Control Messages

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This appendix provides samples of control message packet captures and session states. The following topics are included:

Session Up State

Enter the following command to view session states.

Cisco_nas#: **show subsc sess all**

Figure 1 shows output for the show subscriber sessions all command.

Figure 1 Show subscriber sessions command output

```
Cisco_nas#: show subsc sess all
Current Subscriber Information: Total sessions 1
------------------------------------------------
Unique Session ID: 1Identifier: mlentoSIP
subscriber access type(s): Serial/PPPCurrent
SIP options: Req Fwding/Req Fwded
Session Up-time: 00:04:32, Last Changed: 00:04:33
AAA unique ID: 1
Interface: Serial2/0

Policy information:
  Context 03430260: Handle 86000001
  Authentication status: authen
  User profile, excluding services:
    Framed-Protocol      1 [PPP]
    service-type         2 [Framed]
    idletime             999 (0x3E7)
  Prepaid context: not present

Session outbound features:
 Feature: PPP Idle Timeout
  Timeout value is 999
  Idle time is 00:00:54
Configuration sources associated with this session:
Interface: Serial2/0, Active Time = 00:04:36
```

Policy Directive

This section shows an example of a policy directive set up to capture specified packets. It includes the **show** command you can use to display the results of the packet capture.

This section includes the following topics:

Policy Directive Packet Capture

Figure 2 shows the policy directive packet capture configuration.

Figure 2 Policy Directive Packet Capture Configuration

```
22:05:12.930216 192.168.1.5.1700 > 192.168.1.3.1700: [bad udp cksum f0ff!]
udp 66 (ttl 255, id 2, len 94)
0x0000   4500 005e 0002 0000 ff11 3834 c0a8 0105        E..^......84....
0x0010   c0a8 0103 06a4 06a4 004a 467f 2b00 0042        .........JF.+..B
0x0020   3f51 e79e 69ac e0a7 1eda e2ab ff98 17e5        ?Q..i...........
0x0030   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0040   311a 0900 0000 09fc 0317 1a14 0000 0009        1...............
0x0050   010e 6970 3a69 6e61 636c 3d61 636c              ..ip:inacl=acl
22:05:13.590315 192.168.1.3.1700 > 192.168.1.5.1700: [udp sum ok] udp 20 (ttl
255, id 3, len 48)
0x0000   4500 0030 0003 0000 ff11 3861 c0a8 0103        E..0......8a....
0x0010   c0a8 0105 06a4 06a4 001c 9eff 2c00 0014        ............,...
0x0020   f6bd bfbc a14b 8912 f175 58b1 a886 d07a        .....K...uX....z
```

Policy Directive Resulting State

Enter the following command to view session states for the policy directive packet capture output results.

Cisco_nas#: **show subsc sess all**

Figure 3 shows output for this command.

Figure 3 Policy Directive Packet Capture Output Results

```
Cisco_nas#: show subsc sess all
Current Subscriber Information: Total sessions 1
------------------------------------------------
Unique Session ID: 1
Identifier: kwoodward
SIP subscriber access type(s): Serial/PPP
Current SIP options: Req Fwding/Req Fwded
Session Up-time: 00:09:33, Last Changed: 00:00:42
AAA unique ID: 1
Interface: Serial2/0

Policy information:
  Context 03430260: Handle 86000001
  Authentication status: authen
  User profile, excluding services:
    Framed-Protocol      1 [PPP]
    service-type         2 [Framed]
    idletime             999 (0x3E7)
    ssg-account-info     "S10.0.2.1"
    inacl                "acl"
  Prepaid context: not present


Session inbound features:
 Feature: Access lists
  Active IP access list:
  acl
Session outbound features:
 Feature: PPP Idle Timeout
  Timeout value is 999
  Idle time is 00:00:57
Configuration sources associated with this session:
Interface: Serial2/0, Active Time = 00:09:36
```

Service Activate

This section shows an example of a service activation setup to capture specified packets. It includes the **show** command you can use to display the results of the packet capture.

This section includes the following topics:

Service Activation Packet Capture

Figure 4 shows the service activation packet capture configuration.

Figure 4 Service Activation Packet Capture Configuration

```
22:16:54.128008 192.168.1.5.1700 > 192.168.1.3.1700: [bad udp cksum 9e52!]
udp 53 (ttl 255, id 3, len 81)
0x0000   4500 0051 0003 0000 ff11 3840 c0a8 0105        E..Q......8@....
0x0010   c0a8 0103 06a4 06a4 003d 4d16 2b01 0035        .........=M.+..5
0x0020   dbe6 8ec4 cf70 8d5f fc78 954a e441 b5c2        .....p._.x.J.A..
0x0030   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0040   311a 1000 0000 09fc 0a0b 7365 7276 6963        1.........servic
0x0050   65                                             e
22:16:55.407865 192.168.1.3.1700 > 192.168.1.5.1700: [bad udp cksum e6dc!]
udp 53 (ttl 255, id 5, len 81)
0x0000   4500 0051 0005 0000 ff11 383e c0a8 0103        E..Q......8>....
0x0010   c0a8 0105 06a4 06a4 003d 4b5c 2c01 0035        .........=K\,..5
0x0020   5e2f 0460 3093 716c c683 f672 0586 a47a        ^/.`0.ql...r...z
0x0030   1a10 0000 0009 fc0a 0b73 6572 7669 6365        .........service
0x0040   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0050   31                                             1
```

Service Activation Resulting State

Enter the following command to view session states for the service activation packet capture output:

Cisco_nas#: **show subsc sess all**

Figure 5 shows output for this command.

Figure 5 Service Activation Packet Capture Output

```
Cisco_nas#: show subsc sess all
Current Subscriber Information: Total sessions 1
------------------------------------------------
Unique Session ID: 1
Identifier: mkinnear
SIP subscriber access type(s): Serial/PPP
Current SIP options: Req Fwding/Req Fwded
Session Up-time: 00:20:46, Last Changed: 00:00:13
AAA unique ID: 1
Interface: Serial2/0

Policy information:
  Context 03430260: Handle 86000001
  Authentication status: authen
  User profile, excluding services:
    Framed-Protocol      1 [PPP]
    service-type         2 [Framed]
    idletime             999 (0x3E7)
    ssg-account-info     "S10.0.2.1"
    inacl                "acl"
  Active services associated with session:
    name "service"
  Prepaid context: not present

Session inbound features:
 Feature: Access lists
  Active IP access list:
  acl
Feature: Policing
 Upstream Params:
Average rate = 10000, Normal burst = 5000, Excess burst = 6000
Config level = Service

Session outbound features:
 Feature: PPP Idle Timeout
  Timeout value is 999
  Idle time is 00:00:08
Feature: Policing
 Dnstream Params:
Average rate = 10000, Normal burst = 5000, Excess burst = 6000
Config level = Service

Configuration sources associated with this session:
Service: service, Active Time = 00:00:14
Interface: Serial2/0, Active Time = 00:20:48
```

Service Deactivate

This section shows an example of a service deactivation set up to capture specified packets. It includes the **show** command you can use to display the results of the packet capture.

This section includes the following topics:

Service Deactivation Packet Capture

Figure 6 shows the service deactivation packet capture configuration.

Figure 6 Service Deactivation Packet capture configuration

```
22:22:05.971548 192.168.1.5.1700 > 192.168.1.3.1700: [bad udp cksum 9e53!]
udp 53 (ttl 255, id 6, len 81)
0x0000   4500 0051 0006 0000 ff11 383d c0a8 0105        E..Q......8=....
0x0010   c0a8 0103 06a4 06a4 003d e416 2b02 0035        .........=..+..5
0x0020   87fa 0569 084e d4a8 80b1 843f 4cbc a039        ...i.N.....?L..9
0x0030   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0040   311a 1000 0000 09fc 0a0c 7365 7276 6963        1.........servic
0x0050   65                                             e
22:22:06.201450 192.168.1.3.1700 > 192.168.1.5.1700: [bad udp cksum e6dc!]
udp 53 (ttl 255, id 7, len 81)
0x0000   4500 0051 0007 0000 ff11 383c c0a8 0103        E..Q......8<....
0x0010   c0a8 0105 06a4 06a4 003d 7e09 2c02 0035        .........=~.,..5
0x0020   e833 1dae a8a6 cca6 d3b5 83cd 5557 0fce        .3..........UW..
0x0030   1a10 0000 0009 fc0a 0c73 6572 7669 6365        .........service
0x0040   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0050   31                                             1
```

Service Deactivation Resulting State

Enter the following command to view session states for the service activation packet capture output:

Cisco_nas#: **show subsc sess all**

Figure 7 shows output for this command.

Figure 7 Service Deactivation Packet Capture Output

```
Cisco_nas#: show subsc sess all
Current Subscriber Information: Total sessions 1
------------------------------------------------
Unique Session ID: 1
Identifier: gross
SIP subscriber access type(s): Serial/PPP
Current SIP options: Req Fwding/Req Fwded
Session Up-time: 00:26:31, Last Changed: 00:00:47
AAA unique ID: 1
Interface: Serial2/0

Policy information:
  Context 03430260: Handle 86000001
  Authentication status: authen
  User profile, excluding services:
    Framed-Protocol      1 [PPP]
    service-type         2 [Framed]
    idletime             999 (0x3E7)
    ssg-account-info     "S10.0.2.1"
    inacl                "acl"
  Prepaid context: not present
Session inbound features:
 Feature: Access lists
  Active IP access list:
  acl
Session outbound features:
 Feature: PPP Idle Timeout
  Timeout value is 999
  Idle time is 00:00:55
Configuration sources associated with this session:
Interface: Serial2/0, Active Time = 00:26:34
```

Session Disconnect

This section shows an example of a service disconnect setup to capture specified packets.

Figure 8 shows the service disconnect packet capture configuration.

Figure 8 Service Disconnect Packet Capture Configuration

```
22:24:31.683085 192.168.1.5.1700 > 192.168.1.3.1700: [bad udp cksum eaf9!]
udp 46 (ttl 255, id 8, len 74)
0x0000   4500 004a 0008 0000 ff11 3842 c0a8 0105        E..J......8B....
0x0010   c0a8 0103 06a4 06a4 0036 342c 2b03 002e        .........64,+...
0x0020   64e9 312e d6cc 3a0d f3fc 455f 391b b520        d.1...:...E_9...
0x0030   1a11 0000 0009 fa0b 5331 302e 302e 322e        ........S10.0.2.
0x0040   311a 0900 0000 09fc 0302                       1.........
22:24:31.962954 192.168.1.3.1700 > 192.168.1.5.1700: [bad udp cksum 688f!]
udp 46 (ttl 255, id 9, len 74)
0x0000   4500 004a 0009 0000 ff11 3841 c0a8 0103        E..J......8A....
0x0010   c0a8 0105 06a4 06a4 0036 a1cc 2c03 002e        .........6..,...
0x0020   7f40 d49c fa48 429d f6ed a843 0372 733b        .@...HB....C.rs;
0x0030   1a09 0000 0009 fc03 021a 1100 0000 09fa        ................
0x0040   0b53 3130 2e30 2e32 2e31                       .S10.0.2.1
```