NAME
>   ovn-ctl − Open Virtual Network northbound daemon lifecycle utility

SYNOPSIS
>   **ovn−ctl** [*options*] *command* [−− *extra_args*]

DESCRIPTION
>   This program is intended to be invoked internally by Open Virtual Network startup scripts. System adminis-
>   trators 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*

EXTRA OPTIONS

      Any options after '−' will be passed on to the binary run by *command* with the exception of start_northd, which can have options specified in ovn-northd-db-params.conf. Any *extra_args* passed to start_northd will be passed to the ovsdb-servers if **−−ovn−manage−ovsdb=yes**

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