

# Switch.conf.xml

## About


The FreeSWITCH core configuration is contained in [autoload\\_configs/switch.conf.xml](#)

## Default key bindings

Function keys can be mapped to API commands using the following configuration:

```
<cli-keybindings>
<key name="[1-12]" value="[api command]"/>
</cli-keybindings>
```

The default keybindings are;

 F1 = help  
F2 = status  
F3 = show channels  
F4 = show calls  
F5 = sofia status  
F6 = reloadxml  
F7 = console loglevel 0  
F8 = console loglevel 7  
F9 = sofia status profile internal  
F10 = sofia profile internal siptrace on  
F11 = sofia profile internal siptrace off  
F12 = version

Beware that the option loglevel is actually setting the minimum `hard_log_Level` in the application. What this means is if you set this to something other than `DEBUG` no matter what log level you set the console to one you start up you will not be able to get any log messages below the level you set. Also be careful of mis-typing a log level, if the log level is not correct it will default to a `hard_log_Level` of 0. This means that virtually no log messages will show up anywhere.

## Core parameters

### core-db-dsn

Allows to use ODBC database instead of sqlite3 for freeswitch core.

Syntax:

```
dsn:user:pass
```

### max-db-handles

Maximum number of simultaneous DB handles open

### db-handle-timeout

Maximum number of seconds to wait for a new DB handle before failing

### disable-monotonic-timing

(bool) disables monotonic timer/clock support if it is broken on your system.

### enable-use-system-time

Enables FreeSWITCH to use system time.



After discussion with the engineers, I've come to understand that the "enable-use-system-time" parameter is a work around for older machines with broken clock api's.

It's not recommended to use this setting in modern machines, as it's likely to break timing and other things... more notably when it comes to CDR's...

It's preferred to use monotonic timing like as NTP/UTC...

I hear it can be useful to use non-monotonic timing for debugging weird issues occasionally, but I don't have specifics how/when that may be used.

Using monotonic timing is exactly how you address clock shift issues.

enable-use-system-time is something that may get removed from source code at some point, we've just not taken the time to remove it yet...

## initial-event-threads

Number of event dispatch threads to allocate in the core. Default is 1.

If you see the WARNING "Create additional event dispatch thread" on a heavily loaded server, you could increase the number of threads to prevent the system from falling behind.

## loglevel

amount of detail to show in log

## max-sessions

limits the total number of concurrent channels on your FreeSWITCH™ system.

## sessions-per-second

throttling mechanism, the switch will only create this many channels at most, per second.

## rtp-start-port

RTP port range begin

## rtp-end-port

RTP port range end

## dialplan-timestamps

Adds timestamps to dialplan log lines (useful for log correlation and other stats).

```
<param name="dialplan-timestamps" value="true" />
```

Example of info added:

```
UUID 2016-11-18 11:05:53.309812 [DEBUG] mod_dialplan_xml.c:690 Dialplan: LOGDATA
```

## Variables

Variables are default channel variables set on each channel automatically.

## Example config

```
<configuration name="switch.conf" description="Modules">
  <settings>
    <!--Most channels to allow at once -->
    <param name="max-sessions" value="1000"/>
    <param name="sessions-per-second" value="30"/>
    <param name="loglevel" value="debug"/>

    <!-- Maximum number of simultaneous DB handles open -->
    <param name="max-db-handles" value="50"/>
    <!-- Maximum number of seconds to wait for a new DB handle before failing -->
    <param name="db-handle-timeout" value="10"/>

  </settings>
  <!--Any variables defined here will be available in every channel, in the dialplan etc -->
  <variables>
    <variable name="uk-ring" value="%{400,200,400,450};%(400,2200,400,450)"/>
    <variable name="us-ring" value="%{2000, 4000, 440.0, 480.0}"/>
    <variable name="bong-ring" value="v=4000;>=0;+=2;#(60,0);v=2000;%(940,0,350,440)"/>
  </variables>
</configuration>
```