud:/tmp:/usr/share/webapps/nextcloud:/e
tc/webapps/nextcloud:/dev/urandom:/usr/lib/php/modules:/var/log/nextcloud:/p
roc/meminfo:/run/redis

; put session data in dedicated directory
php_value[session.save_path] = /var/lib/$pool/sessions
php_value[session.gc_maxlifetime] = 21600
php_value[session.gc_divisor] = 500
php_value[session.gc_probability] = 1

php_flag[expose_php] = false
php_value[post_max_size] = 1000G
php_value[upload_max_filesize] = 1000G
```

```
; as recommended in admin manual (avoids related warning in admin GUI later)
php_flag[output_buffering] = off
php_value[max_input_time] = 3600
php_value[max_execution_time] = 3600

php_value[memory_limit] = 2048M

; opcache settings must be defined in php-fpm.ini. otherwise (i.e. when
defined here)
; this causes segmentation faults in php-fpm worker processes

; uncomment if php-apcu is installed and used
php_value[extension] = apcu
; (see https://github.com/krakjoe/apcu/blob/simplify/INSTALL)
php_value[apc.ttl] = 7200
php_flag[apc.enable_cli] = 1

php_value[extension] = bcmath
php_value[extension] = bz2
php_value[extension] = exif
php_value[extension] = gd
php_value[extension] = gmp
; uncomment if php-imagick is installed and used
php_value[extension] = imagick
; recommended to enable
php_value[extension] = intl
php_value[extension] = iconv
; uncomment if php-memcached is installed and used
; php_value[extension] = memcached
; uncomment exactly one of the pdo extensions
php_value[extension] = pdo_mysql
; php_value[extension] = pdo_pgsql
; php_value[extension] = pdo_sqlite
; uncomment if php-igbinary is installed and used
; php_value[extension] = igbinary
; uncomment if php-redis is installed and used (requires php-igbinary)
; php_value[extension] = redis
; uncomment if php-xsl is installed and used
; php_value[extension] = xsl
php_value[extension] = sysvsem
```

```
chmod o+r /etc/php/php-fpm.d/nextcloud.conf
```

## Override php-fpm service

```
systemctl edit php-fpm.service
```

```
[Service]
ExecStart=
```

```
ExecStart=/usr/bin/php-fpm --nodaemonize --fpm-config /etc/php/php-fpm.conf  
--php-ini /etc/php/php-fpm.ini  
ReadWritePaths=/var/lib/nextcloud  
ReadWritePaths=/etc/webapps/nextcloud/config  
ReadWritePaths=/mnt/wolfs/nextcloud
```

## MariaDB

Check also [mariadb](#)

### Create database and user

```
mysql -u root -p
```

```
CREATE USER 'nextcloud'@'localhost' IDENTIFIED BY 'db-password';  
CREATE DATABASE IF NOT EXISTS nextcloud CHARACTER SET utf8mb4 COLLATE  
utf8mb4_general_ci;  
GRANT ALL PRIVILEGES on nextcloud.* to 'nextcloud'@'localhost';  
FLUSH privileges;
```

### mysql.conf

```
nano /etc/my.cnf.d/server.cnf
```

```
[mysqld]  
skip_networking  
transaction_isolation=READ-COMMITTED
```

### Setup Nextcloud's database schema

Change everything that needs to be changed for you.

```
occ maintenance:install \  
  --database=mysql \  
  --database-name=nextcloud \  
  --database-host=localhost:/run/mysqld/mysqld.sock \  
  --database-user=nextcloud \  
  --database-pass=db-password \  
  --admin-pass=admin-password \  
  --admin-email=admin-email \  
  --data-dir=/mnt/wolfs/nextcloud/
```

# SSL

Check [ssl](#)

## Nginx

Check also [nginx](#).

```
nano /etc/nginx/sites-available/nextcloud.home

upstream php-handler {
    server unix:/run/php-fpm/nextcloud.sock;
}

# Set the `immutable` cache control options only for assets with a cache
# busting `v` argument
map $arg_v $asset_immutable {
    "" "";
    default "immutable";
}

server {
    listen 80;
#    listen [::]:80;
    server_name nextcloud.home;

    # enforce https
    return 301 https://$server_name:443$request_uri;
}

server {
    listen 443 ssl http2;
#    listen [::]:443 ssl http2;
    server_name nextcloud.home;

    ssl_certificate /etc/nginx/ssl/nextcloud.home.crt;
    ssl_certificate_key /etc/nginx/ssl/nextcloud.home.key;
    include conf.d/ssl-params.conf

    # Path to the root of your installation
    root /usr/share/webapps/nextcloud;

    access_log /var/log/nginx/nextcloud.access.log;
    error_log /var/log/nginx/nextcloud.error.log;

    # HSTS settings
    # WARNING: Only add the preload option once you read about
    # the consequences in https://hstspreload.org/. This option
```

```
# will add the domain to a hardcoded list that is shipped
# in all major browsers and getting removed from this list
# could take several months.
#add_header Strict-Transport-Security "max-age=15768000;
includeSubDomains; preload" always;

# set max upload size and increase upload timeout:
client_max_body_size 512M;
client_body_timeout 300s;
fastcgi_buffers 64 4K;

# Enable gzip but do not remove ETag headers
gzip on;
gzip_vary on;
gzip_comp_level 4;
gzip_min_length 256;
gzip_proxied expired no-cache no-store private no_last_modified
no_etag auth;
gzip_types application/atom+xml application/javascript
application/json application/ld+json application/manifest+json
application/rss+xml application/vnd.geo+json application/vnd.ms-fontobject
application/wasm application/x-font-ttf application/x-web-app-manifest+json
application/xhtml+xml application/xml font/opentype image/bmp image/svg+xml
image/x-icon text/cache-manifest text/css text/plain text/vcard
text/vnd.rim.location.xloc text/vtt text/x-component text/x-cross-domain-
policy;

# Pagespeed is not supported by Nextcloud, so if your server is
built
# with the `ngx_pagespeed` module, uncomment this line to disable
it.
#pagespeed off;

# The settings allows you to optimize the HTTP2 bandwidth.
# See
https://blog.cloudflare.com/delivering-http-2-upload-speed-improvements/
# for tuning hints
client_body_buffer_size 512k;

# HTTP response headers borrowed from Nextcloud `/.htaccess`
add_header Referrer-Policy "no-referrer"
always;
add_header X-Content-Type-Options "nosniff"
always;
add_header X-Download-Options "noopen"
always;
add_header X-Frame-Options "SAMEORIGIN"
always;
add_header X-Permitted-Cross-Domain-Policies "none"
always;
add_header X-Robots-Tag "noindex,nofollow"
```

```
always;
    add_header X-XSS-Protection "1; mode=block"
always;

# Remove X-Powered-By, which is an information leak
fastcgi_hide_header X-Powered-By;

# Add .mjs as a file extension for javascript
# Either include it in the default mime.types list
# or include you can include that list explicitly and add the file
extension
# only for Nextcloud like below:
include mime.types;
types {
    application/javascript js mjs;
}

# Specify how to handle directories -- specifying
`/index.php$request_uri`
# here as the fallback means that Nginx always exhibits the desired
behaviour
# when a client requests a path that corresponds to a directory that
exists
# on the server. In particular, if that directory contains an
index.php file,
# that file is correctly served; if it doesn't, then the request is
passed to
# the front-end controller. This consistent behaviour means that we
don't need
# to specify custom rules for certain paths (e.g. images and other
assets,
# `/updater`, `/ocm-provider`, `/ocs-provider`), and thus
# `try_files $uri $uri/ /index.php$request_uri`
# always provides the desired behaviour.
index index.php index.html /index.php$request_uri;

# Rule borrowed from `.htaccess` to handle Microsoft DAV clients
location = / {
    if ( $http_user_agent ~ ^DavClnt ) {
        return 302 /remote.php/webdav/$is_args$args;
    }
}

location = /robots.txt {
    allow all;
    log_not_found off;
    access_log off;
}

# Make a regex exception for `/.well-known` so that clients can
still
```

```
# access it despite the existence of the regex rule
# `location ~ /(\.|autotest|...)` which would otherwise handle
requests
# for `/.well-known`.
location ^~ /.well-known {
    # The rules in this block are an adaptation of the rules
    # in `.htaccess` that concern `/.well-known`.

    location = /.well-known/carddav { return 301 /remote.php/dav/; }
    location = /.well-known/caldav { return 301 /remote.php/dav/; }

    location /.well-known/acme-challenge { try_files $uri $uri/
=404; }
    location /.well-known/pki-validation { try_files $uri $uri/
=404; }

    # Let Nextcloud's API for `/.well-known` URIs handle all other
    # requests by passing them to the front-end controller.
    return 301 /index.php$request_uri;
}

# Rules borrowed from `.htaccess` to hide certain paths from clients
location ~
^/(?:build|tests|config|lib|3rdparty|templates|data)(?:$|/) { return 404; }
    location ~ ^/(?:\.|autotest|occ|issue|indie|db_|console)
{ return 404; }

# Ensure this block, which passes PHP files to the PHP process, is
above the blocks
    # which handle static assets (as seen below). If this block is not
declared first,
        # then Nginx will encounter an infinite rewriting loop when it
prepends `/index.php`
    # to the URI, resulting in a HTTP 500 error response.
location ~ \.php(?:$|/) {
    # Required for legacy support
    rewrite
^/(?!index|remote|public|cron|core/ajax/update/status/ocs/v[12]|updater\/
.+|oc[ms]-provider\/.+|.+|richdocumentscode/proxy) /index.php$request_uri;

    fastcgi_split_path_info ^(.+?\.\php)(/.*)$;
    set $path_info $fastcgi_path_info;

    try_files $fastcgi_script_name =404;

    include fastcgi_params;
    fastcgi_param SCRIPT_FILENAME
$document_root$fastcgi_script_name;
    fastcgi_param PATH_INFO $path_info;
    fastcgi_param HTTPS on;
```

```

        fastcgi_param modHeadersAvailable true;          # Avoid sending
the security headers twice
        fastcgi_param front_controller_active true;      # Enable pretty
urls
        fastcgi_pass php-handler;

        fastcgi_intercept_errors on;
        fastcgi_request_buffering off;

        fastcgi_max_temp_file_size 0;
}

location ~ \.(?:css|js|svg|gif|png|jpg|ico|wasm|tflite|map)$ {
    try_files $uri /index.php$request_uri;
    add_header Cache-Control "public, max-age=15778463,
$asset_immutable";
    access_log off;      # Optional: Don't log access to assets

    location ~ \.wasm$ {
        default_type application/wasm;
    }
}

location ~ \.woff2?$ {
    try_files $uri /index.php$request_uri;
    expires 7d;          # Cache-Control policy borrowed from
`.htaccess`
    access_log off;      # Optional: Don't log access to assets
}

# Rule borrowed from ` `.htaccess` 
location /remote {
    return 301 /remote.php$request_uri;
}

location / {
    try_files $uri $uri/ /index.php$request_uri;
}
}

```

```
ln -s /etc/nginx/sites-available/nextcloud.home /etc/nginx/sites-enabled/
systemctl reload nginx.service
```

## Background jobs

```
systemctl edit nextcloud-cron.service
```

```
[Service]
ExecStart=
ExecStart=/usr/bin/php -c /etc/webapps/nextcloud/php.ini -f
/usr/share/webapps/nextcloud/cron.php
```

```
systemctl enable --now nextcloud-cron.timer
```

## Nextcloud config

```
nano /etc/webapps/nextcloud/config/config.php
```

### Trusted domains

```
'trusted_domains' =>
array (
    0 => 'localhost',
    1 => 'nextcloud.home',
),
'overwrite.cli.url' => 'https://nextcloud.home',
'htaccess.RewriteBase' => '/',
```

### APCu only

```
'memcache.local' => '\OC\Memcache\APCu',
```

### Redis & APCu

#### With socket

For now, you need to change the permission for the socket file in your /etc/redis/redis.conf file to unixsocketperm 777.

```
'memcache.local' => '\OC\Memcache\APCu',
'memcache.distributed' => '\OC\Memcache\Redis',
'memcache.locking' => '\OC\Memcache\Redis',
'filelocking.enabled' => 'true',
'redis' =>
array (
    'host'      => '/run/redis/redis.sock',
    'port'      => 0,
    'dbindex'   => 0,
    'password'  => 'your-password',
    'timeout'   => 1.5,
),
```

## Without socket

```
'memcache.local' => '\OC\Memcache\APCu',
'memcache.distributed' => '\OC\Memcache\Redis',
'memcache.locking' => '\OC\Memcache\Redis',
'filelocking.enabled' => 'true',
'redis' =>
array (
  'host' => 'localhost',
  'port' => 6379,
  'password' => 'your-password',
),
)
```

## Update via pacman hook

```
mkdir -vp /etc/pacman.d/hooks
cp -a /usr/share/doc/nextcloud/nextcloud.hook /etc/pacman.d/hooks/10-
nextcloud.hook
nano /etc/pacman.d/hooks/10-nextcloud.hook
```

```
# Update Nextcloud when core or -apps are touched

[Trigger]
Operation = Install
Operation = Upgrade
Type = Package
Target = nextcloud
Target = nextcloud-app-*

[Action]
Description = Updating Nextcloud installation
When = PostTransaction
Exec = /usr/bin/runuser -u nextcloud -- /usr/bin/php --php-ini
/etc/webapps/nextcloud/php.ini /usr/share/webapps/nextcloud/occ upgrade
```

## Collabora

Check [docker](#)

```
docker run -t -d -p 127.0.0.1:9980:9980 -e
"aliasgroup1=https://nextcloud.home:443" -e "username=your-user" -e
"password=your-password" --restart always collabora/code
```

## Nginx

Check also [nginx](#) and [ssl](#).

```
nano /etc/nginx/sites-available/collabora.home

server {
    listen 80;
#    listen [::]:80;
    server_name collabora.home;

    # enforce https
    return 301 https://$server_name:443$request_uri;
}

server {
    listen 443 ssl http2;
#    listen [::]:443 ssl http2;
    server_name collabora.home;

    ssl_certificate /etc/nginx/ssl/collabora.home.crt;
    ssl_certificate_key /etc/nginx/ssl/collabora.home.key;
    include conf.d/ssl-params.conf;
    access_log /var/log/nginx/collabora.home_access_log;
    error_log /var/log/nginx/collabora.home-error_log;

    location / {
        proxy_pass https://127.0.0.1:9980;
        proxy_http_version 1.1;
        proxy_read_timeout 3600s;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection "Upgrade";
        proxy_set_header Host $host;
        proxy_set_header X-Forwarded-For $remote_addr;
        proxy_set_header X-Forwarded-Proto $scheme;
        add_header X-Frontend-Host $host;
        add_header Strict-Transport-Security "max-age=31536000;
includeSubDomains" always;
    }
}

```

```
ln -s /etc/nginx/sites-available/collabora.home /etc/nginx/sites-enabled/
systemctl reload nginx.service
```

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