

# MRV Optiswitch OS904 OS906 OS912 debug and diagnostic commands

Author: Yuri Slobodyanyuk, <https://www.linkedin.com/in/yurislobodyanyuk/>

**MRV Communications** (acquired in 2017 by ADVA Optical Networking) is an Israeli company known for their optical network equipment, most notably their Optiswitch Carrier Ethernet Switch series. The switches (OS904, OS906G, OS912) are not available for purchase from them anymore, but if you work for a telco company, you surely still have these boxes around doing their work.

Unfortunately, with the merger and the end of sale, all the documentation disappeared as well. To help you a bit I bring below some debug and diagnostic commands to be run on the CLI. You can still find the datasheet here [https://www.cornet-solutions.co.jp/pdf/mrv\\_os\\_900\\_sdb\\_a4\\_hi.pdf](https://www.cornet-solutions.co.jp/pdf/mrv_os_900_sdb_a4_hi.pdf)

You can see how output of the commands below looks like when run on the real MRV in my blog post: <https://yurisk.info/2020/01/13/MRV-Optiswitch-OS904-OS906-OS912-debug-and-diagnostic-commands/>.

Command	Description
<b>no cli-paging/cli-paging</b>	Enable/disable paging the output.
<b>show &lt;smth&gt;   &lt;include/begin/end/exclude&gt; &lt;search term&gt;</b>	Pipe output of some <b>show</b> command, e.g. find specific MAC address: <b>show lt   include B1:12</b> (search terms are case sensitive). Also can pipe to few Linux commands, e.g. count number of learned/dynamic MACs: <b>show lt   grep -c "DYNAMIC"</b>
<b>show run</b>	Show the running configuration
<b>show port</b>	Show port summary: state (on/off), speed, media (copper/sfp), duplex state
<b>show interface</b>	List of logical/vlan interfaces, MAC addresses, IP address (if any)
<b>show port detail <i>n</i></b>	Show details of the port number <i>n</i> : media type, speed/duplex configured and actual, state, shaping applied.
<b>show port statistics <i>n</i></b>	Show real-time statistics: packets/bytes received/sent, CRC and other error count
<b>show l2cntrl-protocol-counters</b>	Show counters of received/transmitted Layer 2 control protocols - LACP, MSTP, RSTP, OAM.
<b>show run ports</b>	Show running configuration for all ports
<b>show port tag</b>	Show tagging/vlans configured on each port
<b>show port sfp-diag <i>n</i></b>	Show real-time diagnostic data for the interface: TX/RX power in dBm, voltage, temperature

Command	Description
<b>show port sfp-params</b>	Physical parameters of the SFP interface
<b>show port rate <i>portnumber</i> time <i>seconds</i></b>	Show the rate of the traffic passing the interface real-time
<b>monitor port statistics <i>portnumber</i></b>	Show the same data as <b>show port statistics</b> but refresh every other second
<b>(config)# port state disable/enable &lt;n&gt;</b>	Disable/enable MRV port number <i>n</i> (shut/no shut in Cisco terminology). Make sure you don't disable the port you are connected through.
<b>(config)# port media-select &lt;sfp/sfp100/copper/auto/sgmii&gt;</b>	Set manually type of physical interface installed in MRV.
<b>(config)# port speed &lt;10/100/1000/auto&gt; &lt;n/all&gt;</b>	Force specific speed setting for a port.
<b>show lt [port &lt;port number&gt; all]</b>	Show MAC address table - static and learned dynamic. Output also gives timestamp when MAC address displayed was last changed. Optionally, specify port to show only MACs on this port.
<b>(config)# clear lt</b>	Delete all learned MAC addresses from Learning Table.
<b>show syslog &lt;all/debug/info/warning/error/fatal&gt; [start-date] [end-date]</b>	Show logs per their severity. Optional start/end dates are in format <i>mm-dd-ff:mm:ss</i> . If remote syslog is configured in the MRV, there will be NO local logs, to verify - look in configuration <b>show run   i rsyslog</b> .
<b>clear syslog</b>	Delete all local log entries.
<b>show ver</b>	Show the device model, hardware, fan status, OS installed, MAC address, serial number and uptime.
<b>show time</b>	Show system time. Important for checking alarms and logs
<b>show cpu</b>	CPU properties

Additionally see <https://github.com/yuriskinfo/cheat-sheets/blob/master/RAD-ETX-203-205-220-debug-and-information-commands-cheat-sheet.adoc>