

NAME

ovn-controller-vtep – Open Virtual Network local controller for vtep enabled physical switches.

SYNOPSIS

ovn-controller-vtep [*options*] [**--vtep-db=vtep-database**] [**--ovnsb-db=ovnsb-database**]

DESCRIPTION

ovn-controller-vtep is the local controller daemon in OVN, the Open Virtual Network, for VTEP enabled physical switches. It connects up to the OVN Southbound database (see **ovn-sb(5)**) over the OVSDB protocol, and down to the VTEP database (see **vtep(5)**) over the OVSDB protocol.

PKI Options

PKI configuration is required in order to use SSL/TLS for the connections to the VTEP and Southbound databases.

-p *privkey.pem*

--private-key=privkey.pem

Specifies a PEM file containing the private key used as identity for outgoing SSL/TLS 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/TLS connections will use to verify it.

-C *cacert.pem*

--ca-cert=cacert.pem

Specifies a PEM file containing the CA certificate for verifying certificates presented to this program by SSL/TLS peers. (This may be the same certificate that SSL/TLS 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/TLS peers. This introduces a security risk, because it means that certificates cannot be verified to be those of known trusted hosts.

--ssl-server-name=servername

Specifies the server name to use for TLS Server Name Indication (SNI). By default, the hostname from the connection string is used for SNI. This option allows overriding the SNI hostname, which is useful when connecting through proxies or service meshes where the connection endpoint differs from the intended server name.

--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 the executable will attempt to obtain the CA certificate from the SSL/TLS peer on its first SSL/TLS 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/TLS connections must be authenticated by a certificate signed by the CA certificate thus obtained.

This option exposes the SSL/TLS 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/TLS peer sends its CA certificate as part of the SSL/TLS certificate chain. SSL/TLS protocols do 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/TLS peers. *peer-cacert.pem* should be the CA certificate used to sign the program's own certificate, that is, the certificate specified on **-c** or **--certificate**. If the program'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/TLS peer must already have the CA certificate for the peer to have any confidence in the program's identity. However, this offers a way for a new installation to bootstrap the CA certificate on its first SSL/TLS connection.

Other Options

--unixctl=socket

Sets the name of the control socket on which *program* listens for runtime management commands (see *RUNTIME MANAGEMENT COMMANDS*, below). If *socket* does not begin with */*, it is interpreted as relative to *.* If **--unixctl** is not used at all, the default socket is */program.pid.ctl*, where *pid* is *program*'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 *program* 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.

-h

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

-V

--version

Prints version information to the console.

CONFIGURATION

ovn-controller-vtep retrieves its configuration information from both the *ovnsb* and the *vtep* database. If the database locations are not given from command line, the default is the **db.sock** in local *OVSDB*'s *'run'* directory. The database location must take one of the following forms:

- **ssl:host:port**

The specified SSL/TLS *port* on the give *host*, which can either be a DNS name (if built with unbound library) or an IP address (IPv4 or IPv6). If *host* is an IPv6 address, then wrap *host* with square brackets, e.g.: **ssl:::1:6640**. The **--private-key**, **--certificate** and either of **--ca-cert** or **--bootstrap-ca-cert** options are mandatory when this form is used.

- **tcp:host:port**

Connect to the given TCP *port* on *host*, where *host* can be a DNS name (if built with unbound library) or IP address (IPv4 or IPv6). If *host* is an IPv6 address, then wrap *host* with square brackets, e.g.: **tcp:::1:6640**.

- **unix:file**

On POSIX, connect to the Unix domain server socket named *file*.

On Windows, connect to a localhost TCP port whose value is written in *file*.

ovn-controller-vtep assumes it gets configuration information from the following keys in the **Global** table of the connected **hardware_vtep** database:

other_config:ovn-match-northd-version

The boolean flag indicates if **ovn-controller-vtep** needs to check **ovn-northd** version. If this flag is set to true and the **ovn-northd**'s version (reported in the Southbound

database) doesn't match with the **ovn-controller-vtep's** internal version, then it will stop processing the southbound and connected **hardware_vtep** database changes. The default value is considered false if this option is not defined.

other_config:ovn-remote-probe-interval

The inactivity probe interval of the connection to the OVN Southbound database, in milliseconds. If the value is zero, it disables the connection keepalive feature.

If the value is nonzero, then it will be forced to a value of at least 1000 ms.