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*

−−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 con-
> tainer.

> **# 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 con-
> tainer.

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−inter-**
> **val−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