

This module is still under development, and by no means intended to be a complete read/write SNMP interface.

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Reserved Object Identifier (OID)

The [OID .1.3.6.1.4.1.27880](#) has been reserved for FreeSWITCH. The full OID tree is [documented](#).

Available Objects

Currently, all attributes are read-only, and are as follows:

.1.3.6.1.4.1.27880 FreeSWITCH

- .1: core
 - ◆ .1.1: identity
 - ◇ .1.3.6.1.4.1.27880.1.1.1: FreeSWITCH version string (eg. "1.0.head (git-0cf1d54 2011-01-19 16-36-04 -0500)")
 - ◇ .1.3.6.1.4.1.27880.1.1.2: Core UUID as a string
 - ◆ .2: systemStats
 - ◇ .1.3.6.1.4.1.27880.1.2.1: FreeSWITCH uptime as SNMP TimerTicks (hundredths of seconds)
 - ◇ .1.3.6.1.4.1.27880.1.2.2: Number of sessions since FreeSWITCH was started
 - ◇ .1.3.6.1.4.1.27880.1.2.3: Currently active sessions
 - ◇ .1.3.6.1.4.1.27880.1.2.4: Maximum allowed sessions
 - ◇ .1.3.6.1.4.1.27880.1.2.5: Currently active calls
 - ◇ .1.3.6.1.4.1.27880.1.2.6: Current sessions per second
 - ◇ .1.3.6.1.4.1.27880.1.2.7: Maximum allowed sessions per second

Management information base (MIB)

The [MIB](#) can be viewed in [FishEye](#). Developers will do their best to maintain backwards compatibility with regards to OIDs in the MIB, however since this module is in the early stages of development, some OIDs may change. Please use the MIB and object names, rather than hard-code OIDs in your NMS (eg. MRTG, Cacti etc) configuration.

Integration with SNMP server

The module acts as a Agent X subagent. This means it registers with your existing SNMP server to handle a specific OID, so can monitor your system and FS with a single daemon. This is a far more optimal approach than older approaches execute `fs_cli` to query the FreeSWITCH status via ESL.

Configuring Net-SNMP for AgentX Subagent Support

Your main `snmpd` will need to run as a master agent, so that `mod_snmp` can connect to it as a subagent over a named socket. Using the `agentXPerms`, make sure that you set the permissions and ownership such that your `freeswitch` user will be able to read/write to it.

Note that some earlier versions of Net-SNMP did not honor the `agentXPerms` config directive. If you find this happening, you will need to modify your `snmpd` init script to manually change the permissions/ownership of the socket after `snmpd` has started. If this is the case you'll see "Failed to connect to the agentx master agent" in the logs and `/var/agentx/master` will probably be owned by `root:root` instead of `freeswitch:daemon`.

```
# Run as an AgentX master agent
master          agentx

# Listen on default named socket /var/agentx/master
# agentXPerms  SOCKPERMS [DIRPERMS [USER|UID [GROUP|GID]]]
agentXPerms    0755 0755 freeswitch daemon
```

Most default configurations of Net-SNMP only allow a restricted view of the whole tree. The *systemonly* view is usually defined as OIDs `.1.3.6.1.2.1.1` and `.1.3.6.1.2.1.25.1`. If you want to allow external hosts (or even localhost) to view the entire tree, you will need to modify the security/view parameters in `snmpd.conf`. Near the top of your `snmpd.conf` you should find the following:

```
# rocommunity public localhost
```

Uncomment that line to allow localhost to view the entire tree (including the FreeSWITCH OID). If you wish to allow external monitoring hosts, such as MRTG, Cacti etc view more than just the *systemonly* view, you will need to further modify the security configuration. This procedure is outside the scope of this Wiki page, and can be found described in the manpage for `snmpd.conf`.

Note that to monitor snmp from external hosts, you may also need to check that `snmpd` is binding to either `0.0.0.0` or a specified IP address. In the interests of security, many distros only bind `snmpd` to `127.0.0.1`.

Installation Prerequisites

You need to install "net-snmp-devel" or "net-snmp-dev" package and have "openssl-devel" (or `openssl-dev`) to be able to compile this module.