NAME
ovsdb−server − Open vSwitch database server

SYNOPSIS
ovsdb−server [database]... [relay:schema_name:remote]... [−−remote=remote]... [−−run=command]

Daemon options:
[−−pidfile=pidfile] [−−overwrite−pidfile] [−−detach] [−−no−chdir] [−−no−self−confinement]

Service options:
[−−service] [−−service−monitor]

Logging options:
[−v[module]:destination[;level]]...
[−−verbose[=module]:destination[;level]]...
[−−log−file=file]

Active−backup options:
[−−sync−from=server] [−−sync−exclude−tables=db:table...][−−active]

Public key infrastructure options:
[−−private−key=privkey.pem]
[−−certificate=cert.pem]
[−−ca−cert=cacert.pem]
[−−bootstrap−ca−cert=cacert.pem]
[−−peer−ca−cert=peer−cacert.pem]

SSL connection options:
[−−ssl−protocols=protocols]
[−−ssl−ciphers=ciphers]

Runtime management options:
−−unixctl=socket

Replay options:
[−−record=directory] [−−replay=directory]

Common options:
[−h | −−help] [−V | −−version]

DESCRIPTION
The ovsdb−server program provides RPC interfaces to one or more Open vSwitch databases (OVSDBs).
It supports JSON−RPC client connections over active or passive TCP/IP or Unix domain sockets. For an
introduction to OVSB and its implementation in Open vSwitch, see ovsdb(7).

Each OVSB file may be specified on the command line as database. Relay databases may be specified on
the command line as relay:schema_name:remote. For a detailed description of relay database argument,
see ovsdb(7). If none of database files or relay databases is specified, the default is /usr/local/etc/open−
vswitch/conf.db. The database files must already have been created and initialized using, for example,
ovsdb−tool’s create, create−cluster, or join−cluster command.

This OVSB implementation supports standalone, active−backup, relay and clustered database service
models, as well as database replication. See the Service Models section of ovsdb(7) for more information.

For clustered databases, when the −−detach option is used, ovsdb−server detaches without waiting for the
server to successfully join a cluster (if the database file is freshly created with ovsdb−tool join−cluster) or
connect to a cluster that it has already joined. Use ovsdb−client wait (see ovsdb−client(1)) to wait until
the server has successfully joined and connected to a cluster. The same is true for relay databases. Same
commands could be used to wait for a relay database to connect to the relay source (remote).

In addition to user−specified databases, ovsdb−server version 2.9 and later also always hosts a built−in data-
base named _Server. Please see ovsdb−server(5) for documentation on this database’s schema.
OPTIONS
---remote=remote
Adds remote as a connection method used by ovsdb−server. The remote may be an OVSDB active or passive connection method, e.g. pssl:6640, as described in ovsdb(7). The following additional form is also supported:
db:db,table,column
Reads additional connection methods from column in all of the rows in table within db. As the contents of column changes, ovsdb−server also adds and drops connection methods accordingly.

If column’s type is string or set of strings, then the connection methods are taken directly from the column. The connection methods in the column must have one of the forms described above.

If column’s type is UUID or set of UUIDs and references a table, then each UUID is looked up in the referenced table to obtain a row. The following columns in the row, if present and of the correct type, configure a connection method. Any additional columns are ignored.
target (string)
Connection method, in one of the forms described above. This column is mandatory: if it is missing or empty then no connection method can be configured.
max_backoff (integer)
Maximum number of milliseconds to wait between connection attempts.
inactivity_probe (integer)
Maximum number of milliseconds of idle time on connection to client before sending an inactivity probe message.
read_only (boolean)
If true, only read-only transactions are allowed on this connection.

It is an error for column to have another type.

To connect or listen on multiple connection methods, use multiple ---remote options.

---run=command
Ordinarily ovsdb−server runs forever, or until it is told to exit (see RUNTIME MANAGEMENT COMMANDS below). With this option, ovsdb−server instead starts a shell subprocess running command. When the subprocess terminates, ovsdb−server also exits gracefully. If the subprocess exits normally with exit code 0, then ovsdb−server exits with exit code 0 also; otherwise, it exits with exit code 1.

This option can be useful where a database server is needed only to run a single command, e.g.:

ovsdb−server ---remote=punix:socket ---run='ovsdb−client dump unix:socket Open_vSwitch'

This option is not supported on Windows platform.

Daemon Options
The following options are valid on POSIX based platforms.

---pidfile=[pidfile]
Causes a file (by default, ovsdb−server.pid) to be created indicating the PID of the running process. If the pidfile argument is not specified, or if it does not begin with /, then it is created in /usr/local/var/run/openvswitch.

If ---pidfile is not specified, no pidfile is created.
--overwrite-pidfile
By default, when --pidfile is specified and the specified pidfile already exists and is locked by a running process, ovsdb-server refuses to start. Specify --overwrite-pidfile to cause it to instead overwrite the pidfile.

When --pidfile is not specified, this option has no effect.

--detach
Runs ovsdb-server as a background process. The process forks, and in the child it starts a new session, closes the standard file descriptors (which has the side effect of disabling logging to the console), and changes its current directory to the root (unless --no-chdir is specified). After the child completes its initialization, the parent exits. ovsdb-server detaches only after it starts listening on all configured remotes. At this point, all standalone and active-backup databases are ready for use. Clustered databases only become ready for use after they finish joining their clusters (which could have already happened in previous runs of ovsdb-server).

--monitor
Creates an additional process to monitor the ovsdb-server daemon. If the daemon dies due to a signal that indicates a programming error (SIGABRT, SIGALRM, SIGBUS, SIGFPE, SIGILL, SIGPIPE, SIGSEGV, SIGXCPU, or SIGXFSZ) then the monitor process starts a new copy of it. If the daemon dies or exits for another reason, the monitor process exits.
This option is normally used with --detach, but it also functions without it.

--no-chdir
By default, when --detach is specified, ovsdb-server changes its current working directory to the root directory after it detaches. Otherwise, invoking ovsdb-server from a carelessly chosen directory would prevent the administrator from unmounting the file system that holds that directory.

Specifying --no-chdir suppresses this behavior, preventing ovsdb-server from changing its current working directory. This may be useful for collecting core files, since it is common behavior to write core dumps into the current working directory and the root directory is not a good directory to use.
This option has no effect when --detach is not specified.

--no-self-confinement
By default daemon will try to self-confine itself to work with files under well-known directories determined during build. It is better to stick with this default behavior and not to use this flag unless some other Access Control is used to confine daemon. Note that in contrast to other access control implementations that are typically enforced from kernel-space (e.g. DAC or MAC), self-confinement is imposed from the user-space daemon itself and hence should not be considered as a full confinement strategy, but instead should be viewed as an additional layer of security.

--user
Causes ovsdb-server to run as a different user specified in "user:group", thus dropping most of the root privileges. Short forms "user" and ":group" are also allowed, with current user or group are assumed respectively. Only daemons started by the root user accepts this argument.

On Linux, daemons will be granted CAP_IPC_LOCK and CAP_NET_BIND_SERVICES before dropping root privileges. Daemons that interact with a datapath, such as ovs-vswitchd, will be granted three additional capabilities, namely CAP_NET_ADMIN, CAP_NET_BROADCAST and CAP_NET_RAW. The capability change will apply even if the new user is root.

On Windows, this option is not currently supported. For security reasons, specifying this option will cause the daemon process not to start.

Service Options
The following options are valid only on Windows platform.
---service
Causes `ovsdb-server` to run as a service in the background. The service should already have been created through external tools like `SC.exe`.

---service-monitor
Causes the `ovsdb-server` service to be automatically restarted by the Windows services manager if the service dies or exits for unexpected reasons.

When `---service` is not specified, this option has no effect.

Logging Options

---v[spec]
---verbose=[spec]
Sets logging levels. Without any `spec`, sets the log level for every module and destination to `dbg`. Otherwise, `spec` is a list of words separated by spaces or commas or colons, up to one from each category below:

- A valid module name, as displayed by the `vlog/list` command on `ovs-appctl(8)`, limits the log level change to the specified module.
- `syslog`, `console`, or `file`, to limit the log level change to only to the system log, to the console, or to a file, respectively. (If `---detach` is specified, `ovsdb-server` closes its standard file descriptors, so logging to the console will have no effect.)

On Windows platform, `syslog` is accepted as a word and is only useful along with the `---syslog-target` option (the word has no effect otherwise).

- `off`, `emer`, `err`, `warn`, `info`, or `dbg`, to control the log level. Messages of the given severity or higher will be logged, and messages of lower severity will be filtered out. `off` filters out all messages. See `ovs-appctl(8)` for a definition of each log level.

Case is not significant within `spec`.

Regardless of the log levels set for `file`, logging to a file will not take place unless `---log-file` is also specified (see below).

---v
---verbose
Sets the maximum logging verbosity level, equivalent to `---verbose=dbg`.

---vPATTERN:destination:pattern
---verbose=PATTERN:destination:pattern
Sets the log pattern for `destination` to `pattern`. Refer to `ovs-appctl(8)` for a description of the valid syntax for `pattern`.

---vFACILITY:facility
---verbose=FACILITY:facility
Sets the RFC5424 facility of the log message. `facility` can be one of `kern`, `user`, `mail`, `daemon`, `auth`, `syslog`, `lpr`, `news`, `uucp`, `clock`, `ftp`, `nfs`, `ftp`, `audit`, `clock2`, `local0`, `local1`, `local2`, `local3`, `local4`, `local5`, `local6` or `local7`. If this option is not specified, `daemon` is used as the default for the local system syslog and `local0` is used while sending a message to the target provided via the `---syslog-target` option.

---log-file[=file]
Enables logging to a file. If `file` is specified, then it is used as the exact name for the log file. The default log file name used if `file` is omitted is `/usr/local/var/log/openvswitch/ovsdb-server.log`.

---syslog-target=host:port
Send syslog messages to UDP `port` on `host`, in addition to the system syslog. The `host` must be a numerical IP address, not a hostname.
**--syslog-method=method**

Specify *method* how syslog messages should be sent to syslog daemon. Following forms are supported:

- **libc**, use libc `syslog()` function. Downside of using this options is that libc adds fixed prefix to every message before it is actually sent to the syslog daemon over `/dev/log` UNIX domain socket.
- **unix:file**, use UNIX domain socket directly. It is possible to specify arbitrary message format with this option. However, *rsyslogd 8.9* and older versions use hard coded parser function anyway that limits UNIX domain socket use. If you want to use arbitrary message format with older *rsyslogd* versions, then use UDP socket to localhost IP address instead.
- **udp:ip:port**, use UDP socket. With this method it is possible to use arbitrary message format also with older *rsyslogd*. When sending syslog messages over UDP socket extra precaution needs to be taken into account, for example, syslog daemon needs to be configured to listen on the specified UDP port, accidental iptables rules could be interfering with local syslog traffic and there are some security considerations that apply to UDP sockets, but do not apply to UNIX domain sockets.
- **null**, discards all messages logged to syslog.

The default is taken from the *OVS_SYSLOG_METHOD* environment variable; if it is unset, the default is *libc*.

**Active-Backup Options**

These options support the *ovsdb−server* active-backup service model and database replication. These options apply only to databases in the format used for standalone and active-backup databases, which is the database format created by *ovsdb−tool create*. By default, when it serves a database in this format, *ovsdb−server* runs as a standalone server. These options can configure it for active-backup use:

- Use **--sync-from=server** to start the server in the backup role, replicating data from *server*. When *ovsdb−server* is running as a backup server, it rejects all transactions that can modify the database content, including lock commands. The same form can be used to configure the local database as a replica of *server*.
- Use **--sync-from=server --active** to start the server in the active role, but prepared to switch to the backup role in which it would replicate data from *server*. When *ovsdb−server* runs in active mode, it allows all transactions, including those that modify the database.

At runtime, management commands can change a server’s role and otherwise manage active-backup features. See **Active-Backup Commands**, below, for more information.

**--sync-from=server**

Sets up *ovsdb−server* to synchronize its databases with the databases in *server*, which must be an active connection method in one of the forms documented in *ovsdb−client*(1). Every transaction committed by *server* will be replicated to *ovsdb−server*. This option makes *ovsdb−server* start as a backup server; add **--active** to make it start as an active server.

**--sync-exclude-tables=db:table[;db:table]...**

Causes the specified tables to be excluded from replication.

**--active**

By default, **--sync-from** makes *ovsdb−server* start up as a backup for *server*. With **--active**, however, *ovsdb−server* starts as an active server. Use this option to allow the syncing options to be specified using command line options, yet start the server, as the default, active server. To switch the running server to backup mode, use *ovs-appctl*(1) to execute the *ovsdb−server/connect-active−ovsdb−server* command.
Public Key Infrastructure Options

The options described below for configuring the SSL public key infrastructure accept a special syntax for obtaining their configuration from the database. If any of these options is given `db:db:table:column` as its argument, then the actual file name is read from the specified `column` in `table` within the `db` database. The `column` must have type string or set of strings. The first nonempty string in the table is taken as the file name. (This means that ordinarily there should be at most one row in `table`.)

- `p privkey.pem`  
  `--private-key=privkey.pem`  
  Specifies a PEM file containing the private key used as `ovsdb-server`’s identity for outgoing SSL connections.

- `c cert.pem`  
  `--certificate=cert.pem`  
  Specifies a PEM file containing a certificate that certifies the private key specified on `-p` or `--private-key` to be trustworthy. The certificate must be signed by the certificate authority (CA) that the peer in SSL connections will use to verify it.

- `C cacert.pem`  
  `--ca-cert=cacert.pem`  
  Specifies a PEM file containing the CA certificate that `ovsdb-server` should use to verify certificates presented to it by SSL peers. (This may be the same certificate that SSL peers use to verify the certificate specified on `-c` or `--certificate`, or it may be a different one, depending on the PKI design in use.)

- `C none`  
  `--ca-cert=none`  
  Disables verification of certificates presented by SSL peers. This introduces a security risk, because it means that certificates cannot be verified to be those of known trusted hosts.

- `bootstrap-ca-cert=cacert.pem`  
  When `cacert.pem` exists, this option has the same effect as `-C` or `--ca-cert`. If it does not exist, then `ovsdb-server` will attempt to obtain the CA certificate from the SSL peer on its first SSL connection and save it to the named PEM file. If it is successful, it will immediately drop the connection and reconnect, and from then on all SSL connections must be authenticated by a certificate signed by the CA certificate thus obtained.

  This option exposes the SSL connection to a man-in-the-middle attack obtaining the initial CA certificate, but it may be useful for bootstrapping.

  This option is only useful if the SSL peer sends its CA certificate as part of the SSL certificate chain. The SSL protocol does not require the server to send the CA certificate.

  This option is mutually exclusive with `-C` and `--ca-cert`.

- `peer-ca-cert=peer-cacert.pem`  
  Specifies a PEM file that contains one or more additional certificates to send to SSL peers. `peer-cacert.pem` should be the CA certificate used to sign `ovsdb-server`’s own certificate, that is, the certificate specified on `-c` or `--certificate`. If `ovsdb-server`’s certificate is self-signed, then `--certificate` and `peer-ca-cert` should specify the same file.

  This option is not useful in normal operation, because the SSL peer must already have the CA certificate for the peer to have any confidence in `ovsdb-server`’s identity. However, this offers a way for a new installation to bootstrap the CA certificate on its first SSL connection.

SSL Connection Options

- `ssl-protocols=protocols`  
  Specifies, in a comma- or space-delimited list, the SSL protocols `ovsdb-server` will enable for SSL connections. Supported protocols include `TLSv1`, `TLSv1.1`, and `TLSv1.2`. Regardless of order, the highest protocol supported by both sides will be chosen when making the connection. The default when this option is omitted is `TLSv1,TLSv1.1,TLSv1.2`. 

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---ssl-ciphers=ciphers
Specifies, in OpenSSL cipher string format, the ciphers ovsdb−server will support for SSL connections. The default when this option is omitted is HIGH:!aNULL:!MD5.

Other Options
---unixctl=socket
Sets the name of the control socket on which ovsdb−server listens for runtime management commands (see RUNTIME MANAGEMENT COMMANDS, below). If socket does not begin with /, it is interpreted as relative to /usr/local/var/run/openvswitch. If ---unixctl is not used at all, the default socket is /usr/local/var/run/openvswitch/ovsdb−server.pidctl, where pid is ovsdb−server’s process ID.

On Windows a local named pipe is used to listen for runtime management commands. A file is created in the absolute path as pointed by socket or if ---unixctl is not used at all, a file is created as ovsdb−serverctl in the configured OVS_RUNDIR directory. The file exists just to mimic the behavior of a Unix domain socket.

Specifying none for socket disables the control socket feature.

---record[=directory] Sets the process in "recording" mode, in which it will record all the connections, data from streams (Unix domain and network sockets) and some other important necessary bits, so they could be replayed later. Recorded data is stored in replay files in specified directory. If directory does not begin with /, it is interpreted as relative to /usr/local/var/run/openvswitch. If directory is not specified, /usr/local/var/run/openvswitch will be used.

---replay[=directory] Sets the process in "replay" mode, in which it will read information about connections, data from streams (Unix domain and network sockets) and some other necessary bits directly from replay files instead of using real sockets. Replay files from the directory will be used. If directory does not begin with /, it is interpreted as relative to /usr/local/var/run/openvswitch. If directory is not specified, /usr/local/var/run/openvswitch will be used.

-h
---help Prints a brief help message to the console.

-V
---version Prints version information to the console.

RUNTIME MANAGEMENT COMMANDS
ovs−appctl(8) can send commands to a running ovsdb−server process. The currently supported commands are described below.

ovsdb−server Commands
These commands are specific to ovsdb−server.

exit Causes ovsdb−server to gracefully terminate.

ovsdb−server/compact [db] Compacts database db in-place. If db is not specified, compacts every database in-place. A database is also compacted automatically when a transaction is logged if it is over 2 times as large as its previous compacted size (and at least 10 MB), but not before 100 commits have been added or 10 minutes have elapsed since the last compaction. It will also be compacted automatically after 24 hours since the last compaction if 100 commits were added regardless of its size.

ovsdb−server/memory−trim−on−compaction on|off If this option is on, ovsdb−server will try to reclaim all unused heap memory back to the system after each successful database compaction to reduce the memory consumption of the process. off by default.
ovsdb−server/reconnect
Makes ovsdb−server drop all of the JSON−RPC connections to database clients and reconnect.
This command might be useful for debugging issues with database clients.

ovsdb−server/add−remote remote
Adds a remote, as if −−remote=remote had been specified on the ovsdb−server command line.
(If remote is already a remote, this command succeeds without changing the configuration.)

ovsdb−server/remove−remote remote
Removes the specified remote from the configuration, failing with an error if remote is not config-
ured as a remote. This command only works with remotes that were named on −−remote or
ovsdb−server/add−remote, that is, it will not remove remotes added indirectly because they were read from the database by configuring a db:db:table:column remote. (You can remove a database source with ovsdb−server/remove−remote db:db:table:column, but not individual remotes found indirectly through the database.)

ovsdb−server/list−remotes
Outputs a list of the currently configured remotes named on −−remote or ovsdb−server/add−re-
 mote, that is, it does not list remotes added indirectly because they were read from the database by configuring a db:db:table:column remote.

ovsdb−server/add−db database
Adds the database to the running ovsdb−server. database could be a database file or a relay de-
scription in the following format: relay:schema_name:remote. The database file must already have been created and initialized using, for example, ovsdb−tool create.

ovsdb−server/remove−db database
Removes database from the running ovsdb−server. database must be a database name as listed by ovsdb−server/list−dbs.
If a remote has been configured that points to the specified database (e.g. −−remote=db:dat-
abase,... on the command line), then it will be disabled until another database with the same name is added again (with ovsdb−server/add−db).
Any public key infrastructure options specified through this database (e.g. −−pri-
vate−key=db:database,... on the command line) will be disabled until another database with the same name is added again (with ovsdb−server/add−db).

ovsdb−server/list−dbs
Outputs a list of the currently configured databases added either through the command line or through the ovsdb−server/add−db command.

Active−Backup Commands
These commands query and update the role of ovsdb−server within an active−backup pair of servers. See Active−Backup Options, above, and Active−Backup Database Service Model in ovsdb(7) for more infor-
mation.

ovsdb−server/set−active−ovsdb−server server
Sets the active server from which ovsdb−server connects through ovsdb−server/connect−ac-
tive−ovsdb−server. This overrides the −−sync−from command−line option.

ovsdb−server/get−active−ovsdb−server
Gets the active server from which ovsdb−server is currently synchronizing its databases.

ovsdb−server/connect−active−ovsdb−server
Switches the server to a backup role. The server starts synchronizing its databases with the active server specified by ovsdb−server/set−active−ovsdb−server (or the −−sync−from command−line option) and closes all existing client connections, which requires clients to reconnect.

ovsdb−server/disconnect−active−ovsdb−server
Switches the server to an active role. The server stops synchronizing its databases with an active server and closes all existing client connections, which requires clients to reconnect.
ovsdb−server/set−active−ovsdb−server−probe−interval probe interval
Sets the probe interval (in milli seconds) for the connection to active server.

ovsdb−server/set−sync−exclude−tables db:table[db:table]...
Sets the table within db that will be excluded from synchronization. This overrides the --sync−exclude−tables command-line option.

ovsdb−server/get−sync−exclude−tables
Gets the tables that are currently excluded from synchronization.

ovsdb−server/sync−status
Prints a summary of replication run time information. The state information is always provided, indicating whether the server is running in the active or the backup mode. When running in backup mode, replication connection status, which can be either connecting, replicating or error, are shown. When the connection is in replicating state, further output shows the list of databases currently replicating, and the tables that are excluded.

Cluster Commands
These commands support the ovsdb−server clustered service model. They apply only to databases in the format used for clustered databases, which is the database format created by ovsdb−tool create−cluster and ovsdb−tool join−cluster.

cluster/cid db
Prints the cluster ID for db, which is a UUID that identifies the cluster. If db is a database newly created by ovsdb−tool cluster−join that has not yet successfully joined its cluster, and --cid was not specified on the cluster−join command line, then this command will report an error because the cluster ID is not yet known.

cluster/sid db
Prints the server ID for db, which is a UUID that identifies this server within the cluster.

cluster/status db
Prints this server’s status within the cluster and the status of its connections to other servers in the cluster.

cluster/leave db
This command starts the server gracefully removing itself from its cluster. At least one server must remain, and the cluster must be healthy, that is, over half of the cluster’s servers must be up. When the server successfully leaves the cluster, it stops serving db, as if ovsdb−server/remove−db db had been executed.

Use ovsdb−client wait (see ovsdb−client(1)) to wait until the server has left the cluster.

Once a server leaves a cluster, it may never rejoin it. Instead, create a new server and join it to the cluster.

Note that removing the server from the cluster alters the total size of the cluster. For example, if you remove two servers from a three server cluster, then the “cluster” becomes a single functioning server. This does not result in a three server cluster that lacks quorum.

cluster/kick db server
Start graceful removal of server from db’s cluster, like cluster/leave (without --force) except that it can remove any server, not just this one.

server may be a server ID, as printed by cluster/sid, or the server’s local network address as passed to ovsdb-tool’s create−cluster or join−cluster command. Use cluster/status to see a list of cluster members.

cluster/change-election-timer db time
Change the leader election timeout base value of the cluster, in milliseconds.

Leader election will be initiated by a follower if there is no heartbeat received from the leader within this time plus a random time within 1 second.
The default value is 1000, if not changed with this command. This command can be used to adjust the value when necessary, according to the expected load and response time of the servers.

This command must be executed on the leader. It initiates the change to the cluster. To see if the change takes effect (committed), use `cluster/status` to show the current setting. Once a change is committed, it persists at server restarts.

```
cluster/set-backlog-threshold db n_msgs n_bytes
```

Sets the backlog limits for `db`’s RAFT connections to a maximum of `n_msgs` messages or `n_bytes` bytes. If the backlog on one of the connections reaches the limit, it will be disconnected (and re-established). Values are checked only if the backlog contains more than 50 messages.

**VLOG COMMANDS**

These commands manage `ovsdb–server`’s logging settings.

```
vlog/set [spec]
```

Sets logging levels. Without any `spec`, sets the log level for every module and destination to `dbg`. Otherwise, `spec` is a list of words separated by spaces or commas or colons, up to one from each category below:

- A valid module name, as displayed by the `vlog/list` command on `ovs–appctl(8)`, limits the log level change to the specified module.
- `syslog, console, or file`, to limit the log level change to only to the system log, to the console, or to a file, respectively.

On Windows platform, `syslog` is accepted as a word and is only useful along with the `--syslog-target` option (the word has no effect otherwise).

- `off, emerg, err, warn, info, or dbg`, to control the log level. Messages of the given severity or higher will be logged, and messages of lower severity will be filtered out. `off` filters out all messages. See `ovs–appctl(8)` for a definition of each log level.

Case is not significant within `spec`.

Regardless of the log levels set for `file`, logging to a file will not take place unless `ovsdb–server` was invoked with the `--log-file` option.

For compatibility with older versions of OVS, `any` is accepted as a word but has no effect.

```
vlog/set PATTERN:destination:pattern
```

Sets the log pattern for `destination` to `pattern`. Refer to `ovs–appctl(8)` for a description of the valid syntax for `pattern`.

```
vlog/list
```

Lists the supported logging modules and their current levels.

```
vlog/list-pattern
```

Lists logging patterns used for each destination.

```
vlog/close
```

Causes `ovsdb–server` to close its log file, if it is open. (Use `vlog/reopen` to reopen it later.)

```
vlog/reopen
```

Causes `ovsdb–server` to close its log file, if it is open, and then reopen it. (This is useful after rotating log files, to cause a new log file to be used.)

This has no effect unless `ovsdb–server` was invoked with the `--log-file` option.

```
vlog/disable-rate-limit [module]...
vlog/enable-rate-limit [module]...
```

By default, `ovsdb–server` limits the rate at which certain messages can be logged. When a message would appear more frequently than the limit, it is suppressed. This saves disk space, makes logs easier to read, and speeds up execution, but occasionally troubleshooting requires more detail. Therefore, `vlog/disable-rate-limit` allows rate limits to be disabled at the level of an individual
log module. Specify one or more module names, as displayed by the `vlog/list` command. Specifying either no module names at all or the keyword `any` disables rate limits for every log module.

The `vlog/enable-rate-limit` command, whose syntax is the same as `vlog/disable-rate-limit`, can be used to re-enable a rate limit that was previously disabled.

**MEMORY COMMANDS**

These commands report memory usage.

- **memory/show**
  - Displays some basic statistics about `ovsdb–server`’s memory usage. `ovsdb–server` also logs this information soon after startup and periodically as its memory consumption grows.

**COVERAGE COMMANDS**

These commands manage `ovsdb–server`’s “coverage counters,” which count the number of times particular events occur during a daemon’s runtime. In addition to these commands, `ovsdb–server` automatically logs coverage counter values, at `INFO` level, when it detects that the daemon’s main loop takes unusually long to run.

Coverage counters are useful mainly for performance analysis and debugging.

- **coverage/show**
  - Displays the averaged per-second rates for the last few seconds, the last minute and the last hour, and the total counts of all of the coverage counters.

- **coverage/read-counter** `counter`
  - Displays the total count for the given coverage `counter`.

**BUGS**

In Open vSwitch before version 2.4, when `ovsdb–server` sent JSON-RPC error responses to some requests, it incorrectly formulated them with the `result` and `error` swapped, so that the response appeared to indicate success (with a nonsensical result) rather than an error. The requests that suffered from this problem were:

- `transact`  
  - Only if the request names a nonexistent database.

- `get_schema`

- `monitor`  
  - In all error cases.

- `lock`

- `unlock`  
  - In all error cases.

Of these cases, the only error that a well-written application is likely to encounter in practice is `monitor` of tables or columns that do not exist, in a situation where the application has been upgraded but the old database schema is still temporarily in use. To handle this situation gracefully, we recommend that clients should treat a `monitor` response with a `result` that contains an `error` key-value pair as an error (assuming that the database being monitored does not contain a table named `error`).

**SEE ALSO**

- `ovsdb(7)`, `ovsdb–tool(1)`, `ovsdb–server(5)`, `ovsdb–server(7)`. 