
Application Assurance Command Reference

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Hardware Commands

```
config
— card slot-number
   — card-type card-type
   — no card-type
   — mda mda-slot
      — mda-type mda-type
      — no mda-type
```

Admin Commands

```
admin
— application-assurance
   — group aa-group-id
      — url-list url-list-name upgrade
   — upgrade
```

ISA Commands

```

config
  — isa
    — application-assurance-group application-assurance-group-index [create] [aa-sub-scale
      sub-scale]
    — no application-assurance-group application-assurance-group-index
      — [no] backup mda-id
      — description description-string
      — no description
      — [no] divert-fc fc-name
      — [no] fail-to-open
      — isa-capacity-cost-high-threshold threshold
      — no isa-capacity-cost-high-threshold
      — isa-capacity-cost-low-threshold threshold
      — no isa-capacity-cost-low-threshold
      — [no] isa-overload-cut-through
      — minimum-isa-generation {1 | 2} min-isa-generation
      — [no] partitions
      — [no] primary mda-id
      — qos
        — egress
          — from-subscriber
            — pool [pool-name]
            — no pool
              — resv-cbs percent-or-default
              — no resv-cbs
              — slope-policy slope-policy-name
              — no slope-policy
            — port-scheduler-policy port-scheduler-policy-name
            — no port-scheduler-policy
            — queue-policy network-queue-policy-name
            — no queue-policy
            — wa-shared-high-wmark percent
            — no wa-shared-high-wmark
            — wa-shared-low-wmark percent
            — no wa-shared-low-wmark
          — to-subscriber
            — no pool
              — resv-cbs percent-or-default
              — no resv-cbs
              — slope-policy slope-policy-name
              — no slope-policy
            — port-scheduler-policy port-scheduler-policy-name
            — no port-scheduler-policy
            — queue-policy network-queue-policy-name
            — no queue-policy
            — wa-shared-high-wmark percent
            — no wa-shared-high-wmark
            — wa-shared-low-wmark percent
            — no wa-shared-low-wmark
        — [no] shutdown
      — statistics
        — performance
          — accounting-policy acct-policy-id
          — no accounting-policy

```

- [no] collect-stats
- transit-prefix-ipv4-entries *entries*
- no transit-prefix-ipv4-entries
- transit-prefix-ipv4-remote-entries *entries*
- no transit-prefix-ipv4-remote-entries
- transit-prefix-ipv6-entries *entries*
- no transit-prefix-ipv6-entries
- transit-prefix-ipv6-remote-entries *entries*
- no transit-prefix-ipv6-remote-entries

Application Assurance Commands

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AA Commands

```

config
— application-assurance
  — arp arpId [create]
  — no arp arpId
    — description description-string
    — no description
    — master-selection-mode mode
    — peer ip-address
    — no peer
    — peer-endpoint sap sap-id encap-type {dot1q|null|qinq}
    — peer-endpoint spoke-sdp DVD-id
    — no peer-endpoint
    — priority [0,255]
    — no priority
    — [no] shutdown
  — bit-rate-high-wmark high-watermark
  — bit-rate-low-wmark low-watermark
  — no bit-rate-low-wmark
  — flow-setup-high-wmark high-watermark
  — flow-setup-low-wmark low-watermark
  — no flow-setup-low-wmark
  — flow-table-high-wmark high-watermark
  — no flow-table-high-wmark
  — flow-table-low-wmark low-watermark
  — no flow-table-low-wmark

```

- **packet-rate-high-wmark** *high-watermark*
- **packet-rate-low-wmark** *low-watermark*
- **no packet-rate-low-wmark**
- **protocol** *protocol-name*
 - **[no] shutdown**
- **radius-accounting-policy** *rad-acct-plcy-name* [**create**]
- **no radius-accounting-policy** *rad-acct-plcy-name*
 - **description** *description-string*
 - **no description**
 - **interim-update-interval** *minutes*
 - **no interim-update-interval**
 - **radius-accounting-server**
 - **access-algorithm** {**direct** | **round-robin**}
 - **no access-algorithm**
 - **retry** *count*
 - **router** *router-instance*
 - **router service-name** *service-name*
 - **no router**
 - **server** *server-index* **address** *ip-address* **secret** *key* [**hash** | **hash2**] [**port** *port*] [**create**]
 - **no server** *server-index*
 - **source-address** *ip-address*
 - **no source-address**
 - **timeout** *seconds*
- **significant-change** **delta**
- **no significant-change**

AA Group Commands

```

config
  — application-assurance
    — group aa-group-id[:partition-id] [create]
    — no group aa-group-id:partition-id
      — [no] aa-sub-remote
      — [no] aqp-initial-lookup
      — cflowd
        — collector ip-address[:port] [create]
        — no collector ip-address[:port]
          — description description-string
          — no description
          — [no] shutdown
        — comprehensive
          — app-group app-group-name [rate]
          — no app-group app-group-name
          — application application-name [rate]
          — no application application-name
          — flow-rate sample-rate
          — no flow-rate
          — flow-rate2 sample-rate
          — no flow-rate2
          — [no] shutdown
        — rtp-performance
          — app-group app-group-name [rate]
          — no app-group app-group-name
          — application application-name [rate]
          — no application application-name
          — flow-rate sample-rate
          — no flow-rate
          — flow-rate2 sample-rate
          — no flow-rate2
          — [no] shutdown
        — [no] shutdown
      — tcp-performance
        — [no] app-group app-group-name
        — [no] application application-name
        — flow-rate sample-rate
        — no flow-rate
        — flow-rate2 sample-rate
        — no flow-rate2
        — [no] shutdown
      — template-retransmit seconds
      — no template-retransmit seconds
      — volume seconds
        — rate sample-rate
        — no rate
        — [no] shutdown
    — dns-ip-cache dns-ip-cache-name [create]
    — no dns-ip-cache cache-name
      — dns-match
        — description description-string
        — no description
        — domain domain-name expression expression
        — no domain

```

- **server-address** *server-address* [**name** *server-address*]
- **no server-address** *server-address*
- **ip-cache**
 - **size** *cache-size*
 - **high-watermark** *percent*
 - **low-watermark** *percent*
- [**no**] **shutdown**
- **event-log** *event-log-name* [**create**]
- **no event-log** *event-log-name*
 - **buffer-type** *buffer-type*
 - **max-entries** *max-entries*
- [**no**] **shutdown**
- **gtp**
 - **event-log** *event-log-name*
 - **no event-log**
 - **gtp-filter** *gtp-filter-name* [**create**]
 - **no gtp-filter** *gtp-filter-name*
 - **description** *description-string*
 - **no description**
 - **event-log** *event-log-name*
 - **no event-log**
 - **max-payload-length** *bytes*
 - **no max-payload-length**
 - **message-type**
 - **default-action** {**permit**|**deny**}
 - **entry** *entry-id* **value** *gtp-message-value* **action** {**permit**|**deny**}
 - **no entry** *entry-id*
 - [**no**] **shutdown**
- **http-enrich** *http-enrich-name* [**create**]
- **no http-enrich** *http-enrich-name*
 - **description** *description-string*
 - **no description**
 - **field** *field-name*
 - **no field** *field-name*
 - **name** *header-name*
 - [**no**] **anti-spoof**
 - **encode type** *type* **key** *key*
 - **encode type** *type* **key** *hash-key* **hash**
 - **encode type** *type* **key** *hash2-key* **hash2**
 - **no encode**
 - **static-string** *static-string*
 - **no static-string** *static-string*
- [**no**] **shutdown**
- **http-error-redirect** *redirect-name* [**create**]
- **no http-error-redirect** *redirect-name*
 - **description** *description-string*
 - **no description**
 - **error-code** *error-code* [**custom-msg-size** *custom-msg-size*]
 - **no error-code** *error-code*
 - **participant-id** *participant-id*
 - **no participant-id**
- [**no**] **shutdown**

- **template** *template-id*
- **no template**
- **[no] http-match-all-requests**
- **http-notification** *http-notification-name* [**create**]
- **no http-notification** *http-notification-name*
 - **description** *description-string*
 - **no description**
 - **interval** {**one-time** | *minimum-interval*}
 - **script-url** *script-url-name* [**create**]
 - **no script-url**
 - **template** *value*
 - **no template**
- **http-redirect** *redirect-name* [**create**]
- **no http-redirect** *redirect-name*
 - **captive-redirect**
 - **vlan-id** *service-port-vlan-id*
 - **no vlan-id**
 - **description** *description-string*
 - **no description**
 - **redirect-url** *redirect-url*
 - **no redirect-url**
 - **http-host** *http-host*
 - **no http-host**
 - **[no] shutdown**
 - **[no] tcp-client-reset**
 - **template** *template-id*
 - **no template**
- **[no] http-x-online-host**
- **ip-prefix-list** *ip-prefix-list-name* [**create**]
- **no ip-prefix-list** *ip-prefix-list-name*
 - **description** *description-string*
 - **no description**
 - **field** *ip-prefix/ip-prefix-length* [**name** *prefix-name*]
 - **no field** *ip-prefix/ip-prefix-length*
- **policer** *policer-name* **type** *type* **granularity** *granularity* [**create**]
- **policer** *policer-name*
- **no policer** *policer-name*
 - **action** {**priority-mark** | **permit-deny**}
 - **adaptation-rule** **pir** {**max** | **min** | **closest**} [**cir** {**max** | **min** | **closest**}]
 - **no adaptation-rule**
 - **cbs** *committed burst size*
 - **no cbs**
 - **description** *description-string*
 - **no description**
 - **flow-count** *flow-count*
 - **no flow-count**
 - **[no] gtp-traffic**
 - **mbs** *maximum burst size*
 - **no mbs** *maximum burst size*
 - **rate** *pir-rate* [**cir** *cir-rate*]
 - **no rate**
 - **tod-override** *tod-override-id* [**create**]
 - **no tod-override** *tod-override-id*
 - **description** *description-string*
 - **no description**
 - **mbs** *maximum-burst-size*

- **no mbs**
- **rate** *pir-rate*
- **no rate**
- **[no] shutdown**
- **time-range daily** start *start-time* end *end-time* [**on day** [*day...*(upto 7 max)]]
- **time-range weekly** start *start-time* end *end-time*
- **no time-range**
- **policy**
 - **abort**
 - **begin**
 - **commit**
 - **app-filter**
 - **entry** *entry-id* [**create**]
 - **no entry** *entry-id*
 - **application** *application-name*
 - **no application** *application-name*
 - **description** *description-string*
 - **no description**
 - **expression** *expr-index* *expr-type* {**eq** | **neq**} *expr-string*
 - **no expression** *expr-index*
 - **flow-setup-direction** {**subscriber-to-network** | **network-to-subscriber** | **both**}
 - **[no] http-match-all-requests**
 - **ip-protocol-num** {**eq** | **neq**} *protocol-id*
 - **no ip-protocol-num**
 - **network-address** {**eq** | **neq**} *ip-address*
 - **network-address** {**eq** | **neq**} *ip-prefix-list* *ip-prefix-list-name*
 - **no network-address**
 - **protocol** {**eq** | **neq**} *protocol-signature-name*
 - **no protocol**
 - **server-address** {**eq** | **neq**} *ip-address*
 - **server-address** {**eq** | **neq**} *ip-prefix-list* *ip-prefix-list-name*
 - **server-address** {**eq** | **neq**} *dns-ip-cache* *dns-ip-cache-name*
 - **no server-address**
 - **server-port** {**eq** | **neq** | **gt** | **lt**} *server-port-number*
 - **server-port** {**eq**} *server-port-number* [**first-packet-trusted** | **first-packet-validate**]
 - **server-port** {**eq** | **neq**} **range** *start-port-num* *end-port-num*
 - **no server-port**
 - **[no] shutdown**
 - **app-group** *application-group-name* [**create**]
 - **no app-group** *application-group-name*
 - **charging-group** *charging-group-name*
 - **no charging-group**
 - **description** *description-string*
 - **no description**
 - **export-id** *export-id*

- **no export-id**
- **app-qos-policy** *app-profile-name* [create]
- **divert**
 - [no] **aa-sub-suppressible**
 - [no] **shutdown**
- **no app-qos-policy** *app-profile-name*
 - **capacity-cost** *cost*
 - **no capacity-cost**
 - **characteristic** *characteristic-name* **value** *value-name*
 - **no characteristic** *characteristic-name*
 - **description** *description-string*
 - **no description**
 - [no] **divert**
- **app-qos-policy**
 - **entry** *entry-id* [create]
 - **no entry** *entry-id*
 - **action**
 - **bandwidth-policer** *policer-name*
 - **no bandwidth-policer**
 - [no] **bandwidth-policer**
 - **dns-ip-cache** *dns-ip-cache-name*
 - **no dns-ip-cache**
 - [no] **drop**
 - **error-drop** [event-log *event-log-name*]
 - **no error-drop**
 - **flow-count-limit** *policer-name*
 - **no flow-count-limit**
 - **flow-rate-limit** *policer-name*[event-log *event-log-name*]
 - **no flow-rate-limit**
 - **fragment-drop** {all | out-of-order} [event-log *event-log-name*]
 - **no fragment-drop**
 - **gtp-filter** *gtp-filter-name*
 - **no gtp-filter**
 - **http-enrich** *http-enrich-name*
 - **no http-enrich**
 - **http-error-redirect** *redirect-name*
 - **no http-error-redirect**
 - **http-notification** *http-notification*
 - **no http-notification**
 - **http-redirect** *redirect-name* **flow-type** *flow-type*
 - **no http-redirect**
 - **mirror-source** [all-inclusive] *mirror-service-id*
 - **no mirror-source**
 - **remark**
 - **dscp in-profile** *dscp-name* **out-profile** *dscp-name*
 - **no dscp**
 - **fc** *fc-name*
 - **no fc** *fc-name*
 - **priority** *priority-level*
 - **no priority**
 - **sctp-filter** *sctp-filter-name*
 - **no sctp-filter**
 - **session-filter** *session-filter-name*

- **no session-filter**
- **url-filter** [**characteristic** *characteristic-name*]
- **no url-filter**
- **match**
 - **aa-sub** **esm** {**eq** | **neq**} *sub-ident-string*
 - **aa-sub** **sap** {**eq** | **neq**} *sap-id*
 - **aa-sub** **spoke-sdp** {**eq** | **neq**} *sdp-id:vc-id*
 - **aa-sub** **transit** {**eq** | **neq**} *transit-aasub-name*
 - **no aa-sub**
 - **app-group** {**eq** | **neq**} *application-group-name*
 - **no app-group**
 - **application** {**eq** | **neq**} *application-group-name*
 - **no application**
 - **characteristic** *characteristic-name* **eq** *value-name*
 - **no characteristic**
 - **charging-group** {**eq** | **neq**} *charging-group-name*
 - **no charging-group**
 - **dscp** {**eq** | **neq**} *dscp-name*
 - **no dscp**
 - **dst-ip** {**eq** | **neq**} *ip-address*
 - **dst-ip** {**eq** | **neq**} *ip-prefix-list ip-prefix-list-name*
 - **no dst-ip**
 - **dst-port** {**eq** | **neq**} *port-num*
 - **dst-port** {**eq** | **neq**} **range** *start-port-num end-port-num*
 - **no dst-port**
 - **ip-protocol-num** {**eq** | **neq**} *protocol-id*
 - **no ip-protocol-num**
 - **src-ip** {**eq** | **neq**} *ip-address*
 - **src-ip** {**eq** | **neq**} *ip-prefix-list ip-prefix-list-name*
 - **no src-ip**
 - **src-port** {**eq** | **neq**} *port-num*
 - **src-port** {**eq** | **neq**} **range** *start-port-num end-port-num*
 - **no src-port**
 - **src-port** {**subscriber-to-network** | **network-to-subscriber** | **both**}
- **[no] shutdown**
- **app-service-options**
 - **characteristic** *characteristic-name* [**create**]
 - **no characteristic** *characteristic-name*
 - **default-value** *value-name*
 - **no default-value**
 - **[no] value** *value-name*
- **application** *application-name* [**create**]
- **no application** *application-name*
 - **app-group** *app-group-name*
 - **charging-group** *charging-group-name*
 - **no charging-group**
 - **description** *description-string*
 - **no description**
 - **export-id** *export-id*
 - **no export-id**

- **charging-group** *charging-group-name* [**create**]
- **no charging-group**
 - **description** *description-string*
 - **no description**
 - **export-id** *export-id*
 - **no export-id**
- **custom-protocol** *custom-protocol-id* [**ip-prot-num** {**tcp** | **udp**} **create**]
- **custom-protocol** *custom-protocol-id*
- **no custom-protocol** *custom-protocol-id*
 - **description** *description-string*
 - **no description**
 - **expression** *expr-index* **eq** *expr-string* **offset** *payload-octet-offset*
 - **no expression** *expr-index*
 - **[no] shutdown**
- **default-charging-group** *charging-group-name*
- **no default-charging-group**
- **diff**
- **policy-override**
 - **policy aa-sub** {**sap** *sap-id* | **spoke-sdp** *sdp-id:vc-id*} [**create**]
 - **no policy aa-sub** {**sap** *sap-id* | **spoke-sdp** *sdp-id:vc-id*}
 - **characteristic** *characteristic-name* **value** *value-name*
 - **no characteristic** *characteristic-name*
- **sctp-filter** *sctp-filter-name*
- **no sctp-filter**
 - **description** *description-string*
 - **no description**
 - **event-log** *event-log-name*
 - **no event-log** *event-log-name*
 - **ppid**
 - **default-action** {**permit** | **deny**}
 - **entry** *ppid-value* **action** {**permit** | **deny**}
 - **no entry** *ppid-value*
 - **no sctp-filter** *sctp-filter-name* **filter-name** [**create**]
 - **ppid-range** **min** *min-ppid* **max** *max-ppid*
 - **no ppid-range**
- **session-filter** *session-filter-name* [**create**]
- **no session-filter** *session-filter-name*
 - **default-action** {**permit** | **deny**} [**event-log** *event-log-name*]
 - **description** *description-string*
 - **no description**
 - **entry** *entry-id* [**create**]
 - **no entry** *entry-id*
 - **action** {**permit** | **deny** | **http-redirect** *<http-redirect-name>*}
 - [**event-log** *event-log-name*]
 - **description** *description-string*
 - **no description**
 - **match**
 - **dst-ip** {**eq** | **neq**} *ip-address*
 - **dst-ip** **dns-ip-cache** *dns-ip-cache-name*
 - **dst-ip** {*<ip-addr>* | **ip-prefix-list** *<prefix-list-name>* | **dns-ip-cache** *<dns-ip-cache-name>*}
 - **no dst-ip**
 - **dst-port** {**eq** | **neq**} *port-num*
 - **dst-port** {**eq** | **neq**} **range** *start-port-num* *end-port-num*

- **no dst-port**
- **ip-protocol-num** {**eq** | **neq**} *protocol-id*
- **no ip-protocol-num**
- **src-ip** {**eq** | **neq**} *ip-address*
- **src-ip ip-prefix-list** *ip-prefix-list*
- **no src-ip**
- **src-port** {**eq**|**gt**|**lt**} *port-num*
- **src-port range** *start-port-num end-port-num*
- **no src-port**
- **statistics**
 - **aa-partition**
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**
 - [**no**] **collect-stats**
 - [**no**] **traffic-type**
 - **aa-sub**
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**
 - **aggregate-stats export-using** *export-method*
 - **aggregate-stats no-export**
 - **app-group** *app-group-name* **export-using** *export-method*
[*export-method...*(up to 2 max)]
 - **app-group** *app-group-name* **no-export**
 - **no app-group** *app-group-name*
 - **application** *application-name* **export-using** *export-method*
 - **application** *application-name* **no-export**
 - **no application** *application-name*
 - **charging-group** *charging-group-name* **export-using** *export-method*
[*export-method...*(up to 2 max)]
 - **charging-group** *charging-group-name* **no-export**
 - **no charging-group** *charging-group-name*
 - [**no**] **collect-stats**
 - [**no**] **exclude-tcp-retrans**
 - [**no**] **max-throughput-stats**
 - [**no**] **protocol** *protocol-name* **export-using** *export-method*
 - **radius-accounting-policy** *rad-acct-plcy-name*
 - **no radius-accounting-policy**
 - [**no**] **usage-monitoring**
 - **aa-sub-study** *study-type*
 - **aa-sub** {**esm** *sub-ident-string* | **sap** *sap-id* | **spoke-sdp** *sdp-id:vc-id* | **transit** *transit-aasub-name*}
 - **no aa-sub** {**esm** *sub-ident-string* | **sap** *sap-id* | **spoke-sdp** *sdp-id:vc-id* | **transit** *transit-aasub-name*}
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**
 - [**no**] **collect-stats**
 - **app-group**
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**
 - [**no**] **collect-stats**
 - **application**
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**

- **charging-group** *charging-group-name* **export-using** *export-method*
- **no charging-group** *charging-group-name*
- **[no] collect-stats**
- **protocol**
 - **accounting-policy** *acct-policy-id*
 - **no accounting-policy**
 - **[no] collect-stats**
- **transit-ip-policy** *ip-policy-id* **[create]**
- **no transit-ip-policy** *ip-policy-id*
 - **gtp-filter** *app-profile-name*
 - **no gtp-filter**
 - **description** *description-string*
 - **no description**
 - **[no] ppid-range**
 - **dhcp**
 - **[no] shutdown**
 - **ipv6-address-prefix-length** *IPv6 prefix length*
 - **no ipv6-address-prefix-length**
 - **radius**
 - **authentication-policy** *name*
 - **no authentication-policy**
 - **seen-ip-radius-acct-policy** *rad-acct-plcy-name*
 - **no seen-ip-radius-acct-policy**
 - **[no] shutdown**
 - **static-aa-sub** *transit-aasub-name*
 - **static-aa-sub** *transit-aasub-name* **app-profile** *app-profile-name* **[create]**
 - **no static-aa-sub** *transit-aasub-name*
 - **[no] ip** *ip-address*
 - **sub-ident-policy** *sub-ident-policy-name*
 - **no sub-ident-policy**
 - **transit-auto-create**
 - **[no] shutdown**
- **transit-prefix-policy** *prefix-policy-id* **[create]**
- **no transit-prefix-policy** *prefix-policy-id*
 - **description** *description-string*
 - **no description**
 - **entry** *entry-id* **[create]**
 - **entry** *entry-id*
 - **no entry** *entry-id*
 - **aa-sub** *transit-aasub-name*
 - **no aa-sub**
 - **match** *transit-aasub-name*
 - **aa-sub-ip** *ip-address[/mask]*
 - **no aa-sub-ip**
 - **network-ip** *ip-address[/mask]*
 - **no network-ip**
 - **static-aa-sub** *transit-aasub-name*
 - **static-aa-sub** *transit-aasub-name* **app-profile** *app-profile-name* **[create]**
 - **no static-aa-sub** *transit-aasub-name*
 - **static-remote-aa-sub** *transit-aasub-name*
 - **static-remote-aa-sub** *transit-aasub-name* **app-profile** *app-profile-name* **[create]**
 - **no static-remote-aa-sub** *transit-aasub-name*
 -
- **url-filter** *url-filter-name* **[create]**

- **no url-filter** *url-filter-name*
 - **default-action** **allow**
 - **default-action** **block-all**
 - **default-action** **block-http-redirect** *http-redirect-name*
 - **no default-action**
 - **http-redirect** *http-redirect-name*
 - **no http-redirect**
 - **http-request-filtering** **all** | **first**
 - **icap**
 - **custom-x-header** *x-header-name*
 - **no custom-x-header**
 - **vlan-id** *service-port-vlan-id*
 - **no vlan-id**
 - **server** *ip-address[:port]* [**create**]
 - **no server** *ip-address[:port]*
 - **description** *description-string*
 - **no description**
 - [**no**] **shutdown**
 - **local-filtering**
 - [**no**] **url-list** *url-list-name*
- **url-list** *url-list-name* [**create**]
 - [**no**] **description** *description-string*
 - [**no**] **decrypt-key** *key* | **hash-key** | **hash2-key** [**hash1** | **hash2**]
 - [**no**] **file** *file-url*
 - [**no**] **shutdown**
- **wap1x**
 - [**no**] **shutdown**

Persistence Commands

```
config
  — system
    — persistence
      — application-assurance
        — description description-string
        — no description
        — location cflash-id
        — no location
```


Show Commands

```

show
  — debug [application]
  — isa
    — application-assurance-group [aa-group-id [load-balance [unassigned]]]
  — application-assurance
    — arp
    — arp arpId [detail]
    — group aa-group-id[:partition-id]
      — aa-interface isa mda-id
      — aa-sub esm sub-ident-string [snapshot]
      — aa-sub sap sap-id [snapshot]
      — aa-sub spoke-sdp sdp-id:vc-id [snapshot]
      — aa-sub transit transit-aasub-name [snapshot]
      — aa-sub app-group [app-group-name] count [detail]
      — aa-sub app-group count top granularity [max-count max-count]
      — aa-sub app-group application [application-name] count [detail]
      — aa-sub app-group count top granularity [max-count max-count]
      — aa-sub charging-group [charging-group-name] count [detail]
      — aa-sub charging-group count top granularity [max-count max-count]
      — aa-sub count [detail]
      — aa-sub policer
      — aa-sub policer policer-name [detail]
      — aa-sub policer summary
      — aa-sub protocol [protocol-name] count [detail]
      — aa-sub protocol count top granularity [max-count max-count]
      — aa-sub summary
      — aa-sub usage-monitor status
      — aa-sub usage-monitor [{application [application-name] | app-group [app-group-name] | charging-group [charging-group-name]}] count
      — aa-sub-list [isa mda-id]
      — aa-sub-list policers-exceeded [summary]
      — aa-sub-list summary
      — aa-sub-study esm sub-ident-string [snapshot]
      — aa-sub-study sap sap-id [snapshot]
      — aa-sub-study spoke-sdp sdp-id:vc-id [snapshot]
      — aa-sub-study transit transit-aasub-name [snapshot]
      — aa-sub-study application [application-name] count [detail]
      — aa-sub-study protocol [protocol-name] count [detail]
      — app-group app-group-name count [detail]
      — app-group count [detail]
      — application application-name count [detail]
      — application count [detail]
      — cflowd
        — collector [detail]
        — status
      — dns-ip-cache cache-name isa mda-id
      — dns-ip-cache cache-name
      — gtp
        — gtp-filter gtp-filter-name
        — sctp-filter sctp-filter-name
      — http-enrich enrichment-name

```

- **detail** [*partition*]
- **field** *field-name*
- **summary**
- **http-error-redirect** *redirect-name*
- **http-notification** *http-notification-name* [**summary**]
- **http-error-redirect** *redirect-name* [**detail**]
- **policer**
- **policer** *policer-name* [**detail**]
- **policer** **summary**
- **policy**
 - **admin**
 - **app-filter** [*entry-id*]
 - **app-group** [*app-group-name*]
 - **app-profile** [*app-prof-name*]
 - **app-profile** *app-prof-name* **associations**
 - **app-qos-policy** [*entry-id*]
 - **app-service-option** [*characteristic-name*]
 - **application** *app-name*
 - **application**
 - **charging-group** *charging-group-name*
 - **charging-group**
 - **custom-protocol**
 - **summary**
- **protocol** *protocol-name* **count** [**detail**]
- **protocol** **count** [**detail**]
- **protocol** **count** **top** *granularity* [**max-count** **max-count**]
- **session-filter**
- **session-filter** *session-filter-name*
- **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**
- **traffic-type** **detail**
- **traffic-type** **ip-family**
- **traffic-type** **ip-protocol**
- **transit-ip-policy** *ip-policy-id*
- **transit-ip-policy** *ip-policy-id* **summary**
- **transit-prefix-policy** *transit-prefix-policy-id*
- **transit-prefix-policy** **summary**
- **transit-prefix-policy** *transit-prefix-policy-id* **summary**
- **url-filter** [*url-filter-name*]
- **url-filter** *url-filter-name* *isa mda-id* [**detail**]
- **http-enrich** *enrichment-name*
 - **field** *field-name*
 - **fields**
- **http-error-redirect**
 - **error-codes**
 - **template**
- **protocol** [*protocol-name*]
- **protocol** [*protocol-name*] **detail**
- **radius-accounting-policy** [*rad-acct-pcly-name*]
- **radius-accounting-policy** *rad-acct-pcly-name* **associations**
- **radius-accounting-policy** *rad-acct-pcly-name* **statistics**
- **version**

- **mda** *slot* [*mda*] [**detail**]
- **service**
 - **aa-sub-using**
 - **aa-sub-using app-profile** *app-profile-name*
 - **sap-using app-profile** *app-profile-name*
 - **sap-using aarp** *aarp-id*
 - **sap-using transit-policy ip** *ip-policy-id*
 - **sap-using transit-policy prefix** *prefix-policy-id*
 - **sdp-using aarp** *aarp-id*
 - **sdp-using app-profile** *app-profile-name*
 - **sdp-using transit-policy ip** *ip-policy-id*
 - **sdp-using transit-policy ip ip** *transit-ip-policy*
 - **sdp-using transit-policy ip prefix** *transit-prefix-policy*
 - **subscriber-using app-profile** *app-profile-name*

Tools Commands

- ```

tools
 — dump
 — application-assurance
 — aarp aarpId event-history [clear]
 — seen-ip transit-ip-policy ip-policy-id
 — seen-ip transit-ip-policy ip-policy-id clear
 — group aa-group-id
 — aa-sub dsm mac mac-address [snapshot] {summary}
 — aa-sub esm sub-ident-string
 — aa-sub transit transit-aasub-name
 —
 — count [detail]
 — aa-sub-search top {bytes | packets | flows} [direction {from-sub | to-sub | both}] [max-count max-count]
 — policer policer-name day day time time-of-day
 — group aa-group-id [:partition-id]
 — dns-ip-cache isa mda-id [url file-url]
 — event-log event-log-name isa mda-id
 — event-log event-log-name [isa mda-id] url file-url
 — 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]
 — http-host-recorder status status [isa mda-id]
 — http-host-recorder top {bytes|flows} [max-count {1..25}] [isa mda-id]
 — http-host-recorder detail detail [isa mda-id] url file-url
 — port-recorder status [isa mda-id]
 — port-recorder top {bytes|flows} [max-count {1..25}] [isa mda-id]
 — port-recorder detail [flow-count flow-count] [byte-count kbyte-count] [isa mda-id] url file-url
 — traffic-capture detail url file-url
 — traffic-capture status
 — perform
 — application-assurance
 — aarp aarpId force-evaluate
 — group aa-group-id load-balance [service service-id]

```

## Clear Commands

- ```
clear
  — application-assurance
    — group aa-group-id cflowd
    — group aa-group-id event-log event-log
    — group aa-group-id statistics
    — group aa-group-id status
    —
    — group aa-group-id[:partition] gtp
    — radius-accounting-policy rad-acct-plcy-name [server server-index] statistics
```

Debug Commands

- ```
debug
 — application-assurance
 — group aa-group-id[:partition-id]
 — [no] traffic-capture
 — [no] match
 — application {eq | neq} application-name
 — no application
 — client-ip {eq | neq} ip-address
 — no client-ip
 — client-port {eq | neq} port-num
 — no client-port
 — dst-ip {eq | neq} ip-address
 — no dst-ip
 — dst-port {eq | neq} port-num
 — no dst-port
 — ip-addr1 {eq | neq} ip-address
 — no ip-addr1
 — ip-addr2 {eq | neq} ip-address
 — no ip-addr2
 — ip-protocol-num {eq | neq} protocol-id
 — no ip-protocol-num
 — port1 {eq | neq} port-num
 — no port1
 — port2 {eq | neq} port-num
 — no port2
 — server-ip {eq | neq} ip-address
 — no server-ip
 — server-port {eq | neq} port-num
 — no server-port
 — src-ip {eq | neq} ip-address
 — no src-ip
 — src-port {eq | neq} port-num
 — no src-port
 — record
 — limit {all-packet-matches|first-session-match}
 — start {immediate|on-new-session}
 — [no] shutdown
 — mirror-source service-id
```

## Application Assurance CLI Tree

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

### debug

- **system**
  - **persistence** [*persistence-client*]
  - **no persistence**