Cable Modem Info

- **DNS Name -** DNS name for the cable modem, not the dynamic DNS name for the CPE.
- **RF MAC -** MAC address of the cable RF interface.
- **IP Address -** IP address assigned to the modem (not the CPE).
- **System Uptime -** Cable modem's internal time counter. Time since last power-up or reset.
- **Description -** How the cable modem identifies itself when queried for system.sysDescr.
- **Software Version -** Current version of the software of firmware running in the cable modem.
- **DOCSIS Config -** DOCSIS complaint config file downloaded by the modem as part of registration with the CMTS after syncing up. Config files follow the format II-CC-NN.cfg where:
- II = ISP code
- CC = Class of service (D = dynamic, S = static, C = capped, U = uncapped)
- N = Number of allowed CPEs

- **CMTS Router -** Cable Modem Termination System router.

RF Statistics

- **Resets -** Generally, the number of times a modem has reset itself or been reset since the last power-up. Some modems appear to not reset this counter when power-cycled.
- **Lost Syncs -** Number of times the modem and the CMTS have lost sync over the cable RF network. This counter is always reset at power-up. Some modems may also reset this counter when reset.
- **Downstream Frequency -** The 6-MHz wide frequency and cable channel that the CMTS is using for the downstream packets to the cable modem. AFN has six downstream channels, each with a QAM-256 digitally modulated carrier.
- **Downstream Signal to Noise Ratio -** Decibels of coherent signal for each decibel of noise on the downstream QAM-256 stream, as measured by the cable modem. Larger numbers are better. Should be above 35 dB. Modems at 33dB and above operate very well.
- **Downstream Microreflections -** RF signal reflections, measured by decibels in reference to the carrier. This value is generally between 0 and 30 dBc.
- **Downstream UnErrored Codewords -** Number of codewords received by the cable modem's RF interface without error, regardless of destination. Each modem will see all downstream traffic, but will only bridge packets destined for it's own MAC address.
- **Downstream Corrected Codewords -** Number of errored codewords received and successfully corrected. Error correction is a part of standard operating procedure for RF networks. High corrected codeword counts are not to be considered a problem unless accompanied by high uncorrected codeword counts as well.
- **Downstream UnCorrected Codewords -** Number of errored codewords received that could not be successfully corrected. This count should be well below 1% of the total codeword received.
- **Downstream (Rx) Power -** Downstream signal level measured at the cable modem in decibels per millivolt. Target level is 0 dBmV. Values between -10 dBmV and 5 dBmV are acceptable.
- **Upstream (Tx) Power -** Upstream signal level, as sent from the cable modem,

measured in decibels per millivolt. DOCSIS specifies a range of 8 dBmV to 58 dBmV for QPSK modulation. Levels between 30 dBmV and 50 dBmV are best. If this number is at or above 54 dBmV it indicates a serious problem.

- **Upstream (Rx) Power (at CMTS) -** Upstream signal level, as received by the CMTS, measured in decibels per millivolt. DOCSIS specifies -4 dBmV to 26 dBmV for QPSK modulation. Target level at the CMTS is 0dBmV.
- **Upstream Signal to Noise Ratio (at CMTS) -** Decibels of coherent signal for each decibel of noise for the upstream QPSK packets, as measured at the CMTS. Larger numbers are better. DOCSIS specifies 25 dBmV or greater. SNR/CNR values of 24 dBmV or greater are acceptable.
- **Upstream Frequency -** The 3.2 MHz wide frequency and upstream channel used by the modem to send its upstream QPSK packets to the CMTS. The channel number is used by the CMTS, and has no realtion to EIA cable channel numbers.

MAC Table

- **CPE Device -** MAC address of a CPE device connected to the cable modem. Expect to see the MAC address of your router, firewall or PC's ethernet card here.
- **Cable Modem RF -** MAC address of the cable modem's RF interface. This is the MAC seen by the CMTS and the DHCP server.
- **Cable Modem RF (internal) -** Additional MAC address of the cable modem's RF interface. This MAC is only present in a small percentage of modems, and is not seen by the CMTS or the CPE.
- **Cable Modem Ethernet -** MAC address of the ethernet interface on the cable modem. On most modems this will be different than the RF MAC.
- **Cable Modem USB -** MAC address of the USB interface (if present) on the cable modem. Depending on make and model of the modem, may be the same as the RF MAC, ethernet MAC or unique to the USB interface.