

Project DOTU: Document The Undocumented

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~the list~

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~specials~

[Cat5/6000] | [router bgp] | [router eigrp] | [router isis] | [Filesystem]

Hi,

This page is about undocumented cisco IOS commands. I started the project some time ago because I found out that some undocumented commands can save you a lot of time and frustration. I guess this holds true for most network engineers.

Please feel free to forward the list with the header, or the url to a cisco related mailing list or a network engineer. Feedback (see, "*mail command*" on the left) is not only appreciated, it is the only way this list project can exist! Please send your entry.

--

Groets,

bert boerland

```
#####
# PROJECT: DOTU (document the undocumented)           #
# started: 2000/2/28 by bert boerland                 #
# with the help of lot of people allready, thanks!    #
# for additional commands, please                    #
# mailto:dotu@boerland.com, put [DOTU] in subject.    #
```

```
# please specify command, global or config, ios, hw #
# and what the command does. #
# http://boerland.com/dotu #
#####
# VERSION: 2001.08.25 #
# Changelog: #
# 2001.8.25 added many commands. made few cosmetic #
# changes, made links to starting letter of #
# command. we all know now why undocumented #
# stuff is bad, since the ILMI bug... :-( #
# found out that google ranks this site first #
# when searching for "cisco ios commands". i #
# dont think this is the power of this site, #
# but the weakness of cisco's site ... #
# also saw that back in 1995 someone asked for #
# a list like this one. #
# 2001.1.6 added *many* commands, thanks to (ex)cisco's #
# please read disclaimer. i am not responsible #
# if commands listed here screw up your router #
# new commands in bold. #
# unless stated otherwise, all listed commands #
# are undocumented commands (in IOS help but #
# not in documentation). Hidden commands (not #
# in IOS help nor in documentation) are marked #
# as ... [Hidden] #
# see also follow project at heinzulm.com #
# 2000.10.2 added commands #
# 2000.7.30 added *many* commands, thanks to all who #
# helped making this list better (even from #
# within cisco itself!) and phrack #56. Made #
# this list in HTML and moved it to #
# http://borland.com/dotu #
# 2000.5.02 added more commands, keepmcomming! #
# 2000.3.13 added disclaimer and couple of commands #
# 2000.2.29 added versionnummering #
# 2000.2.29 list alpha sorted and 10+ new commands #
# TODO: #
# when i master php/mysql and move to another area where #
# they have ADSL so I can host this site at home, put #
# all commands in database and do some php stuff around #
# it. might even using an engine like drupal.org. #
#####
# DISCLAIMER: #
#####
# having undocumented commands in your config or #
# executing them from the CLI is *not* something you #
# should do in a 'live' network! commands that are un- #
# documented can have unpredictable behavior. cisco #
# Systems nor bert boerland are responsible for the #
# results of executing/configuring these commands #
# (stupid disclaimer, but hell, i am not a lawyer :-) #
#####
# COPYRIGHT: #
```

```
# mhh, who owns documentation of undocumented commands? #
# well, it sure isnt me! so feel free to mirror this #
# site, forward it to a friendly sysop, or whatever. #
# i would *like* that you would include a pointer to #
# the URI of this list being http://boerland.com/dotu #
# all content on boerland.com/dotu is released under the#
# terms of the GNU Free Documentation License #
# Version 1.1 or any later version published by the Free#
# Software Foundation. #
#####
```

~dotu; the list~

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[A]

```
aaa accounting delay-start
  [12.1] [hidden] global configuration command aaa accounting delay-start
  delays creation of the PPP Network start record until the peer IP
  address is known.
aaa authorization address-authorization-exec
  [12.1] [hidden] configuration command forces address authorization for
  PPP when started from an exec.
aaa group server {radius | tacacs+} server-group-name
  server ip-address-1 [auth-port port-number] [acct-port port-number]
  server ip-address-2 [auth-port port-number] [acct-port port-number]
  deadtime minutes pick-method [next | load-balanced | round-robin]
  [hidden] pick-method server-group configuration command is used to specify
  an alternate
  method of selecting servers when one is not responding. As of 12.0(3)T
  the load-balanced and round-robin alternatives may be specified but
  may not be implemented. The Load-balanced keyword indicates that the
  initial host is selected load-balanced. The Round-robin keyword
  indicates that the initial host is selected in a round-robin method
  with all servers being retried before starting from the beginnng of
  the list of servers. The Next keyword indicates that the list of
  servers is stepped through sequentially with each request always
  starting with the first server in the list. This last option is the
  default method of operation.
aaa nas port description text
  [hidden] global configuration command causes the specified text to
  appear in TACACS+ accounting records with the attribute nas-description
  and the value of the text specified in the command.
  This command is useful during debugging allowing one to specify
  information about the environment or configuration in which the
  accounting record was generated.
access-list number remark comment
  and
ip access-list extended name
  remark comment
  [12.1]To add comments about the access list. This keyword is documented
  under Bug Id CSCdk14543.
atm allow-max-vcj
  interface command, will allow the cisco 7000 use VCI's above 1023.
```

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[B]

bgp common-administration
bgp dynamic-med-interval
bgp process-dpa
boot system rom
CONFIG
boot module
CONFIG

bundle-enable command

800-series

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[C]

call-history-mib retain-timer (value)

[global] effects the size of the isdn history table
carrier delay value
[12.1] Modifies the carrier delay time. A value of 0 disables the carrier delay

clear crashdump 1

to cleanup an old crashdump

clear ip eigrp [as] event

Clear IP-EIGRP event logs

clear ip eigrp [as] logging

Stop IP-EIGRP event logging

clear profile

Clears CPU profiling

clear startup-config

same as erase startup-config)

clear vtemplate

reset virtual templates

clock rate { 1200 | [...] | 2015232 }

[hidden] There is an anomaly between what is documented, what is displayed and what is entered for this command. The documentation indicates the command is clock rate and this is what IOS shows as the valid command in configuration mode. However, a configuration display shows the command as clockrate as this is how it is saved in nvram. In addition, older rom monitors do not understand the newer clock rate command which would cause problems. What actually happens here is that clockrate is implemented as a hidden command and is not completed by pressing tab and nor is there any help generated for it. But both clockrate and clock rate are accepted and there should be no problem in cutting and pasting the configurations.

config overwrite

copy core ?

Does a full core dump, as write core but with more options

csim start <number>

Emulate a voice call

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[D]

debug buffer

Additional buffer debugging

debug buffer failure

Buffer Allocation failures debugging

debug crypto isakmp detail
Crypto ISAKMP internals debugging

debug crypto isakmp packet
Crypto ISAKMP packet debugging

debug dialer detailed

debug dialer holdq
[11.2(12)P] [undocumented/hidden] gives some help on dialing.

debug eigrp neighbor [sia-timer]
this will print debug information about the operation of the sia timers. Generally not very useful (unless you are testing the timers)

debug eigrp transmit [sia]
the will print debug information about SIA packets being sent. Most of the information found in this debug is part of the event log.

debug eigrp sia { fast | reply [addr] | query [addr] | siareply [addr] | siaquery [addr] }
This command has been left in to assist testing with creating sia events and will CAUSE sia events.

| | |
|-----------------|--|
| <i>fast</i> | <i>sia timer will fire in 1ms on next route to go active</i> |
| <i>query</i> | <i>next query from peer will be ignored</i> |
| <i>reply</i> | <i>next reply from peer will be ignored</i> |
| <i>siaquery</i> | <i>next reply from peer will be ignored</i> |
| <i>siareply</i> | <i>next reply from peer will be ignored</i> |

debug ip ospf monitor
Debug command which show opsf database sync

debug ip packet ... dump
Outputs a hex & ASCII dump of the packet's contents

debug ipx private

debug isdn code

debug isdn q931 13
[12.0(13)] will show additional information on ISDN, i.e. the corresponding call reference number in all ISDN messages.

debug oir
Debug online insertion and removal

debug parser alias

debug parser help

debug parser http

debug parser mode

debug parser privilege

debug sanity

debug subsystems
Debug discrete subsystems

dialer mult-map-same-name
useful if you have dialup clients using the same chap/pap username

dhcp-server import all
take all DHCP client info from the "ip address dhcp" client and assume that info for our DHCP server.

debug snmp {bag | dll | io | mib { all | by-mib-name } | packets | sysdb | timers}

debug x25 switch

debug x25 encapsulation

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[E]

exception-slave dump X.X.X.X
CONFIG
exception-slave protocol tftp
CONFIG
exception-slave corefile
CONFIG
execption memory fragment <amount>
CONFIG: Will reload router when no more fragment mem is avail
DOCUMENTED: in Version 12.1(2)E

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[F]

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[G]

gdb kernel
gdb examine pid
gdb debug pid
(ciscos comment: gdb commands are for debugging, only useful to cisco engineers who have a symbol table for the IOS image in question.)

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[H]

hangup
alias for "quit"

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[I]

ip cache-ager
Needs service internal
ip cef accounting per-prefix non-recursive prefix-length
if-con <n>
Attach to a vip console; if-quit (gets out of if-con mode)
ip address dhcp
On eth[x], for cablemodems?
ip forwarding accounting adjacency-update
ip forwarding accounting non-recursive
ip forwarding accounting per-prefix
ip forwarding accounting prefix-length
ip forwarding switch
ip forwarding traffic-statistics
ip forwarding traffic-statistics load-interval
ip forwarding traffic-statistics update-rate
[no] ip gratuitous-arps
This disables unsolicited ARP replies that are useful to signal to a second (redundant) router on the same LAN segment that a remote gateway is present or has changed.
ip igmp
ip igmp immediate-leave
ip igmp immediate-leave group-list
ip local-pool
Legacy form of ip local pool, for backwards compatability
ip ospf interface-retry [x]

Retry for ospf process

`ip ospf-name-lookup`

ip route profile

This configuration command will turn on IP routing table statistics collection. Information like number of changes, number of prefix added etc will be collected.

`ip slow-converge`

`ip spd`

`ip spd mode`

`ip spd mode aggressive`

`ip spd queue`

`ip spd queue max-threshold`

`ip spd queue min-threshold`

`ip tftp boot-interface`

CONFIG

`ip tmstats bin internal | external`

CONFIG, when ip cef accounting non-recursive is configured

`isdn network`

tell router to be the "master" on T1-CCS link using isdn switch-type primary-ni

`ipx flooding-unthrottled`

[12.1] global configuration command specifies that NLSP flooding should be unthrottled.

`ipx netbios-socket-input-checks`

[12.1] global configuration command limits the input of non-type 20 netbios bc packets

`ipx potential-pseudonode`

[12.1] global configuration command specifies to keep backup route and service data for NLSP potential pseudocode.

ipx sap follow-route-path

[12.1] An undocumented global configuration command. See Bug Id SCdm12190 for details.

`ipx server-split-horizon-on-server-paths`

[12.1] global configuration command specifies that split horizon SAP occurs on server, not route, paths. This command is documented in Bug Id CSCdm12190.

`ipx update interval {rip | sap} {seconds | passive | changes-only}`

[12.1] The undocumented passive keyword specifies to listen but does not send normal periodic SAP updates nor flashes/changes updates. Queries will still be replied to. The update interval is set to the same interval as changes-only. The passive keyword is documented under Bug Id CSCdj59918.

`isdn {n200 | t200 | t203} number`

[hidden] commands change the value of various layer 2 ISDN timer settings. The number parameter is milliseconds for t200 and t203 and the maximum number of retransmits for the keyword n200. The current value of ISDN timers can be displayed using the show isdn timers EXEC command. The values of the timer settings depend on the switch type and typically are used only for homologation purposes. The typical value for t200 is 1 second, for t203 is 10 seconds and for n200 is 3 retransmits.

[J]

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

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[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[L]

llc attach [interface]

llc close aaaa

llc offset aaaa

llc open [interface]

llc send aaaa

logging event {link-status | subif-link-status}

The no form of the undocumented logging event link-status interface command is used to turn off sending up, down and change messages for an interface to the syslog. This is very useful on live systems since these systems generate so many of these messages that other important messages are often hard to see. This is a companion command to the documented command no snmp trap link-status which prevents sending the associated snmp trap.

loopback diag

CONFIG

loopback dec

CONFIG: at dec chip

loopback test

CONFIG

loopback micro-linear

CONFIG

loopback motorola

CONFIG

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[M]

memory scan

Parity check for 7500 RSPs

modem log {cts | dcd | dsr | dtr | ri | rs232 | rts | tst}

[12.1] configuration command is used to specify which rs232 log events are to be saved for display by the show modem log command. When performing log analysis, various RS232 events fill the log within seconds rendering it useless for analysis (see Bug Id CSCdk86001). This command helps to filter out unwanted entries in the log.

modem-mgmt csm debug-rbs

[12.1] turns on debugging for Channelized T1 links in the AS5x00 series, providing info about ABCD bits in phone call supervision. Documented, [here](#). Debug cas replaced this 'broken' command.

INTERNAL privileged EXEC command enables robbed bit signaling debugging within CSM. Issuing the command once turns on rbs debugging. Issuing the command a second time turns on special rbs debugging. Issuing the command using the no-debug-rbs keyword turns off all debugging. This command is useful in looking at modem pooling and channelized T1s. To make this command available, the service internal global configuration command must be issued first.

multilink bundle-name {authenticated | both | endpoint}

[12.1] This undocumented global configuration command selects the method

for naming multilink bundles. "authenticated" specifies using the peer's authenticated name, "endpoint" specifies using the peer's endpoint discriminator and "both" specifies using both the peer's authenticated name and endpoint discriminator.

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[N]

[no] environment-monitor

Disable environment monitoring

[no] ppp chap ignoreous

For router with same hostname

[no] service auto-reset

On linecards

[no] service password-recovery

*For the daring people, it can be undone but *please* only specify this if you know what you are doing. and since this is undocumented, you probably don't! :-)*

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[O]

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[P]

ppp direction {callin | callout | dedicated}

[12.1] [hidden] identify the direction of ppp activity. PPP attempts to determine if a call is callin or a callout or a dedicated line. This is how it detects spoofed CHAP challenges. When an async interface is added to a dialer interface, ppp cannot detect the difference between a dedicated line and a callin. So it assumes that it is a callin. Adding the ppp direction dedicated overcomes this.

ppp ipcp accept-address

[hidden] interface command specifies that IOS is to revert to the previous operation regarding the acceptance of ip addresses from users. When enabled, the peer IP address will be accepted but is still subject to AAA verification, it will have precedence over any local address pool however. In IOS releases after 11.0(11), PPP IPCP negotiation was changed to accepts a remote peer's "Her" proposed address regardless, and the "Her" address is subsequently added to the IP routing table as a host route. With IOS Releases later than 11.0(11) the software checks the "Her" address against the corresponding dialer map and if the address is different than the IP address detailed within the dialer map, a NAK will be sent and the dialer map IP address will be added as a host route in the IP routing table.

ppp ipcp ignore-map

ppp lcp fast-start

[12.1] interface configuration command specifies to ignore the carrier timer and start PPP when an LCP packet arrives.

ppp restart-timer msec

[hidden] interface configuration command modifies the default value (2 seconds) for the restart timer. The translate command also has a similar keyword, restart.

ppp timeout absolute <sec>

Determines how long PPP link can be up [default is infinity, configurable

as 0] used under virtual-template interfaces.

ppp timeout idle <sec> inbound

ppp timeout idle <sec> either

Determines how long PPP can wait until bringing the link down if there is no traffic. [default is infinity, configurable as 0] used under virtual-template interfaces.

profile <start> <stop> <granularity>

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[Q]

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[R]

radius-server attribute 44 on-for-access-req

[hidden] global configuration command sends attribute 44 in all access request packets. The command may be present in IOS 11.3(9+)AA (reference BugID [CSCdk74429](#)). This command is replaced by the radius-server attribute 44 include-in-access-req command.

radius-server attribute 6 on-for-login-auth

[hidden] global configuration command sends attribute 6 in all authentication packets (e.g., access requests). This command may be present in IOS 11.3(9+)T and 12.0(3+)T (reference BugID [CSCdk81561](#)).

radius-server attribute 6 support-multiple

[hidden] global configuration command specifies that IOS is to support multiple Service-Type values per Radius profile in violation of the RFC for Radius. This command was added in IOS 12.1(2.3)T2 and 12.1(3.3)T (reference BugID [CSCdr60306](#)).

radius-server authorization default framed-protocol ppp

[hidden] used to specify the default framed-protocol as PPP when this RADIUS attribute is missing.

radius-server authorization permit missing service-type

[hidden] global command is used to specify that a RADIUS entry without service-type information is permitted. It is used when RADIUS is being used as a database without regard to service-type.

radius-server attribute nas-port extended

[hidden?] command is replaced by the radius-server attribute nas-port format b command in some releases of IOS. For this reason it may be hidden in the IOS configuration mode but documented. In these versions of IOS, the command will be accepted but ignored.

radius-server challenge-noecho

[12.1] global configuration command specifies that data echoing to the screen is disabled during Access-Challenge.

radius-server directed-request [restricted] [right-to-left]

[hidden] right-to-left keyword, which first appeared in IOS 12/0(7)T, enables right-to-left parsing of the user information (reference Bugid [CSCdm77820](#)).

radius-server extended-portnames

[hidden] global configuration command, which displays expanded interface information in the NAS-Port-Type attribute, has been replaced by the radius-server attribute nas-port extended command.

This command configures RADIUS to expand the size of the NAS-Port attribute field to 32 bits.

The upper 16 bits of the NAS-Port attribute display the type and number of the controlling interface; the lower 16 bits indicate the interface undergoing authentication.

This command first appeared in IOS Release 11.1. It has been hidden in IOS 11.3+ and IOS 12.0+ since the command has been replaced (reference Bugid [CSCdj06817](#)).

```
radius-server host {hostname | ip-address} [auth-port port-number]
  [acct-port port-number] [timeout seconds] [retransmit retries]
  [key string] [ignore-acct-authenticator]
```

[hidden] ignore-acct-authenticator keyword specifies to ignore accounting authenticator errors and warn only (11.3(+))AA).

```
radius-server ipc-limit done limit
[hidden]
```

```
radius-server retry method round-robin
[hidden] global configuration command is used to specify an alternate
method of selecting servers when one is not responding. As of 12.0(3)T
alternates may not be defined and the round-robin alternative may not
be implemented.
```

```
radius-server secret string
[hidden] global configuration command is used to specify the key shared
with the RADIUS server. This command is hidden because it has been
replaced with the radius-server key command (reference
BugID CSCdi44081). This command first appeared in IOS Release 11.1.
```

```
radius-server unique-ident value
[hidden] global configuration command is used to set high order bits for
the accounting identifier. The identifier field is a one octet field
included in all RADIUS accounting packets which aids in matching
requests and replies.
```

[\[A\]](#) [\[B\]](#) [\[C\]](#) [\[D\]](#) [\[E\]](#) [\[F\]](#) [\[G\]](#) [\[H\]](#) [\[I\]](#) [\[J\]](#) [\[K\]](#) [\[L\]](#) [\[M\]](#) [\[N\]](#) [\[O\]](#) [\[P\]](#) [\[Q\]](#) [\[R\]](#) [\[S\]](#) [\[T\]](#) [\[U\]](#) [\[V\]](#) [\[W\]](#) [\[X\]](#) [\[Y\]](#) [\[Z\]](#)

[S]

```
scheduler max-task-time 200
```

CONFIG: last val in milliseconds

```
scheduler heapcheck process
```

CONFIG: memory validation, after proc

```
scheduler heapcheck poll
```

CONFIG: memory valid after some poll

```
scheduler run-degraded
```

CONFIG: in a failure mode?

```
service internal
```

CONFIG: additional debugs that are not normally available

```
service slave-coredump
```

CONFIG

```
service log backtrace
```

CONFIG: provides traceback with every logging instance

```
set destination-preference
```

```
show alignment
```

```
show asciireg
```

On switches

```
show asp
```

```
show async bootp
```

No extended data will be sent in BOOTP responses

```
show biga
```

GLOBAL: catalyst 5000 release 5.5(1)

show bridge group verbose
shows additional information on each port that the bridge group is enabled

show caller

show chunk

show chunk summary

show counters [slot/port]
Shows all port counters

show compress hardware

show controller buffer fa# # (note, not the more common "fa#/#")
Catalyst 2900XL family 12.0(5.2)XU

show controller coronado #
Catalyst 2900XL family 12.0(5.2)XU

show controller delmar #
Catalyst 2900XL family 12.0(5.2)XU

show controller frank
Catalyst 2900XL family 12.0(5.2)XU

show controller razor
Catalyst 2900XL family 12.0(5.2)XU

show controller switch
Catalyst 2900XL family 12.0(5.2)XU, see also [ciscosite](#).

show controller vip <slotno> log

show controller vip <slotno> tech

show fib drop

show fib interface

show fib interface detail

show fib interface loopback

show fib interface null

show fib interface statistics

show fib interface vlan

show fib linecard

show fib linecard detail

show fib not-cef-switched

show fib not-fib-switched

show idb

show inband

GLOBAL: catalyst 5000 release 5.5(1)

show interfaces cable <cable card> modem 0
Shows CPES attached to a cable modems.

show interface statis

show interface switching

show interfaces stat

show interface <int> stat

show interfaces switching

show int <int> switching
Shows switching path information for the interface

show ip cef internal

show ip eigrp event [as] [start# end#]
IP-EIGRP Events

show ip eigrp sia-event [as] [start# end#]
IP-EIGRP SIA event

show ip eigrp timers [as]
IP-EIGRP Timers

```
show ip ospf bad-checksum
show ip ospf delete
show ip ospf delete-list
show ip ospf ev
show ip ospf events
show ip ospf maxage-list
show ip ospf statistics
```

show ip route profile

Use this command to view the IP routing table profile.

```
show ipx backup [network]
show ipx cache cbus
show ipx cache hash
show ipx eigrp event [event-number]
  shows past eigrp events
show ipx eigrp sia-event
  shows past eigrp stuck in actives
show ipx private cache-history aaa
show ipx urd [0-fffffffe]
show isdn {active | history | memory | services | status [dsl | serial
  number] | timers}
```

active: Displays current call information, including called number, the time until the call is disconnected, AOC charging units used during the call, and whether the AOC information is provided during calls or at end of calls.

history: Displays historic and current call information, including the called number, the time until the call is disconnected, AOC charging time units used during the call, and whether the AOC information is provided during calls or at the end of calls.

status serial number: Displays the status of a specific ISDN PRI interface created and configured as a serial interface.

```
show isis timers
show isis tree
  IS-IS link state database AVL tree
show isis tree level-2
show isis private
show list
show list nonempty
show llc
show mbuf
```

Catalyst 5000, The main issue to observe with this command is whether the switch is being starved for memory. Within the display, "clusters" is the number of buffers that are available for NMP to process incoming packets, which include any broadcast/multicast, management traffic. "clfree" is the number of buffers that are available for the NMP at any given time.

If this is zero then this means that NMP has no buffers to process any incoming frames. "lowest clfree" determines the lowest watermark that NMP has hit at any time. If this value is zero but clfree is nonzero, then this means that at one instance NMP ran out of buffers. This can be because of a broadcast of a multicast storm in the management vlan.

```
show media
show media access-lists
```

show memory big

show modem mapping

show parity

show parser

show parser links

show parser modes

show parser unresolved

show portreg

On switches

show proc all-events

Shows all process events

show profile

Shows cpu profiling

show profile detail

Shows cpu profiling

show profile terse

Shows cpu profiling

show refuse-message

show region <address>

Shows image layout <at give address>

show registry <cr> | brief | statistics | registry-name

memory management

show rsh

show rsh-disable-commands

show rsp

show slip

show smrp private | request | response

show snapshot private

show snmp chassis

show snmp contact

show snmp community

show snmp location

show snmp mib [detailed | dll]

show snmp newcom

show snmp view

show sum

Show current stored image checksum

show timers

Show timers for timer command in config mode

show traffic

Shows the current backplane utilization and peak utilization for all three busses

show queueing interface [interface]

gives queueing information on a per interface basis

snmp-server priority {low | normal | high}

[hidden] global configuration command can be used to change the priority of SNMP processes. To avoid extensive polling, use the priority should be set to low . All SNMP queries sent to a router are prioritized as either low or medium priority, depending on the version of code run by the route processor. This means that processes with a higher priority than the SNMP process will be serviced before SNMP. So, regardless of SNMP polling intensity, routing processes will generally be processed before SNMP requests because route processes

are "high" priority. You can view the priorities of each of the router's processes by doing a show process and looking in the Q column (L == Low, M == Medium, H == High). See

<http://www.cisco.com/warp/public/490/9.html> for documentation.

This command has no impact on the priority of the snmp trap process.

[no] snmp-server sparse-tables

Get the complete SNMP MIB table. On controller interface you get without this command e.g. no out bytes counter.

With this commands you get every object with SNMP get-next.

[no] sscop quick-poll

Suppose to help recover if sscop has problems, global

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[T]

tclsh

[very interesting, you can program with loop control, expressions, etc from the IOS CLI. works on 3640-IS-M, Version 12.1(5)XM, EARLY DEPLOYMENT RELEASE SOFTWARE (fc1)]

test aaa group {group name} {username} {password}

[12.0(5)T] used to test the authentication of a username/password without having to use an extraneous process such as telnet or dialin to initiate it

test appletalk

[11.2.x] The test appletalk command will enter appletalk test mode. The sub-commands available in this mode are:

- . arp interface-type number at-aarp-addr arp-mac-address
- . eigrp neighbor-states cablestart-cableend
- . nbp confirm <net>.<node>[:<skt>] <object>:<type>@<zone>
- . nbp lookup <object>:<type>@<zone>
- . nbp parmameters max-retrans max-replies interval
- . nbp poll end

test align

test cable [atp | berr | bpimcast | brk | dhcp-inq | hop | minimum-poll | nobrk | stack-pro | ucc]

[12.1]

| | |
|--------------|---------------------------------|
| atp | acceptance test procedure |
| berr | Bus Error |
| bpimcast | Privacy Multicast test commands |
| brk | Break |
| dhcp-inq | Send DHCP inquiry |
| hop | Initiate frequency hop |
| minimum-poll | Toggle 1 second minimum polling |
| nobrk | No Break |
| stack-prot | Stack Protect |
| ucc | Send UCC command |

test call fallback

[12.1] VoIP Fallback

test cbus

For old AGS+ and 7000. Lets you prod stuff right into cbus memory.

**very* dangerous if you don't know what you are doing.*

test cch323

command performs cch323 tests.

test crash

Makes the router crash anyway you want :)

test crypto [dns-query] [engine] [initiate-session] [pki]

[12.1]

dns-query DNSSEC query

engine Crypto Engine

initiate-session Send a CIM connection message

pki PKI Client Test

test dhcp [allocate xxx.xxx.xxx.xxx] | [release] | [renew]

test dsp memory

[12.1] Test DSP memory

test eigrp as-number {ack | neighbor-states ipx-address ipx-mask}

[12.1] as-number id from 1 to 65535. neighbor-states is one of 1local (Neighbor states 1), 1successor (Neighbor states 3), 2local (Neighbor states 1 - 2), 2successor (Neighbor states 3 - 2), 3local (Neighbor states 1 - 0), 4local (Neighbor states 1 - 0 - 2), 5local (Neighbor states 1 - 0 - FC fail - 1), 6local (Neighbor states 1 - 2 - FC fail - 3), and delete (Delete a phoney entry in the topology table). The keyword ack toggles EIGRP fast acking.

test ifs appn {read | write}{hostname | ip-address}

The test ifs appn command reads or writes an appn file.

test ifs boot boot-command-line

The test ifs boot command parses the bootstrap 'boot' command line.

test ifs defaults

The test ifs defaults command shows the default boot files.

test ifs show hidden

The test ifs show hidden command toggles the display of hidden file systems and files.

test ifs slot slot url

The test ifs slot command will produce a core dump of slots on crashes.

test interfaces

test ip local-pool alloc (interface)

needs service-internal

test ip local-pool alloc user

needs service-internal

test ip local-pool chown (interface)

needs service-internal

test ip local-pool free (interface)

needs service-internal

test ip local-pool pool

needs service-internal

test ipc misc

test ipx capacity x y z

Generated IPX RIP and SAPs. Enterprise feature set (11.2+).

where x is the network address to begin at.

where y is the number of advertisements

where z is the interface IPX address that is reachable from

test ipx debug [0-ffffffff] [0-ffffffff] [0-ffffffff]

test ipx echo router-address [times-sent] [interval]

sends 1447 RIP requests for 1 - 182 random networks - remote end sends echo repl back (ipx ping works the same way, but it always requests network 00000000)

test ipx gns [type] [numb-tries] [timeout] [network-to-send-request-on]

```

types:
1 - User,
2 - User Group,
3 - Print Queue,
4 - File Server,
5 - Job Server,
6 - Gateway,
7 - Print Server,
8 - Archive Queue,
9 - Archive Server,
a - Job Queue,
b - Administration Object,
f - Novell TI-RPC,
ff - Wild,
ffff - Request Response
test ipx netbios find [name] [numb-tries] [timeout] [network-to-send-request-
on]
    sends out un-interpreted packets
test ipx query [sending-SAP-type] [type] [server-name] [network] [maskf]
    [numb-tries] [timeout]
    sending-sap-types:
    2 - Response (in),
    4 - Nearest Server type,
    C - General Name Query,
    D - General Name Response,
    E - Nearest Name Query,
    F - Nearest Name Response
test ipx ripreq network
    sends rip request for network specified
test ipx watchdog host-address
    sends watchdog (IPX Keep-alive) packet to specified host)
test leds test network interfaces.
test mbus power [slot] [on off]
    [no]Shut a line card
test memory
test pas [bus watcher] [counter] [eeprom]
    [12.1]
    bus watcher    Bus Watcher
    counter        Cycle Counter
    eeprom         Test eeprom functionality
test playout [adaptive] [fixed] [nots]
    [12.1]
    adaptive    use adaptive playout buffer
    fixed      use fixed playout buffer
    nots       use fixed playout buffer with no timestamps
test port <2147483647-0>
    [12.1] Voice interface slot #
test pppoe [stop] [ip] <1-8000> [FastEthernet]
    [12.1]
    <1-8000>      Number of PPPoE sessions to be opened
    FastEthernet FastEthernet IEEE 802.3
test rsp cach memd-fastswitch uncached
    The processor in the router has its own Cache. There were bugs

```

in working with this cache. With this exec-command you can disable the use of this cache. Because this is a exec-command you have to type it again after a reboot.

test ssl [open-conn] [open-session] [read] [write]

[12.1]

*open-conn Open connection
open-session Open a SSL Session
read Read data from a selected socket
write Write data to the selected socket*

test tcp [delay|drop|line|random]

needs service-internal

test tone locale

[12.1]

locale 2 letter ISO-3166 country code

test translation-rule <1-2147483647>

[12.1]

<1-2147483647> The unique Tag for this translation table

test transmit

test spanning-tree [get] [process-stats] [switch-count]

[12.1]

*get get configuration
process-stats Spanning tree process / queue statistics
switch-count Spanning tree packet counters*

test modem back-to-back first-slot/port second-slot/port

performs modem testing. Test the transmission of L2 frames

test vines

enter VINES test mode. The Sub-commands available in this mode are:

*. build [Build tables]
. checksum [Checksum test]
. data [Set data values used in various places]
. end [Exit VINES test mode]
. flush [Flush tables]
. generate [generate information]
. send [Send a VINES packet]
. set [Send a VINES value]
. ss [Do Server Service things]
. st [Send a vines streettalk packet]*

test voice [echo] [payout] [port] [tone]

[12.1]

*echo Test echo canceller
payout set payout delay configuration
port Diagnose voice ports by forcing conditions
tone TONE*

test voip scripts

allow to run self-created IVR (Interactive Voice Response) scripts. Cisco included 7 IVR scripts in IOS. Self-created scripts must be specially signed. Issuing this command in privileged mode before loading self-created script you turn off the signature checking procedure. The only problem is that the command must be issued every each router reboot. Cisco promises to remove totally the signature checking procedure in future IOS releases.

test vpdn

<cisco Systems on the test command>

"The undocumented and soon to be hidden 'test' privileged command is used to test subsystems, memory and interfaces. The features of the test command are box and IOS dependent and are intended for Cisco technical support only."

<cisco Systems on the test command>

timeout absolute minutes [seconds]

[12.1] command is available to enforce timeouts on an interface.

trace display

Displays the trace buffer when connected with if-con 0 c

ttcp

Like the unix ttcp, to generate traffic

tunnel carry-security

CONFIG

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[U]

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[V]

vpdn aaa override-server {hostname | ip-address}

[12.1] global configuration command specifies the name or ip address of a designate AAA server to be used for VPDN authorization.

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[W]

who

Alias for show users

write core

Does a full core dump, reboots router

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[X]

x29 inviteclear-time none

The router will not send out a x29 invite-to-clear but a x25 clear (disconnect)to the X.25 host. This is necessary, if your X.25 host has problems receiving X.29 invite-to-clear.

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[Y]

[A][B][C][D][E][F][G][H][I][J][K][L][M][N][O][P][Q][R][S][T][U][V][W][X][Y][Z]

[Z]

[Catalyst 5000 and 6000]

enable engineer

this prompts for a password, which has the form:

passwordHWFWSWenablepass

password, enablepass: whatever passwords are on the box

HW, FW, SW: first two digits of the hardware, firmware, software versions running on the Supervisor, shown by show version.

Example: password and enablepass are cisco, show version says HW: 3.2, FW: 5.3(1), SW: 5.4(4)

The enable engineer password would be cisco325354cisco

[5000]

set trace

If you enter set trace ?, nothing appears however if you enter set trace followed by anything else you will see the command options. Be careful with this command, make a backup of the configuration FIRST. You can saturate the processor if it is used inappropriately the Catalyst may reboot constantly or become non responsive upon boot! In this case you have to break in and wipe the config very quickly.

[router bgp ASN]

neighbor ctalkb-out filter-as 100 d
*Filter-as is an obsolete subcommand
use filter-list instead*
neighbor <customer-router> translate-update [nlri multicast unicast]
Redistribute between BGP and MBGP
bgp redistribute-internal
Redistribute I-BGP routes in the other routing-protocol

[router eigrp X]

eigrp event-log-size xxx
*sets the event log size when used with "show ip eigrp event"
Default is 500 on 12.0.11*
[no] eigrp event-logging
controls logging of eigrp events on a per bases
[no] eigrp event-log-size
Set event log size to events; 0 deletes event log buffers
[no] command resets event log and SIA log size to 500 events
[no] eigrp log-event-type [dual] [xmit] [transport]
Configure the set of event types to log
[no] eigrp kill-everyone
Kill all adjacencies on an SIA event or a neighbor down event
[no] eigrp log-neighbor-changes
log changes in peer status of neighbors

[router isis]

partition-avoidance

[Filesystem]

cd system:/vfiles and 'dir' and there are three files available:

tmasinfo
tmstats_ascii
tmstast_binary

File format tmstats.ascii:

*Header - version, address, aggreg, sysuptime, UTC, NTP, duration
Per-prefix entry format - prefix type, dest/mask, sysuptime, pkts in,
bytes in, pkts out, bytes out Per-tunnel entry format - tunnel type,
tunnel id*

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T] [U] [V] [W] [X] [Y] [Z]

~undocumented Cisco IOS commands~