

ovsvsctl Commands

The command **ovs-vsctl** is a utility for querying and configuring the Open vSwitch. The Open vSwitch configuration is kept in a database managed by the **ovsdb-server** process. The **ovs-vsctl** command connects to **ovsdb-server**, which maintains the Open vSwitch configuration database. Using this connection, **ovs-vsctl** queries and applies changes to the database, based on the supplied commands.

See **ovs-vsctl** help for more information about the utility.

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admin@PICOS-OVS:~$ ovs-vsctl --help
ovs-vsctl: ovs-vswitchd management utility
usage: ovs-vsctl [OPTIONS] COMMAND [ARG...]

Open vSwitch commands:
  init                initialize database, if not yet initialized
  show                print overview of database contents
  emer-reset          reset configuration to clean state

Bridge commands:
  add-br BRIDGE       create a new bridge named BRIDGE
  add-br BRIDGE PARENT VLAN create new fake BRIDGE in PARENT on VLAN
  del-br BRIDGE       delete BRIDGE and all of its ports
  list-br             print the names of all the bridges
  br-exists BRIDGE   exit 2 if BRIDGE does not exist
  br-to-vlan BRIDGE  print the VLAN which BRIDGE is on
  br-to-parent BRIDGE print the parent of BRIDGE
  br-set-external-id BRIDGE KEY VALUE set KEY on BRIDGE to VALUE
  br-set-external-id BRIDGE KEY unset KEY on BRIDGE
  br-get-external-id BRIDGE KEY print value of KEY on BRIDGE
  br-get-external-id BRIDGE list key-value pairs on BRIDGE

Port commands (a bond is considered to be a single port):
  list-ports BRIDGE  print the names of all the ports on BRIDGE
  add-port BRIDGE PORT add network device PORT to BRIDGE
  add-bond BRIDGE PORT IFACE... add bonded port PORT in BRIDGE from IFACES
  del-port [BRIDGE] PORT delete PORT (which may be bonded) from BRIDGE
  port-to-br PORT    print name of bridge that contains PORT

Interface commands (a bond consists of multiple interfaces):
  list-ifaces BRIDGE print the names of all interfaces on BRIDGE
  iface-to-br IFACE  print name of bridge that contains IFACE

Controller commands:
  get-controller BRIDGE print the controllers for BRIDGE
  del-controller BRIDGE delete the controllers for BRIDGE
  set-controller BRIDGE TARGET... set the controllers for BRIDGE
  get-fail-mode BRIDGE print the fail-mode for BRIDGE
  del-fail-mode BRIDGE delete the fail-mode for BRIDGE
  set-fail-mode BRIDGE MODE set the fail-mode for BRIDGE to MODE

Manager commands:
  get-manager          print the managers
  del-manager          delete the managers
  set-manager TARGET... set the list of managers to TARGET...

SSL commands:
  get-ssl              print the SSL configuration
  del-ssl              delete the SSL configuration
  set-ssl PRIV-KEY CERT CA-CERT set the SSL configuration

Switch commands:
  emer-reset          reset switch to known good state

Database commands:
  list TBL [REC]      list RECOrd (or all records) in TBL
  find TBL CONDITION... list records satisfying CONDITION in TBL
  get TBL REC COL[:KEY] print values of COLumns in RECOrd in TBL
  set TBL REC COL[:KEY]=VALUE set COLumn values in RECOrd in TBL
  add TBL REC COL [KEY]=VALUE add (KEY=)VALUE to COLumn in RECOrd in TBL
  remove TBL REC COL [KEY]=VALUE remove (KEY=)VALUE from COLumn
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clear TBL REC COL          clear values from COLUMN in RECOrd in TBL
create TBL COL[:KEY]=VALUE create and initialize new record
destroy TBL REC           delete RECOrd from TBL
wait-until TBL REC [COL[:KEY]=VALUE] wait until condition is true
Potentially unsafe database commands require --force option.

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Options:

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--db=DATABASE             connect to DATABASE
                          (default: unix:/ovs/var/run/openvswitch/db.sock)
--no-wait                 do not wait for ovs-vswitchd to reconfigure
--retry                  keep trying to connect to server forever
-t, --timeout=SECS       wait at most SECS seconds for ovs-vswitchd
--dry-run                do not commit changes to database
--online                 print exactly one line of output per command

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Pica commands:

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show-running-config      print current ovssdb config
show-valid-port [FRONT]  print all valid ports or one
set-port-breakout ALL|FRONT TRUE|FALSE use breakout cable or not
set-port-name FRONT [1,4]=default|XXX  modify name of sub-port on FRONT
set-match-mode MODE:OPTIONS=PRIORITY   set match-modes
show-match-mode          print current match-modes
set-gtp-udp-dst-ports PORT...           set gtp udp ports, PORT is up to 4
show-gtp-udp-dst-ports  show gtp udp ports
set-match-vxlan-vni-enable TRUE|FALSE   enable or disable vxlan vni matching
show-match-vxlan-vni    show vxlan vni matching
set-vxlan-udp-dst-port [1, 65535]       set vxlan udp destination port
show-vxlan-udp-dst-port show vxlan udp destination port
set-vntag-ethertype [0x6000, 0xffff]    set VN tag ethertype
show-vntag-ethertype    show VN tag ethertype
set-snmpp-enable TRUE|FALSE             enable or disable snmp
show-snmpp                 show snmp
set-snmpp-trap-targets IPv4(s)          set snmp trap targets
show-snmpp-trap-targets  show snmp trap targets
set-snmpp-community-name set snmp agent community name
show-snmpp-community-name show snmp agent community name
set-cos-map TRUE|FALSE                 enable or disable cos-mapping
show-cos-map [IFACE]                  show cos-mapping
set-vlan-priority-cos-map TRUE|FALSE   enable or disable vlan-priority-cos-mapping
show-vlan-priority-cos-map show vlan-priority-cos-mapping
set-egress-mode TRUE|FALSE [TABLE]    set egress mode
show-egress-mode                  show egress-mode
set-combinated-mode TRUE|FALSE         enable or disable combinated-mode
show-combinated-mode              show combinated-mode
set-l2gre-key-length                 set l2gre key length
show-l2gre-key-length              show l2gre key length
set-proxy-arp TRUE|FALSE SUBNETS      set proxy arp
show-proxy-arp                     show proxy arp
set-proxy-icmpv6 TRUE|FALSE SUBNETS   set proxy icmpv6 for NS/NA
show-proxy-icmpv6                  show proxy icmpv6
set-l2-mode TRUE|FALSE [TABLE]        set l2 mode
show-l2-mode                        show l2 mode
set-l3-mode TRUE|FALSE [TABLE]        set l3 mode
show-l3-mode                        show l3 mode
set-l2-l3-buffer-mode [0, 5]          set l2/l3 buffer mode(0-5)
show-l2-l3-buffer-mode              show l2/l3 buffer mode
set-l2-l3-preference TRUE|FALSE       set l2/l3 flow preference
show-l2-l3-preference                show l2/l3 flow preference
set-max-ecmp-ports NUM                set l3 max ecmp ports to NUM(2-32 and a power of 2)
show-max-ecmp-ports                  show l3 max ecmp ports
set-lag-advance-hash-mapping-fields  set hash fields of advance hash-mapping
show-lag-advance-hash-mapping-fields show hash fields of advance hash-mapping
set-udf-mode MODE                      set udf mode, MODE's format is udfN(l2|l3,offset=OFS,
length=LEN),...
show-udf-mode                          only up to 4 udfs(udf0,udf1,udf2,udf3) are supported
show-udf-mode                          show udf mode
set-max-resilient-hash-lag-count COUNT set lag-max-resilient-hash-lag-count.
show-max-resilient-hash-lag-count      COUNT is max count of lags which,
show-max-resilient-hash-lag-count      can be set to resilient hash,
show-max-resilient-hash-lag-count      the valid value of COUNT is
show-max-resilient-hash-lag-count      1, 2, 4, 8, 16, 32, 64.

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show-max-resilient-hash-lag-count          The default value is 1.
set-macro-udf MODE                          show lag-max-resilient-hash-lag-count.
udf field                                    set macro udf mode instead of offset and length, look up show
show-macro-udf                               show macro udf mode
show-udf-field                               options for macro udf
set-egress-mc-queue-dynamic [0,7] TRUE|FALSE set certain queue id multicast dynamic buffer enable
set-egress-shared-queue-ratio [0,7] [0,100] set certain queue id shared buffer ratio
show-egress-shared-queue-ratio              show added queue id shared buffer ratio
set-loopback-enable TRUE|FALSE              set loopback enable or disable
set-option-match-vlan-type TRUE|FALSE       enable or disable matching untagged packets
show-option-match-vlan-type                 show vlan format enable or disable
set-select-group-hash-fields [FIELDS]       set select-group-hash-fields
show-select-group-hash-fields                show current select-group-hash-fields
set-flow-handling-mode [MODE]               set flow-handling-mode
show-flow-handling-mode                     show current flow-handling-mode
set-rdbgc4 [TYPE]                           set rdbgc4
show-rdbgc4                                 show current rdbgc4
set-lag-members-sorted                      set lag members sorted
show-lag-members-sorted                     show lag members sorted
set-group-ranges [GROUPS]                  set special groups(lag-select-groups, ecmp-select-groups,
show-group-ranges                           show current group ranges
set-meter-ranges [METERS]                   set special meters(egress-meter) ranges
show-meter-ranges                           show current meter ranges
set-l3-ecmp-hash-fields FIELDS              set l3 ecmp hash fields
show-l3-ecmp-hash-fields                    show l3 ecmp hash fields
set-l3-egress-keep-fields [FIELDS]          set default keep fields in l3 egress interface
show-l3-egress-keep-fields                  show default keep fields in l3 egress interface
disable-extend-group TRUE|FALSE              disable or enable extend group for arp/mps flows
show-extend-group                           show extend group config
set-symmetric-hash [LAG|ECMP] TRUE|FALSE    disable or enable symmetric hash
show-symmetric-hash                         show symmetric hash config
set-flow-counter-mode both|bytes|packets     set flow counter mode
show-flow-counter-mode                       show flow counter mode
set-ttp-enable TRUE|FALSE                   set ttp module enable or disable
set-ttp-file FILE                           set ttp file name
show-ttp                                    show ttp status and file name
set-counter-interval [10,1000]              set counter interval
show-counter-interval                       show counter interval
display-settings                             show the configurations in OVSDB through ovs-vsctl comands

Logging options:
-vSPEC, --verbose=SPEC      set logging levels
-v, --verbose                set maximum verbosity level
--log-file[=FILE]           enable logging to specified FILE
                             (default: /ovs/var/log/openvswitch/ovs-vsctl.log)
--syslog-target=HOST:PORT  also send syslog msgs to HOST:PORT via UDP
--no-syslog                  equivalent to --verbose=vsctl:syslog:warn

Active database connection methods:
tcp:IP:PORT                  PORT at remote IP
ssl:IP:PORT                  SSL PORT at remote IP
unix:FILE                    Unix domain socket named FILE

Passive database connection methods:
ptcp:PORT[:IP]              listen to TCP PORT on IP
pssl:PORT[:IP]               listen for SSL on PORT on IP
punix:FILE                   listen on Unix domain socket FILE

PKI configuration (required to use SSL):
-p, --private-key=FILE       file with private key
-c, --certificate=FILE       file with certificate for private key
-C, --ca-cert=FILE           file with peer CA certificate

Other options:
-h, --help                    display this help message
-V, --version                  display version information
admin@PICOS-OVS:~$

```

See [ovs-vsctl main page](#) for detailed syntax and additional information.

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admin@Switch$man ovs-vsctl
ovs-vsctl(8)                                Open vSwitch Manual
ovs-vsctl(8)
NAME
    ovs-vsctl - utility for querying and configuring ovs-vswitchd
SYNOPSIS
    ovs-vsctl [options] -- [options] command [args] [-- [options] command [args]]...
DESCRIPTION
    The ovs-vsctl program configures ovs-vswitchd(8) by providing a high-level interface to its
    configuration data-
    base. See ovs-vswitchd.conf.db(5) for comprehensive documentation of the database schema.
    ovs-vsctl connects to an ovssdb-server process that maintains an Open vSwitch configuration database.
    Using this
    connection, it queries and possibly applies changes to the database, depending on the supplied
    commands. Then, if
    it applied any changes, by default it waits until ovs-vswitchd has finished reconfiguring itself before
    it exits.
    (If you use ovs-vsctl when ovs-vswitchd is not running, use --no-wait.)
    ovs-vsctl can perform any number of commands in a single run, implemented as a single atomic
    transaction against
    the database.
    The ovs-vsctl command line begins with global options (see OPTIONS below for details). The global
    options are
    followed by one or more commands. Each command should begin with -- by itself as a command-line
    argument, to sep-
    arate it from the following commands. (The -- before the first command is optional.) The command
    itself starts
    with command-specific options, if any, followed by the command name and any arguments. See EXAMPLES
    below for
    syntax examples.
    Linux VLAN Bridging Compatibility
    The ovs-vsctl program supports the model of a bridge implemented by Open vSwitch, in which a single
    bridge sup-
    ports ports on multiple VLANs. In this model, each port on a bridge is either a trunk port that
    potentially
    passes packets tagged with 802.1Q headers that designate VLANs or it is assigned a single implicit
    VLAN that is
    never tagged with an 802.1Q header.
    For compatibility with software designed for the Linux bridge, ovs-vsctl also supports a model in
    which traffic
    associated with a given 802.1Q VLAN is segregated into a separate bridge. A special form of the add-
    br command
    (see below) creates a ``fake bridge'' within an Open vSwitch bridge to simulate this behavior. When
    such a ``fake
    bridge'' is active, ovs-vsctl will treat it much like a bridge separate from its ``parent bridge,'' but
    the actual
    implementation in Open vSwitch uses only a single bridge, with ports on the fake bridge assigned the
    implicit VLAN
    of the fake bridge of which they are members. (A fake bridge for VLAN 0 receives packets that have no
    802.1Q tag
    or a tag with VLAN 0.)
    <Some output omitted>

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- [Bridge Commands](#)
 - [ovs-vsctl add-br](#)
 - [ovs-vsctl del-br](#)
 - [ovs-vsctl list-br](#)
 - [ovs-vsctl set bridge](#)
- [Port Commands](#)
 - [ovs-vsctl add-port](#)
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- Match-mode Command
- QoS_queue Commands
- sFlow commands
- Cos-map Command
- Egress-mode Command
- Set-flow-counter-mode Command
- Combinated-mode Command
- DSCP Commands