

Command reference for *cm_cli/cm_cli_tty/cm_cli_ex*

Introduction

“*cm_cli*” and “*cm_cli_tty*” are command line interfaces to the core logic of the Linux-based firmwares of the Texas Instruments AR7* routers. The commands are meant to be run from a serial console, and you can do nothing with their output apart from looking at it in a console (i.e., the outputs cannot be redirected or piped into anything). When in doubt, always use *cm_cli_tty*.

A third similar command is “*cm_cli_ex*”. While taking the same commands as the earlier two, this one does not suffer from their main limitation. Its output can be piped or redirected.

You may need to try each of these commands for whatever you wish to do, because some commands will work with one or two of them, while not working with others. So it is simply a case of trial and error to see which one of them is best suited to a particular job.

These programs accept single or multiple commands (piped from an “echo” command) and format them appropriately for the core logic. Multiple commands must be inserted between a “begin”;“end” block on a single line, or between an “EOF” block on several lines. Single commands can just be piped from an “echo” command, or can be formatted like multiple commands inside blocks. You can also pass xml-style formatted commands to these commands, but these are not referred to in this document.

The commands are not formally documented at all, and one must piece together bits of information from here and there. A complete reference is desperately needed. Until one is provided by those who have the necessary information, we have to struggle with the bits of information that we have. This file is a summary of the useful bits of information that we have been able to put together.

Disclaimer

This file is provided **without ANY WARRANTIES** whatsoever. The command references and/or the examples are not guaranteed to be accurate or correct, and, if this is not okay by you, then please delete this file immediately.

Format of Single commands

```
echo "logger:status/log" | cm_cli_tty  
or  
echo "begin;logger:status/log;end" | cm_cli_tty
```

Sometimes a single command will work without the “begin” and “end” statements. However, sometimes it seems that you need to use them. Again, this is a case of trial and error. But this is clear: if you want to change a value, then you **must** use “begin” and “end” statements.

Format of Multiple commands

```
echo "begin;logic:command/save;logic:command/reboot;end" | cm_cli_tty  
or  
cm_cli_tty <<-EOF  
begin  
logic:command/save  
logic:command/reboot  
end  
EOF
```

Below is a summary of commands for doing various useful things

Save

```
echo "logic:command/save" | cm_cli_tty
```

Reboot

```
echo "logic:command/reboot" | cm_cli_tty
```

Save and reboot

```
echo "begin;logic:command/save;logic:command/reboot;end" | cm_cli_tty
```

Reset to factory

```
echo "begin;logic:command/defaults;end" | cm_cli_ex
```

Reset IP Account statistics

```
echo "begin;account:command/clear;end" | cm_cli
```

Enable IP Account

```
echo "begin;account:settings/state=1;end" | cm_cli_tty
```

Disable IP Account

```
echo "begin;account:settings/state=0;end" | cm_cli_tty
```

Display system log

```
echo "logger:status/log" | cm_cli_tty
```

Display log level

```
echo "begin;logger:settings/loglevel;end" | cm_cli_tty
```

Set log level to "debug"

```
echo "begin;logger:settings/loglevel=debug;end" | cm_cli_tty
```

Firmware login username and password

```
echo "begin;security:settings/username=NewAdmin;end" | cm_cli_tty
```

```
echo "begin;security:settings/password=123;end" | cm_cli_tty
```

```
echo "begin;security:settings/password_confirm=123;end" | cm_cli_tty
```

Display modulation

```
echo "begin;sar:settings/modulation;end" | cm_cli_tty
```

Set modulation

```
echo "begin;sar:settings/modulation=0x1;end" | cm_cli_tty
```

Display connections

```
echo "manager:command/connection/list_group" | cm_cli_tty
```

Show Marvell switch active

```
echo "eth0:status/marvell_carrier" | cm_cli_tty
```

Show any switch/carrier active

```
echo "eth0:status/carrier" | cm_cli_tty
```

Show DNS servers

```
echo "resolver:settings/nameserver1" | cm_cli_tty
```

```
echo "resolver:settings/nameserver2" | cm_cli_tty
```

Show PPPOA WAN IP addresses

```
echo "encaps0:pppoa:status/ip" | cm_cli_tty
```

Note: "encaps0" may well be "encaps1" or "encaps2", depending on the number of connections.

Show NAT status

```
echo "fdb:settings/service/nat/state" | cm_cli_tty
```

Enable NAT

```
echo "begin;fdb:settings/service/nat/state=1;end" | cm_cli_tty
```

Disable NAT

```
echo "fdb:settings/service/nat/state=0" | cm_cli_tty
```

Enable wireless access point

```
echo "begin;ap:settings/ap_enabled=1;end" | cm_cli_tty
```

Disable wireless access point

```
echo "begin;ap:settings/ap_enabled=0;end" | cm_cli_tty
```

Show SPI firewall status

```
echo "fdb:settings/service/spi/state" | cm_cli_tty
```

Enable firewall

```
echo "begin;fdb:settings/service/spi/state=1;end" | cm_cli_tty
```

Disable firewall

```
echo "begin;fdb:settings/service/spi/state=0;end" | cm_cli_tty
```

Verify status of the line ADSL: if the modem is connected or not; 0 - disconnected 2 -- connected

```
echo "sar:status/dsl_carrier_state" | cm_cli_tty
```

Information on the attenuation and relationship signal/line and rates of UpStream and DownStream*Line attenuation*

```
echo "begin;sar:status/dsl_ds_attenuation;end" | cm_cli_tty
```

```
echo "begin;sar:status/dsl_us_attenuation;end" | cm_cli_tty
```

Downstream/upstream SNR margin

```
echo "begin;sar:status/ds_margin;end" | cm_cli_tty
```

```
echo "begin;sar:status/us_margin;end" | cm_cli_tty
```

Downstream/upstream data rate

```
echo "begin;sar:status/dsl_ds_rate;end" | cm_cli_tty
```

```
echo "begin;sar:status/dsl_us_rate;end" | cm_cli_tty
```

DHCP*Disable dhcp server*

```
echo "begin;landhcps0:settings/state=0;end" | cm_cli_tty
```

Enable dhcp server

```
echo "begin;landhcps0:settings/state=1;end" | cm_cli_tty
```

```
echo "begin;landhcps0:settings/start=192.168.1.2;end" | cm_cli_tty
```

```
echo "begin;landhcps0:settings/end=192.168.1.254;end" | cm_cli_tty
```

```
echo "begin;landhcps0:settings/lease=1800;end" | cm_cli_tty
```

DNS Proxy*Disable DNS proxy*

```
echo "begin;dproxy:settings/state=0;end" | cm_cli_tty
```

Enable DNS proxy

```
echo "begin;dproxy:settings/state=1;end" | cm_cli_tty
```

Enable PeerDNS (PPPoA)

```
echo "begin;encaps0:pppoa:settings/usepeerdns=1;end" | cm_cli_tty
```

Disable PeerDNS (PPPoA)

```
echo "begin;encaps0:pppoa:settings/usepeerdns=0;end" | cm_cli_tty
```

Note: “encaps0” may well be “encaps1” or “encaps2”, depending on the number of connections.

MSNTP

Start msntp

```
echo "begin;sntp:settings/status=1;end" | cm_cli_tty
```

Stop msntp

```
echo "begin;sntp:settings/status=0;end" | cm_cli_tty
```

PPPOA

```
echo"begin;encaps0:pppoa:settings/username=user;encaps0:pppoa:settings/password=pass;encaps0:pppoa:settings/encaps=1;encaps0:pvc:settings/vpi=0;encaps0:pvc:settings/vci=38;logic:command/save;end" | cm_cli_tty
```

Stop pppoa:

```
echo "begin;encaps0:pppoa:command/stop;end" | cm_cli
```

Start pppoa:

```
echo "begin;encaps0:pppoa:command/start;end" | cm_cli
```

Note: “encaps0” may well be “encaps1” or “encaps2”, depending on the number of connections.

PPPOE

```
echo"begin;connection0:pppoe:settings/username=user;connection0:pppoe:settings/password=pass;connection0:pppoe:settings/encaps=1;connection0:pvc:settings/vpi=0;connection0:pvc:settings/vci=38;logic:command/save;end" | cm_cli_tty
```

Stop pppoe:

```
echo "begin;connection0:pppoe:command/stop;end" | cm_cli
```

Start pppoe:

```
echo "begin;connection0:pppoe:command/start;end" | cm_cli
```

Note: “connection0” may well be “connection1” or “connection2”, depending on the number of connections.

Get ISP login details:

PPPOA:

```
echo "begin;encaps0:pppoa:settings/username;end" | cm_cli_tty
```

```
echo "begin;encaps0:pppoa:settings/password;end" | cm_cli_tty
```

Note: “encaps0” may well be “encaps1” or “encaps2”, depending on the number of connections.

PPPOE:

```
echo "begin;connection0:pppoe:settings/username;end" | cm_cli_tty
```

```
echo "begin;connection0:pppoe:settings/password;end" | cm_cli_tty
```

Note: “connection0” may well be “connection1” or “connection2”, depending on the number of connections.

Miscellaneous:

Disable remote DMZ

```
echo "begin;connection0:fwan:settings/dmz/state=0;end" | cm_cli_tty
```

Disable remote web

```
echo "begin;connection0:fwan:settings/remote_web/state=0;end" | cm_cli_tty
```

Disable remote telnet

```
echo "begin;connection0:fwan:settings/remote_telnet/state=0;end" | cm_cli_tty
```

Disable remote ping

```
echo "begin;connection0:fwan:settings/ping/state=0;end" | cm_cli_tty
```

Note: “connection0” may well be “connection1” or “connection 2”, depending on the number of connections.

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