NAME

Local_Config – Local_Config database schema

This database is for local configuration of an ovsdb-server. The database is meant to be unique, even among multiple clustered db servers, so that configuration that is local to that server can be configured separately (e.g. Connection information).

TABLE SUMMARY

The following list summarizes the purpose of each of the tables in the **Local_Config** database. Each table is described in more detail on a later page.

Table	Purpose
Config	ovsdb-server configuration
Connection	OVSDB client connections.

Config TABLE

The root local configuration table for an ovsdb-server. This table must have exactly one row.

Summary:

Connection Options:

    connections set of **Connection**s

Details:

Connection Options:

connections: set of **Connection**s

    Database clients to which the Open vSwitch database server should connect or on which it should listen, along with options for how these connections should be configured. See the **Connection** table for more information.

Connection TABLE

Configuration for a database connection to an Open vSwitch database (OVSDB) client.

This table primarily configures the Open vSwitch database server (**ovsdb−server**).

The Open vSwitch database server can initiate and maintain active connections to remote clients. It can also listen for database connections.

Summary:

Core Features:

target	string (must be unique within table)
read_only	boolean
role	string

Client Failure Detection and Handling:

max_backoff	optional integer, at least 1,000
inactivity_probe	optional integer

Status:

is_connected	boolean
status : last_error	optional string
status : state	optional string, one of **ACTIVE**, **BACKOFF**, **CONNECTING**, **IDLE**, or **VOID**
status : sec_since_connect	optional string, containing an integer, at least 0
status : sec_since_disconnect	optional string, containing an integer, at least 0
status : locks_held	optional string
status : locks_waiting	optional string
status : locks_lost	optional string
status : n_connections	optional string, containing an integer, at least 2
status : bound_port	optional string, containing an integer

Connection Parameters:

other_config : dscp	optional string, containing an integer

Configuration:

external_ids	map of string-string pairs

Details:

Core Features:

target: string (must be unique within table)

> Connection methods for clients.

> The following connection methods are currently supported:

ssl:*host*[**:***port*]

> The specified SSL/TLS *port* on the host at the given *host*, which can either be a DNS name (if built with unbound library) or an IP address. A valid SSL/TLS configuration must be provided when this form is used, this configuration can be specified via command-line options or the **SSL** table.

> If *port* is not specified, it defaults to 6640.

> SSL/TLS support is an optional feature that is not always built as part of Open vSwitch.

tcp:*host*[**:***port*]

> The specified TCP *port* on the host at the given *host*, which can either be a DNS name (if built with unbound library) or an IP address. If *host* is an IPv6 address, wrap it in square brackets, e.g. **tcp:[::1]:6640**.

> If *port* is not specified, it defaults to 6640.

pssl:[*port*][**:***host*]

> Listens for SSL/TLS connections on the specified TCP *port*. Specify 0 for *port* to have the kernel automatically choose an available port. If *host*, which can either be a DNS name (if built with unbound library) or an IP address, is specified, then connections are

restricted to the resolved or specified local IPaddress (either IPv4 or IPv6 address). If *host* is an IPv6 address, wrap in square brackets, e.g. **pssl:6640:[::1]**. If *host* is not specified then it listens only on IPv4 (but not IPv6) addresses. A valid SSL/TLS configuration must be provided when this form is used, this can be specified either via command-line options or the **SSL** table.

If *port* is not specified, it defaults to 6640.

SSL/TLS support is an optional feature that is not always built as part of Open vSwitch.

ptcp:[*port*][**:***host*]
Listens for connections on the specified TCP *port*. Specify 0 for *port* to have the kernel automatically choose an available port. If *host*, which can either be a DNS name (if built with unbound library) or an IP address, is specified, then connections are restricted to the resolved or specified local IP address (either IPv4 or IPv6 address). If *host* is an IPv6 address, wrap it in square brackets, e.g. **ptcp:6640:[::1]**. If *host* is not specified then it listens only on IPv4 addresses.

If *port* is not specified, it defaults to 6640.

When multiple clients are configured, the **target** values must be unique. Duplicate **target** values yield unspecified results.

read_only: boolean
true to restrict these connections to read-only transactions, **false** to allow them to modify the database.

role: string
String containing role name for this connection entry.

Client Failure Detection and Handling:

max_backoff: optional integer, at least 1,000
Maximum number of milliseconds to wait between connection attempts. Default is implementation-specific.

inactivity_probe: optional integer
Maximum number of milliseconds of idle time on connection to the client before sending an inactivity probe message. If Open vSwitch does not communicate with the client for the specified number of seconds, it will send a probe. If a response is not received for the same additional amount of time, Open vSwitch assumes the connection has been broken and attempts to reconnect. Default is implementation-specific. A value of 0 disables inactivity probes.

Status:

Key-value pair of **is_connected** is always updated. Other key-value pairs in the status columns may be updated depends on the **target** type.

When **target** specifies a connection method that listens for inbound connections (e.g. **ptcp:** or **punix:**), both **n_connections** and **is_connected** may also be updated while the remaining key-value pairs are omitted.

On the other hand, when **target** specifies an outbound connection, all key-value pairs may be updated, except the above-mentioned two key-value pairs associated with inbound connection targets. They are omitted.

is_connected: boolean
true if currently connected to this client, **false** otherwise.

status : last_error: optional string
A human-readable description of the last error on the connection to the manager; i.e. **strerror(errno)**. This key will exist only if an error has occurred.

status : state: optional string, one of **ACTIVE**, **BACKOFF**, **CONNECTING**, **IDLE**, or **VOID**
>   The state of the connection to the manager:

>   **VOID**   Connection is disabled.

>   **BACKOFF**
>>   Attempting to reconnect at an increasing period.

>   **CONNECTING**
>>   Attempting to connect.

>   **ACTIVE**
>>   Connected, remote host responsive.

>   **IDLE**   Connection is idle. Waiting for response to keep-alive.

>   These values may change in the future. They are provided only for human consumption.

status : sec_since_connect: optional string, containing an integer, at least 0
>   The amount of time since this client last successfully connected to the database (in seconds). Value is empty if client has never successfully been connected.

status : sec_since_disconnect: optional string, containing an integer, at least 0
>   The amount of time since this client last disconnected from the database (in seconds). Value is empty if client has never disconnected.

status : locks_held: optional string
>   Space-separated list of the names of OVSDB locks that the connection holds. Omitted if the connection does not hold any locks.

status : locks_waiting: optional string
>   Space-separated list of the names of OVSDB locks that the connection is currently waiting to acquire. Omitted if the connection is not waiting for any locks.

status : locks_lost: optional string
>   Space-separated list of the names of OVSDB locks that the connection has had stolen by another OVSDB client. Omitted if no locks have been stolen from this connection.

status : n_connections: optional string, containing an integer, at least 2
>   When **target** specifies a connection method that listens for inbound connections (e.g. **ptcp:** or **pssl:**) and more than one connection is actually active, the value is the number of active connections. Otherwise, this key-value pair is omitted.

status : bound_port: optional string, containing an integer
>   When **target** is **ptcp:** or **pssl:**, this is the TCP port on which the OVSDB server is listening. (This is particularly useful when **target** specifies a port of 0, allowing the kernel to choose any available port.)

Connection Parameters:

other_config : dscp: optional string, containing an integer
>   The Differentiated Service Code Point (DSCP) is specified using 6 bits in the Type of Service (TOS) field in the IP header. DSCP provides a mechanism to classify the network traffic and provide Quality of Service (QoS) on IP networks. The DSCP value specified here is used when establishing the connection between the manager and the Open vSwitch. If no value is specified, a default value of 48 is chosen. Valid DSCP values must be in the range 0 to 63.

Configuration:

External configuration options

external_ids: map of string-string pairs
>   External client-defined key-value pairs