OCLM SECRETS

Bubba's Guide To The Telnet Interface
Last revised Jan. 1, 2001

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<u>Disclaimer</u>: (please read)

The information contained herein is an <u>unofficial summary of undocumented and unsupported</u> commands available in the Telnet Interface of the 3Com Office Connect LAN Modem (OCLM). It's important for the user to understand that the Telnet Interface is an 'Engineering Interface' that was not designed for the regular user. Information is presumed to be correct to the best of my knowledge but may contain inaccuracies.

The Telnet Interface is rich with numerous commands, some of which offer the user increased functionality or control not otherwise available through the web GUI interface. Telnet Interface commands should be considered case sensitive and command switches are position dependent. Beware that these commands provide no checking for proper syntax and are unforgiving. Command entries take immediate effect when entered, with no opportunity to confirm or cancel.

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<u>Attention:</u> Please note that the information which follows and the OCLM telnet interface in particular, is UNSUPPORTED, UNDOCUMENTED and UNTESTED. You therefore are both literally and figuratively "on your own" with this. I cannot make it any clearer than that. Please do not pester 3Com Tech Support for assistance with the telnet interface or these commands. They will likely only be able to tell you that the telnet interface is not supported and you will have wasted your time and theirs. <u>Please do not e-mail me</u> with your questions either. However, if you have questions (and I know some of you will) please be so kind as to post those questions in the ISDN discussion group comp.dcom.isdn where everyone can see your question and everyone can also see the answer. In that way perhaps we can all learn more about this incredible product and each have a chance to contribute a little tidbit from time to time.

<u>Password Protecting The Telnet Interface:</u> It should be noted before we begin that use of a *reasonably secure* *configuration* password is strongly encouraged, especially when using static IP addresses and permanent or always-on connections. Users should be aware that the telnet interface of the OCLM is ahead of any firewall software you might have installed at your end and therefore can be remotely accessed (hacked) quite easily over the WAN connection, even when dynamically assigned IP addresses are in use.

Thanks to: Everyone who has helped in putting this document together. A special tip of the hat goes to Steve Ferguson (stf@altavista.net) for his excellent work with the RT command.

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current as of US domestic firmware release 5.3.1

? Show list of commands <>

Summary: Displays a list of available telnet commands

Usage: Use this command to dump a list of the available commands to the screen

Syntax:

? | Dump the list of available commands for the telnet interface

---

bacp: Configure BACP Table <SP# enable/disable|?>

Summary: Allows the user to enable/disable the Bandwidth Allocation Control Protocol (BACP).

Usage: Use this command to enable or disable BACP/BAP for a given service provider. BAP/BACP is used to provide the dialup number for multilink. Note that it is possible for a multilink (2B) call to be negotiated without BACP. You may see this in the Current Call screen in the GUI interface.

Syntax:

bacp 0 enable | Enable BAP/BACP for Service provider 0
bacp 0 disable | Disable BAP/BACP for Service provider 0

(Note: Defined service providers begin with provider 0)

---

cv: Call View <c|-|?>

Summary: Provides a user-intuitive log of call initiation/termination events.

Usage: Once enabled, CallView will track calls being brought up and torn down. It provides the date/time of call initiation, the reason for the call coming up, the reason for the call going down, and the referenced service provider. In order to start collection of CallView events, you must initially enable the feature by executing the command once. Note that 'cv' is also available as a component module within the event log (evlog) command below.

Syntax:

cv | The first time you type this command enables call logging
     | Subsequent use of this command dumps the log contents
cv c | Clears the callview log
cv - | Disables logging of Callview events

Note that executing the 'evlog' command will disable CallView logging and will additionally erase the contents of the cv buffer. These commands use the same memory space. However, if desired the 'cv' command can be enabled as a component of the event log. (See example in the evlog command below)

---

evlog: Event Log <c|+<Modules>|-<Modules>|0|s|?>

Summary: Provides logging capabilities for debugging of modules.

Usage: This command allows logging of events. The user can enable or disable specific event logging modules, allowing the user to capture events specific to a particular subsystem of the OCLM. The events are stored in a FIFO (circular) buffer, so that when the available memory space is exhausted the oldest events will be deleted in order to make room for new events. Multiple modules can be added/removed at the same time by using the '+' or '-' followed by the specific module names you wish to include or exclude. Log data will survive a hardware crash although the selected modules will be reset. This can be useful for post-mortem debugging.

Syntax:

evlog | Dump all captured events in the event log - can result in
          | a copious amount of output
evlog c | Clears the event log
evlog s | Display all modules that can be captured
evlog 0 | Disable all modules to be captured except for EXCP (exception)
evlog +ppp | Enable PPP logging. This will add PPP to the modules currently
          | being captured. From this point on, all ppp events will be
          | placed in the event log.
evlog -ppp | Disable PPP logging. This will remove PPP from the list of
          | modules currently being captured. Note that events already
          | captured will remain in the log and new entries will be
          | appended.
evlog +cv | Enables the CallView function from within the event log
evlog -cv | Disables the CallView function
evlog 1 | Enables all modules (that's a 1 not an L)

Example of concatenated commands:

evlog +ppp q931 | Enabled PPP and q931 logging

evlog -ppp q931 | Disables logging of PPP and q931 events

Modules "Exception" and "Call Trace" are enabled by default. An evlog dump will also include configuration information. This is useful if 3Com tech support asks for a certain evlog trace capture to help in diagnosing a problem. Beware that certain evlog trace commands, particularly 'ppp' will also capture your ISP user id and password in both hex and clear text (except when CHAP is used).

---

exit: Terminate Telnet Session

Summary: Exits command mode and closes the telnet session.

Usage: This command closes (disconnects) the management & telnet session. See also the quit command.

Syntax:

exit | Closes the telnet session.

---

iconn: Help page to manage ISDN connection

Summary: Shows a help page on how to prevent spurious calls

Usage: This command provides some tips on how to prevent unwanted calls from coming up. The two principle causes tend to be NetBIOS traffic from Windows workstations and DNS requests for the Windows workgroup name.

Syntax:

iconn | Shows the help page

This is an informational command only.

---

ldns: Static DNS Entries <Index Ipaddr DNS-Name |c Index(clearing)|?>

Summary: Allows for the configuration of DNS entries into the built in DNS server.

Usage: This command allows the user to configure DNS entries into the local (internal) DNS server. These DNS translations will then be referenced by all workstations making requests to the built in DNS server. This can speed up surfing to the defined site(s) and also prevent unwanted calls (when the defined sites are on your local LAN or you wish to spoof them as being there to block certain sites)

Syntax:

ldns | Dumps the list of entries in the local DNS table
ldns c 1 | Deletes entry 1 in the list of DNS entries

ldns 0 192.168.1.1 www.myhost.com
        | Resolves the name www.myhost.com to 192.168.1.1 when
        | requests are made to the embedded DNS server.

---

netbios: Call Filter of NetBios Packet <a|c|d|?>

Summary: Configures the blocking of Netbios packets

Usage: As of firmware release 5.3.0, netbios filtering now has three valid states: Always, Call Initiation, and Disabled. If set to 'always', all Netbios traffic will be filtered (blocked). Calls will not be brought up as a result of Netbios traffic, nor will Netbios traffic be allowed to pass across the WAN after the call has been brought up. If set to 'call initiation', calls will not be brought up as a result of Netbios traffic, but Netbios traffic will be routed across the WAN if the call is already up. This is equivalent to the Netbios filtering provided in firmware release 5.2.0.

Syntax:

netbios | Display the current state of Netbios filtering
netbios a | Sets Netbios filtering to 'Always' This is the current
        | default setting in firmware vers. 5.3.1
netbios c | Sets Netbios filtering to 'Call Initiation' This was
        | the default setting in firmware vers. 5.2.0
netbios d | Disables Netbios filtering

See also the "Filter" command below

---

reuseip: Attempt reuse previous IP address in IPCP <on|off|?>

Summary: Enable attempts to reuse an IP address in IPCP negotiation

Usage: During IPCP negotiation in the initiation of the PPP session, the client has the opportunity to "suggest" an IP address to use. If this feature is enabled, the OCLM will automatically suggest the IP address it had previously used in the last call. Note well that this feature will only work if the host being dialed into allows the client to specify an IP address in IPCP negotiation and that IP address is currently available. Use of this feature may cause interoperability problems with certain routers and is therefore not recommended.

Syntax:

reuseip on | Enable "Attempt to Reuse IP" feature
reuseip off | Disable "Attempt to Reuse IP " feature

---

static: Static Table <c PC# Index u(dp)/t(cp) DstnPort | z(ero)|e|?>

Summary: Allows the creation of static NAT translation table mappings based on port number

Usage: This feature allows the user to setup servers on the private network. By using the static command, the user can configure the OCLM to route all packets destined to a specific port number to a specific workstation on the local LAN.

Syntax:

static | Displays the table of currently configured entries
static c 2 1 t 80 | Configures all traffic destined for TCP port 80 to
             | workstation 2
static c 3 1 t 23 | Configures all traffic destined for TCP port 23 to
             | workstation 3
static c 0 1 u 53 | Configures all traffic destined for UDP port 53 to
             | workstation 0
static c 5 1 0 0 | Delete the first entry under workstation 5
static z | Delete all entries in the table
static e | Shows several examples of how to use the command

If the user wants to configure multiple entries for a given workstation, the third parameter "Index" should be incremented. A maximum of ten port mappings can be configured for each workstation. Note that the 25 individual workstations are numbered 0 through 24 for configuration purposes.

Xconfig: X Window Configuration <?(help)>

Although still shown in the command list, this command is no longer valid. Use the command 'static e' to see an example of how to use the static command to configure a workstation for X-Windows.

---

auto: Service Provider Auto-Call <SP# on/off>

Summary: Configures 'Automatic Call Initiation' for service providers

Usage: This command controls whether or not automatic calls are brought up to a given

service provider. This is equivalent to the "Allow Automatic Call Initiation?" field in the Service Provider page in the GUI. If disabled, traffic will not cause calls to be brought up. Calls to service providers will only be brought up via "Manual Call Control".

Syntax:

auto 0 on　| Enable Automatic Call Initiation for the 1st service provider
auto 0 off | Disable Automatic Call Initiation for the 1st service provider

Note that service providers count starting with provider 0

---

bacpstate: Determine the state of BACP for <RemoteId>

Summary: Determines whether Bandwidth Allocation Control Protocol (BACP) was negotiated on a call to a given service provider.

Usage: Bandwidth Allocation Control Protocol is used to provide the dial number for multilink calls. bacpstate will display whether or not BACP was negotiated for a current call to a given service provider.

Syntax:

bacpstate 0　| Displays status of BACP negotiation for current call to
　　　　| service provider 0

Note that "service provider 0" refers to your first service provider.

This is an informational/diagnostic command only.

---

bapconn: Send a BAP Setup msg to Sr <RemoteId>

Summary: Brings up the second channel on an already established multilink call.

Usage: This command allows the user to bring up the second channel on a multilink call. The command will only work if the service provider is configured for multilink and the first channel is already up. May also require that the service provider support this feature across multiple chassis (aka stacking).

Syntax:

bapconn 0　| Brings up the second channel on call to service provider 0

---

bapdisc: Send a BAP Disc msg to Sr <RemoteId> <BChannel>

Summary: Disconnects the second channel on an multilink call to a service provider

Usage: This command allows the user to disconnect the second channel on a multilink call. The command will only work if the service provider is configured for multilink, and both channels are already up.

Syntax:

bapdisc 0 | Disconnects second channel on call to service provider 0

---

bw: Display BW info

Summary: Displays bandwidth information for an established data call

Usage: This command will show usage statistics regarding an established data call. This includes idle timers and overflow/underflow rates. This is a diagnostic/informational function only.

Syntax:

bw

---

ccpstate: Determine the state of CCP for <RemoteId>

Summary: CCP = Compression Control Protocol. The ccpstate command can be used to indicate whether Data Compression was negotiated for a call that is currently up to <RemoteId>

Usage: This command will inform the user whether or not compression was negotiated during the PPP session initiation. This information can also be seen in the "Current Call Statistics" page in the GUI under the "Data Call Options" field. This is a diagnostic/informational function only.

Syntax:

ccpstate 0 | Display whether or not compression is in use on call to
         | service provider 0

---

config: Configure Profile <l|w|c|d<Dstn #>|p<PC #>|s|?>

Summary: Allows for configuration of internal parameters directly into Flash ROM

Usage: This command provides the equivalent level of configuration as can be found in the GUI interface. Parameters correspond closely to the 'disp' command.

In my opinion, This is probably one of the more dangerous commands in the telnet interface. The user should exercise caution when using these commands, as there appears to be no checking for invalid parameters. Incorrect configuration of the LAN parameters in particular has been reported to render the unit inoperable. (Translation: It's probably not such a swell idea to use this method to configure your OCLM)

Parameters:
config l | LAN Parameters (IP address, subnet mask, etc)
config w | WAN Parameters (ISDN numbers, SPIDs, etc)
config c | Control Parameters (Data Call Parameters)
config d | Service Providers (ISPs and Private Networks)
config p | Workstations
config s | Supplementary Services
config g | Dial-In Global Parameters
config u | Dial-In Users

Syntax example:

config l LANModem mypassword 0 192.168.2.1 225.225.225.224 1 1

The above example sets the OCLM password to 'mypassword' sets the domain name to '0' sets the OCLM IP address to 192.168.2.1, sets the OCLM subnet mask to 225.225.225.224, enables the DHCP Server and enables the DNS Server.

The format of the config command is as follows:
"config a b c d e f g h i j k l m n o p q r s t u v w" where:
a = profile to configure (d0 = 1st, d1=2nd, d2=3rd, d3=4th)
b = Name of ISP
c = Phone number #1
d = Phone number #2
e = PPP username
f = PPP password
g = DNS #1
h = DNS #2
i = Private Network Domain ('0' if none)
j = Use NAT? ('2' for Yes, '3' for No.)
k = WAN Link IP address
l = WAN Link Subnet Mask
m = Private ('1') or ISP ('0')
n = Use Private Network For Internet Access ('0' = No)

o = Private Network IP Address
p = Private Network Subnet mask
q = B-Channel Rate ('0' for 56K)
r = Multilink? ('0' for 56K LAN Modem)
s = Compression ('0' = off)
t = DN#2 is Alternate? ('0' = Yes)
u = No Autocall? ('0' Autodial enabled)
v = Intelligent NAT ('0' = enabled)
w = Default Workstation

---

conn: Connect ISDN call to <RemId BChan (optional)>

Summary: Brings up call to a specific service provider

Usage: Use this command to initiate a call to a specific service provider. This is the functional equivalent of the Manual Call screen in the GUI interface. Example:

conn service provider, B-Channel (0|1)

Syntax:

conn 0 1 | Brings up a call to first service provider on the first channel

---

defpc: Default Workstation <SP# PC#>

Summary: Sets "Default Workstation for Incoming Packets" to a specific PC

Usage: This command correlates to the "Default Workstation for Incoming Packets" on the Service Provider Page in the GUI interface.

Syntax:

defpc 0 2 | Sets the Default Workstation for the 1st service provider
        | to the third workstation

Note, service providers and workstations begin with 0 as the 1st iteration. Your first service provider is '0' and your first workstation is '0'

---

disc: Disconnect ISDN call to <RemId BChan (optional)>

Summary: Disconnects a call to a specific service provider

Usage: Use this command to disconnect a call to a specific service provider. A call must be up to this service provider in order for the command to be valid.

Syntax:

disc 0 1 | Disconnects a call to first service provider on the first channel

---

disp: Display information <b|d|i|p|s|v|?>

Summary: Displays various information regarding the OCLM

Usage: This command will display various types of information regarding the OCLM. The most useful arguments are 'p' and 'v'. The 'p' argument will show the OCLM configuration. This includes the display of the LAN profile, the WAN profile, the service providers, and the workstations. The 'v' parameter shows version information such as firmware versions, boot code versions, serial number, etc. Most of the equivalent information can be found in the "Statistics->System" page in the GUI interface.

Syntax:

disp b | Show buffer utilization
disp d | Show Routing table
disp i | Show network interfaces
disp p | Show configuration profile
disp s | Show source routing table
disp v | Show version information
disp ? | Show a list of disp command switches

This is an informational/diagnostics command only

---

dm: Display Memory <Address (hex)> <# of Bytes (256 max)>

Summary: Displays raw memory

Usage: This command will dump the contents of RAM to the screen. It appears to have no useful purpose.

Syntax:

dm 0 10 | Display 10 bytes, starting at address 0x00

This is an informational/diagnostics command only

Interesting usage: dm 2fc000 appears to dump the *user configuration* in 256-byte blocks. You'll need to increment this in 256 byte blocks to dump the entire config. Yes, the pm command will let you write things here, but since you're writing to volatile ram your "patches" will not survive a soft reset.

---

dring: Distinctive Ringing for DN1 <on|off>

Summary: Enables Distinctive Ringing service for first phone number

Usage: This command allows the Distinctive Ringing supplementary service to be enabled for the first phone number.

Syntax:

dring on | Enables distinctive ringing for first phone number
dring off | Disables distinctive ringing

It appears there is no means by which to enable distinctive ringing on the second phone number. However, you can enter your SPIDS and Directory Numbers in reverse order and accomplish the same thing. The phone co. doesn't care what order the SPIDS are in. Just be sure to match the SPIDS with the DIR Nos. In other words, if you reverse the SPID order, you must also reverse the directory numbers.

---

eed: Dumps eeprom to the screen

Summary: Dumps the contents of the internal EEPROM

Usage: This command will show the contents of the EEPROM in the OCLM. It would appear that the EEPROM is used to store the Product ID, Ethernet Mac address of the OCLM and the serial number. The equivalent information can be found in the "Statistics->System" page in the GUI. There appears to be no command to modify the contents of the EEPROM.

Syntax:

eed | Display EEPROM contents

This is an informational/diagnostics command only

---

eth: Display Ethernet driver information <0|1|2|3|4|5|6|?>

Summary: Displays information regarding the Ethernet driver

Usage: This command displays information regarding the Ethernet driver. Shows information such as TX errors, collisions, interrupts, and state of internal registers of the Ethernet controller.

Syntax:

eth 0 | Displays all Ethernet driver information
eth 1 | Displays all Ethernet interrupt events
eth 2 | Displays all Ethernet hardware registers
eth 3 | Displays Ethernet control block
eth 4 | Displays Ethernet MIB table
eth 5 | Resets Ethernet interrupt event counters
eth 6 | Resets Ethernet MIB table
eth ? | Displays the above command list

This is primarily an informational/diagnostic command. MIB stands for Management Information Base, not "Men In Black".

---

ftp: Start FTP server

Summary: Places the OCLM in firmware download mode (Alert LED will flash).

Usage: This command will start the internal FTP server in the OCLM. It is equivalent to the "Enter Firmware Download Mode" command on the Maintenance page in the GUI interface. The "Upgrade Wizard" also does this automatically.

Syntax:

ftp | Starts the FTP server in the OCLM

Note: If no ftp file transfer activity occurs the ftp server will automatically time out after a period of 5 minutes. Also the Alert LED (!) will flash while the ftp server is running. Note too that the user profile 'prof.bin' may be uploaded and downloaded through the ftp server. Just remember that your prof.bin file must have been created with the same vers. of firmware that the OCLM is now running.

Additional note: If you have firewall software running on your PC, the firewall may possibly block or prevent the ftp file transfer or firmware upgrade if it intercepts or blocks tcp/udp packets on ports 20 and 21.

---

if: Set Network Interface Parameters

Summary: Unknown

Usage: Unknown

Syntax: Unknown

---

loop: Loop back B channel <o(n)|(of)f 1|2>

Summary: Places the ISDN bearer channel in digital loopback for testing

Usage: This command is used to initiate a digital loopback on either of the ISDN B (bearer) channels, usually for bit error rate (BERT) testing. Note that the phone company can send a diagnostic code to your NT1 to loop up your bearer channels and does not need (or use) this command. They can similarly cause the bearer channels to go in and out of loopback mode on US domestic models having a built-in NT-1 (U-interface).

Syntax:

loop o 1 | Puts bearer channel 1 in digital loopback
loop f 1 | Cancels digital loopback of bearer channel 1

---

nat: Display NAT table <0|1>

Summary: Displays the internal table containing NAT state information

Usage: This command shows internal state information regarding all current sessions running in NAT.

Syntax:

nat 0
nat 1

This is an informational/diagnostics command only.

---

pm: Patch Memory <Address (hex)> <Bytes (hex, 16 max)>

Summary: Unknown

Usage: Unknown

Syntax: Unknown (hint: see the dm command above)

---

quit: Quit Command mode

Summary: Exits Command Mode

Usage: Exits command mode but leaves the telnet session open. See also the exit command.

Syntax:

quit

---

reset: Reset <f|n|?>

Summary: Reboot the OCLM

Usage: If the 'f' parameter is used, the OCLM will be rebooted and the internal configuration will be reset to factory defaults. This includes clearing of all service providers, workstation parameters, and the resetting of the OCLM IP address to factory default. If the 'n' parameter is used, only a warm boot is performed and all configuration data will be saved.

Syntax:

reset f | Perform a factory reset (loads default values)
reset n | Perform a non-destructive warm boot

---

route: Service Provider Auto-Route <SP# on/off>

Summary: Enables the "Intelligent NAT" feature for the service provider

Usage: This command is the functional equivalent of the Service Provider->Miscellaneous->Enable Intelligent NAT function in the GUI interface

Syntax:

route 0 on | Enables Intelligent NAT for the first Service provider
route 0 off | Disables Intelligent NAT for the first Service provider

Note: Service provider '0' refers to your first provider

---

rt: Set pNA+ Routing Table

Summary: Adds or deletes static routes to the routing table

Usage: to add static routes to the routing table (for when you have multiple internal networks behind the OCLM and are running a router internally).

Syntax:

(to add a static route)
rt add {network-hex} {gateway-hex} {netmask-hex} {interface} {type} {proto}

(to delete a static route)
rt delete {network-hex} {gateway-hex} {netmask-hex} {interface} {type} {proto}

Examples:
Add a static route for the 192.168.1.0 network using 192.168.2.21 as a gateway. The '1' is interface 1 (the LAN interface on the OCLM). The '3' is the type of route, which is direct connected. The 'disp d' command shows Type as 4 after I add it, but 3 seems to work fine. The '2' is type of protocol, which appears to always be 2. I'm not sure how they differentiate between types 2 and 4, but I haven't had any need to do so.

rt add c0a80100 c0a80215 ffffff00 1 3 2

Delete the just-added static route:

rt delete c0a80100 c0a80215 ffffff00 1 3 2

Note that NAT does not appear to function for any remote nodes that you may have. You'll be able to see or ping the OCLM on the remote node but nothing behind it.

How to convert dotted-decimal address to hex:

To find the correct hex numbers, each octet should be converted to hex. The simplest way to do this is to use a scientific calculator (the Windows calculator will do), but it can be done by hand. Divide each octet by 16 and keep the remainder. Then convert the result and remainder to a single-character value as shown:

0-9: 0-9
10: A
11: B
12: C
13: D
14: E
15: F

Example:

192/16 = 12, remainder 0
192 decimal = C0 hex

168/16 = 10, remainder 8
168 decimal = A8 hex

1/16 = 0, remainder 1
1 decimal = 01 hex

Thus, something like 192.168.1.0 in decimal is C0A80100 in hex. The most common netmask will be a Class C address, which is 255.255.255.0. This translates to FFFFFF00 in hex.

---

sf: Send a UDP frame

Summary: Unknown

Usage: Unknown

Syntax: Unknown

---

stats: Display Diagnostics/Statistics information <b|c|d|i|l|p|s|w|?>

Summary: Displays various statistics about the OCLM

Usage: This command will show statistics on various aspects of the OCLM. This includes information on Current Calls, Service Providers, and Last Call Statistics. The information presented is equivalent to that presented in the Statistics pages in the GUI interface.

Syntax:

stats b | Display BRI (ISDN Line) statistics
stats c | Display Current Call Statistics
stats d | Display statistics on service providers
stats i | Not implemented
stats l | Display Last Call Statistics
stats p | Not implemented
stats s | Display CPU Utilization
stats w | Not implemented
stats ? | Displays command switch functions b|c|d|l|s only

This is an informational/diagnostics command only

---

sw: Run SPID Wizard <DirNum1> <DirNum2>

Summary: Runs the SPID Wizard using the two phone numbers as input

Usage: This command runs the SPID Wizard. It is functionally equivalent to the SPID Wizard in the GUI interface.

Syntax:

sw 2815551212 2815551213 | Runs the spid wizard using the phone
                             | numbers 281-555-1212 and 281-555-1213
                             | as input

---

tget: Display system current date and time

Summary: Displays the date and time in the OCLM

Usage: This command will display the current date and time of the real-time clock in the OCLM.

Syntax:

tget | Displays the current date and time

---

tset: Set current date and time <year month day hour minute second>

Summary: Sets the date and time of the real-time clock in the OCLM

Usage: This command sets the internal real-time-clock to the specified time.

Syntax:

tset 2001 1 01 12 50 02 | Sets time to 01/01/01 12:50:02 pm

Errata: do not use a leading zero on the month field else the OCLM interprets the date as an octal expression.

i.e.

tset 2001 09 11 15 50 00 => error
tset 2001 9 11 15 50 00 => OK
tset 2001 011 11 15 50 00 => OK and month = September (011 octal=9 decimal)

---

filter: Configure to filter packets on specific ports

Summary: Provides packet call filtering capability (finally!)

Usage: This command allows the user to create filters, to filter by protocol, port number, whether or not to filter inbound outbound or both, and whether to filter call initiation, or always filter (block) these packets.

*Errata 30-Jan-00: It has come to my attention that the direction or bound arguments are presently non-functional and have no effect. Filter statements therefore effect packets in **both** directions. netBIOS filtering may also behave unpredictably when entered through the telnet interface.*

Arguments:

```
command:   a - add entry to table
           l - list the table
           d - delete an entry from the table
           ? - display help
port:     nn - port number to block
protocol:  t - block TCP packets
           u - block UDP packets
           c - block ICMP packets
           g - block IGMP packets
           e - block GRE packets (PPTP)
           b - block both TCP and UDP packets
direction: i - inbound
           o - outbound
           b - both inbound and outbound
blocktype: a - Always filter (block)
           c - Only block call initiation
```

Syntax:

filter ? | Displays onscreen help (poorly formatted display)
filter l | Show the current active filter list
filter a 7 c i a | Adds a filter to always block incoming ICMP packets
filter a 80 t o a | Adds a filter entry to always block outbound TCP
                 | HTTP packets
filter a 80 t i a | Adds a filter entry to always block inbound TCP
                 | HTTP packets
filter a 80 u o a | Adds a filter entry to always block outbound UDP
                 | packets on port 80 (HTTP)

filter a 80 t o c | Adds a filter entry to block outbound TCP
         | HTTP packets. This blocks call initiation only.
         | Once the call is up, these packets will be routed
filter d 0 | Deletes the first entry from the filter list

---

lastpacket: Show info regarding last packet in and out of the OCLM

Summary: Display information regarding the last inbound/outbound packets

Usage: This command will show the protocol and port number of the last packet to pass through the OCLM. This can be helpful in determining what traffic is keeping a call from going down.

Syntax:

lastpacket

This is an informational/diagnostic command only

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erase: Erase/Clear all the filter list in flash

Summary: Deletes all entries from the filter list

Usage: WARNING - This command will immediately delete **all** entries from the filter list. The entire list will be cleared, restoring it to its factory-default state, without warning. Netbios filtering will also be disabled.

Syntax:

erase

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addrfilter: addrfilter <s|e|d> <b|m>

Summary: Use to show|enable|disable Broadcast|Multicast packet routing

Usage: Use this command to display and optionally control (enable/disable) routing of broadcast and/or multicast data packets.

Syntax:

addrfilter e m | Multicast pkts from WAN will be dropped (filter enabled)
addrfilter d m | Multicast pkts from WAN will be forwarded across WAN link

| (filtering disabled)

This command appears to have been added in firmware version 5.3.1

US Domestic firmware release 5.3.1 appears to be the final release.

Click on this link to go to 3Com's OCLM home page:

http://www.3com.com/support/docs/lanmodem/welcome.html

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