



Monitoring Cisco SIP IP Phones

This chapter provides information on the following:

- [How to Use the Command-Line Interface to Monitor Phones](#), page 5-1
- [How to Use the Phone Menus to Access Status Information](#), page 5-18

How to Use the Command-Line Interface to Monitor Phones

You can use Telnet or a console to connect to your Cisco Unified IP Phone 7960G and 7940G, and you can use the command-line interface (CLI) to debug or troubleshoot the phone. [Table 5-1](#) shows the available CLI commands and their syntax.



Note

- You need the phone IP address to use the CLI in a Telnet session. To get the IP address, select **Settings > Network Configuration > IP Address**. The default Telnet password is “cisco.”
- You can conduct only two Telnet sessions at any time.
- The phone cannot originate a Telnet session to another address.

[Table 5-1](#) describes the available commands.

Table 5-1 CLI Commands

Command	Purpose
<pre>SIP Phone> clear {arp ethernet ip-stats malloc mwi reset-log tcp-stats}</pre>	<p>Clears the following, depending on the keywords used:</p> <ul style="list-style-type: none"> • arp—Address Resolution Protocol (ARP) cache. • ethernet—Network statistics. • ip-stats—IP statistics. • malloc—Memory allocation. • mwi—Message-waiting indicator. • reset-log—Cumulative log that has been collected by the phone. • tcp-stats—TCP statistics.
<pre>SIP Phone> debug {arp console-stall cpr-error cdp dsp-keepalive strlib malloc malloctable sk-platform flash dsp vcm dtmf task-socket lsm fsm auth fim gsm cc cc-msg error sip-task sip-state sip-messages sip-reg-state sip-trx dns config sntp sntp-packet http arp-broadcast xml-events xml-deck xml-vars xml-post}</pre>	<p>Shows detailed debug output for the following, depending on the keywords used:</p> <ul style="list-style-type: none"> • arp—ARP cache. • console-stall—Console-stall driver output mode. • cpr-error—Cisco Portable Runtime error conditions • cdp—Cisco Discovery Protocol. • dsp-keepalive—Messaging between the DSP and the main phone control. • strlib—String library. • malloc—Memory allocation. • malloctable—Memory allocation table. The table can be viewed with the show malloctable command. • sk-platform—Platform. • flash—Flash memory information. • dsp—Digital signal processor (DSP) accesses. • vcm—Voice Channel Manager (VCM), including tones, ringing, and volume. • dtmf—Dual-tone multifrequency (DTMF) relay. • task-socket—Socket task. • lsm—Line State Manager. • fsm—Feature State Manager. • auth—SIP authorization state machine. • fim—Feature Interaction Manager. • gsm—Global State Manager. • cc—Call control. • cc-msg—Call-control messages. • error—General error debug output.

Table 5-1 CLI Commands (continued)

Command	Purpose
<p>debug command keywords (continue)</p>	<ul style="list-style-type: none"> • sip-task—SIP task. • sip-state—SIP state machine. • sip-trx—SIP transaction manager. • sip-messages—SIP messaging. • sip-reg-state—SIP registration state machine. • dns—DNS command-line interface (CLI) configuration; allows you to clear the cache and set servers. • config—Output for the config system command. • sntp—Simple Network Time Protocol (SNTP). • sntp-packet—Full SNTP packet data. • http—HTTP requests and responses. • arp-broadcast—ARP broadcast messages. • xml-events—XML events that are posted to the XML application chain. • xml-deck—XML requests for XML cards and decks. • xml-vars—XML content variables. • xml-post—XML post strings. <p>Note Do not use the debug all command because it can cause the phone to become inoperable. This command is for use only by Cisco TAC personnel.</p> <p>Note To turn the debugging off, use the undebug command (works just as does the no debug command).</p>
<p>SIP Phone> dns {-p -c -s ip-address -b ip-address <i>hostname</i>}</p>	<p>Manipulates the DNS. Keywords and arguments are as follows:</p> <ul style="list-style-type: none"> • -p—Prints the DNS cache table. • -c—Clears the DNS cache table. • -s ip-address—Sets the primary DNS server. • -b ip-address—Sets the first backup server. • <i>hostname</i>—perform a DNS lookup for server indicated.
<p>SIP Phone> erase protflash</p>	<p>Erases the protocol area of flash memory. Forces the phone to reset its IP stack and request its configuration files again. This command can be used only if the <code>telnet_level</code> parameter is set to allow privileged commands to be executed.</p>
<p>SIP Phone> exit</p>	<p>Exits the Telnet or console session.</p>

Table 5-1 CLI Commands (continued)

Command	Purpose
SIP Phone> ping <i>ip-address number packet-size timeout</i>	<p>Sends an Internet Control Message Protocol (ICMP) ping to a network address. The arguments are as follows:</p> <ul style="list-style-type: none"> • <i>ip-address</i>—Dotted IP address or alphanumeric address host name to ping. • <i>number</i>—How many pings to send. Default is 5. • <i>packet size</i>—Size of the packet, in bytes. Range is 1 to 1480. Default is 100. • <i>timeout</i>—How long, in seconds, to wait before a request times out. Default is 2.
SIP Phone> register { option value line value }	<p>Instructs the Cisco IP 7960G/7940G to register with the proxy server. The keywords and argument are as follows:</p> <ul style="list-style-type: none"> • option value—Whether each line is registered. Valid values are 0 (unregistered) and 1 (registered). • line value—Registers the number of lines or specifies a backup proxy. Valid values are 1 to 6 and backup (0). For example, if you enter 0, the phone registers to the backup proxy.
SIP Phone> reset	<p>Resets the phone line. This command can be used only if the <code>telnet_level</code> parameter is set to allow privileged commands to be executed.</p>
SIP Phone> show { arp cdp debug ethernet ip strpool memorymap malloc-table stacks status abort_vector flash dspstate rtp tcp lsm fsm fsmdef fsmcnf fsmxfr fim gsm register reset-log network config personaldir dialplan timers } [running all]	<p>Shows information about the SIP IP phone, depending on the keywords used:</p> <ul style="list-style-type: none"> • arp—Contents of the ARP cache. • cdp—Shows VLAN and Voice-VLAN information gathered from the network by the phone using Cisco Discovery Protocol. • debug—Which debug modes are activated. • ethernet—Network statistics. • ip—IP packet statistics. • strpool—String library pool of strings. This command can be used only if the <code>telnet_level</code> parameter is set to allow privileged commands to be executed. • memorymap—Memory mapping table, including free, used, and wasted blocks. • malloc-table—Memory allocation table. • stacks—Tasks and buffer lists. • status—Current phone status, including errors. • abort_vector—Address of the last recorded abort vector.

Table 5-1 CLI Commands (continued)

Command	Purpose
show command keywords (continued)	<ul style="list-style-type: none"> • flash—Flash memory information. • dspstate—DSP status, including whether the DSP is ready, the audio mode, whether keepalive pending is turned on, and the ringer state. • rtp—Packet statistics for the RTP streams. • tcp—Status of TCP ports, including the state (listen or closed) and the port number. • lsm—Current status of the Line State Manager control blocks.
	<ul style="list-style-type: none"> • fsm—Current status of the Feature State Manager function control blocks. • fsmdef—Current status of the Default Feature State Manager data control blocks. • fsmcnf—Current status of the Conference Feature State Manager call control blocks. • fsmxfr—Current status of the Transfer Feature State Manager transfer control blocks. • fim—Current status of the Feature Interaction Manager control blocks (interface control blocks and state control blocks). • gsm—Global State Manager status that includes these parameters: vcm, lsm, fim, fsm, and gsm. • register—Current registration status of SIP lines. • reset-log—Debugging information about the internal state of the phone at the time that it was last restarted. • network—Network information, such as phone platform, DHCP server, phone IP address and subnet mask, default gateway, address of the TFTP server, phone MAC address, domain name, and phone name. • config—Current flash memory configuration, including network information, phone label and password, SNTP server address, DST information, time and date format, and input and output port numbers. • personaldir—Current contents of the personal directory. This command can be used only if the telnet_level parameter is set to allow privileged commands to be executed. • dialplan—Phone dial plan. • timers—Current status of the platform timers. • (Optional) running—Shows the running configuration. • all—Shows all.

Table 5-1 CLI Commands (continued)

Command	Purpose
SIP Phone> test { open close key { <i>k1</i> ... <i>k12</i> } onhook offhook show hide }	Accesses the remote call test interface, allowing you to control the phone from a remote site. This command can be used only if the <code>telnet_level</code> parameter is set to allow privileged commands to be executed. Keywords are as follows: <ul style="list-style-type: none"> • open—Enables the use of the test functionality. • close—Disables the use of the test functionality.
test command keywords (continued)	<ul style="list-style-type: none"> • key—Simulates key presses. The arguments <i>k1</i> through <i>k12</i> are as follows: <ul style="list-style-type: none"> – <i>k1</i>—<code>voldn</code>—Volume down – <i>k2</i>—<code>volup</code>—Volume up – <i>k3</i>—<code>headset</code>—Headset – <i>k4</i>—<code>spkr</code>—Speaker – <i>k5</i>—<code>mute</code>—Mute – <i>k6</i>—<code>info</code>—Info – <i>k7</i>—<code>msgs</code>—Messages – <i>k8</i>—<code>serv</code>—Services – <i>k9</i>—<code>dir</code>—Directories – <i>k10</i>—<code>set</code>—Settings – <i>k11</i>—<code>navup</code>—Navigate up – <i>k12</i>—<code>navdn</code>—Navigate down <p>Note You can enter 0 through 9, #, and * in continuous strings to better express typical dialing strings. A typical command is test key 23234.</p> <ul style="list-style-type: none"> • onhook—Simulates a handset on-hook event. • offhook—Simulates a handset off-hook event. • show—Shows test feedback. • hide—Hides test feedback.

Table 5-1 CLI Commands (continued)

Command	Purpose
SIP Phone> traceroute <i>ip-address</i> [<i>tll</i>]	<p>Initiates a traceroute session from the console or from a Telnet session. Traceroute shows the route that IP datagrams follow from the SIP IP phone to the specified IP address. The arguments are as follows:</p> <ul style="list-style-type: none"> <i>ip-address</i>—Dotted IP address or alphanumeric address (host name) of the host to which you are sending the traceroute. <i>tll</i>—(Optional) Time-to-live value or the number of routers (hops) through which the datagram can pass. Default is 30.
SIP Phone> tty { echo { on off } mon time <i>value</i> kill <i>session</i> msg prompt }	<p>Controls the Telnet system. Arguments and keywords are as follows:</p> <ul style="list-style-type: none"> echo—Controls local echo. Valid values are on and off. mon—Sends all debug output to both the console and the Telnet sessions. time <i>value</i>—Sets the Telnet session timeout period, in seconds. Range is from 0 to 65535. kill <i>session</i>—Tears down the Telnet session specified by the <i>session</i> argument. msg—Sends a message to another terminal logged into the phone; for example, you can send a message telling everyone else that is logged in to log off. prompt—Changes the prompt for a TTY session.

Output Examples

Phone Status

The following sample output shows that the proxy servers are not configured:

```
Phone1> show status

Current Phone Status
-----
W351 unprovisioned proxy_emergency
W350 unprovisioned proxy_backup
```

Telnet Session

The following sample output shows the initial Telnet session using a UNIX server:

```
UNIX% telnet 10.18.10.10

Trying 10.18.10.10...
Connected to 10.18.10.10.

Escape character is '^]'.
Password :*****
```

```
Cisco Systems, Inc. Copyright 2000-2003
Cisco IP phone MAC: 0000:00c0:0d00
Loadid: SW: POS3-05-8-10 ARM: PAS3ARM1 Boot: PC13K030 DSP: PS03AT36
```

TTY Status

The following sample output shows TTY status:

```
Phone1> tty echo on
Current States:
  echo is 1
  mon is 1
  timeout is 3600 seconds
  prompt is anyone>
  level is 2 - Privileged
```

String Pool Configuration

The following sample output shows a string for each node:

```
Phone1> show strpool

node_id  refcount  string
-----  -
1         1         sip:48@10.18.192.230
2         1         sip:48@10.18.192.230
3         1         sip:47@10.18.192.230
4         1         sip:47@10.18.192.230
5         1         sip:46@10.18.192.230
6         1         sip:46@10.18.192.230
7         1         sip:duval@10.18.192.230
8         1         sip:duval@10.18.192.230
9         1         sip:44@10.18.192.230
10        1         sip:44@10.18.192.230
11        1         sip:43@10.18.192.230
12        1         sip:43@10.18.192.230
13        1         1234
14        1         25640
15        1         26295@10.18.192.230
16        1         3333
17        1         user33
18        1         3434
19        1         user34
20        1         3636
21        1         user36
22        1         3737
23        1         user37
24        1         3838
25        1         user38
26        1         53@10.18.192.230
27        1         user53
28        1         54
29        1         user54
30        1         5550100
31        1         user1
32        1         5550101
33        1         5550102
34        1         Fid Mantel
35        1         9195550103
36        1         ciscotest@abccompany
37        1         Fid Mantel
38        1         croquet@abc.sip.com
39        1         handball@abc.sip.com
40        1         PGA
41        1         9195550104
42        1         5550105
```

```

43      1  5550106
44      1  53@10.18.192.230
45      1  user53
46      1  3434
47      1  user34
48      1  3333@10.18.192.230
49      1  3333
50      1  mickelson
51      1  pga tour
52     -1

```

Memory Map

The following sample output shows the memory usage:

```

Phone1> show memorymap

===== MEMORY MAP START =====
free blocks :      11, free block space: 83500, largest free block:  73908
used blocks :     302, used block space: 34944, largest used block:   4016
wasted block:    1252, str_lib space   :  4864
used space excluding str_lib space : 30080

===== MEMORY MAP END =====

```

Memory Stacks and Buffer Lists

The following sample output shows the stacks and buffer sizes:

```

Phone1> show stacks

Use show stacks N where N is the task number

Task: SOC      (26) stkhi=0048b174 stklo=0048b973 Size=2048 Unused=1320
Task: RTP      (25) stkhi=0048b974 stklo=0048c173 Size=2048 Unused=1924
Task: PHN      (24) stkhi=0048c174 stklo=0048d173 Size=4096 Unused=2060
Task: GSM      (23) stkhi=0048d174 stklo=0048e973 Size=6144 Unused=5972
Task: SIP      (22) stkhi=0048e974 stklo=00490973 Size=8192 Unused=3268
Task: GUI      (21) stkhi=00490974 stklo=00491973 Size=4096 Unused=1012
Task: NET      (19) stkhi=00491974 stklo=00492173 Size=2048 Unused=536
Task: CFG      (18) stkhi=00492174 stklo=00492973 Size=2048 Unused=912
Task: TTY      (17) stkhi=00492974 stklo=00493973 Size=4096 Unused=3036
Task: AUD      (16) stkhi=00493974 stklo=00494173 Size=2048 Unused=1724
Task: PTMR     (28) stkhi=00494174 stklo=00494973 Size=2048 Unused=1932
Task: TMR      (27) stkhi=004bb60c stklo=004bbe0b Size=2048 Unused=1652

Buffer Lists:

Lst: SOC      Length:000 Max:006 Head:0x00000000 Tail:0x004bed2c
Lst: PHN      Length:000 Max:001 Head:0x00000000 Tail:0x004beac0
Lst: GSM      Length:000 Max:000 Head:0x00000000 Tail:0x004bee6c
Lst: SIP      Length:000 Max:010 Head:0x00000000 Tail:0x004bee48
Lst: RTP      Length:000 Max:000 Head:0x00000000 Tail:0x004beae4
Lst: CFG      Length:000 Max:003 Head:0x00000000 Tail:0x004bed50
Lst: TTY      Length:000 Max:001 Head:0x00000000 Tail:0x004bea9c
Lst: NET      Length:000 Max:005 Head:0x00000000 Tail:0x004bed74
Lst: PktBuf   Length:010 Max:020 Head:0x0048a974 Tail:0x00486174
Lst: TcpBuf   Length:005 Max:006 Head:0x00480174 Tail:0x0047f174
Lst: SysBuf   Length:040 Max:040 Head:0x0047d374 Tail:0x00479d74
Lst: GuiBufTmr Length:005 Max:005 Head:0x004950b4 Tail:0x00495094
Lst: DSPBuf   Length:030 Max:030 Head:0x00478bd4 Tail:0x00478b74
Lst: DSP_Msg  Length:000 Max:002 Head:0x00000000 Tail:0x004beb98
Lst: DSP_Msg (KA) Length:000 Max:001 Head:0x00000000 Tail:0x004bebbc

```

Abort Vector

The following sample output shows the last recorded abort:

```
Phone1> show abort_vector
```

```
The Last Abort Vector Recorded [0x0]
```

Flash Memory

The following sample output shows the image version that is loaded in flash memory:

```
Phone1> show flash
```

```
APP1: loadid:POS3-05-8-10 apid:PAS3ARM1 flags:80000001 Comp Chksum: OK
      chksum:00003371 applen:00078518 cmpchksum:00005e27 cmplen:0005ce54
APP2: loadid:POS3-05-8-10 apid:PAS3ARM1 flags:80000001 Comp Chksum: OK
      chksum:00003371 applen:00078518 cmpchksum:00005e27 cmplen:0005ce54
DSP:  id:PS03AT36 flags:00000000 Chksum: OK
      chksum:00001c7a applen:00016d90 cmpchksum:00000000 cmplen:00000000
```

DSP Status

The following sample output shows the status of the DSPs:

```
Phone1> show dspstate
```

```
DSP State           : READY
DSP Audio mode      : None
DSP IsStreaming flag : False
Keep Alive Pending  : False
Ringer state        : Off
  number             : 2
  volume (dB)        : -17
Progress tone state : Off
Number of DSP resets since boot : 0
Times DSP was not able to get a buffer: 0
Volumes.. (Range 0 -> 248)
  Speaker - 128
  Headset - 144
  Handset - 144
  Ringer   - 56
```

RTP Status

The following sample output shows the status of RTP:

```
Phone1> show rtp
```

```
RTP Packets Rx: 0
RTP Packets Tx: 0
anyone> show ethernet ?
Ethernet Mib:
-----
ResErr 00000007, RcvCnt 00001831, RcvErr 00000000, DrpCnt 00000007
BrdCst 00001205, TooLng 00000002, TxCnt 00000398, TxQCnt 00000000
TxQue 00000000, TxQMax 00000000, TxXC0l 00000000, TxFram 00000398

Overflow Counters...
UDP 00000000, ICMP 00000000, NonIP 00000000, TCP 00000000
CDP 00000000, Unknown 00000000, Arp 00000000
```

```
Use 'clear ethernet' to clear data
```

TCP Status

The following sample output shows the status of TCP:

```

Phone1> show tcp

Current TCP status...
TCP MIB
Listeners
  Slot State      Port
    1 LISTEN      5888
    2 CLOSED      0000
    3 CLOSED      0000
    4 CLOSED      0000
    5 CLOSED      0000
    6 CLOSED      0000
    7 CLOSED      0000
    8 CLOSED      0000

Connections
  Conn State      Rem Address      RPort LPort
    1 ESTABLISHED  10.70.67.166     56455 00023
    2 LISTEN      10.70.67.166     56451 00023
    3 CLOSED      0.0.0.0          00000 00000
    4 CLOSED      0.0.0.0          00000 00000
    5 CLOSED      0.0.0.0          00000 00000
    6 CLOSED      0.0.0.0          00000 00000
    7 CLOSED      0.0.0.0          00000 00000
    8 CLOSED      0.0.0.0          00000 00000

Statistics
  ActOpens:00000001 PsvOpen:00000001 AttFail:00000000 EstRsts:00000000
  CurrEstab:00000001 InSegs:00000530 OutSegs:00000330 RetransSegs:00000000
  OutPeer:00000011 InErrs:00000000 OutRsts:00000001 PktBufErrs: 00000000

Telnet Stats
Conn#1      Throttles:00000000
Conn#2      Throttles:00000000

```

Dial-Plan Configuration

The following sample output shows the dial plan:

```

Phone1> show dialplan

Dialplan is...
01. Pattern: 0 Rewrite:
   Timeout: 0001 UserMode: Phone RouteMode: Default
02. Pattern: 9,011* Rewrite:
   Timeout: 0006 UserMode: Phone RouteMode: Default
03. Pattern: 9,0 Rewrite:
   Timeout: 0008 UserMode: Phone RouteMode: Default
04. Pattern: 9,11 Rewrite:
   Timeout: 0000 UserMode: Phone RouteMode: Emergency
05. Pattern: w! Rewrite:
   Timeout: 0001 UserMode: Phone RouteMode: Emergency
06. Pattern: 9,.11 Rewrite:
   Timeout: 0000 UserMode: Phone RouteMode: Default
07. Pattern: 9,101..... Rewrite:
   Timeout: 0000 UserMode: Phone RouteMode: Default
08. Pattern: 9,10..... Rewrite:
   Timeout: 0000 UserMode: Phone RouteMode: Default
09. Pattern: 9,10* Rewrite:
   Timeout: 0006 UserMode: Phone RouteMode: Default

```

```

10. Pattern: 9,1..... Rewrite:
    Timeout: 0000 UserMode: Phone RouteMode: Default
11. Pattern: 9000 Rewrite:
    Timeout: 0000 UserMode: Phone RouteMode: Default
12. Pattern: 9,..... Rewrite:
    Timeout: 0000 UserMode: Phone RouteMode: Default
13. Pattern: ..... Rewrite: 91%s
    Timeout: 0015 UserMode: Phone RouteMode: Default
14. Pattern: * Rewrite:
    Timeout: 0015 UserMode: Unspecified RouteMode: Default

```

Personal Directory Configuration

The following sample output shows the entries in the personal directory of the phone:

```

Phone1> show personaldir

0: 28 (L1/T45) 2003/2/27 17:04:29 "1234"
1: 1667 (L1/T45) 2003/7/8 15:10:15 "3333"
2: 42 (L2/T45) 2003/7/8 15:10:23 "3434"
3: 20 (L4/T45) 2003/7/8 15:08:42 "3636"
4: 8 (L5/T45) 2003/7/8 15:08:49 "3737"
5: 35 (L6/T45) 2003/7/8 15:09:02 "3838"
6: 326 (L1/T45) 2003/7/8 11:08:53 "53@10.10.10.0"
7: 65 (L1/T45) 2003/6/26 14:42:49 "54"
8: 53 (L1/T45) 2003/3/31 17:04:17 "5550100"
9: 6 (L1/T45) 2002/12/20 13:42:50 "5550110"
Kazoo-9 Phone
10: 13 (L1/T45) 2002/8/29 16:38:14 "9195550111"
11: 6 (L1/T45) 2002/3/1 12:37:29 "9195550111@abc.com"
Fid Mantel
12: 12 (L1/T45) 2002/1/7 17:42:10 "9195550111"
13: 6 (L1/T45) 2003/7/9 17:07:54 "5550111"
14: 5 (L1/T45) 2002/3/8 17:19:59 "ciscotest@abc.com"
Fid Mantel
15: 41 (L3/T45) 2000/1/5 15:56:17 "croquet@abc.sip.com"
16: 77 (L3/T45) 2000/1/5 15:55:48 "handball@abc.sip.com"
PGA
17: 4 (L1/T45) 2002/5/13 13:16:57 "5550111"
18: 25 (L1/T45) 2002/7/25 10:57:02 "5550111"
5550100
19: 153 (L1/T45) 2002/7/24 15:06:23 "53@10.10.10.10"
20: 8 (L1/T45) 2002/7/23 15:02:52 "3434"
21: 15 (L1/T45) 2002/7/16 10:09:15 "3333@10.10.10.10"
22: 601 (L1/T45) 2002/7/25 18:08:47 "3333"
23: 5 (L3/T45) 2003/7/8 15:10:44 "mickelson"
PGAtour

```

LSM Parameters

The following sample output shows the LSM parameters:

```

Phone1> show lsm

----- LSM lcbs -----
i  call_id  line  state  lcb
-----
0  0         0     IDLE   0x004e1f00
1  0         0     IDLE   0x004e1f14
2  0         0     IDLE   0x004e1f28
3  0         0     IDLE   0x004e1f3c
4  0         0     IDLE   0x004e1f50
5  0         0     IDLE   0x004e1f64

```

FSM Parameters

The following sample output shows the FSM parameters:

```
Phone1> show fsm
```

```
----- FSM fcbs -----
i  call_id  fcb          type          state          dcb          cb
-----
0  0         0x004e2628  UNDEFINED    IDLE           0x00000000  0x00000000
1  0         0x004e2644  UNDEFINED    IDLE           0x00000000  0x00000000
2  0         0x004e2660  UNDEFINED    IDLE           0x00000000  0x00000000
3  0         0x004e267c  UNDEFINED    IDLE           0x00000000  0x00000000
4  0         0x004e2698  UNDEFINED    IDLE           0x00000000  0x00000000
5  0         0x004e26b4  UNDEFINED    IDLE           0x00000000  0x00000000
6  0         0x004e26d0  UNDEFINED    IDLE           0x00000000  0x00000000
7  0         0x004e26ec  UNDEFINED    IDLE           0x00000000  0x00000000
8  0         0x004e2708  UNDEFINED    IDLE           0x00000000  0x00000000
9  0         0x004e2724  UNDEFINED    IDLE           0x00000000  0x00000000
10 0         0x004e2740  UNDEFINED    IDLE           0x00000000  0x00000000
11 0         0x004e275c  UNDEFINED    IDLE           0x00000000  0x00000000
12 0         0x004e2778  UNDEFINED    IDLE           0x00000000  0x00000000
13 0         0x004e2794  UNDEFINED    IDLE           0x00000000  0x00000000
14 0         0x004e27b0  UNDEFINED    IDLE           0x00000000  0x00000000
15 0         0x004e27cc  UNDEFINED    IDLE           0x00000000  0x00000000
16 0         0x004e27e8  UNDEFINED    IDLE           0x00000000  0x00000000
17 0         0x004e2804  UNDEFINED    IDLE           0x00000000  0x00000000
```

FSMDEF Parameters

The following sample output shows the FSMDEF parameters:

```
Phone1> show fsmdef all
```

```
----- FSMDEF dcbs -----
i  call_id  dcb          line
-----
0  0         0x004e1f84  0
1  0         0x004e2084  0
2  0         0x004e2184  0
3  0         0x004e2284  0
4  0         0x004e2384  0
5  0         0x004e2484  0
```

FSMXFR Parameters

The following sample output shows the FSMXFR parameters:

```
Phone1> show fsmxfr
```

```
----- FSMXFR xcbs -----
i  xfr_id  xcb          type  method  xfr_call_id  cns_call_id
-----
0  0         0x004e25c4  0     0       0             0
1  0         0x004e25f0  0     0       0             0
```

FIM Parameters

The following sample output shows the FIM parameters:

```
Phone1> show fim
```

```
----- FIM icbs -----
i  call_id  type  icb          next_chn      next_icb      cb            scb
-----
0  0         HEAD  0x004e2878  0x004e28c8   0x004e288c   0x00000000   0x004e282c
1  0         CNF   0x004e288c  0x00000000   0x004e28a0   0x00000000   0x004e283c
2  0         XFR   0x004e28a0  0x00000000   0x004e28b4   0x00000000   0x004e284c
3  0         DEF   0x004e28b4  0x00000000   0x00000000   0x00000000   0x004e285c
4  0         HEAD  0x004e28c8  0x004e2918   0x004e28dc   0x00000000   0x004e282c
5  0         CNF   0x004e28dc  0x00000000   0x004e28f0   0x00000000   0x004e283c
6  0         XFR   0x004e28f0  0x00000000   0x004e2904   0x00000000   0x004e284c
7  0         DEF   0x004e2904  0x00000000   0x00000000   0x00000000   0x004e285c
8  0         HEAD  0x004e2918  0x004e2968   0x004e292c   0x00000000   0x004e282c
9  0         CNF   0x004e292c  0x00000000   0x004e2940   0x00000000   0x004e283c
10 0         XFR   0x004e2940  0x00000000   0x004e2954   0x00000000   0x004e284c
11 0         DEF   0x004e2954  0x00000000   0x00000000   0x00000000   0x004e285c
12 0         HEAD  0x004e2968  0x004e29b8   0x004e297c   0x00000000   0x004e282c
13 0         CNF   0x004e297c  0x00000000   0x004e2990   0x00000000   0x004e283c
14 0         XFR   0x004e2990  0x00000000   0x004e29a4   0x00000000   0x004e284c
15 0         DEF   0x004e29a4  0x00000000   0x00000000   0x00000000   0x004e285c
16 0         HEAD  0x004e29b8  0x004e2a08   0x004e29cc   0x00000000   0x004e282c
17 0         CNF   0x004e29cc  0x00000000   0x004e29e0   0x00000000   0x004e283c
18 0         XFR   0x004e29e0  0x00000000   0x004e29f4   0x00000000   0x004e284c
19 0         DEF   0x004e29f4  0x00000000   0x00000000   0x00000000   0x004e285c
20 0         HEAD  0x004e2a08  0x00000000   0x004e2a1c   0x00000000   0x004e282c
21 0         CNF   0x004e2a1c  0x00000000   0x004e2a30   0x00000000   0x004e283c
22 0         XFR   0x004e2a30  0x00000000   0x004e2a44   0x00000000   0x004e284c
23 0         DEF   0x004e2a44  0x00000000   0x00000000   0x00000000   0x004e285c
```

```
----- FIM scbs -----
i  type  scb          sm          get_cb       free_cb
-----
0  HEAD  0x004e282c  0x00000000  0x00000000  0x00000000
1  CNF   0x004e283c  0x004c0ca8  0x00457bcf  0x0044e291
2  XFR   0x004e284c  0x004c1414  0x00457bcf  0x0043f755
3  DEF   0x004e285c  0x004bf28c  0x00457bcf  0x0042896b
```

Registration Assignments

The following sample output shows the registration of the proxy ports:

```
Phone1> show register
```

```
LINE REGISTRATION TABLE
```

```
Proxy Registration: ENABLED, state: REGISTERED
```

```
line  APR  state      timer      expires    proxy:port
-----
1     .11  REGISTERED 3595      2539      10.18.192.230:5060
2     .11  REGISTERED 3595      2539      10.18.192.230:5060
3     .11  REGISTERED 3595      2539      10.18.192.230:5060
4     .11  REGISTERED 3595      2540      10.18.192.230:5060
5     .11  REGISTERED 3595      2543      10.18.192.230:5060
6     .11  REGISTERED 3595      2543      10.18.192.230:5060
1-BU .1x  NONE       0          0          undefined:0
```

Note: APR is Authenticated, Provisioned, Registered

Network Flash Configuration

The following sample output shows the network configuration that resides in flash memory:

```
Phone1> show network

----- Network *FLASH* Configuration -----

Platform : Cisco IP Phone 7960
Elapsed Time: 00:17:57

dhcp_server : 10.18.192.230
my_ip_addr : 10.18.199.14
subnet_mask : 255.255.255.0
defaultgw : 10.18.199.1
dyn_dns_addr_1 : 0.0.0.0
dyn_dns_addr_2 : 0.0.0.0
dns_addr : 10.18.192.48
tftp_addr : 10.10.92.150
dyn_tftp_addr : 0.0.0.0
my_mac_addr : 0030:94c2:5d40
domain_name : sip.com
my_name : SIP003094C25D40
Status Flags : 12300000
```

Running Network Configuration

The following sample output shows the running configuration:

```
Phone1> show network running

----- Network *RUNNING* Configuration -----

Platform : Cisco IP Phone 7960
Elapsed Time: 00:18:11

dhcp_server : 10.18.192.230
my_ip_addr : 10.18.199.14
subnet_mask : 255.255.255.0
defaultgw : 10.18.199.1
dyn_dns_addr_1 : 0.0.0.0
dyn_dns_addr_2 : 0.0.0.0
dns_addr : 10.18.192.48
tftp_addr : 10.102.92.150
dyn_tftp_addr : 0.0.0.0
my_mac_addr : 0030:94c2:5d40
domain_name : sip.com
my_name : SIP003094C25D40
Status Flags : 12300000
```

ARP Table

The following sample output shows the ARP table by IP address:

```
Phone1> show arp

Arp Table:
[00] IPAddr: 10.18.199.14 PortCnt: 0001 MacAddr: 0030:94c2:5d40
      Type: 00000001 GTick:00001287 LastTry: 00000000
      Mode: 00000001 Update: 00000000

[01] IPAddr: 10.18.199.1 PortCnt: 0001 MacAddr: 0000:0c07:ac08
      Type: 00000001 GTick:00001287 LastTry: 00001287
      Mode: 00000001 Update: 00000000
```

Flash Configuration

The following sample output shows the flash memory configuration:

```

Phone1> show config

----- Current *FLASH* Configuration -----

Platform : Cisco IP Phone 7960
Elapsed Time: 00:18:32

dhcp_server : 10.18.192.230
my_ip_addr : 10.18.199.14
subnet_mask : 255.255.255.0
defaultgw : 10.18.199.1
dyn_dns_addr_1 : 0.0.0.0
dyn_dns_addr_2 : 0.0.0.0
dns_addr : 10.18.192.48
tftp_addr : 10.10.92.150
dyn_tftp_addr : 0.0.0.0
my_mac_addr : 0030:94c2:5d40
domain_name : sip.com
my_name : SIP003094C25D40
Status Flags : 12300000

image_version : "P0S3-05-8-10"
FirmLoadID : "PC13K030"
DSPLoadID : "PS03AT36"
network_media_type : Half10
network_port2_type : Hub/Switch
tos_media : 5
phone_label : "user4X"
tftp_cfg_dir : "/"
phone_password : *****
phone_prompt : "Phone1"
language : english
sntp_mode : DirectedBroadcast
sntp_server : 10.10.10.150
time_zone : EST
dst_offset : 1
dst_start_month : April
dst_start_day : 0
dst_start_day_of_week : Sun
dst_start_week_of_month : 1
dst_start_time : 02
dst_stop_month : Oct
dst_stop_day : 0
dst_stop_day_of_week : Sunday
dst_stop_week_of_month : 8
dst_stop_time : 2
dst_auto_adjust : 1
time_format_24hr : 1
date_format : M/D/Y
nat_enable : 0
nat_address : UNPROVISIONED
voip_control_port : 5060
start_media_port : 16384
end_media_port : 32766
sync : "1"
xml_card_dir : ""
xml_card_file : "CARD.XML"
telnet_level : 2
services_url : "http://10.10.149.2/ciscodir/directory.xml"
directory_url : "http://10.10.93.154/CiscoServices/Directory.asp"

```

```
logo_url : "http://10.10.207.20/projects/phone/company.bmp"
http_proxy_addr : UNPROVISIONED
http_proxy_port : 80
enable_vad : 1
dial_template : "dialplan"
callerid_blocking : 0
anonymous_call_block : 0
autocomplete : 1
messages_uri : "1234567"
dnd_control : 0
preferred_codec : g729a
dtmf_outofband : avt
dtmf_avt_payload : 101
dtmf_db_level : 3
line1_name : "43"
line2_name : "44"
line3_name : "duval"
line4_name : "46"
line5_name : "47"
line6_name : "48"
line1_authname : "UNPROVISIONED"
line2_authname : "UNPROVISIONED"
line3_authname : "UNPROVISIONED"
line4_authname : "UNPROVISIONED"
line5_authname : "UNPROVISIONED"
line6_authname : "UNPROVISIONED"
line1_password : *****
line2_password : *****
line3_password : *****
line4_password : *****
line5_password : *****
line6_password : *****
line1_shortcode : "UNPROVISIONED"
line2_shortcode : "UNPROVISIONED"
line3_shortcode : "UNPROVISIONED"
line4_shortcode : "UNPROVISIONED"
line5_shortcode : "UNPROVISIONED"
line6_shortcode : "UNPROVISIONED"
line1_displayname : "user43"
line2_displayname : "user44"
line3_displayname : "pgatour"
line4_displayname : "user46"
line5_displayname : "user47"
line6_displayname : "user48"
proxy1_address : "10.10.10.0"
proxy2_address : "10.10.10.0"
proxy3_address : "10.10.10.0"
proxy4_address : "10.10.10.0"
proxy5_address : "10.10.10.0"
proxy6_address : "10.10.10.0"
proxy1_port : 5060
proxy2_port : 5060
proxy3_port : 5060
proxy4_port : 5060
proxy5_port : 5060
proxy6_port : 5060
sip_retx : 10
sip_invite_retx : 6
timer_t1 : 2000
timer_t2 : 4000
timer_invite_expires : 180
timer_register_expires : 3600
proxy_register : 1
proxy_backup : ""
```

```

proxy_emergency : "UNPROVISIONED"
proxy_backup_port : 6060
proxy_emergency_port : 5060
outbound_proxy : UNPROVISIONED
outbound_proxy_port : 5060
nat_received_processing : 0
mwi_status : 0
call_waiting : 1
user_info : none
cnf_join_enable : 1
remote_party_id : 0
semi_attended_transfer : 1
call_hold_ringback : 0
cfwd_url : ""
call_stats : 0
auto_answer : 0
speed_line2 : ""
speed_label2 : ""
speed_line3 : ""
speed_label3 : ""
speed_line4 : ""
speed_label4 : ""
speed_line5 : ""
speed_label5 : ""
speed_line6 : ""
speed_label6 : ""

```

IP Statistics

The following sample output shows the IP statistics:

```
Phone1> show ip
```

```
IP Statistics:
```

```

-----
Received    00002623, RxDrops      00000006
RxFrags     00000000, RxFragDrops 00000000, RxReassembled 00000000
Transmitted 00000869, TxDrops      00000000, TxFragments  00000000

```

```
Use 'clear ip' to clear data
```

How to Use the Phone Menus to Access Status Information

You can access several types of status information using the Settings button. The information that you can obtain can aid in system management and diagnosis of network problems. This section contains the following:

- [Viewing Status Messages, page 5-19](#)
- [Viewing Network Statistics, page 5-19](#)

Viewing Status Messages

You can view status messages that you can use to diagnose network problems.

Procedure

-
- Step 1** Select **Settings > Status > Status Messages**. The Status Messages menu displays.
- Step 2** View information as needed.
- Step 3** Select **Exit**.
-

Viewing Network Statistics

You can view statistics about the phone and network performance.

Procedure

-
- Step 1** Select **Settings > Status > Network Statistics**. The Network Statistics menu displays.
- Step 2** View the following information as needed:
- Rcv—Number of packets received by the phone, not through the switch.
 - Xmit—Number of packets sent by the phone, not through the switch.
 - REr—Number of packets received by the phone that contained errors.
 - BCast—Number of broadcast packets received by the phone.
 - Phone State Message—TCP messages that indicate the state of the phone. The following are possible messages:
 - Phone Initialized—TCP connection has not gone down since the phone was powered on.
 - Phone Closed TCP—TCP connection was closed by the phone.
 - TCP Timeout—TCP connection was closed because of a retry timeout.
 - Error Code—Error messages that indicate unusual reasons for which the TCP connection was closed.
 - Elapsed Time—Length of time (in days, hours, minutes, and seconds) since the last power cycle.
 - Port 0 Full, 100—Indication that the network is in a linked state and has autonegotiated a full-duplex 100-Mbps connection.
 - Port 0 Half, 100—Indication that the network is in a linked state and has autonegotiated a half-duplex 100-Mbps connection.
 - Port 0 Full, 10—Indicates that the network is in a linked state and has autonegotiated a full-duplex 10-Mbps connection.
 - Port 0 Half, 10—Indication that the network is in a linked state and has autonegotiated a half-duplex 10-Mbps connection.
 - Port 1 Full, 100—Indication that the network is in a linked state and has autonegotiated a full-duplex 100-Mbps connection.

- Port 1 Half, 100—Indication that the network is in a linked state and has autonegotiated a half-duplex 100-Mbps connection.
- Port 1 Full, 10—Indication that the network is in a linked state and has autonegotiated a full-duplex 10-Mbps connection.
- Port 1 Half, 10—Indication that the network is in a linked state and has autonegotiated a half-duplex 10-Mbps connection.

Step 3 Select **Exit**.



Note To reset the values, power the phone off and on.
