

## NAME

ovn-ctl – Open Virtual Network northbound daemon lifecycle utility

## SYNOPSIS

**ovn-ctl** [*options*] *command*

## DESCRIPTION

This program is intended to be invoked internally by Open Virtual Network startup scripts. System administrators should not normally invoke it directly.

## COMMANDS

**start\_northd**  
**start\_controller**  
**start\_controller\_vtep**  
**start\_ic**  
**stop\_northd**  
**stop\_controller**  
**stop\_controller\_vtep**  
**stop\_ic**  
**restart\_northd**  
**restart\_controller**  
**restart\_controller\_vtep**  
**restart\_ic**  
**promote\_ovnnb**  
**promote\_ovnsb**  
**demote\_ovnnb**  
**demote\_ovnsb**  
**status\_ovnnb**  
**status\_ovnsb**  
**start\_ovsdb**  
**start\_nb\_ovsdb**  
**start\_sb\_ovsdb**  
**stop\_ovsdb**  
**stop\_nb\_ovsdb**  
**stop\_sb\_ovsdb**  
**restart\_ovsdb**  
**run\_nb\_ovsdb**  
**run\_sb\_ovsdb**  
**promote\_ic\_nb**  
**promote\_ic\_sb**  
**demote\_ic\_nb**  
**demote\_ic\_sb**  
**status\_ic\_nb**  
**status\_ic\_sb**  
**start\_ic\_ovsdb**  
**start\_ic\_nb\_ovsdb**  
**start\_ic\_sb\_ovsdb**  
**stop\_ic\_ovsdb**  
**stop\_ic\_nb\_ovsdb**  
**stop\_ic\_sb\_ovsdb**  
**restart\_ic\_ovsdb**  
**run\_ic\_nb\_ovsdb**  
**run\_ic\_sb\_ovsdb**

## OPTIONS

**--ovn-northd-priority**=*NICE*

```

--ovn-northd-wrapper=WRAPPER
--ovn-controller-priority=NICE
--ovn-controller-wrapper=WRAPPER
--ovn-ic-priority=NICE
--ovn-ic-wrapper=WRAPPER
--ovsdb-nb-wrapper=WRAPPER
--ovsdb-sb-wrapper=WRAPPER
--ovn-user=USER:GROUP
--ovs-user=USER:GROUP
-h | --help

```

## FILE LOCATION OPTIONS

```

--db-sock=SOCKET
--db-nb-file=FILE
--db-sb-file=FILE
--db-nb-schema=FILE
--db-sb-schema=FILE
--db-sb-create-insecure-remote=yes|no
--db-nb-create-insecure-remote=yes|no
--db-ic-nb-file=FILE
--db-ic-sb-file=FILE
--db-ic-nb-schema=FILE
--db-ic-sb-schema=FILE
--db-ic-sb-create-insecure-remote=yes|no
--db-ic-nb-create-insecure-remote=yes|no
--ovn-controller-ssl-key=KEY
--ovn-controller-ssl-cert=CERT
--ovn-controller-ssl-ca-cert=CERT
--ovn-controller-ssl-bootstrap-ca-cert=CERT

```

## ADDRESS AND PORT OPTIONS

```

--db-nb-sync-from-addr=IP ADDRESS
--db-nb-sync-from-port=PORT NUMBER
--db-nb-sync-from-proto=PROTO
--db-sb-sync-from-addr=IP ADDRESS
--db-sb-sync-from-port=PORT NUMBER
--db-sb-sync-from-proto=PROTO
--db-ic-nb-sync-from-addr=IP ADDRESS
--db-ic-nb-sync-from-port=PORT NUMBER
--db-ic-nb-sync-from-proto=PROTO
--db-ic-sb-sync-from-addr=IP ADDRESS
--db-ic-sb-sync-from-port=PORT NUMBER

```

```
--db-ic-sb-sync-from-proto=PROTO
--ovn-northd-nb-db=PROTO:IP ADDRESS: PORT..
--ovn-northd-sb-db=PROTO:IP ADDRESS: PORT..
--ovn-ic-nb-db=PROTO:IP ADDRESS: PORT..
--ovn-ic-sb-db=PROTO:IP ADDRESS: PORT..
```

## CLUSTERING OPTIONS

```
--db-nb-cluster-local-addr=IP ADDRESS
--db-nb-cluster-local-port=PORT NUMBER
--db-nb-cluster-local-proto=PROTO (tcp/ssl)
--db-nb-cluster-remote-addr=IP ADDRESS
--db-nb-cluster-remote-port=PORT NUMBER
--db-nb-cluster-remote-proto=PROTO (tcp/ssl)
--db-sb-cluster-local-addr=IP ADDRESS
--db-sb-cluster-local-port=PORT NUMBER
--db-sb-cluster-local-proto=PROTO (tcp/ssl)
--db-sb-cluster-remote-addr=IP ADDRESS
--db-sb-cluster-remote-port=PORT NUMBER
--db-sb-cluster-remote-proto=PROTO (tcp/ssl)
--db-ic-nb-cluster-local-addr=IP ADDRESS
--db-ic-nb-cluster-local-port=PORT NUMBER
--db-ic-nb-cluster-local-proto=PROTO (tcp/ssl)
--db-ic-nb-cluster-remote-addr=IP ADDRESS
--db-ic-nb-cluster-remote-port=PORT NUMBER
--db-ic-nb-cluster-remote-proto=PROTO (tcp/ssl)
--db-ic-sb-cluster-local-addr=IP ADDRESS
--db-ic-sb-cluster-local-port=PORT NUMBER
--db-ic-sb-cluster-local-proto=PROTO (tcp/ssl)
--db-ic-sb-cluster-remote-addr=IP ADDRESS
--db-ic-sb-cluster-remote-port=PORT NUMBER
--db-ic-sb-cluster-remote-proto=PROTO (tcp/ssl)
```

## PROBE INTERVAL OPTIONS

```
--db-nb-probe-interval-to-active=Time in milliseconds
--db-sb-probe-interval-to-active=Time in milliseconds
```

## CONFIGURATION FILES

Following are the optional configuration files. If present, it should be located in the etc dir

### **ovnnb-active.conf**

If present, this file should hold the url to connect to the active Northbound DB server

```
tcp:x.x.x.x:6641
```

### **ovnsb-active.conf**

If present, this file should hold the url to connect to the active Southbound DB server

**tcp:x.x.x.x:6642**

#### **ovn-northd-db-params.conf**

If present, start\_northd will not start the DB server even if **--ovn-manage-ovsdb=yes**. This file should hold the database url parameters to be passed to ovn-northd.

**--ovnnb-db=tcp:x.x.x.x:6641 --ovnsb-db=tcp:x.x.x.x:6642**

#### **ic-nb-active.conf**

If present, this file should hold the url to connect to the active Interconnection Northbound DB server

**tcp:x.x.x.x:6645**

#### **ic-sb-active.conf**

If present, this file should hold the url to connect to the active Interconnection Southbound DB server

**tcp:x.x.x.x:6646**

#### **ovn-ic-db-params.conf**

If present, this file should hold the database url parameters to be passed to ovn-ic.

**--ic-nb-db=tcp:x.x.x.x:6645 --ic-sb-db=tcp:x.x.x.x:6646**

## **RUNNING OVN DB SERVERS WITHOUT DETACHING**

**# ovn-ctl run\_nb\_ovsdb**

This command runs the OVN nb ovsdb-server without passing the **detach** option, making it to block until ovsdb-server exits. This command will be useful for starting the OVN nb ovsdb-server in a container.

**# ovn-ctl run\_sb\_ovsdb**

This command runs the OVN sb ovsdb-server without passing the **detach** option, making it to block until ovsdb-server exits. This command will be useful for starting the OVN sb ovsdb-server in a container.

**# ovn-ctl run\_ic\_nb\_ovsdb**

This command runs the OVN IC-NB ovsdb-server without passing the **detach** option, making it to block until ovsdb-server exits. This command will be useful for starting the OVN IC-NB ovsdb-server in a container.

**# ovn-ctl run\_ic\_sb\_ovsdb**

This command runs the OVN IC-SB ovsdb-server without passing the **detach** option, making it to block until ovsdb-server exits. This command will be useful for starting the OVN IC-SB ovsdb-server in a container.

## **EXAMPLE USAGE**

**Run ovn-controller on a host already running OVS**

**# ovn-ctl start\_controller**

**Run ovn-northd on a host already running OVS**

**# ovn-ctl start\_northd**

**All-in-one OVS+OVN for testing**

**# ovs-ctl start --system-id="random"**

**# ovn-ctl start\_northd**

**# ovn-ctl start\_controller**

**Promote and demote ovsdb servers**

**# ovn-ctl promote\_ovnnb**

**# ovn-ctl promote\_ovnsb**

**# ovn-ctl --db-nb-sync-from-addr=x.x.x.x --db-nb-sync-from-port=6641**

**--db-nb-probe-interval-to-active=60000 demote\_ovnnb**

**# ovn-ctl --db-sb-sync-from-addr=x.x.x.x --db-sb-sync-from-port=6642**

**--db-sb-probe-interval-to-active=60000 demote\_ovnsb**

### Creating a clustered db on 3 nodes with IPs x.x.x.x, y.y.y.y and z.z.z.z

*Starting OVN ovsdb servers and ovn-northd on the node with IP x.x.x.x*

```
# ovn-ctl --db-nb-addr=x.x.x.x --db-nb-create-insecure-remote=yes --db-sb-addr=x.x.x.x
--db-sb-create-insecure-remote=yes --db-nb-cluster-local-addr=x.x.x.x --db-sb-cluster-local-addr=x.x.x.x
--ovn-northd-nb-db=tcp:x.x.x.x:6641,tcp:y.y.y.y:6641,tcp:z.z.z.z:6641
--ovn-northd-sb-db=tcp:x.x.x.x:6642,tcp:y.y.y.y:6642,tcp:z.z.z.z:6642 start_northd
```

*Starting OVN ovsdb-servers and ovn-northd on the node with IP y.y.y.y and joining the cluster started at x.x.x.x*

```
# ovn-ctl --db-nb-addr=y.y.y.y --db-nb-create-insecure-remote=yes --db-sb-addr=y.y.y.y
--db-sb-create-insecure-remote=yes --db-nb-cluster-local-addr=y.y.y.y --db-sb-cluster-local-addr=y.y.y.y
--db-nb-cluster-remote-addr=x.x.x.x --db-sb-cluster-remote-addr=x.x.x.x
--ovn-northd-nb-db=tcp:x.x.x.x:6641,tcp:y.y.y.y:6641,tcp:z.z.z.z:6641
--ovn-northd-sb-db=tcp:x.x.x.x:6642,tcp:y.y.y.y:6642,tcp:z.z.z.z:6642 start_northd
```

*Starting OVN ovsdb-servers and ovn-northd on the node with IP z.z.z.z and joining the cluster started at x.x.x.x*

```
# ovn-ctl --db-nb-addr=z.z.z.z --db-nb-create-insecure-remote=yes --db-nb-cluster-local-addr=z.z.z.z
--db-sb-addr=z.z.z.z --db-sb-create-insecure-remote=yes --db-sb-cluster-local-addr=z.z.z.z
--db-nb-cluster-remote-addr=x.x.x.x --db-sb-cluster-remote-addr=x.x.x.x
--ovn-northd-nb-db=tcp:x.x.x.x:6641,tcp:y.y.y.y:6641,tcp:z.z.z.z:6641
--ovn-northd-sb-db=tcp:x.x.x.x:6642,tcp:y.y.y.y:6642,tcp:z.z.z.z:6642 start_northd
```

### Passing ssl keys when starting OVN dbs will supercede the default ssl values in db

*Starting standalone ovn db server passing SSL certificates*

```
# ovn-ctl --ovn-nb-db-ssl-key=/etc/ovn/ovnnb-privkey.pem
--ovn-nb-db-ssl-cert=/etc/ovn/ovnnb-cert.pem --ovn-nb-db-ssl-ca-cert=/etc/ovn/cacert.pem
--ovn-sb-db-ssl-key=/etc/ovn/ovnsb-privkey.pem --ovn-sb-db-ssl-cert=/etc/ovn/ovnsb-cert.pem
--ovn-sb-db-ssl-ca-cert=/etc/ovn/cacert.pem start_northd
```