Show Commands

debug

Syntax **debug** [*application*]

Context show

Description This command displays the debug points that have been set.

Parameters *application* — Specifies the application debug points that have been set.

Values aaa, application-assurance, atm, bgp, cisco-hdlc, cmpv2, diameter, ethernet, filter, frame-relay, igmp, ip, ipsec, isis, l2tp, lag, ldp, local-dhcp-server, mcast-management, mirror, mld, mpls, msdp, mtrace, nat, oam, ocsp, open-flow, ospf, ospf3, pim, ppp, radius, radius-proxy, rip, ripng, rsvp, service, snmp, srrp, subscriber-mgmt, system, vrrp, wlan-gw, wpp

application-assurance-group

Syntax **application-assurance-group** [*aa-group-id* [**load-balance** [**unassigned**]]]

Context show>isa

Description This command displays ISA group information.

Parameters *aa-group-id* — Specifies the AA ISA group ID.

load-balance — Specifies load balancing information.

unassigned — Specifies load balancing unassigned aa-sub information.

Output **Show Command Output —** The following table describes the show command output fields:

Label	Description
ISA-AA Group Index	Indicates the group number of this group of MDAs.
Description	
Primary ISA-AA	Displays the primary slot and card number and whether the status is up or down and is either active or standby.
Backup ISA-AA	Displays the backup slot and card number and whether the status is up or down and is either active or standby. The status should be up and standby.
Last Active change	Indicates the last time a successful change was performed.
Admin State	Displays the administrative state, up or down.

Oper State	Displays the operational state, up or down.
Diverted FCs	Displays the forwarding class to be diverted.
Fail to mode	Displays how traffic is handled when there are no available ISA-AA cards to handle the traffic, either failToWire or failToOpen.
Partitions	Indicates whether partitions are enabled or **disabled** within an ISA-AA group. When the value of this object is set to **enabled**, partitions can be created in the tmnxBsxAaGrpPartTable.
Egress **from** subscriber	
Pool	Displays the buffer pool as defined in TIMETRA-PORT-MIB::tmnxObjectAppPool for subscriber to network traffic egressing towards the ISA-AA MDA.
Reserved Cbs	Displays the percentage of the buffer pool reserved for high priority traffic for subscriber to network traffic egressing towards the ISA-AA MDA.
Slope Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tSlopePolicyTable for subscriber to network traffic egressing towards the ISA-AA MDA.
Queue Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tNetworkQueueTable for subscriber to network traffic egressing towards the ISA-AA MDA.
Scheduler Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tSlopePolicyTable for network to subscriber traffic egressing towards the ISA-AA MDA
Egress **to** subscriber	
Pool	Displays the buffer pool as defined in TIMETRA-PORT-MIB::tmnxObjectAppPool for network to subscriber traffic egressing towards the ISA-AA MDA.
Reserved Cbs	Displays the percentage of the buffer pool reserved for high priority traffic for network to subscriber traffic egressing towards the ISA-AA MDA.
Slope Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tSlopePolicyTable for network to subscriber traffic egressing towards the ISA-AA MDA.
Queue Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tNetworkQueueTable for network to subscriber traffic egressing towards the ISA-AA MDA.
Scheduler Policy	Displays the policy as defined in TIMETRA-QOS-MIB::tSchedulerPolicyTable for network to subscriber traffic egressing towards the ISA-AA MDA.

Sample Output

```
A:ALU>show>isa# application-assurance-group 1
===============================================================================
ISA Application-assurance-groups
===============================================================================
ISA-AA Group Index   : 1
Description          : Test
Primary ISA-AA       : 2/1 up/active                          (7 subs, 9 saps)
                     : 3/2 up/active                          (6 subs, 8 saps)
Backup ISA-AA        : 1/1 up/standby
Last Active change   : 01/30/2009 20:14:37
Admin State          : Up
Oper State           : Up
Diverted FCs         : be l2
Fail to mode         : fail-to-wire       Partitions: disabled
QoS
  Egress from subscriber
    Pool             : default
      Reserved Cbs   : 50 percent

      Slope Policy   : aa_spol1
    Queue Policy     : aa_nqpolEgr
    Scheduler Policy : aa_pspFrmSub
  Egress to subscriber
    Pool             : default
      Reserved Cbs   : 50 percent

      Slope Policy   : aa_spol1
    Queue Policy     : aa_nqpolEgr
    Scheduler Policy : aa_pspToSub
===============================================================================
A:ALU>show>isa#


A:ALA-IPD# show isa application-assurance-group <aa-group-id> load-balance
===============================================================================
ISA Application-assurance-group <aa-group-id>
===============================================================================
load-balance status         : Complete | Balancing
isa-capacity-cost-threshold : low  40,000
                              high 50,000
-------------------------------------------------------------------------------
                 capacity-cost  aa-sub      aa-sub stats spoke-sdp transit-ip
                                count       count         entries     entries
-------------------------------------------------------------------------------
 1/1             6              6           60            0           0
 3/1             5              5           48            0           0
 Mda Limit       NA             1024        32768         1024        1024
===============================================================================
aa-sub type count for group 2
===============================================================================
                 all         esm         sap         spoke-sdp   transit
-------------------------------------------------------------------------------
 1/1             6           3           3           0             0
 3/1             5           3           2           0             0
 Unassigned      0           0           0           0             0
...
===============================================================================
A:ALA-IPD#


*A:Dut-C# show isa application-assurance-group 84 load-balance unassigned
```

```
===============================================================================
ISA Application-assurance-group 84 unassigned
===============================================================================
type      SvcId      aa-sub                        App-Profile
-------------------------------------------------------------------------------
esm       2          Sub1                          Cost30
esm       50         Sub2                          Cost31
sap       29         2/1/10:527                    Cost29
sap       30         2/1/10:528                    Cost29
sap       31         2/1/10:529                    Cost29
sap       31         2/1/10:530                    Cost29
sap       31         2/1/10:531                    Cost29
sap       32         2/1/10:546                    Cost29
sap       32         2/1/10:547                    Cost29
sap       33         2/1/10:548                    Cost29
spoke     201        199:10                        Cost27
spoke     202        199:17                        Cost10
spoke     202        199:18                        Cost10
spoke     202        199:19                        Cost10
===============================================================================
*A:Dut-C#
```

aarp

Syntax **aarp**
aarp *aarpId* [**detail**]

Context show>app-assur

Description This command displays Application Assurance Redundancy Protocol (AARP) instance status

Parameters *aarpId* — Specifies an integer that identifies an AARP instance

Values 1 — 65535

detail — Displays detailed information.

group

Syntax **group** *aa-group-id* [:*partition-id*]

Context show>app-assure

Description This command enables the context to display application-assurance group information.

Parameters *aa-group-id* — Specifies an AA ISA group ID.

Values 1

partition-id — Specifies a partition within a group.

Values 1 — 65535

aa-interface

Syntax **aa-interface isa** *mda-id*

Context show>app-assure>group

Description This command displays AA interface information.

Parameters *mda-id* — Specifies the MDA ID.

Values

<mda-id>	<slot>/<mda>
slot	[1..10] (depending on platform)
mda	[1..2]

aa-sub

Syntax **aa-sub esm** *sub-ident-string* [**snapshot**]
aa-sub sap *sap-id*
aa-sub spoke-id *sdp-id:vc-id* [**snapshot**]
aa-sub transit *transit-aasub-name* [**snapshot**]

Context show>app-assure>group

Description This command displays per-subscriber statistics.

Parameters **esm** *sub-ident-string* — Specifies an existing subscriber identification string.

sap *sap-id* — Specifies the physical port identifier portion of the SAP definition. Refer to Appendix A: Common CLI Command Descriptions on page 1055 for syntax.

spoke-id *sdp-id:vc-id* — Specifies the spoke SDP ID and VC ID.

Values 1 — 17407
1 — 4294967295

snapshot — Specifies that the statistics retrieved include the sum of the statistics from the previous collection windows, and the statistics for any closed flows since the last collection window.

transit *transit-aasub-name* — Specifies an existing transit subscriber name string up to 32 characters in length.

Sample Output

```
*A:Dut-C# show application-assurance group 1 aa-sub spoke-sdp 1:1 snapshot applica-
tion count
===============================================================================
Application-Assurance Subscriber 1:1 (spoke-sdp)
Application Statistics (snapshot)
===============================================================================
Application                    Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
Unknown                          0% 0               0             0
===============================================================================
*A:Dut-C#


A:ALA-IPD# show application-assurance group 1 aa-sub {esm <sub-ident-string> |
sap <sap-id> | spoke-sdp <sdp-id:vc-id> | transit <transit-aasub-name>} summary
```

```
===============================================================================
Application-Assurance Subscriber summary (realtime | snapshot)
===============================================================================
AA-Subscriber       : 1:1 (spoke-sdp)
ISA assigned        : 3/1
App-Profile         : app_prof_D_4
App-Profile divert  : Yes
Capacity cost       : 1
-------------------------------------------------------------------------------
Traffic                   Octets            Packets         Flows
-------------------------------------------------------------------------------
Admitted from subscriber: 0                 0               0
Denied from subscriber:   0                 0               0
Active flows from subscriber:                               0
Admitted to subscriber:   0                 0               0
Denied to subscriber:     0                 0               0
Active flows to subscriber:                                 0
Total flow duration:      0 seconds
Terminated flows:                                           0
Short Duration flows:                                       0
Medium Duration flows:                                      0
Long Duration flows:                                        0

Top App-Groups            Octets            Packets         Flows
-------------------------------------------------------------------------------
<app-group-name>          100000            3000            30
<app-group-name>          90000             3000            30
<app-group-name>          80000             3000            30
===============================================================================
A:ALA-IPD#

A:ALA-IPD# show application-assurance group 1 aa-sub transit <transit-aasub-name>
summary
===============================================================================
Application-Assurance Subscriber summary (realtime | snapshot)
===============================================================================
AA-Subscriber        : <transit-aasub-name>
App-Profile          : <app-profile-name>

aa-filter            : aa-ip <aa-ip-filter-id> or aa-prefix <aa-prefix-filter-id>
    Parent               : SAP <sap-id> or Spoke-SDP <id> or N/A
    Parent ISA assigned  : <Slot/MDA> or <None (fail-to-closed | fail-to-open)> or
Unassigned or N/A
    Parent app-profile   : <app-profile-name> or N/A
    Parent divert        : Yes or No or N/A
    Parent capacity-cost : 2000 or N/A
Traffic                   Octets            Packets         Flows
-------------------------------------------------------------------------------
Admitted from subscriber: 0                 0               0
Denied from subscriber:   0                 0               0
Active flows from subscriber:                               0
Admitted to subscriber:   0                 0               0
Denied to subscriber:     0                 0               0
Active flows to subscriber:                                 0
Total flow duration:      0 seconds
Terminated flows:                                           0
Short Duration flows:                                       0
Medium Duration flows:                                      0
Long Duration flows:                                        0

Top App-Groups            Octets            Packets         Flows
```

```
-------------------------------------------------------------------------------
<app-group-name>          100000            3000           30
<app-group-name>          90000             3000           30
<app-group-name>          80000             3000           30
===============================================================================
A:ALA-IPD#
show application-assurance group 1 aa-sub {esm <sub-ident-string> | sap <sap-id> |
spoke-sdp <sdp-id:vc-id> | transit <transit-aasub-name>} count
MINOR: CLI aa-sub esm|sap|transit <name> has too many flows to obtain real-time
stats, use aa-sub esm|sap|transit|spoke <sub-name> snapshot


A:ALA-IPD# show application-assurance group 1 aa-sub {esm <sub-ident-string> |
sap <sap-id> | spoke-sdp <sdp-id:vc-id> | transit <transit-aasub-name>} snapshot
count
===============================================================================
Application-Assurance Subscriber esm|sap|spoke-sdp|transit <name>
Application Group, Application and Protocol Statistics (realtime | snapshot)
===============================================================================
Application Group                Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
Games                              0% 0               0             0
Mail                               0% 0               0             0
Peer to Peer                       0% 0               0             0
Unknown                            0% 0               0             0
Web                                0% 0               0             0
===============================================================================
Application                      Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
SIP                                0% 0               0             0
-------------------------------------------------------------------------------
Protocol statistics are not configured in statistics>aa-sub
===============================================================================
A:ALA-IPD#


A:ALA-IPD# show application-assurance group 1 aa-sub {esm <sub-ident-string> |
sap <sap-id> | spoke-sdp <sdp-id:vc-id> | transit <transit-aasub-name>}
application count detail
===============================================================================
Application-Assurance Subscriber esm|sap|spoke-sdp|transit <name>
Application Statistics (realtime | snapshot)
===============================================================================
    Subscriber                       Application:
Type                      Octets            Packets         Flows
-------------------------------------------------------------------------------
    name                             SIP:
Admitted from subscriber: 0                 0               0
Denied from subscriber:   0                 0               0
Active flows from subscriber:                               0
Admitted to subscriber:   0                 0               0
Denied to subscriber:     0                 0               0
Active flows to subscriber:                                 0
Max per min from sub:     1000              10
Max per min to sub:       2000              20
Total flow duration:      0 seconds
Terminated flows:                                           0
Short Duration flows:                                       0
Medium Duration flows:                                      0
Long Duration flows:                                        0
===============================================================================
```

```
A:ALA-IPD#
```

aa-sub-list

Syntax **aa-sub-list** [**isa** *mda-id*]
aa-sub-list policers-exceeded
aa-sub-list summary

Context show>app-assure>group

Description This command displays aa-subscriber lists.

Parameters **isa** *mda-id* — Displays the slot and MDA ID.

Values 1 — 10 (depending on chassis model)
1, 2

policers-exceeded — Displays the policer resources which are exceeded.

summary — Displays summary information.

Sample Output

```
show application-assurance group 1 aa-sub {esm <sub-ident-string> | sap <sap-id>
| spoke-sdp <sdp-id:vc-id> } summary
===============================================================================
Application-Assurance Subscriber summary (realtime | snapshot)
===============================================================================
AA-Subscriber        : <sub-ident-string> or <sap-id> or <sdp-id:vc-id>
ISA assigned         : <Slot/MDA> Unassigned
App-Profile          : <app-profile-name>
App-Profile divert   : Yes or No
capacity-cost        : 100 // for sap/spoke-sdp & esm aa-sub)
Traffic                  Octets            Packets         Flows
-------------------------------------------------------------------------------
Admitted from subscriber: 0                0               0
Denied from subscriber:   0                0               0
Active flows from subscriber:                              0
Admitted to subscriber:   0                0               0
Denied to subscriber:     0                0               0
Active flows to subscriber:                                0
Total flow duration:      0 seconds
Terminated flows:                                          0
Short Duration flows:                                      0
Medium Duration flows:                                     0
Long Duration flows:                                       0

Top App-Groups           Octets            Packets         Flows
-------------------------------------------------------------------------------
<app-group-name>         100000            3000            30
<app-group-name>         90000             3000            30
<app-group-name>         80000             3000            30
-------------------------------------------------------------------------------
Application Service Options (ASO)
-------------------------------------------------------------------------------
Characteristic                  Value                          Derived from
-------------------------------------------------------------------------------
```

```
Server                          Block                           default
ServiceBw                       SuperUser                       app-profile
Teleworker                      Yes                             override
VideoBoost                      Priority                        override

Total characteristics           : 4
Total derived from aso defaults : 1
Total derived from app-profile  : 1
Total derived from overrides    : 2
-------------------------------------------------------------------------------


*A:Dut-C# show application-assurance group 224:10559 aa-sub-list
===============================================================================
Application-Assurance Subscriber List for Group 224:10559
===============================================================================
type      aa-sub                  ISA      App-Profile             divert
                                  assigned
-------------------------------------------------------------------------------
sap       1/1/1:113               3/2      prof_224_10559_1        Yes
sap       1/1/1:241               3/2      prof_224_10559_1        Yes
sap       1/1/1:369               3/2      prof_224_10559_1        Yes
sap       1/1/1:497               3/2      prof_224_10559_1        Yes
sap       1/1/4:113               3/2      prof_224_10559_2        Yes
sap       1/1/4:241               3/2      prof_224_10559_2        Yes
sap       1/1/4:369               3/2      prof_224_10559_2        Yes
sap       1/1/4:497               3/2      prof_224_10559_2        Yes
-------------------------------------------------------------------------------
Total number of aa-subs found             : 8
===============================================================================
*A:Dut-C#


*A:Dut-C# show application-assurance group 224:10559 aa-sub-list isa 3/2
===============================================================================
Application-Assurance Subscriber List for Group 224:10559, isa 3/2
===============================================================================
type      aa-sub                  ISA      App-Profile             divert
                                  assigned
-------------------------------------------------------------------------------
sap       1/1/1:113               3/2      prof_224_10559_1        Yes
sap       1/1/1:241               3/2      prof_224_10559_1        Yes
sap       1/1/1:369               3/2      prof_224_10559_1        Yes
sap       1/1/1:497               3/2      prof_224_10559_1        Yes
sap       1/1/4:113               3/2      prof_224_10559_2        Yes
sap       1/1/4:241               3/2      prof_224_10559_2        Yes
sap       1/1/4:369               3/2      prof_224_10559_2        Yes
sap       1/1/4:497               3/2      prof_224_10559_2        Yes
-------------------------------------------------------------------------------
Total number of aa-subs found             : 8
===============================================================================
*A:Dut-C#

A:ALA-IPD# show application-assurance group 2 aa-sub-list [isa <mda-id>]
===============================================================================
Application-Assurance Subscriber List for Group 2, isa <slot/mda>
===============================================================================
type      aa-sub                  ISA      App-Profile             divert
                                  assigned
-------------------------------------------------------------------------------
group 2:50
```

```
-------------------------------------------------------------------------------
esm       Bob                       3/1      Grp2P50appProf1          Yes
esm       Fred                      1/1      Grp2P50appProf2          Yes
sap       1/2/9                     3/1      Grp2P50appProf1          Yes
sap       1/2/10                    1/1      Grp2P50appProf2          Yes
spoke-sdp 1:7                       1/1      Grp2P50appProf1          Yes
spoke-sdp 2:101                     3/1      Grp2P50appProf2          Yes
-------------------------------------------------------------------------------
group 2:32656
-------------------------------------------------------------------------------
esm       Alex                      1/1      appProf1                 Yes
esm       Sub1                      3/1      Lite                     Yes
esm       Max                       3/1      appProf1                 Yes
esm       tcpr_sub                  1/1      appProf2                 Yes
sap       1/2/5                     3/1      appProf1                 Yes
sap       1/2/6                     1/1      appProf1                 Yes
sap       2/2/4:111                 1/1      Power                    Yes
spoke-sdp 1:6                       1/1      appProf1                 Yes
spoke-sdp 2:100                     3/1      appProf2                 Yes
-------------------------------------------------------------------------------
Number of aa-subs found in group 2:50       : 6
Number of aa-subs found in group 2:32656    : 9
Total number of aa-subs found               : 15
===============================================================================
A:ALA-IPD#


A:ALA-IPD# show application-assurance group 2:32656 aa-sub-list [isa <mda-id>
===============================================================================
Application-Assurance Subscriber List for Group 2:32656, isa <slot/mda>
===============================================================================
type    aa-sub                    ISA      App-Profile              divert
                                  assigned
-------------------------------------------------------------------------------
esm       Alex                      1/1      appProf1                 Yes
esm       Sub1                      3/1      Lite                     Yes
esm       Max                       3/1      appProf1                 Yes
esm       tcpr_sub                  1/1      appProf2                 Yes
sap       1/2/5                     3/1      appProf1                 Yes
sap       1/2/6                     1/1      appProf1                 Yes
sap       2/2/4:111                 1/1      Power                    Yes
spoke-sdp 2:100                     1/1      appProf8                 Yes
-------------------------------------------------------------------------------
Number of aa-subs : 8
===============================================================================
A:ALA-IPD#
```

aa-sub-study

Syntax **aa-sub-study esm** *sub-ident-string* [**snapshot**]
aa-sub-study sap *sap-id*
aa-sub-study spoke-sdp *sdp-id:vc-id* [**snapshot**]
aa-sub-study transit *transit-aasub-name* [**snapshot**]

Context show>app-assure>group

Description This command display per-subscriber special study statistics.

Parameters **esm** *sub-ident-string* **—** Specifies an existing subscriber identification string.

sap *sap-id* **—** Specifies the physical port identifier portion of the SAP definition. Refer to Appendix A: Common CLI Command Descriptions on page 1055 for syntax.

spoke-id *sdp-id:vc-id* — Specifies the spoke SDP ID and VC ID.

Values 1 — 17407
1 — 4294967295

snapshot — Specifies that the statistics retrieved include the sum of the statistics from the previous collection windows, and the statistics for any closed flows since the last collection window.

transit *transit-aasub-name* **—** Specifies an existing transit subscriber name string.

app-group

Syntax **app-group** [*app-group-name*] **count** [**detail**]

Context show>app-assure>group>aa-sub
show>app-assure>group

Description This command displays per-application-group statistics. System-wide statistics displayed account for all flows completed and the last internal snapshot of the active flows.

Parameters *app-group-name* — Displays information about the specified application group name.

count — Displays the counters for the application group.

detail — Displays detailed information.

Sample Output

```
A:ALU>show>app-assure>group# app-group count
===============================================================================
App-group Statistics
===============================================================================
Application Group                Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
File Transfer                      0% 0               0             0
Games                              0% 3865532         4952          144
Infrastructure                     0% 174524          1217          1177
Instant Messaging                  0% 2979117         9930          97
Local Content                      0% 10581539        10942         74
Mail                               0% 57940           346           24
MultiMedia                         0% 76911464        79417         198
NNTP                               0% 0               0             0
Peer to Peer                       0% 10903442        13901         485
Premium Partner                    0% 0               0             0
Remote Connectivity                0% 0               0             0
Server                             0% 1097            8             2
Suspect                           72% 1012            11            11
Tunneling                          0% 19872617        33989         204
Unknown                            0% 5243395         27510         2648
Web                                0% 82135303        91828         2152
-------------------------------------------------------------------------------
A:ALU>show>app-assure>group#
```

```
A:ALU>show>app-assure>group# app-group "MultiMedia" count detail
===============================================================================
App-group "MultiMedia" Statistics
===============================================================================
Application Group:
Type                       Octets            Packets         Flows
-------------------------------------------------------------------------------
MultiMedia:
Admitted from subscriber: 193605             1797            23
Denied from subscriber:   0                  0               0
Active flows from subscriber:                                0
Admitted to subscriber:   4835822            3366            23
Denied to subscriber:     0                  0               0
Active flows to subscriber:                                  0
Total flow duration:      433 seconds
Terminated flows:                                            46
Short Duration flows:                                        36
Medium Duration flows:                                       10
Long Duration flows:                                         0
Active subscribers:       0
===============================================================================
A:ALU>show>app-assure>group#
```

application

Syntax **application** [*application-name*] **count** [**detail**]

Context show>app-assure>group>aa-sub
show>app-assure>group
show>app-assure>group>aa-sub-study

Description This command displays per-application statistics. The system-wide statistics displayed account for all flows completed and the last internal snapshot of the active flows.

Subscriber statistics are available for special-study subscribers and account for all completed and active flows at the moment of this statistics request.

Parameters *application-name* — Displays information about the specified application name.

count — Displays counter information.

detail — Displays detailed information.

Sample Output

```
A:ALU-ABC>show>app-assure>group# application count
===============================================================================
Application Statistics
===============================================================================
Application                     Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
```

```
...
DHT                                0% 0               0            0
DNS_53                             0% 96781           627          627
DNS_Local                          0% 0               0            0
DNS_Server                         0% 276             3            3
DNS_Suspect                      100% 736             8            8
FTP                                0% 0               0            0
...
-------------------------------------------------------------------------------
A:ALU-ABC>show>app-assure>group#


A:ALU-ABC>show>app-assure>group# application "POP3" count detail
===============================================================================
Application "POP3" Statistics
===============================================================================
    Application:
Type                       Octets            Packets         Flows
-------------------------------------------------------------------------------
    POP3:
Admitted from subscriber: 14095              149             10
Denied from subscriber:   0                  0               0
Active flows from subscriber:                                0
Admitted to subscriber:   30707              128             10
Denied to subscriber:     0                  0               0
Active flows to subscriber:                                  0
Total flow duration:      7 seconds
Terminated flows:                                            20
Active subscribers:       0
A:ALU-ABC>show>app-assure>group#


A:ALU>show>app-assure>group# application "HTTP_Video" count detail
===============================================================================
Application "HTTP_Video" Statistics
===============================================================================
    Application:
Type                       Octets            Packets         Flows
-------------------------------------------------------------------------------
    HTTP_Video:
Admitted from subscriber: 369528             5404            36
Denied from subscriber:   0                  0               0
Active flows from subscriber:                                1
Admitted to subscriber:   15387734           10629           36
Denied to subscriber:     0                  0               0
Active flows to subscriber:                                  1
Total flow duration:      463 seconds
Terminated flows:                                            72
Short Duration flows:                                        66
Medium Duration flows:                                       6
Long Duration flows:                                         0
Active subscribers:       1
===============================================================================
A:ALU>show>app-assure>group#
```

cflowd

Syntax **cflowd**

Context show>app-assure>group

Description This command enables the context to display cflowd output.

collector

Syntax **collector** [**detail**]

Context show>app-assure>group>cflowd

Description This command enables the context to display cflowd output.

Sample Output

```
A:ALU-A# show application-assurance group 1 cflowd collector
===============================================================================
Application Assurance Cflowd Collectors for group 1
===============================================================================
Host Address        Port  Version   Admin     Oper      Recs Sent
-------------------------------------------------------------------------------
192.168.7.7         2055    10       up        up        0
192.168.7.8         2055    10       up        up        0
-------------------------------------------------------------------------------
Collectors : 2
-------------------------------------------------------------------------------
A:ALU-A#

A:ALU-A# show application-assurance group 1 cflowd collector detail
===============================================================================
Application Assurance Cflowd Collectors for group 1
===============================================================================
Address                      : 192.168.7.7
Port                         : 2055
Description                  : AA Collector 1
Version                      : 10
Admin State                  : up
Oper State                   : up
Records Sent                 : 0
Last Changed                 : 07/27/2009 13:36:50

Address                      : 192.168.7.8
Port                         : 2055
Description                  : AA Collector 2
Version                      : 10
Admin State                  : up
Oper State                   : up
Records Sent                 : 0
Last Changed                 : 07/27/2009 13:37:10
===============================================================================
A:ALU-A#
```

status

Syntax **status**

Context show>app-assure>group>cflowd

Description This command display status information.

Sample Output

```
A:ALU-A# show application-assurance group 1 status [isa 1/2] cflowd
===============================================================================
Application-Assurance Group Cflowd Status
===============================================================================
Cflowd Admin Status  : Enabled
Cflowd Oper Status   : Enabled
-------------------------------------------------------------------------------
Volume :
-------------------------------------------------------------------------------
 Sample Rate          : <Disabled> or <1 in 500 packets>
 Active Flows         : 23102
 Records Reported     : 12345
 Records Dropped      : 10
 Records Per Second   : 45
 Packets Sent         : 1763
 Packets Sent Per Sec : 7
-------------------------------------------------------------------------------
TCP Performance :
-------------------------------------------------------------------------------
 Sample Rate          : <Disabled> or <1 in 1000 flows>
 Active Flows         : 32103
 Flows Not Allocated  : 33
 Records Reported     : 12345678
 Records Dropped      : 100
 Records Per Second   : 456
 Packets Sent         : 2057613
 Packets Sent Per Sec : 76
===============================================================================
A:ALU-A#


A:ALU-A#show application-assurance group <aa-group-id:[partition]> cflowd status
===============================================================================
Application-Assurance Group:Partition Cflowd Status
===============================================================================
-------------------------------------------------------------------------------
Volume :
-------------------------------------------------------------------------------
 Admin State          : Up
 Records Reported     : 12345
 Records Dropped      : 10
-------------------------------------------------------------------------------
TCP Performance :
-------------------------------------------------------------------------------
 Admin State          : Up
 Flows Not Allocated  : 33
 Records Reported     : 12345678
 Records Dropped      : 100

===============================================================================
A:ALU-A#
```

dns-ip-cache

Syntax **dns-ip-cache** *cache-name* **isa** *mda-id*
dns-ip-cache *cache-name*

Context show>app-assure>group

Description This command displays the application assurance DNS IP cache statistics and status information.

Parameters isa *mda-id* — Specifies the DNS IP cache for a particular ISA-AA card.

Output The following table describes the show command output fields:

Label	Description
Admin Status	Indicates the administrative status of the DNS IP cache. [Up | Down]
Domain expressions	Indicates the number of DNS domain expressions configured.
Server addresses	Indicates the number of server-addresses configured
High-Watermark	Indicates the value, in percentage, of the configured high watermark.
Low-Watermark	Indicates the value, in percentage, of the configured low watermark.
Cache-size	Indicates the value of the configured maximum cache size.
Usage	Indicates the value, in percentage, of the total for the number of entries in the cache.
Alarm State	Indicates the status of the alarm related to the DNS IP cache high/low watermark utilization. The alarm is raised when the high watermark is crossed; it is cleared when it goes below the low watermark. [Clear | Raised]
Hit-Count	Indicates the number of times an IP address lookup in this cache was successful.
Total responses	Indicates the total number of DNS responses analyzed.
Domain name matched	Indicates the number of times a domain name defined in the DNS match criteria matched a DNS response.
Domain & server matched	Indicates the number of times both the domain name and server address defined in the DNS match criteria matched a DNS response.
Total entries added	Indicates the total number of IP entries added in the cache.
Total entries removed	Indicates the total number of IP entries removed from the cache after the entry expired.
Full count	Indicates the total number of IP entries in the cache.
Hit Count	Indicates the number of times an IP address lookup in this cache was successful. The IP address lookup is performed in app-filters and is successful if the server address DNS IP cache criteria is met.

Miss Count	Indicates the number of times an IP address lookup in this cache was unsuccessful. The IP address lookup is performed in app-filters and is unsuccessful if the server address DNS IP cache criteria is not met.

Sample Output

```
*A:7750# show application-assurance group 1 dns-ip-cache "Default DNS IP Cache"
===============================================================================
Application Assurance Group 1 dns-ip-cache "Default DNS IP Cache"
===============================================================================
Admin Status                : Up

Domain expressions          : 11 (out of 32)
Server addresses            : 0 (out of 64)
High watermark              : 40%
Low watermark               : 35%
Cache size                  : 5000

-------------------------------------------------------------------------------
ISA                        Usage         (%)        Alarm             Hit Count
                                                    State
-------------------------------------------------------------------------------
1/2                            0     (0.00%)        clear                     0
3/2                          133    (88.66%)       raised                    18
===============================================================================

*A:7750# show application-assurance group 1 dns-ip-cache "Default DNS IP Cache" isa
3/1
===============================================================================
Application Assurance Group 1 dns-ip-cache "Default DNS IP Cache" ISA 3/1
===============================================================================
Admin Status                : Up

Domain expressions          : 11 (out of 32)
Server addresses            : 0 (out of 64)
High watermark              : 40%
Low watermark               : 35%
Cache size                  : 5000

-------------------------------------------------------------------------------
ISA 3/1 DNS Stats
-------------------------------------------------------------------------------
DNS
    Total responses         : 5751
    Domain name matched     : 106
    Domain & server matched : 106
Cache
    Total entries added     : 118
    Total entries removed   : 0
    Usage                   : 118 (2.36%) threshold alarm clear
    Full count              : 0

    Hit count               : 274
    Miss count              : 20379
===============================================================================
```

http-enrich

Syntax **http-enrich** *enrichment-name*

Context show>app-assure>group

Description This command displays HTTP enrichment information.

Parameters *enrichment-name* — Specifies the name of the HTTP enrichment policy up to 32 characters in length.

Sample Output

```
*B:7750-AA-1# show application-assurance group 2 http-enrich "Enrich_policy1"

===============================================================================
Application Assurance Group 2 HTTP Enrichment " Enrich_policy1"
===============================================================================
Description   : Policy to enrich HTTP requests with MD5 hash of Subscriber-id
                + subscriber-ip + static string
Admin Status  : Up
AQP Referenced: No
-------------------------------------------------------------------------------
Name                            Field                           Enabled
                                                                Features
-------------------------------------------------------------------------------
static-string                   testString
subscriber-id                   X-subid                         M
subscriber-ip                   X-subip                         M
-------------------------------------------------------------------------------
                                                    A=anti-spoof,M=encode-md5

-------------------------------------------------------------------------
Group               Enriched                Not Enriched
-------------------------------------------------------------------------
2:1                 12587                   3
2:2                 0                       0
-------------------------------------------------------------------------
Total               12587                   3
-------------------------------------------------------------------------
```

detail

Syntax **detail** [*partition*]

Context show>app-assure>group>http-enrich

Description This command displays detailed HTTP Enrichment information.

field

Syntax **field** *field-name*

Context show>app-assure>group>http-enrich

Description This command displays HTTP enrichment field information.

fields

Syntax **field***s*

Context show>app-assure

Description This command displays HTTP enrichment fields.

summary

Syntax **summary**

Context show>app-assure>group>http-enrich

Description This command displays summarized HTTP enrichment information.

count

Syntax **count** [**detail**]

Context show>app-assure>group>aa-sub

Description This command displays per-subscriber app-group application and protocol statistics.

Parameters **detail —** Displays detailed information.

Sample Output

```
A:ALU>show>app-assure>group>aa-sub# count
===============================================================================
Application-Assurance Subscriber TestSubscriberName
Application Group, Application and Protocol Statistics
===============================================================================
Application Group                Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
Database                           0% 0               0             0
File Transfer                      0% 27243           169           22
Games                              0% 0               0             0
Infrastructure                     0% 71494           555           515
Instant Messaging                  0% 4947792         25587         411
Local Content                      0% 923             8             2
Mail                               0% 53729           318           22
Mail Server                        0% 0               0             0
MultiMedia                         0% 31670667        33087         142
NNTP                               0% 0               0             0
Peer to Peer                      .45% 11096224       16339         2431
Premium Partner                    0% 0               0             0
```

```
Remote Connectivity                0% 15321           171           2
Server                             0% 0               0             0
Suspect                           72% 1012            11            11
Tunneling                          0% 19659289        33535         164
Unknown                            0% 1945164         6317          287
Web                                0% 29538078        34873         1022
Web Server                         0% 0               0             0
===============================================================================
Application                      Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
HTTP_Local                         0% 923             8             2
===============================================================================
Protocol                         Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
dns                              1.8% 40010           277           277
===============================================================================
A:ALU>show>app-assure>group>aa-sub#


A:ALU>show>app-assure>group>aa-sub# count detail
===============================================================================
Application-Assurance Subscriber TestSubscriberName
Application Group, Application and Protocol Statistics
===============================================================================
    Subscriber                         Application Group:
Type                      Octets             Packets          Flows
-------------------------------------------------------------------------------
    TestSubscriberName                 Instant Messaging:
Admitted from subscriber: 2558576            12720            229
Denied from subscriber:   0                  0                0
Active flows from subscriber:                                 0
Admitted to subscriber:   2389216            12867            182
Denied to subscriber:     0                  0                0
Active flows to subscriber:                                   0
Total flow duration:      2912 seconds
Terminated flows:                                             411
Short Duration flows:                                         387
Medium Duration flows:                                        22
Long Duration flows:                                          2
 ...
    TestSubscriberName                 Web:
Admitted from subscriber: 2343429            22806            511
Denied from subscriber:   0                  0                0
Active flows from subscriber:                                 1
Admitted to subscriber:   56359191           40528            511
Denied to subscriber:     0                  0                0
Active flows to subscriber:                                   1
Total flow duration:      4783 seconds
Terminated flows:                                             1020
Short Duration flows:                                         989
Medium Duration flows:                                        31
Long Duration flows:                                          0
===============================================================================
    Subscriber                         Application:
Type                      Octets             Packets          Flows
-------------------------------------------------------------------------------
    TestSubscriberName                 HTTP_Local:
Admitted from subscriber: 0                  0                0
Denied from subscriber:   0                  0                0
Active flows from subscriber:                                 0
Admitted to subscriber:   0                  0                0
```

```
Denied to subscriber:     0                0              0
Active flows to subscriber:                               0
Total flow duration:      0 seconds
Terminated flows:                                         0
Short Duration flows:                                     0
Medium Duration flows:                                    0
Long Duration flows:                                      0
===============================================================================
    Subscriber                          Protocol:
Type                      Octets            Packets         Flows
-------------------------------------------------------------------------------
    TestSubscriberName                  dns:
Admitted from subscriber: 0                 0               0
Denied from subscriber:   0                 0               0
Active flows from subscriber:                               0
Admitted to subscriber:   0                 0               0
Denied to subscriber:     0                 0               0
Active flows to subscriber:                                 0
Total flow duration:      0 seconds
Terminated flows:                                           0
Short Duration flows:                                       0
Medium Duration flows:                                      0
Long Duration flows:                                        0
===============================================================================
A:ALU>show>app-assure>group>aa-sub#
```

admin

Syntax **admin**

Context show>app-assure>group>policy

Description This command displays the application-assurance policy uncommitted changes.

Sample Output

```
*A:ALA-48>show>app-assure>group>policy# admin
                begin
                app-filter
                    entry 10 create
                        shutdown
                    exit
                exit
                app-qos-policy
                    entry 10 create
                        shutdown
                    exit
                exit
                commit
*A:ALA-48>show>app-assure>group>policy#
```

app-filter

Syntax **app-filter** [*entry-id*]

Context show>app-assure>group>policy

Description This command displays application-assurance policy filter information.

Parameters *entry-id* — Specifies an existing application filter entry.

Values 1 — 65535

app-group

Syntax **app-group** [*app-group-name*]

Context show>app-assure>group>policy

Description This command displays application-assurance policy application group information.

app-profile

Syntax **app-profile** [*app-prof-name*]
app-profile *app-prof-name* **associations**

Context show>app-assure>group>policy

Description This command displays application-assurance policy application profile information.

Parameters *app-prof-name* — Specifies an existing application profile name.

associations — Displays subscriber management associations.

app-qos-policy

Syntax **app-qos-policy** [*entry-id*]

Context show>app-assure>group>policy

Description This command displays application-assurance policy application QoS policy information.

Parameters *entry-id* — Specifies an existing applicatin QoS policy entry id.

Values 1 — 65535

app-service-option

Syntax **app-service-option** [*characteristic-name*]

Context show>app-assure>group>policy

Description This command displays application-assurance policy application service option information.

application

Syntax **application** [*app-name*]

Context show>app-assure>group>policy

Description This command displays application-assurance policy application information.

custom-protocol

Syntax **custom-protocol**

Context show>app-assure>group>policy

Description This command displays application-assurance policy custom protocol information.

summary

Syntax **summary**

Context show>app-assure>group>policy

Description This command displays application-assurance policy summary information.

policer

Syntax **policer**
policer *policer-name* [**detail**]
policer summary

Context show>app-assure>group>policy>aa-sub

Description This command displays policer configuration information.

Sample Output

```
A:cpm-a>show>app-assure>group>aa-sub# policers
===============================================================================
Application-Assurance Subscriber Policer Summary
===============================================================================
AA-Subscriber       : Alex (esm)
-------------------------------------------------------------------------------
Type: single-bucket-bandwidth Direction: subscriber-to-network
-------------------------------------------------------------------------------
AQP   Policer                          Resources Exceeded?
-------------------------------------------------------------------------------
61    SuspectUp_policer                N
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Type: single-bucket-bandwidth Direction: network-to-subscriber
```

```
-------------------------------------------------------------------------------
AQP   Policer                          Resources Exceeded?
-------------------------------------------------------------------------------
62    SuspectDown_policer              N
-------------------------------------------------------------------------------
Policer usage counts:
single-bucket-bandwidth
  subscriber-to-network  1     out of    32
  network-to-subscriber  1     out of    32
dual-bucket-bandwidth
  subscriber-to-network  0     out of     1
  network-to-subscriber  0     out of     1
flow-count-limit         0     out of     8
flow-rate-limit          0     out of     8
===============================================================================
A:cpm-a>show>app-assure>group>aa-sub#
```

summary

Syntax **summary**

Context show>app-assure>group>policy
show>app-assure>group>aa-sub

Description This command displays application-assurance policy summary information.

protocol

Syntax **protocol** [*protocol-name*] **count** [**detail**]

Context show>app-assure>group>aa-sub
show>app-assure>group

Description This command displays per-protocol statistics. The system-wide statistics displayed account for all flows completed and the last internal snapshot of the active flows.

Subscriber statistics are available for special study subscribers and account for all completed and active flows at the moment of this statistics request.

Parameters *protocol-name* — Displays information about the specified protocol name.

count — Displays protocol counters.

detail — Displays detailed information.

Sample Output

```
A:ALU>show>app-assure>group# protocol count
===============================================================================
Protocol Statistics
===============================================================================
Protocol                          Disc Octets          Packets       Flows
-------------------------------------------------------------------------------
aim_oscar                           0% 0               0             0
```

```
aim_oscar_file_xfer                0% 0              0             0
aim_oscar_video_voice              0% 0              0             0
aim_toc                            0% 0              0             0
bittorrent                         0% 0              0             0
...


A:ALU>show>app-assure>group# protocol "http_audio" count detail
===============================================================================
Protocol "http_audio" Statistics
===============================================================================
    Protocol:
Type                       Octets            Packets         Flows
-------------------------------------------------------------------------------
    http_audio:
Admitted from subscriber: 14958              201             2
Denied from subscriber:   0                  0               0
Active flows from subscriber:                                0
Admitted to subscriber:   587590             396             2
Denied to subscriber:     0                  0               0
Active flows to subscriber:                                  0
Total flow duration:      21 seconds
Terminated flows:                                            4
Short Duration flows:                                        4
Medium Duration flows:                                       0
Long Duration flows:                                         0
Active subscribers:       1
===============================================================================
A:ALU>show>app-assure>group#
```

session-filter

Syntax **session-filter**
session-filter *session-filter-name*

Context show>app-assure>group

Description This command displays session filter information.

Parameters *session-filter-name* — Specifies a session-filter-name up to 32 characters.

Sample Output

```
show application-assurance group <aa-group-id>[:<partition>] session-filter <filter-
name>
# session-filter<filter-id>
===============================================================================
AA Session Filter
===============================================================================
Filter Name  : Block UDP Session Initiation
Applied      : Yes                        Def. Action    : Permit
Entries      : 1
Description  : Block UDP initiated towards subscribers
-------------------------------------------------------------------------------
Filter Match Criteria
-------------------------------------------------------------------------------
```

```
Entry        : 1
Description  : (Not Specified)
Protocol     : 17
Action       : deny
Hit Count    : 0 pkts
===============================================================================
```

summary

Syntax **summary**

Context show>app-assure>group>aa-sub

Description This command displays a summary of statistics for a specific aa-sub.

Sample Output

```
A:ALU>show>app-assure>group>aa-sub# summary
===============================================================================
Application-Assurance Subscriber Summary
===============================================================================
AA-Subscriber       : TestSubscriberName
ISA assigned        : 3/2
App-Profile         : Power_Profile
App-Profile divert  : Yes
-------------------------------------------------------------------------------
Traffic                   Octets            Packets         Flows
-------------------------------------------------------------------------------
Admitted from subscriber: 7092548           52935           2843
Denied from subscriber:   51160             617             374
Active flows from subscriber:                               12
Admitted to subscriber:   73705675          73538           1453
Denied to subscriber:     0                 0               0
Active flows to subscriber:                                 12
Total flow duration:      12750 seconds
Terminated flows:                                           4646
Short Duration flows:                                       4516
Medium Duration flows:                                      130
Long Duration flows:                                        0
-------------------------------------------------------------------------------
Top App-Groups                    Octets            Packets         Flows
-------------------------------------------------------------------------------
MultiMedia                        29060053          29961           138
Tunneling                         19659289          33535           164
Web                               14856331          19829           932
===============================================================================
A:ALU>show>app-assure>group>aa-sub#
```

usage-monitor

Syntax **usage-monitor status**
usage-monitor [{**application** [*application-name*] **| app-group** [**app-group-name**] **|**
charging-group [*charging-group-name*]}] **count**

Context show>app-assure>group>aa-sub

Description This command displays per-subscriber usage-monitoring statistics.

status

Syntax **status** [**isa** *mda-id*] **cflowd**
status [**isa** *mda-id*]
status [**isa** *mda-id*] **detail**
status [**isa** *mda-id*] **cpu** [**sample-period** *seconds*]
status {**isa** *mda-id*} **qos count**
status {**isa** *mda-id*} **qos pools**

Context show>app-assure>group

Description This command displays system statistics.

Parameters **isa —** Displays information about the specified AA ISA.

cflowd — Displays cflowd status information.

detail — Displays detailed status information.

cpu [**sample-period** *seconds*] **—** Displays cpu utilization info about the specified AA ISA. The **isa** *mda-id* must be specified. The sample period can be specified within a range of 1 5 seconds (default 1s).

Values 1 — 5

qos count — Displays information about queue statistics. The **isa** *mda-id* must be specified.

qos pools — Displays information about pool utilization. The **isa** *mda-id* must be specified.

Sample Output

```
A:ALU>show>app-assure>group# status
===============================================================================
Application-assurance Status
===============================================================================
Last time change affecting status: 01/30/2009 20:14:37
Active Subs                     : 1
-------------------------------------------------------------------------------
                          Packets              Octets
-------------------------------------------------------------------------------
Diverted traffic       : 58783                46140537
Diverted discards      : 4                    0
Entered ISA-AAs        : 58784                46140614
Discarded in ISA-AAs   : 60                   4620
Exited ISA-AAs         : 58724                46135994
Returned discards      : 0                    0
Returned traffic       : 58724                46135994
===============================================================================
A:ALU>show>app-assure>group#


A:ALU>show>app-assure>group# status detail
```

```
===============================================================================
Application-assurance Status
===============================================================================
Last time change affecting status: 01/30/2009 20:14:37
Number of Active ISAs            : 2
Flows                            : 2364
Active Flows                     : 41
Flow Setup Rate                  : 2 per second
Traffic Rate                     : 1 Mbps
AA-Subs Downloaded               : 30
Active Subs                      : 1
-------------------------------------------------------------------------------
                          Packets              Octets
-------------------------------------------------------------------------------
Diverted traffic       : 60744                47206604
Diverted discards      : 4                    0
    Congestion         : 0                    0
    Errors             : 4                    N/A
Entered ISA-AAs        : 60745                47206968
Buffered in ISA-AAs    : 0                    0
Discarded in ISA-AAs   : 164                  12759
    Policy             : 164                  12759
    Congestion         : 0                    0
    Errors             : 0                    0
Errors (policy bypass) : 1                    60
Exited ISA-AAs         : 60581                47194209
Returned discards      : 0                    0
    Congestion         : 0                    0
    Errors             : 0                    N/A
Returned traffic       : 60580                47193845
===============================================================================
A:ALU>show>app-assure>group#

===============================================================================
Application-Assurance Status
===============================================================================
Last time change affecting status : 09/28/2012 14:19:05
Number of Active ISAs             : 1
Flows                             : 62
Flow Resources In Use             : 0
AA-Subs Created                   : 200
AA-Subs Deleted                   : 149
AA-Subs Modified                  : 3
Seen-IP Requests Sent             : 0
Seen-IP Requests Dropped          : 0
-------------------------------------------------------------------------------
                                    Current    Average    Peak
-------------------------------------------------------------------------------
Active Flows                      : 0          0          16
Flow Setup Rate (per second)      : 0          0          1
Traffic Rate (Mbps)               : 0          0          0
Packet Rate (per second)          : 0          0          6
AA-Subs Downloaded                : 51         51         51
Active Subs                       : 0          0          1

A:ALU>show>app-assure>group# status isa 3/2 qos count
===============================================================================
Application-assurance Queue Statistics for ISA-AA Group: 1, isa 3/2
===============================================================================

-------------------------------------------------------------------------------
```

```
Egress From-Subscriber
     Queue  1                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    28940                   3767233
     Out Profile dropped   :    0                       0
     Queue  2                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0

Egress To-Subscriber
     Queue  1                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    44499                   53066848
     Out Profile dropped   :    0                       0
     Queue  2                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0


Ingress From-Subscriber
     Queue  1                Packets                 Octets
     In Profile  forwarded :    25548                   3361023
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    1                       60
     Out Profile dropped   :    0                       0
     Queue  2                Packets                 Octets
     In Profile  forwarded :    2921                    365606
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0
     Queue  9                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0
     Queue 10                Packets                 Octets
     In Profile  forwarded :    0                       0
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0

Ingress To-Subscriber
     Queue  1                Packets                 Octets
     In Profile  forwarded :    39541                   46899769
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    1                       92
     Out Profile dropped   :    0                       0
     Queue  2                Packets                 Octets
     In Profile  forwarded :    5050                    6291204
     In Profile  dropped   :    0                       0
     Out Profile forwarded :    0                       0
     Out Profile dropped   :    0                       0
     Queue  9                Packets                 Octets
     In Profile  forwarded :    0                       0
```

```
     In Profile  dropped   :    0                      0
     Out Profile forwarded :    0                      0
     Out Profile dropped   :    0                      0
     Queue 10                 Packets                Octets
     In Profile  forwarded :    0                      0
     In Profile  dropped   :    0                      0
     Out Profile forwarded :    0                      0
     Out Profile dropped   :    0                      0
===============================================================================
A:ALU>show>app-assure>group#


A:ALU>show>app-assure>group# status isa 3/2 qos pools
===============================================================================
Pool Information
===============================================================================
MDA                 : 3/2
Application         : Net-Ing           Pool Name          : default
Resv CBS            : 50%
-------------------------------------------------------------------------------
Utilization                   State       Start-Avg    Max-Avg    Max-Prob
-------------------------------------------------------------------------------
High-Slope                    Up                70%        90%         80%
Low-Slope                     Up                50%        75%         80%

Time Avg Factor     : 7
Pool Total          : 40960 KB
Pool Shared         : 20480 KB          Pool Resv          : 20480 KB

High Slope Start Avg : 12288 KB         High slope Max Avg : 16384 KB
Low Slope Start Avg  : 10240 KB         Low slope Max Avg  : 14336 KB

Pool Total In Use    : 0 KB
Pool Shared In Use   : 0 KB             Pool Resv In Use   : 0 KB
WA Shared In Use     : 0 KB

Hi-Slope Drop Prob   : 0                Lo-Slope Drop Prob : 0
-------------------------------------------------------------------------------
FC-Maps                        Dest     MBS         Depth  A.CIR     A.PIR
 Q-Grp                         Q-Id     CBS                O.CIR     O.PIR
-------------------------------------------------------------------------------
be af l1 h2 ef h1 nc           5/*      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           4/*      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           3/1      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           2/1      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           1/1      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           5/*      20480       0      8000000   20000000
                               1        1280               8000000   Max
be af l1 h2 ef h1 nc           4/*      20480       0      8000000   20000000
                               1        1280               8000000   Max
...
===============================================================================
Pool Information
===============================================================================
Port                : 3/2/fm-sub
Application         : Net-Egr           Pool Name          : default
```

```
Resv CBS             : 50%
-------------------------------------------------------------------------------
Queue-Groups
-------------------------------------------------------------------------------
Utilization                   State       Start-Avg    Max-Avg    Max-Prob
-------------------------------------------------------------------------------
High-Slope                    Up                70%        90%         80%
Low-Slope                     Up                50%        75%         80%

Time Avg Factor      : 7
Pool Total           : 12288 KB
Pool Shared          : 6144 KB           Pool Resv          : 6144 KB

High Slope Start Avg : 4096 KB           High slope Max Avg : 5120 KB
Low Slope Start Avg  : 3072 KB           Low slope Max Avg  : 4096 KB

Pool Total In Use    : 0 KB
Pool Shared In Use   : 0 KB              Pool Resv In Use   : 0 KB
WA Shared In Use     : 0 KB

Hi-Slope Drop Prob   : 0                 Lo-Slope Drop Prob : 0
-------------------------------------------------------------------------------
FC-Maps                         ID       MBS          Depth  A.CIR     A.PIR
 Q-Grp                          Q-Id     CBS                 O.CIR     O.PIR
-------------------------------------------------------------------------------
be af l1 h2 ef h1 nc            3/2/fm-* 8192         0      4000000   10000000
                                1        5120                 4000000   5000000
l2                              3/2/fm-* 6144         0      6000000   10000000
                                2        3584                 5000000   5000000
===============================================================================
Pool Information
===============================================================================
Port                 : 3/2/to-sub
Application          : Net-Egr           Pool Name          : default
Resv CBS             : 50%
-------------------------------------------------------------------------------
Queue-Groups
-------------------------------------------------------------------------------
Utilization                   State       Start-Avg    Max-Avg    Max-Prob
-------------------------------------------------------------------------------
High-Slope                    Up                70%        90%         80%
Low-Slope                     Up                50%        75%         80%

Time Avg Factor      : 7
Pool Total           : 24576 KB
Pool Shared          : 12288 KB          Pool Resv          : 12288 KB

High Slope Start Avg : 8192 KB           High slope Max Avg : 10240 KB
Low Slope Start Avg  : 6144 KB           Low slope Max Avg  : 8192 KB

Pool Total In Use    : 0 KB
Pool Shared In Use   : 0 KB              Pool Resv In Use   : 0 KB
WA Shared In Use     : 0 KB

Hi-Slope Drop Prob   : 0                 Lo-Slope Drop Prob : 0
-------------------------------------------------------------------------------
FC-Maps                         ID       MBS          Depth  A.CIR     A.PIR
 Q-Grp                          Q-Id     CBS                 O.CIR     O.PIR
-------------------------------------------------------------------------------
be af l1 h2 ef h1 nc            3/2/to-* 16384        0      4000000   10000000
                                1        10240                4000000   Max
```

```
l2                              3/2/to-* 12288       0      6000000   10000000
                                2        7168                6000000   Max
===============================================================================
A:ALU>show>app-assure>group#
```

traffic-type

Syntax **traffic-type detail**
traffic-type ip-family
traffic-type ip-protocol

Context show>app-assure>group

Description This command displays per traffic type statistics.

Parameters **detail —** Displays detailed statistics.

ip-family — Displays IP family statistics.

ip-protocol — Displays IP protocol statistics.

transit-ip-policy

Syntax **transit-ip-policy** *ip-policy-id*
transit-ip-policy summary
transit-ip-policy *ip-policy-id* **summary**

Context show>app-assure>group

Description This command displays transit IP policy information.

Parameters *ip-policy-id* — Displays information for the specified IP policy.

Values 1 — 65535

summary — Displays summarized information.

transit-prefix-policy

Syntax **transit-prefix-policy** *transit-prefix-policy-id*
transit-prefix-policy summary
transit-prefix-policy *transit-prefix-policy-id* **summary**

Context show>app-assure>group

Description This command displays transit prefix policy information.

Parameters *transit-prefix-policy-id* — Displays information for the specified transit prefix policy.

Values 1 — 65535

summary — Displays summarized information.

url-list

Syntax **url-list** *url-list-name*

Context show>app-assure>group

Description This command displays information about the configured url-list providing the following information:

Parameters *url-list-name* — Specifies the name of the URL list to display.

Output **Show Command Output —** The following table describes the show command output fields:

Label	Description
Admin Status	[Up | Down] - Administrative status of the url-list
Oper Status	[Up | Down] - Operational status of the url-list
Oper Flags	[admin-down | file-does-not-exist |invalid-file-format | too-many-urls | switch-over-error]
File Deployed to ISA	[Yes | No] - This flag describes if the file located in the compact flash is the one deployed in the ISA, in the event the file is overwritten and before the admin upgrade command is used this flag will display "No".
Upgrade Statistics	
Last Success	Last time the list was successfully upgraded
File Name	File name for the last successful upgrade
URL Entries	Number of URLs loaded at the last success
Blank/CommentLines	Number of blank or commented out lines
Last Attempt	Last time the operator tried to upgrade the list
Result	Success | Failure. Result of the last upgrade
File Name	File name for the last upgrade attempt
Error Line	Line error resulting in a failure to upgrade.
Reason	[invalid-file-format | too-many-urls] - Reason for the failure to upgrade
Detail	Details related to the failed upgrade (example: decryption failed)

Sample Output

```
7750# show application-assurance group 1 url-list "url-list1"
===============================================================================
Application Assurance Group 1 url-list "url-list2"
===============================================================================
```

```
Description              : (Not Specified)
Admin Status             : Up
Oper Status              : Up
Oper Flags               : <none>
File deployed to ISAs    : Yes
-------------------------------------------------------------------------------
Upgrade Statistics
-------------------------------------------------------------------------------
Last Success             : 01/20/2015 11:33:29
  Deployed
    File Name            : cf3:\url-list1.enc
    URL Entries          : 1000
    Blank/Comment Lines  : 0
Last Attempt             : 01/20/2015 11:33:29
  Result                 : Success
    File Name            : cf3:\url-list1.enc
===============================================================================

7750# show application-assurance group 1 url-list "url-list1"
===============================================================================
Application Assurance Group 1 url-list "url-list1"
===============================================================================
Description              : (Not Specified)
Admin Status             : Up
Oper Status              : Up
Oper Flags               : <none>
File deployed to ISAs    : Yes

-------------------------------------------------------------------------------
Upgrade Statistics
-------------------------------------------------------------------------------
Last Success             : 01/21/2015 14:03:54
Deployed
    File Name            : cf3:\url-list1.txt
    URL Entries          : 0
    Blank/Comment Lines  : 0
Last Attempt             : 01/21/2015 14:06:39
  Result                 : Failure
    File Name            : cf3:\url-list1.txt
    Error Line           : 0
    Reason               : invalid-file-format
    Detail               : Decryption failed
===============================================================================
```

url-filter

Syntax **url-filter** *url-filter-name*
url-filter *url-filter-name* **isa** *card/mda*

url-filter *url-filter-name* **isa** *card/mda* **detail**

Context show>app-assure>group

Description This command displays information about the configured url-filter policy along with some associated raw statistics. These output statistics are:

- Vlan Id: Vlan id used by the aa interface(s)
- Amin Status: Up / Down
- Oper Status: Up / Down
- Oper Flags: adminDown, no-aa-if, aa-if-down, icap-server-down
- Default Action: default policy action taken by the url-filter
- ICAP HTTP Redirect: HTTP redirect Policy
- AQP Referenced: Yes/No
- HTTP Request: Number of subscriber HTTP requests
- HTTP Errors: Impossible to send an ICAP request, this can be caused by either no TCP connection available, associated flow with a drop action due to another aqp policy, system resource exhausted
- ICAP Request: Number of ICAP request sent
- ICAP Errors: ICAP request timeout, unexpected ICAP response, internal TCP errors.
- Custom-x-header: Name of the custom-x-header, if configured. If it is not configured, the value is "Not Specified".

In addition to these counters the system will count the type of action taken by the url-filter policy (allow, block, redirect, default) as well as the type of responses received from the icap server (allow, block, redirect, late).

Parameters *url-filter-name* — Specifies the name of the url-filter policy.

card/mda — Specifies the card/mda reference of the ISA card.

detail — Specifies detailed statistics related to the ISA card.

Sample Output

```
A:7750# show application-assurance group 1 url-filter "filter1"
===============================================================================
Application Assurance Group 1 URL Filter "filter1"
===============================================================================
Description            : (Not Specified)
Admin Status           : Up
Oper Status            : up
Oper Flags             :

Default Action         : block-http-redirect http-redirect-portal
HTTP Request Filtering : all
HTTP Redirect          : http-redirect-portal
AQP Referenced         : Yes

ICAP Filter
    Custom X-Header    : Filtering-Policy
    VLAN Id            : 10
-------------------------------------------------------------------------------
```

```
Total Connection Stats
-------------------------------------------------------------------------------
HTTP Requests   : 17                    ICAP Requests   : 17
HTTP Req Errors : 0                     ICAP Req Errors : 0

HTTP Response Actions                   ICAP Responses
    Allow       : 17                        Allow       : 17
    Block       : 0                         Block       : 0
    Redirect    : 0                         Redirect    : 0
    Default     : 0                     Late ICAP Resp  : 0
===============================================================================


A:Dut-D# show application-assurance group 1 url-filter "filter1" isa 1/2
===============================================================================
Application Assurance Group 1 URL Filter "filter1" ISA 1/2
===============================================================================
Description            : (Not Specified)
Admin Status           : Up
Oper Status            : up
Oper Flags             :

Default Action         : block-http-redirect http-redirect-portal
HTTP Request Filtering : all
HTTP Redirect          : http-redirect-portal
AQP Referenced         : Yes

ICAP Filter
    Custom X-Header    : Filtering-Policy
    VLAN Id            : 10

AA Interface         : aa-if1
Service              : IES 1
SAP Id               : 1/2/aa-svc:10
ICAP Client IP       : 172.16.2.0/31
-------------------------------------------------------------------------------
ISA 1/2 Connection Stats
-------------------------------------------------------------------------------
HTTP Requests   : 17                    ICAP Requests   : 17
HTTP Req Errors : 0                     ICAP Req Errors : 0

HTTP Response Actions                   ICAP Responses
    Allow       : 17                        Allow       : 17
    Block       : 0                         Block       : 0
    Redirect    : 0                         Redirect    : 0
    Default     : 0                     Late ICAP Resp  : 0
-------------------------------------------------------------------------------
ISA 1/2 ICAP Connection Stats
-------------------------------------------------------------------------------
ICAP Server                             Oper        Request Rate    Round Trip
                                        Status      (per second)  (microsecond)
-------------------------------------------------------------------------------
172.16.1.101                            Up                     0           996
-------------------------------------------------------------------------------
===============================================================================


A:Dut-D# show application-assurance group 1 url-filter "filter1" isa 1/2 detail
===============================================================================
Application Assurance Group 1 URL Filter "filter1" ISA 1/2
===============================================================================
```

```
Description            : (Not Specified)
Admin Status           : Up
Oper Status            : up
Oper Flags             :

Default Action         : block-http-redirect http-redirect-portal
HTTP Request Filtering : all
HTTP Redirect          : http-redirect-portal
AQP Referenced         : Yes

ICAP Filter
    Custom X-Header    : Filtering-Policy
    VLAN Id            : 10

AA Interface         : aa-if1
Service              : IES 1
SAP Id               : 1/2/aa-svc:10
ICAP Client IP       : 172.16.2.0/31
-------------------------------------------------------------------------------
ISA 1/2 Connection Stats
-------------------------------------------------------------------------------
HTTP Requests   : 17                    ICAP Requests   : 17
HTTP Req Errors : 0                     ICAP Req Errors : 0

HTTP Response Actions                   ICAP Responses
    Allow       : 17                        Allow       : 17
    Block       : 0                         Block       : 0
    Redirect    : 0                         Redirect    : 0
    Default     : 0                     Late ICAP Resp  : 0
-------------------------------------------------------------------------------
ICAP Server 172.16.1.101 ISA 1/2
-------------------------------------------------------------------------------
Description   : (Not Specified)
Admin Status  : Up
Oper Status   : Up
Oper Flags    :

Established Connections   : 10 of 10 connections
Connection Utilization    : 0%
Request Rate              : 0 per second
Round Trip Time           : 996 microseconds
===============================================================================
```

charging-group

Syntax **charging-group** [*charging-group-name*] **count** [**detail**]
charging-group count top *granularity* [**max-count** *max-count*]

Context show>app-assure>group>aa-sub

Description This command displays application-assurance group charging group information.

Parameters *charging-group-name* — Specifies an existing charging group.

count — Displays the counters for the charging group.

detail — Displays detailed information.

top — Displays counters sorted by granularity.

granularity — Specifies the granularity of the search.

Values octets , packets, flows

max-count *max-count* — Specifies the maximum flows to display.

Values 1 — 4294967295

http-notification

Syntax **http-notification** *http-notification-name*

Context show>app-assure>group

Description This command displays information about the configured http-notification policy with associated raw statistics:

- Template: Template Id in use
- Script URL: URL address of the script used in the notification message
- Admin Status: Up / Down
- AQP Referenced: Yes/No
- Notified: Total number of notifications sent
- Notification criteria selection not matched: Number of HTTP request not matching the selection criteria for in browser notification

Parameters *http-notification-name* — Displays the name of the http-notification policy.

Output

```
A:7750# show application-assurance group 1 http-notification "in-browser-notifica
tion"
===============================================================================
Application Assurance Group 1 HTTP Notification "in-browser-notification"
===============================================================================
Description  : IBN Demo ALU Message
Template     : 1 - Javascript-url with subId and optional Http-Url-Param
Script URL   : http://1.1.1.1/In-Browser-Notification/script.js
Admin Status : Up
AQP Ref      : Yes
-------------------------------------------------------------------------------
                                  Notified        Notification Selection
                                                    Criteria Not Matched
-------------------------------------------------------------------------------
1:1                                     3                               0
1:2                                     2                               0
1:3                                     0                               0
1:4                                     0                               0
1:5                                     0                               0
-------------------------------------------------------------------------------
Total                                   5                               0
-------------------------------------------------------------------------------
===============================================================================
```

http-notification

Syntax **http-notification** *http-notification-name* **summary**

Context show>app-assure>group

Description This command displays information about the configured http-notification policy with associated raw statistics summed over all partitions.

- Template: Template Id in use
- Script URL: URL address of the script used in the notification message
- Admin Status: Up / Down
- AQP Referenced: Yes/No
- Notified: Total number of notifications sent
- Notification criteria selection not matched: Number of HTTP request not matching the selection criteria for in browser notification

Parameters *http-notification-name* — Displays the name of the http-notification policy.

Output

```
A:Dut-D#  show application-assurance group 1 http-notification "in-browser-notifica
tion" summary
===============================================================================
Application Assurance Group 1 HTTP Notification "in-browser-notification"
===============================================================================
Description  : IBN Demo ALU Message
Template     : 1 - Javascript-url with subId and optional Http-Url-Param
Script URL   : http://1.1.1.1/In-Browser-Notification/script.js
Admin Status : Up
AQP Ref      : Yes

-------------------------------------------------------------------------------
                                  Notified        Notification Selection
                                                    Criteria Not Matched
-------------------------------------------------------------------------------
Total                                    5                               0
-------------------------------------------------------------------------------
===============================================================================
```

partition

Syntax **partition summary**

Context show>app-assure>group

Description This command displays partition information.

Parameters **summary —** Displays partition summary information.

policer

Syntax **policer**
policer *policer-name* [**detail**]
policer summary

Context show>app-assure>group

Description This command displays application-assurance policer information.

Parameters *policer-name* — Displays information about the specified policer.

summary — Displays summarized information about policers on this node.

Sample Output

```
show application-assurance group 1 policer <policer-name> detail
===============================================================================
Policer Instance "1m-dwn"
===============================================================================
Description     : (Not Specified)
Type            : dual-bucket-bandwidth
Granularity     : subscriber
Adaptation Rule : pir closest cir closest

Active tod-override : none

PIR : max              Oper PIR : max
CIR : 0 kbps           Oper CIR : 0 kbps
MBS : 20000 KB         Oper MBS : 20000 KB
CBS : 0 KB             Oper CBS : 0 KB

No. of tod-overrides : 2
-------------------------------------------------------------------------------
Time of Day Override Instance 10
-------------------------------------------------------------------------------
Description : (Not Specified)
Admin State : in-service

Occurrence  : daily (monday tuesday wednesday thursday friday)
Start time  : 19:00
End time    : 22:00

PIR         : max
CIR         : 0 kbps
MBS         : 10000 KB
CBS         : 0 KB
-------------------------------------------------------------------------------
Time of Day Override Instance 20
-------------------------------------------------------------------------------
Description : (Not Specified)
Admin State : in-service

Occurrence  : daily (sunday saturday)
Start time  : 19:00
End time    : 22:00

PIR         : max
CIR         : 0 kbps
```

```
MBS         : 5000 KB
CBS         : 0 KB
===============================================================================
```

policy

Syntax **policy**

Context show>app-assure>group

Description This command enables the context to display application-assurance policy configuration information.

http-error-redirect

Syntax **http-error-redirect** *redirect-name*

Context show>app-assure
show>app-assure>group

Description This command enables the context to display http-error-redirect static definitions.

Sample Output

```
*A:cses-E11>show application-assurance group 1 http-error-redirect <redirect-name>
===============================================================================
Application-Assurance Group 1 http-error-redirect <redirect-name>
===============================================================================
description    : <description-string>
template       : <template-id>
               : text description of template
participant-id : <string>
http-host      : <http-host-name>
error code     : <http-error-code>    custom-msg-size : <msg size>
admin status   : Up
-------------------------------------------------------------------------------
Grp:Part  Error     Redirects    Redirects Not Sent
          Code      Sent         > Custom     Out ofFile    Error
                              size  Resourcetype
-------------------------------------------------------------------------------
1:1       404     1250          52            10           10
1:56789   404     2000          952           81           01
-------------------------------------------------------------------------------
Total               3250      1004          91           1     1
-------------------------------------------------------------------
===================================================================
*A:cses-E11>
```

http-redirect

Syntax **http-redirect** *redirect-name*

Context show>app-assure>group

Description This command displays application assurance http-redirect statistics and status information.

Parameters *redirect-name* — Specifies the name of the http-redirect policy.

Output The following table describes the show command output fields:

Label	Description
Template	Specifies HTTP redirect template id information. Each HTTP redirect template returns a specific HTTP redirect message such as HTTP 302 or Javascript and can optionally use macro substitution.
Redirect URL	Specifies the address the subscriber will be redirected to.
Captive Redirect	Specifies Yes if captive redirect is used and No if captive redirect is not used.
VLAN ID	Specifies the AA interface VLAN id used for captive redirect.
Admin Status	Specifies the administrative status (Up/Down) of the HTTP redirect policy.
AQP Ref	Specifies Yes if the HTTP redirect policy is referenced in AQP, and No if it is not.

Sample Output

```
*A:7750# show application-assurance group 1 http-redirect "redirect-portal"

===============================================================================
Application Assurance Group 1 HTTP Redirect redirect-portal
===============================================================================
Description        : (Not Specified)
Template           : 5
                   : Redirect supporting macro substitution using HTTP 302
Redirect URL       : http://172.16.70.100/Redirect/redirect-portal.
                     html?RequestedURL=$URL
Captive Redirect   : Yes
    VLAN ID        : 20
Admin Status       : Up
AQP Ref            : Yes

-------------------------------------------------------------------------------
Summary Statistics
-------------------------------------------------------------------------------
Grp:Part             Redirects           Client Resets               Redirects
                          Sent                    Sent                Not Sent
-------------------------------------------------------------------------------
1:1                          0                       0                       0
1:2                          0                       0                       0
1:3                          0                       0                       0
-------------------------------------------------------------------------------
Total                        0                       0                       0
-------------------------------------------------------------------------------
===============================================================================
```

error-codes

Syntax **error-codes**

Context show>app-assure>http-redirect

Description This command displays http-error-redirect error-codes.

Sample Output

```
*A:cses-E11>show application-assurance http-error-redirect error-codes
===============================================================================
Application-Assurance http-error-redirect error-codes
===============================================================================
Code    Description                                 Default custom-msg-size
-------------------------------------------------------------------------------
404     Not found                                   1024
===============================================================================
*A:cses-E11>
```

template

Syntax **template**

Context show>app-assure>http-redirect

Description This command displays http-error-redirect template information.

Sample Output

```
*A:cses-E11>show application-assurance http-error-redirect template
===============================================================================
Application-Assurance http-error-redirect templates
===============================================================================
ID      Description
-------------------------------------------------------------------------------
1       Template suited for Barefruit landing server.  Includes participant-id.
2       Template suited for Xerocole landing server.
===============================================================================
*A:cses-E11>
```

protocol

Syntax **protocol** [*protocol-name*]
protocol [*protocol-name*] **detail**

Context show>app-assure

Description This command displays application-assurance policy protocols loaded from the isa-aa.tim file.

Parameters *protocol-name* — Displays all protocols from the isa-aa.tim file.

detail — Displays detailed information about the specified protocol name.

Sample Output

```
A:ALU-ABC>show>app-assure# protocol
===============================================================================
Application Assurance Protocols
===============================================================================
                        Protocol : Description
-------------------------------------------------------------------------------
                       aim_oscar : America Online Oscar Instant Messaging.
             aim_oscar_file_xfer : America Online Oscar File Transfer.
          aim_oscar_video_voice : America Online Oscar Video and Voice
                                  Traffic.
                        aim_toc : America Online Talk to Oscar Instant
                                  Messaging.
                     bittorrent : BitTorrent peer to peer protocol.
...
A:ALU-ABC>show>app-assure#


A:ALU-ABC>show>app-assure# protocol tftp
===============================================================================
Application Assurance Protocols
===============================================================================
                        Protocol : Description
-------------------------------------------------------------------------------
                            tftp : IETF RFC 1350: Trivial File Transfer
                                   Protocol.
===============================================================================
A:ALU-ABC>show>app-assure#
```

radius-accounting-policy

Syntax **radius-accounting-policy** [*rad-acct-plcy-name*]
radius-accounting-policy *rad-acct-plcy-name* **associations**
radius-accounting-policy *rad-acct-plcy-name* **statistics**

Context show>app-assure

Description This command displays RADIUS accounting policy information.

Parameters *rad-acct-plcy-name* — Specifies the RADIUS accounting policy.

associations — Specifies to show what contexts are associated with this policy.

statistics — Specifies to show statistics related to this policy.

version

Syntax **version**

Context show>app-assure

Description This command displays the versions of the isa-aa.tim used by the CPM and the AA ISAs.

Sample Output

```
A:ALU>show>app-assure# version
===============================================================================
Versions of isa-aa.tim in use
===============================================================================
CPM           : TiMOS-M-7.0.R4
1/1           : TiMOS-I-7.0.R1
2/1           : TiMOS-I-7.0.R1
3/2           : TiMOS-I-7.0.R1
===============================================================================
A:ALU>show>app-assure#
```

mda

Syntax **mda** [*slot* [*/mda*]] [**detail**]

Context show

Description This command displays MDA information.

If no command line options are specified, a summary output of all MDAs is displayed in table format.

Parameters *slot* — The slot number for which to display MDA information.

mda — The MDA number in the slot for which to display MDA information.

detail — Displays detailed MDA information.

Output **MDA Output —** The following table describes MDA output fields.

Label	Description
Slot	The chassis slot number.
MDA	The MDA slot number.
Provisioned type	The MDA type provisioned.
Equipped type	The MDA type actually installed.
Admin State	Up — Administratively up.
	Down — Administratively down.
Operational State	Up — Operationally up.
	Down — Operationally down.

Sample Output

```
show mda
```

```
===============================================================================
MDA Summary
===============================================================================
Slot  Mda   Provisioned Type                              Admin     Operational
               Equipped Type (if different)              State     State
-------------------------------------------------------------------------------
2     1     m20-1gb-xp-sfp                               up        up
      2     isa-aa                                       up        up/active
               isa-ms
===============================================================================
```

aa-sub-using

Syntax **aa-sub-using**
aa-sub-using app-profile *app-profile-name*

Context show>service

Description This command displays application subscriber information.

Parameters *app-profile-name* — Specifies the application profile name.

sap-using app-profile

Syntax **sap-using app-profile** *app-profile-name*

Context show>service

Description This command displays information about SAPs using the specified application profile.

Parameters *app-profile-name* — Specifies an existing application profile name created in the **config>app-assure>group>policy** context.

Sample Output

```
*A:ALA-48# show service sap-using app-profile test
===============================================================================
Service Access Point Using Application Profile 'test'
===============================================================================
PortId                          SvcId      Ing.  Ing.    Egr.  Egr.   Adm  Opr
                                           QoS   Fltr    QoS   Fltr
-------------------------------------------------------------------------------
1/1/18:0                        89         1     none    1     none   Up   Down
-------------------------------------------------------------------------------
Number of SAPs : 1
-------------------------------------------------------------------------------
===============================================================================
*A:ALA-48#
```

sap-using aarp

Syntax **sap-using aarp** *aarp-id*

Context show>service

Description This command displays SAP information for a specific AARP ID.

Parameters *aarp-id* — Specifies the AARP ID.

Values 1 — 65535

sap-using transit-policy ip

Syntax **sap-using transit-policy ip** *ip-policy-id*

Context show>service

Description This command displays SAP information for a specific transit-policy.

Parameters *ip-policy-id* — Specifies the transit IP policy.

Values 1 — 65535

sap-using transit-policy

Syntax **sap-using transit-policy prefix** *transit-prefix-policy*

Context show>service

Description This command displays SAP information for a specific transit prefix policy.

Parameters *transit-prefix-policy* — Specifies an integer that identifies the transit prefix policy.

Values 1 — 65535

sdp-using aarp

Syntax **sdp-using aarp** *aarp-id*

Context show>service

Description This command displays SDP information for a specific AARP instance ID.

Parameters *aarp-id* — Specifies the AARP instance ID.

Values 1 — 65535

sdp-using transit-policy ip

Syntax **sdp-using transit-policy ip** *transit-ip-policy*
sdp-using transit-policy prefix *transit-prefix-policy*

Context show>service

Description This command displays SDP information for an IP transit IP policy or a transit prefix policy.

Parameters **ip** *ip-policy-id* — Specifies an transit IP policy ID.

Values 1 — 65535

prefix *transit-prefix-policy* — Specifies an transit prefix policy ID.

Values 1 — 65535

sdp-using transit-policy

Syntax **transit-policy prefix** *transit-prefix-policy*

Context show>service

Description This command displays the spoke-sdp associated to a transit prefix policy.

Parameters *transit-prefix-policy* — Specifies an integer that identifies the transit prefix policy.

Values 1 — 65535

sdp-using app-profile

Syntax **sdp-using app-profile** *app-profile-name*

Context show>service

Description This command displays the SDP and associated services diverted to Application Assurance using a specific app profile name.

subscriber-using app-profile

Syntax **subscriber-using app-profile** *app-profile-name*

Context show>service

Description This command displays the subscribers and associated services diverted to Application Assurance using a specific app profile name.

Tools Commands

aarp

Syntax **aarp** *aarpId* **event-history** [**clear**]

Context tools>dump>application-assurance

Description This command dumps application-assurance AARP information for a specified instance.

Parameters *aarpId* — Specifies the AARP ID.

Values 1 — 65535

event-history — Dumps historical information for the instance.

clear — Specifies to clear the event hisotry after reading.

group

Syntax **group** *aa-group-id*

Context tools>dump>application-assurance

Description This command dumps application-assurance information within a group.

Parameters **Values** aa-group-id: partion:aa-group-id[:partition-id]
aa-group-id 1 — 255

group

Syntax **group** *aa-group-id*[:*partition-id*]

Context tools>dump>application-assurance

Description This command dumps application-assurance information within a group/partition.

Parameters **Values** aa-group-id: partion:aa-group-id[:partition-id]
aa-group-id 1 — 255
partition-id 1 — 65535

aa-sub

Syntax **aa-sub dsm mac** *mac-address* [**snapshot**]
aa-sub esm *sub-ident-string*
aa-sub transit *transit-aasub-name*

Context tools>dump>app-assure>group

Description This command displays AA subscriber information for a specific ISA.

Parameters *mac-address* — Specifies the MAC address in *xx:xx:xx:xx:xx:xx* or *xx-xx-xx-xx-xx-xx* format.

snapshot — Displays snapshot statistics.

sub-ident-string — Specifies the AA subscriber identifier string; a maximum of 32 characters.

transit-aasub-name — Specifies the AA transit subscriber name; a maximum of 32 characters.

app-group

Syntax **app-group** [*app-group-name*] **count** [**detail**]

Context tools>dump>app-assure>group

Description This command displays per-subscriber per-app-group statistics.

application

Syntax **application** [*application-name*] **count** [**detail**]

Context tools>dump>app-assure>group

Description This command displays per-subscriber per-application statistics.

charging-group

Syntax **charging-group** [*charging-group-name*] **count** [**detail**]

Context tools>dump>app-assure>group

Description This command displays per-subscriber per-charging-group statistics.

summary

Syntax **summary**

Context tools>dump>app-assure>group

Description This command displays subscriber summary information.

aa-sub-list

Syntax **aa-sub-list** [**filter-by-type** *sub-type*] [**isa** *mda-id*]

aa-sub-list summary

Context tools>dump>app-assure>group

Description This command displays the AA subscriber list for the specified ISA.

aa-sub-search

Syntax **aa-sub-search top** {**bytes**|**packets**|**flows**} [**direction** {**from-sub**|**to-sub**|**both**}] **max-count** *max-count*]

Context tools>dump>app-assure>group

Description This command displays application-assurance aa-sub information.

Parameters *search-type* — Specifies the type of search.

Values top

granularity — Specifies the granulatity of the search.

Values bytes, packets, flows

direction *direction* — Specifies the network/subscriber direction.

Values from-sub, to-sub|, oth

max-count *max-count* — Specifies the maximum flows to display.

Values 1 — 100

dns-ip-cache

Syntax **dns-ip-cache isa** *mda-id* [**url** *file-url*]

Context tools>dump>app-assure>group

Description This command displays the list of IP addresses stored in a DNS IP cache.

Parameters **isa** *mda-id* — Specifies the DNS IP cache for a particular ISA-AA card.

url *file-url* — Specifies the URL for the file to direct the search output to. The file may be local or remote.

Values local-url | remote-url

local-url	[<cflash-id>/][<file-path>]	
	200 chars max, including cflash-id	
	directory length 99 chars max each	
remote-url	[{ftp://|tftp://}<login>:<pswd>@<remote-locn>/][<file-path>]	
	255 chars max	
	directory length 99 chars max each	
remote-locn	[<hostname> | <ipv4-address> | <ipv6-address>]	
	ipv4-address	a.b.c.d
	ipv6-address	x:x:x:x:x:x:x:x[-interface]

	x:x:x:x:x:x:d.d.d.d[-interface] x - [0..FFFF]H d - [0..255]D interface - 32 chars max, for link local addresses
cflash-id	flash slot ID

Output **Command Output —** The following table describes the command output fields:

Label	Description
ip-address	Indicates the IP address stored in the DNS IP cache. The address is added into the cache if the DNS response meets the DNS IP cache match criteria (domain name and DNS server address).
creationTime	Indicates the time at which the entry was created. The entry is created by a DNS response meeting the DNS IP cache match criteria (domain name and DNS server address).
lastUpdated(UTC)	Indicates the time at which the entry was last updated, either from a new IP flow (fully classified) using the same IP address or a new DNS response meeting the DNS IP cache match criteria.
numDNSResponses	Indicates the number of DNS responses including this IP address meeting the DNS IP cache match criteria.
lastMatchTime(UTC)	Indicates the last time the IP address matched an app-filter with a server address DNS IP cache criteria.
numTimesMatched	Indicates the number of times the IP address matched an app-filter with a server address DNS IP cache.

Sample Output

```
*A:7750# tools dump application-assurance group 1 dns-ip-cache "Default DNS IP
Cache" isa 3/2
=====================================================
Application-Assurance dns-ip-cache "Default DNS IP Cache"
Current Time:          "01/21/2015 16:44:00" (UTC)
  group:               1
  isa:                 3/2
  admin state:         no shutdown
  max-entries:         150
=====================================================
ip-address                              creationTime(UTC)     lastUpdated(sec)
numDNSResponses      lastMatchTime(UTC)    numTimesMatched
2600:5:3d40:3::3fa8:3d59          "01/21/2015 16:42:49" 71            5
"01/21/2015 16:42:49" 0
2600:5:3d40:3::3fa8:3d0b          "01/21/2015 16:42:49" 71            1
"01/21/2015 16:42:49" 0
```

```
2600:5:3d40:3::3fa8:3d2b          "01/21/2015 16:42:49" 71           1
"01/21/2015 16:42:49" 0
157.238.74.203                "01/21/2015 16:42:36" 84           67
"01/21/2015 16:42:36" 0
207.152.124.91                "01/21/2015 16:42:36" 84           15
"01/21/2015 16:42:36" 0
207.152.124.97                "01/21/2015 16:42:36" 84           15
"01/21/2015 16:42:36" 0
77.67.86.136                  "01/21/2015 16:42:36" 84           5
"01/21/2015 16:42:36" 0
157.238.74.176                "01/21/2015 16:42:36" 84           67
"01/21/2015 16:42:36" 0
77.67.86.99                   "01/21/2015 16:42:36" 84           11
"01/21/2015 16:42:36" 0
```

event-log

Syntax **event-log** *event-log-name* **isa** *mda-id*
event-log *event-log-name* [**url** *file-url*] **isa** *mda-id*

Context tools>dump>app-assure>group

Description This command displays application-assurance event-log information.

flow-record-search

Syntax **flow-record-search aa-sub** {**esm** *sub-ident-string* | **sap** *sap-id* | **spoke-sdp** *sdp-id:vc-id* | **transit** *transit-aasub-name* | **mobile** {**imsi** *imsi-msisdn* | **msisdn** *imsi-msisdn* | **imei** *imei*} **apn** *apn-name* | **dsm mac** *mac-address*} [**protocol** *protocol-name*] [**application** *app-name*] [**app-group** *app-group-name*] [**flow-status** *flow-status*] [**start-flowid** *start-flowid*] [**classified** *classified*] [**server-ip** *ip-address*] [**server-port** *port-num*] [**client-ip** *ip-address*] [**bytes-tx** *kbytes*] [**flow-duration** *minutes*] [**max-count** *max-count*] [**search-type** *search-type*] [**url** *file-url*]

flow-record-search isa *mda-id* [**protocol** *protocol-name*] [**application** *app-name*] [**app-group** *app-group-name*] [**flow-status** *flow-status*] [**start-flowid** *start-flowid*] [**classified** *classified*] [**server-ip** *ip-address*] [**server-port** *port-num*] [**client-ip** *ip-address*] [**bytes-tx** *kbytes*] [**flow-duration** *minutes*] [**max-count** *max-count*] [**search-type** *search-type*] [**url** *file-url*]

Context tools>dump>app-assure>group

Description This command dumps application-assurance flow-records matching the specified criteria for a specific AA subscriber.

Parameters **application** *app-name* — Displays flows for the specified application name.

app-group *app-group-name* — Displays flows for the specified application group.

bytes-tx *kbytes* — Display flows with the specified minimum kilobytes.

Values 0 — 4294967295

classified *classified* — Specifies the starting flow ID.

Values yes, no

client-ip *ip-address* — Display flows with the specified client IP address.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)

dsm mac *mac-address* —

esm *sub-ident-string* — Displays flows for the specified subscriber.

flow-duration *minutes* — Display flows with the specified minimum duration in minutes.

Values 0 — 4294967295

flow-status *flow-status* — Displays only flows that are active or closed.

Values active, closed

max-count *max-count* — Specifies the maximum count of flows to display.

Values 1— 4294967295

protocol *protocol-name* — Displays flows for the specified protocol.

sap ***sap-id*** — Displays flows for the specified SAP.

search-type *search-type* — Specifies the level of detail displayed for flows that match the search criteria.

Values default — Displays some per flow information.
count — Displays the number of matching flows.
detail — Displays all per flow information available.

server-ip *ip-address* — Display flows with the specified server IP address.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)

server-port port-num — Display flows with the specified server port number.

Values 0 — 65535

spoke-sdp *sdp-id:vc-id* — Displays flows for the specified spoke SDP.

start-flowid *start-flowid* — Specifies the starting flow ID.

Values 0 — 4294967295

transit *transit-aasub-name* — Displays flows for the specified transit subscriber.

url *file-url* — Specifies the URL for the file to direct the search output to. The file may be local or remote.

Values local-url | remote-url
local-url [<cflash-id>/][<file-path>]
200 chars max, including cflash-id
directory length 99 chars max each

remote-url	[{ftp://|tftp://}<login>:<pswd>@<remote-locn>/][<file-path>]	
	255 chars max	
	directory length 99 chars max each	
remote-locn	[<hostname> | <ipv4-address> | <ipv6-address>]	
	ipv4-address	a.b.c.d
	ipv6-address	x:x:x:x:x:x:x:x[-interface]
		x:x:x:x:x:x:d.d.d.d[-interface]
		x - [0..FFFF]H
		d - [0..255]D
		interface - 32 chars max, for link local addresses
	cflash-id	flash slot ID

load-balance

Syntax **load-balance** [**service** *service-id*]

Context tools>perform>app-assure>group

Description This command rebalances AA subscribers between ISAs within a group, in case imbalance occurs such as with the addition of new cards.

Parameters **service** *service-id* — Specifies the service

Values 1 — 2147483648

http-host-recorder detail

Syntax **http-host-recorder detail** [**isa** *mda-id*] **url** *file-url*

Context tools>dump>app-assure>group

Description This command saves the http host values recorded by the tool into a file. The http-host-recorder is configured using debug commands.

Parameters *isa mda-id* — Specifies the AA ISA.

Values slot 1 — 10, mda 1 — 2

url file-url — Specifies the URL for the file to direct the http-host-recorder output to.

Values

local-url:	<cflash-id>/][<file-path>]
	200 chars max, including cflash-id
	directory length 99 chars max each
remote-url:	[{ftp://|tftp://}<login>:<pswd>@<remote-locn>/][<file-path>]
	255 chars max
	directory length 99 chars max each
remote-locn:	<hostname> | <ipv4-address> | <ipv6-address>]
ipv4-address	a.b.c.d
ipv6-address	x:x:x:x:x:x:x:x[-interface]
	x:x:x:x:x:x:d.d.d.d[-interface]

x - [0..FFFF]H
d - [0..255]D
interface - 32 chars max, for link local addresses
cflash-id flash slot ID

http-host-recorder status

Syntax **http-host-recorder status** [isa *mda-id*]

Context tools>dump>app-assure>group

Description This command displays the current status of the http-host-recorder with current-time, start-time, stop-time, sample-rates, filters, buffer as well as number of bytes and flows recorded for the specified AA ISA. The http-host-recorder is configured using debug commands.

Parameters **isa** *mda-id* — Specifies the AA ISA

Values slot 1 — 10, mda 1 — 2

http-host-recorder top

Syntax **http-host-recorder top** {**bytes**|**flows**} [**max-count** {1..25}] [**isa** *mda-id*]

Context tools>dump>app-assure>group

Description This command configures dump application-assurance http-host-recorder information.

Parameters *granularity* — Specifies if the output is sorted by bytes or flows.

Values bytes, flows

max-count *max-count* — Specifies the maximum count of flows to display.

Values 1— 25

isa *mda-id* — Specifies the AA ISA

Values slot 1 — 10
mda 1 — 2

http-host-recorder granularity

Syntax **http-host-recorder top** *granularity* [**max-count** *max-count*] [**isa** *mda-id*]

Context tools>dump>app-assure>group

Description This command displays by bytes or flows top http-host recorded by the tool on a particular AA ISA.

Parameters *granularity* — Specifies if the output is sorted by bytes or flows.

Values bytes, flows

max-count *count-value* — Specifies the maximum number of values to display.

Values 1 — 25

isa *mda-id* **—** Specifies the AA ISA

Values slot 1 — 10, mda 1 — 2

policer

Syntax **policer** *policer-name* **day** *day* **time** *time-of-day*

Context tools>dump>app-assure>group

Description This command displays rates for the policer for a specific day and time.

Parameters *policer-name* — Specifies an existing poicer name up to 256 characters in length.

day *day* **—** Specifies a day to display policer rates.

Values sunday, monday, tuesday, wednesday, thursday, friday, saturday

time *time-of-day* **—** Specifies a time of day (in hours and minutes)to display policer rates.

Values hh : 0..24
mm : 0, 15, 30, 45

port-recorder detail

Syntax **port-recorder detail** [**flow-count** *flows*] [**byte-count** *kbytes*] [**isa** *mda-id*] **url** *file-url*

Context tools>dump>app-assure>group

Description This command saves the port recorded by the tool into a file. The port-recorder is configured using debug commands.

Parameters **flow-count** *flows* **—** Match ports with flow count greater than the specified value.

Values slot 1 — 4294967295

bytes-count *kilobytes* **—** Match ports with bytes count greater than the specified value.

Values slot 1 — 4294967295

isa *mda-id* **—** Specifies the AA ISA

Values slot 1 — 10, mda 1 — 2

url *file-url* **—** Specifies the URL for the file to direct the port-recorder output to.

Values local-url, remote-url
local-url [<cflash-id>/][<file-path>]
200 chars max, including cflash-id
directory length 99 chars max each
remote-url [{ftp://|tftp://}login:pswd@remote-locn/][file-path]
255 chars max
directory length 99 chars max each
remote-locn[hostname | ipv4-address | ipv6-address]

ipv4-addressa.b.c.d
ipv6-addressx:x:x:x:x:x:x:x[-interface]
x:x:x:x:x:x:d.d.d.d[-interface]
x - [0..FFFF]H
d - [0..255]D
interface - 32 chars max, for link local addresses
cflash-idflash slot ID

port-recorder status

Syntax **port-recorder status** [**isa** *mda-id*]

Context tools>dump>app-assure>group

Description This command displays the current status of the port-recorder with current-time, start-time, stop-time, sample-rates as well as number of bytes and flows for UDP and TCP traffic on the specified AA ISA card. The port-recorder is configured using debug commands.

Parameters **isa** *mda-id* — Specifies the AA ISA

Values slot 1 — 10, mda 1 — 2

port-recorder top

Syntax **port-recorder top** *granularity* [**max-count** *max-count*] [**isa** *mda-id*]

Context tools>dump>app-assure>group

Description This command displays by bytes or flows the top ports recorded by the tool on a particular AA ISA.

Parameters *granularity* — Specifies if the output is sorted by bytes or flows.

Values bytes, flows

max-count *count-value* — Specifies the maximum number of values to display.

Values 1 — 25

isa *mda-id* — Specifies the AA ISA

Values slot 1 — 10, mda 1 — 2

traffic-capture

Syntax **traffic-capture detail url** *file-url*
traffic-capture status

Context tools>dump>app-assure>group

Description This command displays application-assurance traffic-capture information.

seen-ip

Syntax **seen-ip transit-ip-policy** *ip-policy-id*
seen-ip transit-ip-policy *ip-policy-id* **clear**

Context tools>dump>app-assure>group

Description This command dumps application-assurance seen-ip information for a specified transit-ip policy.

Parameters **transit-ip-policy** *ip-policy-id* **—** An integer that identifies a transit IP profile entry.

Values 1 — 65535

clear — Clears the seen IP information after reading.

aarp

Syntax **aarp** *aarpId* **force-evaluate**

Context tools>perform>app-assure

Description This command performs Application Assurance Redundancy Protocol instance operations.

Parameters *aarpId* — Specifies an integer that identifies an AARP instance

Values 1 — 65535

force-evaluate — Forces a re-evaluation of the preferred AARP instance.

group

Syntax **group** *aa-group-id* **load-balance** [**service** *service-id*]

Context tools>perform>app-assure

Description This command performs application assurance group operations.

Parameters *aa-group-id* — Specifies the application assurance group ID.

Values 1 — 255

load-balance — Load balances subscribers within the group.

service *service-id* **—** Load balances the specified service.

Values 1 — 2148007978, svc-name (up to 64 char max.

Clear Commands

group

Syntax **group** *aa-group-id* **cflowd**
group *aa-group-id* **event-log**
group *aa-group-id* **statistics**
group *aa-group-id* **status**

Context clear>app-assure

Description This command clears application assurance group statistics or status.

Parameters *aa-group-id* — Clears data for the specified AA ISA group.

cflowd — Clears application assurance cflowd statistics.

event-log — Clears application assurance event log.

statistics — Clears application assurance system and subscriber statistics.

status — Clears application assurance status statistics.

radius-accounting-policy

Syntax **radius-accounting-policy** *rad-acct-plcy-name* [**server** *server-index*] **statistics**

Context clear>app-assure

Description This command clears application assurance RADIUS accounting statistics for the specified policy.

Parameters *policy-name* — The name of the policy. The string is case sensitive and limited to 32 ASCII 7-bit printable characters with no spaces.

server-index — The index for the RADIUS server.

Values 1 — 16 (a maximum of 5 accounting servers)

Debug Commands

group

Syntax **group** *aa-group-id*[:*partition-id*]

Context debug>app-assure

Description This command configures application-assurance within a group/partition debugging.

Parameters *aa-group-id[:partition-id]* — Specifies the existing application assurance group and partition id.

Values <aa-group-id:parti*> : <aa-group-id>[:<partition-id>]
aa-group-id [1..255]
partition-id [1..65535]

traffic-capture

Syntax [**no**] **traffic-capture**

Context debug>app-assure>group

Description This command configures debugging for traffic capture.

match

Syntax [**no**] **match**

Context debug>app-assure>group>traffic-capture

Description This command configures debugging for traffic match criteria.

application

Syntax **application** {**eq** | **neq**} *application-name*
no application

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on an application.

client-ip

Syntax **client-ip** {**eq** | **neq**} *ip-address*

no client-ip

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging of a client IP.

client-port

Syntax **client-port** {**eq** | **neq**} *port-num*
no client-port

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging of a client port.

dst-ip

Syntax **dst-ip** {**eq** | **neq**} *ip-address*
no dst-ip

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a destination IP address.

dst-port

Syntax **dst-port** {**eq** | **neq**} *port-num*
no dst-port

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a destination port.

ip-addr1

Syntax **ip-addr1** {**eq** | **neq**} *ip-address*
no ip-addr1

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on IP address 1.

ip-addr2

Syntax **ip-addr2** {**eq** | **neq**} *ip-address*
no ip-addr2

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on IP address 2.

ip-protocol-num

Syntax **ip-protocol-num** {**eq** | **neq**} *protocol-id*
no ip-protocol-num

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on an IP protocol number.

port1

Syntax **port1** {**eq** | **neq**} *port-num*
no port1

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on port 1.

port2

Syntax **port2** {**eq** | **neq**} *port-num*
no port2

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on port 2.

server-ip

Syntax **server-ip** {**eq** | **neq**} *ip-address*
no server-ip

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a servicer IP address.

server-port

Syntax **server-port** {**eq** | **neq**} *port-num*
no server-port

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a server port.

src-ip

Syntax **src-ip** {**eq** | **neq**} *ip-address*
no src-ip

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a source IP address.

src-port

Syntax **src-port** {**eq** | **neq**} *port-num*
no src-port

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a source port.

mirror-source

Syntax [**no**] **mirror-source** *service-id*

Context debug>app-assure>group>traffic-capture>match

Description This command configures debugging on a mirror source.

record

Syntax **record**

Context debug>app-assure>group>traffic-capture

Description This command configures traffic recording options.

limit

Syntax **limit** {**all-packet-matches** | **first-session-match**}

Context debug>app-assure>group>traffic-capture>record

Description This command records limit conditions.

Parameters **all-packet-matches —** Records all the packets matching the condition.

first-session-match — Records only the first session matching the condition.

start

Syntax **start** {**immediate** | **on-new-session**}

Context debug>app-assure>group>traffic-capture>record

Description This command records limit conditions.

Parameters **immediate —** Start recording immediately for new or existing flows or sessions.

on-new-session — Only start recording record for new flows or sessions.

shutdown

Syntax [**no**] **shutdown**

Context debug>app-assur>group>traffic-capture

Description This command administratively disables traffic capture.

isa-aa-group

Syntax **isa-aa-group** *aa-group-id* {**all** | **unknown**}
no isa-aa-group *aa-group-id*

Context debug>mirror-source

Description This command configures AA ISAgroup as a mirror source for this mirror service. Traffic is mirrored after AA processing takes place on AA ISAs of the group, therefore, any packets dropped as part of that AA processing are not mirrored.

Parameters **all —** Specifies that all traffic after AA processing will be mirrored.

unknown — Specifies that all traffic during the identification phase (may match policy entry or entries that have mirror action configured) and traffic that had been identified as unknown_tcp or unknown_udp after AA processing will be mirrored.

persistence

Syntax **persistence** [*persistence-client*]
no persistence

Context debug>system

Description This command displays persistence debug information.

Parameters *persistence-client* — Use the **application-assurance** keyword to display persistence debug information.

Values application-assurance

http-host-recorder

Syntax [**no**] **http-host-recorder**

Context debug>app-assur>group

Description This command enables the http-host-recorder feature on a particular group:partition.

The **no** form of the command disables the http-host-recorder feature.

filter

Syntax **filter**

Context debug>app-assur>group>http-host-recorder

Description This command configures recorder filter settings.This command specifies the filtering parameter for the http-host-recorder feature.

default-filter-action

Syntax **default-filter-action** *default-action*

Context debug>app-assur>group>http-host-recorder>filter

Description This command configures the recorder filter default action to either record or no-record. This parameter applies to http-host values not matching any expressions defined in the filter context.

Parameters *default-action* — Specifies the default action.

Values record, no record

expression

Syntax **expression** *expr-index expr-type* **eq** *expr-string* {**record**|**no-record**}
no expression expr-index

Context debug>app-assur>group>http-host-recorder>filter

Description This command configures the recorder filter expressions.

Parameters *expr-index* — Specifies the expression index vaue.

Values 1 — 4

expr-type — Specifies the expression type.

Values http-host

expr-string — Specifies the HTTP host filter expression string.

Values format *<expression>$ (33 chars max)

record

Syntax **record {all-hosts|http-host-app-filter-candidates}**

Context debug>app-assur>group>http-host-recorder>filter

Description This command configures which http-host are selected for the http-host-recorder. It is either any http-host values going through the AA ISA or the http-host corresponding to flows not matching a string based app-filter. Note that for the feature to work it is required to configure at least one app-filter to catch the HTTP protocol signature.

Parameters **all-hosts|http-host-app-filter-candidates —** Specifies which hosts the recorder will record

Values all-hosts, http-host-app-filter-candidates

Default http-host-app-filter-candidates

rate

Syntax **rate** *sample-rate*
no rate

Context debug>application-assurance>group>http-host-recorder
debug>application-assurance>group>port-recorder

Description This command configures the sampling rate for the recorded http host, a sampling rate of 10 will sample one out of 10 http-host.

Values 1 — 10000

Default 100

Sample Output

The following configuration records http-host entries ending with ".com" as a result of the expression filter configuration. It will not record any other HTTP host values since the default-filter-action set to no-record. The http-host entries analyzed by the recorder in the first place are http-host-app-filter-candidates.

```
7750# show debug
debug
    application-assurance
        group 1:1
            http-host-recorder
                filter
                    default-filter-action no-record
                    expression 1 http-host eq "*.com$" record
                    record http-host-app-filter-candidates
```

```
                exit
                rate 100
                no shutdown
            exit
        exit
    exit
exit
```

shutdown

Syntax [**no**] **shutdown**

Context debug>application-assurance>group>http-host-recorder
debug>application-assurance>group>port-recorder

Description This commands allows to stop or start the http-host-recorder. To reset the recorded values execute shutdown followed by **no** shutdown.

port-recorder

Syntax [**no**] **port-recorder**

Context debug>application-assurance>group

Description This commands allows to stop or start the http-host-recorder. To reset the recorded values execute shutdown followed by **no** shutdown.

application

Syntax [**no**] **application** *application-name*

Context debug>application-assurance>group>port-recorder

Description This commands specifies the applications used as input by the port-recorder. Note that applications responsible for unknown or unidentified traffic are meant to be used by this tool.

Sample Output

The follwoing configuration records TCP and UDP port numbers for the application “Unidentified TCP”.

```
7750# show debug
debug
    application-assurance
        group 1:1
            port-recorder
                application "Unidentified TCP"
                rate 100
                no shutdown
```

```
            exit
        exit
    exit
exit
```