

# VX Enterprise and VX Prime+ QOS Settings

The QOS options on VX Enterprise and VX Prime+ are set through a configuration file named `qos.cfg`. This file is found at this location: `/etc/local/te1os_vx/qos.cfg`.

The general format of the file is similar that of other configuration files. For `qos.cfg`, the format is:

```
config.qos = {
  multicast_ttl: <default multicast TTL>,
  livewire: {
    <QoS options for Live Stereo streams>
  },
  standard: {
    <QoS options for Standard Stereo streams>
  },
  aes67: {
    <QoS options for AES67 streams>
  }
}
```

The `multicast_ttl` sets the default TTL value for all multicast traffic (and also unicast AES67 streams when we will support them). The default value is 1. This can be overridden per stream-type basis using `ip_ttl` option if necessary.

The set of options supported for Livewire Live streams, Livewire Standard streams and AES67 streams is mostly the same, with a few exceptions that are noted below:

- `eth_prio` - IEEE 802.1p priority code point (0-7), default: 6 for Live, 5 for others
- `eth_vlan` - IEEE 802.1Q VLAN tag (0-4094), default: 0
- `ip_ttl` - IP TTL value (1-255), default: `multicast_ttl` if set, 1 otherwise
- `ip_dscp` - IP DiffServ code point (0-63), default: 48 for Live, 46 for Standard, 34 for AES67
- `ip_dontfrag` - Set IP DF bit (Standard & AES67 only), default: true
- `recv_buf` - Receive buffer size in microseconds (2000-20000, AES67 only), default: 3000

All settings are optional, including subsections. For example, to set TTL only, the following is sufficient:

```
config.qos = {
  multicast_ttl: 127
}
```

The order of settings doesn't matter, and invalid and unknown options are ignored, but retained. Hexadecimal values prefixed with 0x are supported for all options taking a numeric value.