

show apn

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show apn all

Table 1: show apn all Command Output Descriptions

Field	Description
access point name (APN)	Indicates the name of the access point name (APN) for which counters are displayed.
authentication context	Name of the system context used for authentication for this APN.
pdp type	Indicates the type of PDP context. Possible types are: • IPv4 • IPv6 • PPP
ehrpd access	Specifies whether **ehrpd-access** option is configured in this APN or not. If enabled, the P-GW excludes IPv6 traffic from being delivered to UEs on the eHRPD network that do not have IPv6 capabilities.
emergency	Specifies whether **emergency-apn** option is configured in this APN or not. If enabled, this APN is an emergency APN for VoLTE based E911 support.

Field	Description
Selection Mode	Indicates the APN selection mode applicable for this APN. Possible selection modes are: • Chosen by SGSN • Sent by MS • Subscribed
ip source violation	Indicates whether check for IPv4 source validation violations enabled or not. Possible status are: • Checked • Ignored
drop limit	Indicates the IP source-violation drop limit configured for the subscriber. The drop-limit is the number of invalid packets that can be received from a subscriber prior to their session being deleted. Refer to the **ip source-violation** command in the APN configuration mode.
ip source violation no accounting	The IP source validation violations that were detected but not included in the statistics.
accounting mode	Indicates the accounting mode configured for this APN. Possible modes are: • gtpp - GTPP CDR accounting • none - No accounting • radius-diameter - RADIUS or Diameter accounting
No early PDUs	Specifies whether "**no-early-pdu**" option configured in this APN or not. If "no-early-PDUs" is enabled, the chassis shall not send uplink/downlink data from/to a MS till it receives the Acct-Rsp Start for the same from the AAA device. On receiving the Acct-Rsp, pending PDUs are sent out.
no-interims	Specifies whether "**no-interims**" option configured in this APN or not. If "no-interims" is enabled, the chassis shall not send any interim message to the AAA device.
Bearer Control Mode	Specifies whether Bearer Control Mode is enabled in this APN or not.
max-primary-pdp-contexts	Specifies the maximum primary PDP contexts allowed in this APN.
total-pdp-contexts	Specifies the total primary and secondary PDP contexts allowed in this APN.
primary contexts	Specifies the total primary contexts allowed in this APN.
total contexts	Specifies the total primary and secondary contexts allowed in this APN.
max secondary contexts per-subscriber	Specifies the maximum secondary contexts allowed in this APN for a subscriber.
IMS Authorization	Specifies whether IMS authorization support is enabled in this APN or not.

Field	Description
Credit Control	Specifies whether Diameter pre-paid credit control support is enabled in this APN or not.
Credit Control Service Name	Specifies the name of credit control service configured on the chassis.
Accounting Policy Name	Specifies the name of accounting policy associated with the configured APN. If no accounting policy is associated, this field will display as N/A.
PCO Options	Specifies which customized PCO (Protocol Configuration Options) options are sent in the network to MS GTP messages.
Mode	Indicates whether customized PCO options are sent in the network to MS GTP messages for all UEs regardless of support, only UEs that request customized PCO options, or no UEs.
mbms bearer absolute timeout	Indicates the absolute timeout duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) bearer context.
mbms bearer idle timeout	Indicates the idle timeout duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) bearer context.
mbms ue absolute timeout	Indicates the absolute timeout duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) UE context.
local ip	Specifies the local IP address of the interface assigned to this APN.
nexthop gateway addr	Specifies the IP address of the next hop gateway configured in this APN.
ignore-alt-config (no-dns)	Specifies if preference is given to dns server address configured in APN. If name server addresses is not found in APN configuration, it is not provisioned from SGi context even if it is configured there.
ignore-alt-config (no-s6b)	Specifies if alternate service level configuration for s6b authorization is ignored when S6b authorization is disabled at APN.
Authorization with S6b	Specifies if the S6b authorization has been enabled.
primary dns	Indicates the IP address of primary Domain Name Server (DNS).
secondary dns	Indicates the IP address of secondary Domain Name Server (DNS).
primary nbns	Indicates the IP address of primary NetBIOS Name Server (NBNS).
secondary nbns	Indicates the IP address of secondary NetBIOS Name Server (NBNS).
ppp keep alive period	Indicates the duration in seconds to transmit LCP keep-alive packet.
ppp mtu	Indicates the maximum size of transmission units in bytes configured for this APN.
absolute timeout	Indicates the absolute timeout duration in seconds for session configured in this APN.
emergency inactivity timeout	Indicates the emergency inactive timeout duration in seconds for session configured in this APN.

Field	Description
idle timeout	Indicates the idle timeout duration in seconds for session configured in this APN.
bearer inactivity timeout (GBR Bearers)	Indicates the bearer inactivity timeout configuration for gbr bearers in seconds.
bearer inactivity timeout (Non GBR Bearers)	Indicates the bearer inactivity timeout configuration for non-gbr bearers in seconds.
emergency inactivity timeout	Indicates the emergency inactivity timeout duration in seconds for session configured in this emergency APN for VoLTE based E911 support.
idle-timeout-activity ignore-downlink	Indicates whether idle timeout activity configured in this APN to consider downlink traffic as activity for idle-timeout or not.
long duration timeout	Indicates the timeout duration in seconds for long duration timeout support configured in this APN.
long dur inactivity time	Indicates the inactivity duration in seconds for long duration timeout support configured in this APN.
long duration action	Indicates the action configured in this APN for long duration timeout support. Possible actions are: • Detection • Disconnection
ip header compression	Indicates the IP header compression method configured in this APN for RObust Header Compression (ROHC) support. Supported method is Van Jacobsen (VJ).
ip hide service address	Indicates whether APN is configured to hide service IP address from the subscriber (for security reasons) or not.
ip output access-group	The IPv4 access control list (ACL) configured in this APN for outward traffic.
ip input access-group	The IPv4 access control list (ACL) configured in this APN for inward traffic.
ipv6 output access-group	The IPv6 access control list (ACL) configured in this APN for outward traffic.
ipv6 input access-group	The IPv6 access control list (ACL) configured in this APN for inward traffic.
policy-group in	The traffic policy group configured in this APN for inward traffic.
policy-group out	The traffic policy group configured in this APN for outward traffic.
permit ip multicast	Indicates whether APN is configured to discard or permit the IP multicast.
ppp authentication	Indicates the type of PPP authentication configured for this APN.
eap authentication initial-access-request	Indicates the type of initial access request to be used in Diameter EAP request.
allow noauthentication	Indicates whether PPP session is allowed without authentication in this APN or not.

Field	Description
imsi authentication	Indicates whether PPP session authentication in this APN is configured for IMSI authentication or not.
msisdn authentication	Indicates whether PPP session authentication in this APN is configured for MSISDN authentication or not.
radius returned-username	Indicates which Username to use in the RADIUS accounting messages. When "override-constructed-username" is configured, the Username sent by RADIUS in Access-Accept is used. When "prefer-constructed-username" is configured, the Username sent by RADIUS is ignored and the constructed Username is used.
ip destination context	Indicates the name of the configured destination context for this APN.
Rule Base	Indicates the name of the configured rulebase for this APN.
Credit-Control Session	Displays one of the following values based on the credit-control-client override CLI command used in APN mode configuration. • per-subscriber • per-sub-session • Default (fallback to config mode 'require ecs credit-control' CLI)
Gy Rule Base List	Indicates the name of the configured Gy rulebase list for this APN.
Content-Filtering Policy-Id	Indicates whether inline content filtering policy is configured for this APN or not.
mediation accounting	Indicates whether mediation device is configured for accounting in this APN or not.
mediation-device context	Indicates the name of the system context to use for mediation device for accounting in this APN.
mediation no early PDUs	Specifies whether "**no-early-pdu**" option configured for this subscriber or not. If "no-early-PDUs" is enabled, the chassis shall not send uplink/downlink data from/to a MS till it receives the Acct-Rsp Start for the same from the mediation device. On receiving the Acct-Rsp, pending PDUs are sent out.
mediation no-interims	Specifies whether "**no-interims**" option configured for this subscriber or not. If "no-interims" is enabled, the chassis shall not send any interim message to the mediation device.
mediation delay-GTP-response	Specifies whether "**delay-GTP-response**" option configured for this subscriber or not. When enabled, this option delays the Create PDP Context response until an Accounting Start response is received from the mediation device.
outbound username	Name of the user for outbound traffic.
ip address pools	Indicates the IP address pool used for this APN.
access-link ip-frag	Indicates the IP packet fragmentation setting for access link.

Field	Description
ignore DF-bit data-tunnel	Indicates whether "ignore df-bit" is set for data tunnel or not.
ip allocation type	Specifies the type of IP allocation method used for IP address allocation. Possible types are: • DHCP-Proxy • DHCP-Relay • Local • Dynamic • Static
allow user specified ip addr	Indicates whether user specified IP address is allowed or not for IP allocation.
prefer dhcp options	Indicates whether support for DHCP supplied parameters, like DNS/NBNS addresses, in subscriber session is configured for this APN. This support can be enabled with **ip address alloc-method dhcp-proxy prefer-dhcp-options** command in APN Configuration mode.
Custom1-10 value	Indicates the action value for multiple operator-specific PCOs.The value can range from 1 to 10.
UE-Requested	Specifies PCO to the UE, which requested for new PCO option.
3gpp qos to dscp mapping	This group indicates the 3GPP QoS to DSCP mapping information.
qci 1: ef	Indicates the DSCP configured for QCI1 type of traffic.
qci 2: ef	Indicates the DSCP configured for QCI2 type of traffic.
qci 3: af11	Indicates the DSCP configured for QCI3 type of traffic.
qci 4: af11	Indicates the DSCP configured for QCI4 type of traffic.
qci 5: ef	Indicates the DSCP configured for QCI5 type of traffic.
qci 6: ef	Indicates the DSCP configured for QCI6 type of traffic.
qci 7: af21	Indicates the DSCP configured for QCI7 type of traffic.
qci 8: af21	Indicates the DSCP configured for QCI8 type of traffic.
qci 9: be	Indicates the DSCP configured for QCI9 type of traffic.
3GPP Qos to DSCP Mapping based on Alloc. Prio	This group indicates the 3GPP QoS to DSCP mapping information based on allocation priority.
qci 5 (Alloc.P 1): ef	Indicates the DSCP configured for QCI5 type of traffic with allocation priority 1.
qci 5 (Alloc.P 2): ef	Indicates the DSCP configured for QCI5 type of traffic with allocation priority 2.

Field	Description
qci 5 (Alloc.P 3): ef	Indicates the DSCP configured for QCI5 type of traffic with allocation priority 3.
qci 6 (Alloc.P 1): ef	Indicates the DSCP configured for QCI6 type of traffic with allocation priority 1.
qci 6 (Alloc.P 2): ef	Indicates the DSCP configured for QCI6 type of traffic with allocation priority 2.
qci 6 (Alloc.P 3): ef	Indicates the DSCP configured for QCI6 type of traffic with and allocation priority 3.
qci 7 (Alloc.P 1): af21	Indicates the DSCP configured for QCI7 type of traffic with allocation priority 1.
qci 7 (Alloc.P 2): af21	Indicates the DSCP configured for QCI7 type of traffic with allocation priority 2.
qci 7 (Alloc.P 3): af21	Indicates the DSCP configured for QCI7 type of traffic with allocation priority 3.
qci 8 (Alloc.P 1): af21	Indicates the DSCP configured for QCI8 type of traffic with allocation priority 1.
qci 8 (Alloc.P 2): af21	Indicates the DSCP configured for QCI8 type of traffic with allocation priority 2.
qci 8 (Alloc.P 3): af21	Indicates the DSCP configured for QCI8 type of traffic with allocation priority 3.
Copy user-datagram IP TOS	Indicates whether copying of IP TOS octet value from user IPv4 datagrams to IP header of tunnel encapsulation is enabled or not.
APN defined Charging Characteristics	This group displays the APN defined charging characteristics for various types of subscribers.
Home Subscribers	This sub-group displays the APN defined charging characteristics for home subscribers.
Behavior Bits	Indicates the behavior bits configured for home subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for home subscribers in APN defined charging characteristics.
Visiting Subscribers	This sub-group displays the APN defined charging characteristics for visiting subscribers.
Behavior Bits	Indicates the behavior bits configured for visiting subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for visiting subscribers in APN defined charging characteristics.
Roaming Subscribers	This sub-group displays the APN defined charging characteristics for roaming subscribers.
Behavior Bits	Indicates the behavior bits configured for roaming subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for roaming subscribers in APN defined charging characteristics.
All (Home/Visiting/Roaming) Subscribers	This sub-group displays the APN defined charging characteristics for all subscribers (including home, visiting, and roaming).

Field	Description
Behavior Bits	Indicates the behavior bits configured for all subscribers (including home, visiting, and roaming) in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for all subscribers (including home, visiting, and roaming) in APN defined charging characteristics.
Subscribers to use APN defined charging characteristics	Indicates the number of subscriber to use APN defined charging characteristics.
Subscribers to use RADIUS returned charging characteristics	Indicates whether subscribers in this APN are configured to use charging characteristics returned from RADIUS server.
Subscribers to use GX returned charging characteristics	Indicates whether subscribers in this APN are configured to use Gx-returned charging characteristics.
dhcp service name	Specifies the name of the DHCP service configured for IP address allocation.
dhcp context name	Specifies the name of the DHCP context where DHCP service is configured for IP address allocation.
dhcp lease expiry policy	Specifies the DHCP address lease expiry policy. Possible actions are: • autoconnect • disconnect
mobile-ip	Specifies the whether Mobile IP is configured in this APN or not.
mobile-ip home-agent	Specifies the IP address of home agent (HA) to use for Mobile IP session in this APN.
mobile-ip alternate-home-agent(s)	Specifies the IP address of alternate home agent (HA) to use for Mobile IP session in this APN.
mobile-ip reverse-tunnel	Specifies the whether Mobile IP reverse tunnel is enabled for Mobile IP session in this APN or not.
mobile-ip mn-aaa-removal-indication	Specifies the whether "mn-aaa-removal-indication" parameter is configured for Mobile IP session in this APN or not.
mobile-ip mn-ha-spi	Specifies the security parameter index (SPI) configured between MN and HA for Mobile IP session in this APN.
mobile-ip mn-ha-hash-algorithm	Specifies the hash algorithm configured for Mobile IP session in this APN. Possible hash algorithms are: • hmac-md5 • md5 • rfc2002-md5
proxy-mip	Specifies the whether Proxy-Mobile IP is configured in this APN or not.

Field	Description
proxy-mip null-username static home address	Specifies the whether handling of RRQ to enable the acceptance without NAI extension in this APN is enabled or not.
Tunnel peer load-balancing	Specifies the tunnel peer selection method in this APN for load balancing between tunnel-peers. Possible selection methods are: • balanced • prioritized • random
L3-to-L2 tunnel address-policy no-alloc-validate	Specifies whether this APN is configured, to not to allocate or validate subscriber addresses locally for such sessions, it passes the address between remote tunnel terminator to the Mobile Node, or not.
tunnel address-policy alloc-validate	Specifies whether this APN is configured, to allocate addresses for cases in which IP addresses are dynamically assigned, or not.
NPU QoS Traffic Priority	Indicates the configured NPU QoS priority queue for packets facilitated by the APN. Possible priorities are: • best-effort • bronze • derive-from-packet-dscp • gold • silver.
APN QoS Attributes	Specifies the QoS attribute configured in this APN.
Newcall Policy	Indicates the policy for action on new calls coming on this APN. Possible actions are: • Accept • Reject
SDU Error Ratio	Indicates the QoS attribute reliability class based on Service Data Unit (SDU) Error Ratio attributes configured in this APN.
Residual BER	Indicates the QoS attribute reliability class based on Residual Bit Error Ratio (BER) attributes configured in this APN.
QCI n	Specifies the statistics for use traffic of QoS QCI class along with traffic status. Here n (qci-val) is the QCI for which the negotiate limit is being set, it ranges from 1 to 9.
Downlink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in downlink direction is enabled or not for this class of QoS in this APN. By default it's disabled.
Uplink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in uplink direction is enabled or not for this class of QoS in this APN. By default it's disabled.

Field	Description
Peak Data Rate (in bps)	The peak data rate in bit per seconds for this class of QoS in this APN.
Committed Data Rate(in bps)	The committed data rate in bit per seconds for this class of QoS in this APN.
Downlink Rate Limit	Specifies whether traffic data rate limit in downlink direction is enabled or not for this class of QoS in this APN.
Uplink Rate Limit	Specifies whether traffic data rate limit in uplink direction is enabled or not for this class of QoS in this APN.
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed rate limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: • Enabled • Disabled
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value is 1 second.
Peak Burst Size(bytes)	Indicates the peak burst size in bytes calculated dynamically by auto readjust duration and rate limit value.
Guaranteed Burst Size(bytes)	Indicates the guaranteed burst size in bytes calculated dynamically by auto readjust duration (seconds) and rate limit value (bytes). This counter is applicable only when auto readjustment is enabled.
Exceed Action	Specifies the action on downlink/uplink data rate when exceeds the allowed rate limit for this class of QoS. Possible actions are: • **drop**: drop the packets. • **lower-ip-precedence**: transmit the packet after lowering the ip-precedence. • **transmit**: transmit the packet.

Field	Description
Violate Action	Specifies the action on downlink/uplink data rate violation of allowed rate limit for this class of QoS. Possible actions are: • **drop**: drop the packets. • **lower-ip-precedence**: transmit the packet after lowering the ip-precedence. • **shape**: enables the traffic shaping and provides the buffering of user packets when subscriber traffic violates the allowed peak/committed data rate. • **shape-transmit-when-buffer-full**: enables the traffic shaping and allows the packet to be transmitted when buffer memory is full. • **transmit**: transmit the packet.
APN-AMBR	Specifies the traffic statistics for APN Maximum Bit Rate.
Downlink Apn Ambr	Specifies whether traffic data QoS negotiation limit in downlink direction is enabled or not for this class of QoS in this APN. By default it's disabled. Possible states are: • Enabled • Disabled
Uplink Apn Ambr	Specifies whether traffic data QoS negotiation limit in uplink direction is enabled or not for this class of QoS in this APN. By default it's disabled. Possible states are: • Enabled • Disabled
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed rate limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: • Enabled • Disabled
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value is 1 second.

Field	Description
Violate Action	Specifies the action on downlink/uplink data rate violation of allowed rate limit for this class of QoS. Possible actions are: • **drop**: drop the packets. • **lower-ip-precedence**: transmit the packet after lowering the ip-precedence. • **shape**: enables the traffic shaping and provides the buffering of user packets when subscriber traffic violates the allowed peak/committed data rate. • **shape-transmit-when-buffer-full**: enables the traffic shaping and allows the packet to be transmitted when buffer memory is full. • **transmit**: transmit the packet.
ppp accept peer ipv6 ifid	Indicates the IPv6 interface id of peer to accept PPP session.
ipv6 init router advt interval	Indicates the initial IPv6 router advertisement interval in seconds for this APN.
ipv6 init router number of advts	Indicates the total number of initial IPv6 router advertisement for this APN.
ipv6 address prefix	Indicates the IPv6 address prefix configured for sessions facilitated by this APN.
ipv6 address prefix pool	Indicates the IPv6 address prefix pool name configured for sessions facilitated by this APN.
ipv6 interface id	Indicates the IPv6 interface id configured for sessions facilitated by this APN.
ipv6 dns primary server	Indicates the IPv6 address of primary DNS server configured for sessions facilitated by this APN.
ipv6 dns secondary server	Indicates the IPv6 address of secondary DNS server configured for sessions facilitated by this APN.
ipv6 egress address filtering	Indicates whether egress address filtering configured in this APN or not to filter out packets not meant for the mobile interface ID.
p-cscf fqdn	Indicates the FQDN server name of P-CSCF configured for sessions facilitated by this APN.
p-cscf primary ip	Indicates the IPv4 address of primary P-CSCF configured for sessions facilitated by this APN.
p-cscf secondary ip	Indicates the IPv4 address of secondary P-CSCF configured for sessions facilitated by this APN.
p-cscf primary ipv6	Indicates the IPv6 address of primary P-CSCF configured for sessions facilitated by this APN.
p-cscf secondary ipv6	Indicates the IPv6 address of secondary P-CSCF configured for sessions facilitated by this APN.
ipv6 dns proxy	Indicates whether IPv6 DNS proxy server configured for sessions facilitated by this APN or not.

Field	Description
ipv6 minimum link MTU	Indicates the size of packet in bytes configured for access-link MTU for fragment.
Radius Group	Indicates the AAA server group associated with this APN.
Radius Secondary Group	If the secondary Accounting group is configured in the APN configuration, this field displays the corresponding group name. Otherwise, it displays *none*.
Radius Returned Framed IP Address	This group specifies the action and policy to handle the framed IP address returned from RADIUS server.
Policy	Specifies the policy to handle the framed IP address returned from RADIUS server. Possible actions are: • accept-call-when-ms-ip-not-supplied • reject-call-when-ms-ip-not-supplied
Access-flow traffic-validation	Specifies whether traffic validation for access flow is enabled for this APN or not.
Virtual APN Configuration	Indicates whether virtual APN is configured with APN or not.
Preference	Specifies the configured preference value of the rule for the virtual apn. It is an integer value which ranges from 1 to 1000.
Rule-Definition	Specifies the configured rule definition(s) for the virtual apn. Rule definitions include: • access-gw-address • bearer-access-service • cc-profile: charging characteristics profile index ranging from 0 to 15 • domain • mcc: mobile country code ranging from 100 to 999 • msisdn-range • rat-type: eutran, gan, geran, hspa, utran, and wlan • roaming-mode: home, roaming, and visiting
Selected-APN	Specifies the access point name (APN) in the VPN context to allow configuration of virtual APN related parameters.
IPv6 Configuration	This group displays the configuration related to IPv6 parameters.
IPv6 initial number of router advertisements	Indicates the total number of initial IPv6 router advertisement for this APN.
IPv6 initial router advertisements interval	Indicates the initial IPv6 router advertisement interval in seconds for this APN.

Field	Description
IPv6 initial router advertisements option MTU	Indicates if the **option mtu** setting is enabled/disabled for IPv6 initial router advertisements. When this feature is enabled and configured in *APN Configuration Mode*, the RA messages will contain the IPv6 MTU option for IPv6/Ipv4v6 PGW/SAEGW/GGSN calls. As a result, the UE will send uplink data packets based on the configured MTU and perform data fragmentation at the source, if required. This feature also reduces the number of ICMPv6 *Packet Too Big Error* messages in the operator's network.
IPv6 Prefix Pool	Indicates the IPv6 address prefix pool name configured for sessions facilitated by this APN.
IPv6 Egress address filtering	Indicates whether egress address filtering configured in this APN or not to filter out packets not meant for the mobile interface ID.
IPv6 Primary DNS server address	Indicates the IPv6 address of primary DNS server configured for sessions facilitated by this APN.
IPv6 Secondary DNS server address	Indicates the IPv6 address of secondary DNS server configured for sessions facilitated by this APN.
GTPP Group	Displays all the configured GTPP server groups associated with this APN.
GTPP Accounting Context	Specifies the name of all configured GTPP accounting contexts associated with this APN.
Firewall Policy	Indicates whether stateful firewall policy is applicable with this APN or not.
Mobile IPv6 Tunnel MTU	Indicates the configured maximum transmission unit of packet in bytes for Mobile IPv6 tunnel traffic.
Mobile IPv6 Tunnel MTU Exceed Action	Indicates the action to take on packets which exceeds the maximum transmission unit of packet in bytes for Mobile IPv6 tunnel traffic. Possible actions are: • Normal processing • Ignore defragment bit • Fragment and forward the packet and notify the sender
Mobile IPv6 Home Agent	Specifies the IPv6 address of home agent (HA) to use for Mobile IP session in this APN.
Mobile IPv6 Home Link Prefix	Specifies the home link prefix for to use for Mobile IP session in this APN.
Mobile IPv6 Home Address	Specifies the home IPv6 address of subscriber to use for Mobile IP session in this APN.
APN QCI Stats	Displays bulk statistics per APN QCI.
Event Reporting	Specifies whether event reporting to a log has been Enabled or Disabled.

Field	Description
Qci-qos-mapping Name for RAT-type	Displays the QCI QoS mapping table name associated with a specific APN profile configuration. The mapping table displays DSCP marking for the following RAT-types: • EUTRAN • GERAN • UTRAN • LTE-M

show apn counter ip-allocation all

Table 2: show apn counter ip-allocation all Command Output Descriptions

Field	Description
APN	Indicates the name of the access point name (APN) for which counters are displayed.
UE PROVID.	Indicates the total number of cumulative sessions which used UE provided IP allocation method through this APN.
LOCAL POOL	Indicates the total number of cumulative sessions which used Local Pool method for IP allocation through this APN.
AAA	Indicates the total number of cumulative sessions which used AAA provided IP allocation method through this APN.
DHCP	This group indicates the total number of cumulative sessions which used DHCP method for IP allocation through this APN. Possible groups are: CLIENT: Indicates the number of cumulative sessions which used DHCP client method for IP allocation through this APN. RELAY: Indicates the number of cumulative sessions which used DHCP relay method for IP allocation through this APN.
PASSTHRU	Indicates the total number of cumulative sessions which used PASSTHRU IP allocation method through this APN.

show apn name

Table 3: show apn name Command Output Descriptions

Field	Description
APN-AMBR	Specifies the traffic statistics for APN Maximum Bit Rate.

Field	Description
Downlink Apn Ambr	Specifies whether traffic data QoS negotiation limit in downlink direction is enab or not for this class of QoS in this APN. By default it's disabled. Possible states are: • Enabled • Disabled
Uplink Apn Ambr	Specifies whether traffic data QoS negotiation limit in uplink direction is enabled not for this class of QoS in this APN. By default it's disabled. Possible states are: • Enabled • Disabled
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: • Enabled • Disabled
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value i second.
Violate Action	Specifies the action on downlink/uplink data rate violation of allowed rate limit fo class of QoS. Possible actions are: • **drop**: drop the packets. • **lower-ip-precedence**: transmit the packet after lowering the ip-precedence. • **shape**: enables the traffic shaping and provides the buffering of user packets v subscriber traffic violates the allowed peak/committed data rate. • **shape-transmit-when-buffer-full**: enables the traffic shaping and allows th packet to be transmitted when buffer memory is full. • **transmit**: transmit the packet.
Token Replenishment Interval	Indicates the token-replenishment-interval.
Access Point Name (APN)	Indicates the name of the access point name (APN) for which counters are displa
Authentication Context	Name of the system context used for authentication for this APN.

Field	Description
Pdp Type	Indicates the type of PDP context. Pdp type are as follows: • IPv4 • IPv6
Emergency	Specifies whether **emergency-apn** option is configured in this APN or not.
Delay Tolerant	Specifies whether Delay Tolerant behavior for PDN connection is available fo Power Saving Mode or not.
PCO Options	Specifies which customized PCO (Protocol Configuration Options) options ar the network to MS GTP messages. PCO Options are as follows: • Custom1 • Mode • Link MTU • Non-link MTU • ePDG Selection FQDN
Online Charging without Wait	Shows that the Online charging without Wait is defined at the APN level is di
pra-profile Name	Specifies the PRA name to be associated in APN for differentiating 5G traffic
Virtual APN Configuration:	
RAT Type	Shows that the Virtual-APN is selected based on the LTE-M RAT type during Session setup.

show apn statistics all hsgw-only

Table 4: show apn statistics all hsgw-only Command Output Descriptions

Field	Description
HSGW Static FQDN Statistics:	
Attempts:	Total primary FQDN Selection attempts.
Success:	Total primary FQDN Selection attempts that were successful.
Tiimeout:	Total number of PBU sent to primary FQDN that timed out.
Total Failures:	Total primary FQDN Selection attempts that failed.
Attempts:	Total secondary FQDN Selection attempts.
Success:	Total secondary FQDN Selection attempts that were successful.

Field	Description
Tiimeout:	Total number of PBU sent to the secondary FQDN that timed out.
Total Failures:	Total secondary FQDN Selection attempts that failed.

show apn statistics

Table 5: show apn statistics Command Output Descriptions

Field	Description
HSGW Static FQDN Statistics:	
Attempts:	Total primary FQDN Selection attempts.
Success:	Total primary FQDN Selection attempts that were successful.
Tiimeout:	Total number of PBU sent to primary FQDN that timed out.
Total Failures:	Total primary FQDN Selection attempts that failed.
Attempts:	Total secondary FQDN Selection attempts.
Success:	Total secondary FQDN Selection attempts that were successful.
Tiimeout:	Total number of PBU sent to the secondary FQDN that timed out.
Total Failures:	Total secondary FQDN Selection attempts that failed.

show apn statistics name

Table 6: show apn statistics name Command Output Descriptions

Field	Description
Data Statistics ('uplink'=to PDN, 'downlink'=from PDN):	
uplink bytes	The current total number of bytes sent on the Gi interface for the APN.
downlink bytes	The current total number of bytes received on the Gi interface for the APN.
uplink pkts	The current total number of IP packets sent from the Gi interface for the APN.
downlink pkts	The current total number of IP packets received from the Gi interface for the APN.
uplink pkts dropped	The current total number of IP packets for the APN that were dropped prior to sending over the Gi interface.

Field	Description
downlink pkts dropped	The current total number of IP packets received from the Gi interface for the APN and dropped.
uplink bytes dropped	The current total number of IP bytes for the APN that were dropped prior to sending over the Gi interface.
downlink bytes dropped	The current total number of IP bytes received from the Gi interface for the APN and dropped.
uplink Flow MBR excd byte drop	Number of exceeded uplink bytes dropped due to maximum bit rate.
downlink Flow MBR excd byte drop	Number of exceeded downlink bytes dropped due to maximum bit rate.
uplink Flow MBR excd packet drop	Number of exceeded uplink packets dropped due to maximum bit rate.
downlink Flow MBR excd packet drop	Number of exceeded uplink packets dropped due to maximum bit rate.
uplink Flow GBR excd byte drop	Number of exceeded uplink bytes dropped due to guaranteed bit rate.
downlink Flow GBR excd byte drop	Number of exceeded downlink bytes dropped due to guaranteed bit rate.
uplink Flow GBR excd packet drop	Number of exceeded uplink packets dropped due to guaranteed bit rate.
downlink Flow GBR excd packet drop	Number of exceeded downlink packets dropped due to guaranteed bit rate.
uplink AMBR excd byte drop	Number of exceeded uplink bytes dropped due to APN Maximum bit rate.
downlink AMBR excd byte drop	Number of exceeded downlink bytes dropped due to APN Maximum bit rate.
uplink AMBR excd packet drop	Number of exceeded uplink packets dropped due to APN Maximum bit rate.
downlink AMBR excd packet drop	Number of exceeded downlink packets dropped due to APN Maximum bit rate.
uplink misc byte drop	Number of uplink bytes dropped due to miscellaneous reasons.
downlink misc byte drop	Number of downlink bytes dropped due to miscellaneous reasons.
uplink misc packet drop	Number of uplink packets dropped due to miscellaneous reasons.
downlink misc packet drop	Number of downlink packets dropped due to miscellaneous reasons.
ip bad hdr	The current total number IP packets received and dropped due to bad headers.
ip ttl exceeded	The current total number of IP packets dropped because they were received with TTL values of 0.
ip fragments sent	The current total number of number of times IP packets were fragmented before being sent over the Gi interface.
ip could not fragment	The current total number of IP packets which failed in fragmentation.
ip input acl drop	The current total number IP packets that were received and then dropped due to ACL filtering. **NOTE:** This counter may increment even if no ACL is configured.

Field	Description
ip output acl drop	The current total number of IP packets that were dropped prior to sending due to ACL filtering.
ip input css down drop	The current total number of IP packets the CSS received and then dropped.
ip output css down drop	The current total number of IP packets that were dropped prior to sending due to CSS filtering.
ip early pdu rcvd	The current total number of early IP packet data units (PDUs) received.
IP bad length trim	
ip source violations	The current total number of IP packets received for which source violations were detected and then dropped.
ip source violations no accounting	The IP packets received for source violations that were detected but not included in the statistics.
ip source violation ignored	The IP source validation violations that were detected and then ignored.
802.1p priority marking statistics	
Uplink: Priority 0-7	The total number of packets sent in the uplink direction marked with a specific (0-7) 802.1p priority.
Downlink: Priority 0-7	The total number of packets sent in the downlink direction marked with a specific (0-7) 802.1p priority.
Subscriber Session Statistics	
Default bearers active	The total number of active default bearers.
Dedicated bearers active	The total number of active dedicated bearers.
Default bearers setup	The total number of setup default bearers.
Dedicated bearers setup	The total number of setup dedicated bearers.
Default bearers released	The total number of default bearers released.
Dedicated bearers released	The total number of dedicated bearers released.
Default bearers rel fail	The total number of default bearer release failed.
Dedicated bearers rel fail	The total number of dedicated bearer release failed.
Default bearers rejected	The total number of default bearers rejected.
Dedicated bearers rejected	The total number of dedicated bearers rejected.
UE-init mod	The total number of UE initiated bearer modifications.
Network-init mod	The total number of network initiated bearer modifications.

Field	Description
UE-init mod fail	The total number of ue initiated modifications failed.
Network-init mod fail	The total number of network initiated modifications failed.
Total PDN-Type stats	
PDN-Type IPv4 sessions active	The total number of pdn ipv4 active sessions.
PDN-Type IPv4 sessions setup	The total number pdn ipv4 setup sessions.
PDN-Type IPv4 sessions released	The total number of pdn ipv4 sessions released.
PDN-Type IPv6 sessions active	The total number of pdn ipv6 active sessions.
PDN-Type IPv6 sessions setup	The total number pdn ipv6 setup sessions.
PDN-Type IPv6 sessions released	The total number pdn ipv6 sessions released.
PDN-Type IPv4v6 sessions active	The total number of pdn ipv4v6 active sessions.
PDN-Type IPv4v6 sessions setup	The total number pdn ipv4v6 setup sessions.
PDN-Type IPv4v6 sessions released	The total number pdn ipv4v6 sessions released.
Initiated Sessions per RAT Type	
EUTRAN	The total number of sessions initiated by EUTRAN.
UTRAN	The total number of sessions initiated by UTRAN.
GERAN	The total number of sessions initiated by GERAN.
EHRPD	The total number of sessions initiated by EHRPD.
S2A GTP	The total number of sessions initiated by S2A GTP.
S2B GTP	The total number of sessions initiated by S2B GTP.
S2B PMIP	The total number of sessions initiated by S2B PMIP.
Inter Technology Handovers	The Inter-Technology key performance indicators (KPIs) monitor RAT Initiated Sessions and inter-technology handovers so that operators can gauge 2G/3G/4G/WiFi/eHRPD coverage and determine how WiFi is penetrating as the first attach choice. The KPIs identify how a session is initiated and how many handoffs occur.
GNGP-to-LTE handover Attempted	The total number of GNGP-to-LTE handovers that have been attempted.
GNGP-to-LTE handover Succeeded	The total number of GNGP-to-LTE handovers that have succeeded.
GNGP-to-LTE handover Failed	The total number of GNGP-to-LTE handovers that have failed
LTE-to-GNGP handover Attempted	The total number of LTE-to-GNGP handovers that have been attempted.
LTE-to-GNGP handover Succeeded	The total number of LTE-to-GNGP handovers that have succeeded.

Field	Description
LTE-to-GNGP handover Failed	The total number of LTE-to-GNGP handovers that have failed.
GNGP-to-S4SGSN handover Attempted	The total number of GNGP-to-S4SGSN handovers that have been attempted.
GNGP-to-S4SGSN handover Succeeded	The total number of GNGP-to-S4SGSN handovers that have succeeded.
GNGP-to-S4SGSN handover Failed	The total number of GNGP-to-S4SGSN handovers that have failed.
S4SGSN-to-GNGP handover Attempted	The total number of S4-SGSN-to-GNGP handovers that have been attempted.
S4SGSN-to-GNGP handover Succeeded	The total number of S4SGSN-to-GNGP handovers that have succeeded.
S4SGSN-to-GNGP handover Failed	The total number of S4SGSN-to-GNGP handovers that have failed.
S4SGSN-to-LTE handover Attempted	The total number of S4SGSN-to-LTE handovers that have been attempted.
S4SGSN-to-LTE handover Succeeded	The total number of S4SGSN-to-LTE handovers that have succeeded.
S4SGSN-to-LTE handover Failed	The total number of S4SGSN-to-LTE handovers that have failed.
LTE-to-S4SGSN handover Attempted	The total number of LTE-to-S4SGSN handovers that have been attempted.
LTE-to-S4SGSN handover Succeeded	The total number of LTE-to-S4SGSN handovers that have succeeded.
LTE-to-S4SGSN handover Failed	The total number of LTE-to-S4SGSN handovers that have failed.
LTE-to-eHRPD handover Attempted	The total number of LTE-to-eHRPD handovers that have been attempted.
LTE-to-eHRPD handover Succeeded	The total number of LTE-to-eHRPD handovers that have succeeded.
LTE-to-eHRPD handover Failed	The total number of LTE-to-eHRPD handovers that have failed.
eHRPD-to-LTE handover Attempted	The total number of eHRPD-to-LTE handovers that have been attempted.
eHRPD-to-LTE handover Succeeded	The total number of eHRPD-to-LTE handovers that have succeeded.
eHRPD-to-LTE handover Failed	The total number of eHRPD-to-LTE handovers that have failed.
LTE-to-S2bPMIP handover Attempted	The total number of LTE-to-S2bPMIP handovers that have been attempted.
LTE-to-S2bPMIP handover Succeeded	The total number of LTE-to-S2bPMIP handovers that have succeeded.
LTE-to-S2bPMIP handover Failed	The total number of LTE-to-S2bPMIP handovers that have failed.
S2bPMIP-to-LTE handover Attempted	The total number of S2bPMIP-to-LTE handovers that have been attempted.
S2bPMIP-to-LTE handover Succeeded	The total number of S2bPMIP-to-LTE handovers that have succeeded.
S2bPMIP-to-LTE handover Failed	The total number of S2bPMIP-to-LTE handovers that have failed.
eHRPD-to-S2bPMIP handover Attempted	The total number of eHRPD-to-S2bPMIP handovers that have been attempted.
eHRPD-to-S2bPMIP handover Succeeded	The total number of eHRPD-to-S2bPMIP handovers that have succeeded.
eHRPD-to-S2bPMIP handover Failed	The total number of eHRPD-to-S2bPMIP handovers that have failed.

Field	Description
S2bPMIP-to-eHRPD handover Attempted	The total number of S2bPMIP-to-eHRPD handovers that have been attempted.
S2bPMIP-to-eHRPD handover Succeeded	The total number of S2bPMIP-to-eHRPD handovers that have succeeded.
S2bPMIP-to-eHRPD handover Failed	The total number of S2bPMIP-to-eHRPD handovers that have failed.
S2bGTP-to-LTE handover Attempted	The total number of S2bGTP-to-LTE handovers that have been attempted.
S2bGTP-to-LTE handover Succeeded	The total number of S2bGTP-to-LTE handovers that have succeeded.
S2bGTP-to-LTE handover Failed	The total number of S2bGTP-to-LTE handovers that have failed.
LTE-to-S2bGTP handover Attempted	The total number of LTE-to-S2bGTP handovers that have been attempted.
LTE-to-S2bGTP handover Succeeded	The total number of LTE-to-S2bGTP handovers that succeeded.
LTE-to-S2bGTP handover Failed	The total number of LTE-to-S2bGTP handovers that failed.
S2bGTP-to-eHRPD handover Attempted	The total number of S2bGTP-to-eHRPD handovers that have been attempted.
S2bGTP-to-eHRPD handover Succeeded	The total number of S2bGTP-to-eHRPD handovers that have succeeded.
S2bGTP-to-eHRPD handover Failed	The total number of S2bGTP-to-eHRPD handovers that have failed.
eHRPD-to-S2bGTP handover Attempted	The total number of eHRPD-to-S2bGTP handovers that have been attempted.
eHRPD-to-S2bGTP handover Successful	The total number of eHRPD-to-S2bGTP handovers that have succeeded.
eHRPD-to-S2bGTP handover Failed	The total number of eHRPD-to-S2bGTP handovers that have failed.
S2aGTP-to-LTE handover Attempted	The total number of S2aGTP-to-LTE handovers that have been attempted.
S2aGTP-to-LTE handover Succeeded	The total number of S2aGTP-to-LTE handovers that have succeeded.
S2aGTP-to-LTE handover Failed	The total number of S2aGTP-to-LTE handovers that have failed.
LTE-to-S2aGTP handover Attempted	The total number of LTE-to-S2aGTP handovers that have been attempted.
LTE-to-S2aGTP handover Succeeded	The total number of LTE-to-S2aGTP handovers that have succeeded.
LTE-to-S2aGTP handover Failed	The total number of LTE-to-S2aGTP handovers that have failed.
LTE-to-S2bGTP handover Succeeded on First Uplink Data on S2b tunnel	Specifies the number of handover due to Uplink packets.
LTE-to-S2bGTP handover Succeeded on Timer Expiry	Specifies the number of handover due to Timer Expiry.
IP Address Allocation Statistics	
Total IPv4 addrs allocated: Local pool add assign	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses from pools configured locally on the system.
Total IPv4 addrs allocated: Static addr assign	The current total number of PDP contexts facilitated by the APN that used static IP address.

Field	Description
Total IPv4 addrs allocated: aaa provided addr	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses from a AAA server.
Total IPv4 addrs allocated: skipped ip validation for L3 tunnels	The current total number of PDP contexts facilitated by the APN that were skipped validation for L3 tunnels.
Total IPv4 addrs allocated: DHCP proxy assign	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses by the system using the DHCP client mode.
Total IPv4 addrs allocated: DHCP relay assign	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses by the system using the DHCP relay mode.
Total IPv4 addrs allocated: No allocation	The current total number of PDP contexts facilitated by the APN that were not dynamically allocated IP addresses. This counters is relevant for a multicast sessions (MBMS) where IP allocation is not applicable.
Total IPv6 addrs allocated: Stateless auto config	The current total number ipv6 address allocation by stateless auto configuration.
Total IPv6 addrs allocated: Local pool add assign	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IPv6 addresses from pools configured locally on the system.
Total IPv6 addrs allocated: Static addr assign	The current total number of PDP contexts facilitated by the APN that used static IPv6 address.
Total IPv6 addrs allocated: No allocation	The current total number of PDP contexts facilitated by the APN that were not dynamically allocated IPv6 addresses. This counters is relevant for a multicast sessions (MBMS) where IPv6 allocation is not applicable.
Total IPv6 addrs allocated: skipped ip validation for L3 tunnels	The current total number of PDP contexts facilitated by the APN that were skipped validation for L3 tunnels.
Total IPv6 addrs allocated: DHCPv6 proxy assign	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IPv6 addresses by the system using the DHCP client mode.
Total IPv6 addrs allocated: aaa provided addr	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IPv6 addresses from a AAA server.
No allocation	The current total number of PDP contexts facilitated by the APN that were not allocated IPv6 addresses.
skipped ip validation for L3 tunnels	The current total number of PDP contexts facilitated by the APN IP validation was skipped for L3 tunnels.
4G Bearers Released by Reason	
Admin disconnect: QCI n	The number of administrative disconnects of sessions for QCI n. Where n is a QCI value from 1 to 9, or 65, 66, 68, or 69.
Subscriber QoS Statistics	

Field	Description
QCI n: Bearer Active	The current total number of bearers with qci n active. Here n (qci-val) is the QCI for which the negotiate limit is being set, it ranges from 1 to 9 , or is a new standard QCI value of 65, 66, 69 or 70).
QCI n: Bearer Setup	The current total number of bearers with qci n setup.
QCI n: Bearer Released	The current total number of bearers with qci n released.
QCI n: Bearer Rejected	The current total number of bearers with qci n rejected.
QCI n: Uplink Bytes Forwarded	The current total number of uplink bytes forwarded for qci n.
QCI n: Downlink Bytes Forwarded	The current total number of downlink bytes forwarded for qci n.
QCI n: Uplink Packets Forwarded	The current total number of uplink packets forwarded for qci n.
QCI n: Downlink Packets Forwarded	The current total number of downlink packets forwarded for qci n.
QCI n: Uplink Bytes Dropped	The current total number of uplink bytes dropped for qci n.
QCI n: Downlink Bytes Dropped	The current total number of downlink bytes dropped for qci n.
QCI n: Uplink Packets Dropped	The current total number of uplink packets dropped for qci n.
QCI n: Downlink Packets Dropped	The current total number of downlink packets dropped for qci n.
QCI n: Uplink Bytes dropped(MBR Excd)	The current total number of uplink bytes dropped for qci n due to exceeded MBR.
QCI n: Downlink Bytes dropped(MBR Excd)	The current total number of downlink bytes dropped for qci n due to exceeded MBR.
QCI n: Uplink pkts dropped(MBR Excd)	The current total number of uplink packets dropped for qci n due to exceeded MBR.
QCI n: Downlink pkts dropped(MBR Excd)	The current total number of downlink packets dropped for qci n due to exceeded MBR.
Non-Std QCI(Non-GBR): Bearer Active	The current total number of active bearers with non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Bearer setup	The current total number of setup bearers with non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Bearer Released	The current total number of released bearers with non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Uplink Bytes forwarded	The current total number of uplink bytes forwarded for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Downlink Bytes forwarded	The current total number of downlink bytes forwarded for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Uplink pkts forwarded	The current total number of uplink packets forwarded for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Downlink pkts forwarded	The current total number of downlink packets forwarded for non-standard (non-GBR) qci.

Field	Description
Non-Std QCI(Non-GBR): Uplink Bytes dropped	The current total number of uplink bytes dropped for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Downlink Bytes dropped	The current total number of downlink bytes dropped for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Uplink pkts dropped	The current total number of uplink packets dropped for non-standard (non-GBR) qci.
Non-Std QCI(Non-GBR): Downlink pkts dropped	The current total number of downlink packets dropped for non-standard (non-GBR) qci.
Non-Std QCI(GBR): Bearer Active	The current total number of active bearers with non-standard (non-GBR) qci.
Non-Std QCI(GBR): Bearer setup	The current total number of setup bearers with non-standard (non-GBR) qci.
Non-Std QCI(GBR): Bearer Released	The current total number of released bearers with non-standard (non-GBR) qci.
Non-Std QCI(GBR): Uplink Bytes forwarded	The current total number of uplink bytes forwarded for non-standard (GBR) qci.
Non-Std QCI(GBR): Downlink Bytes forwarded	The current total number of downlink bytes forwarded for non-standard (GBR) qci.
Non-Std QCI(GBR): Uplink pkts forwarded	The current total number of uplink packets forwarded for non-standard (GBR) qci.
Non-Std QCI(GBR): Downlink pkts forwarded	The current total number of downlink packets forwarded for non-standard (GBR) qci.
Non-Std QCI(GBR): Uplink Bytes dropped	The current total number of uplink bytes dropped for non-standard (GBR) qci.
Non-Std QCI(GBR): Downlink Bytes dropped	The current total number of downlink bytes dropped for non-standard (GBR) qci.
Non-Std QCI(GBR): Uplink pkts dropped	The current total number of uplink packets dropped for non-standard (GBR) qci.
Non-Std QCI(GBR): Downlink pkts dropped	The current total number of downlink packets dropped for non-standard (GBR) qci.
Invalid/ Not-Configured QCI: Bearer Rejected	The current total number of bearers rejected with invalid or non-configures qci.
Session statistics	
current contexts (selected APN(s))	The current total number of PDP contexts facilitated by the APN.
current contexts (system wide)	The current total number of PDP contexts facilitated by the entire system.
cumulative contexts (selected APN(s))	The cumulative number of PDP contexts facilitated by the APN.
cumulative contexts (system wide)	The cumulative number of PDP contexts facilitated by the entire system.
Current APN context load	Current APN context load = (current contexts (selected APN(s)) / current contexts (system wide)) * 100.

Field	Description
Cumulative APN context load	The cumulative percent utilization of the APN as function of the APN's configured maximum number of supported PDP contexts and the cumulative number of PDP contexts facilitated by the APN.
Pilot packet statistics	
NAT-Alloc	The total number of Pilot Packets sent per APN for every IP/Port allocation for all NAT enabled calls.
NAT-De-Alloc	The total number of Pilot Packets sent per APN for every IP/Port deallocation for all NAT enabled calls.
Non-NAT-Alloc	The total number of Pilot Packets sent per APN for every IP/Port allocation for all non-NAT calls.
Non-NAT-De-Alloc	The total number of Pilot Packets sent per APN for every IP/Port deallocation for all non-NAT calls.
Total-Alloc	The total number of Pilot Packets sent per APN for every IP/Port allocation for all call types.
Total-De-Alloc	The total number of Pilot Packets sent per APN for every IP/Port deallocation for all call types.
RAT-Change-User-Info	The total number of Pilot Packets sent for every subscriber IP allocation on RAT type change.
RAT-Change-NAT-Info	The total number of Pilot Packets sent for every NAT port chunk allocation on RAT type change.
AAA-Counters	
Authentication Counters	
Access-Request Sent	The total number of access requests that were sent.
Access-Request Timeouts	The total number of access request timeouts.
Accounting Counters	
Accounting-Request Sent	The total number of accounting requests that were sent.
Accounting-Response Received	The total number of accounting responses that were received.
Accounting-Request Timeouts	The total number of accounting request timeouts.
RADIUS Acct-Req purged	The total number of RADIUS accounting requests purged.
GTPP Acct-req purged	The total number of GTTP accounting requests purged.

Field	Description
GTPP sec Acct-req purged	The total number of secondary G-CDR accounting requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the accounting message to the Charging Gateway Function (CGF) . It counts total secondary G-CDR accounting requests purged by this AAAMgr instance
GTPP Chrg-req purged	The total number of GTTP charging requests purged.
GTPP sec Chrg-req purged	The total number of secondary eG-CDR charging requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the charging message to the Charging Gateway Function (CGF). It counts total secondary eG-CDR charging requests purged by this AAAMgr instance

Table 7: show apn statistics all name Command Output Descriptions

Field	Description
Active Sessions per RAT Type:	
LTE-M	Dsplays number of initiated sessions and active sessions with LTE-M RAT Type per APN.

show apn statistics name qci

Table 8: show apn statistics name qci Command Output Descriptions

Field	Description
Data Statistics	
Uplink Bytes	The total number of uplink bytes received.
Uplink Packets	The total number of uplink packets received.
Uplink Bytes dropped	The total number of uplink bytes dropped for any reason.
Uplink Pkts dropped	The total number of uplink packets dropped for any reason.
Downlink Bytes	The total number of downlink bytes.
Downlink Pkts	The total number of downlink packets.
Downlink Bytes dropped	The total number of downlink bytes dropped for any reason.
Downlink Pkts dropped	The total number of downlink packets dropped for any reason.

Field	Description
Uplink Dropped: This section provides detailed reasons for uplink byte and packet drops.	
MBR Exceeded (Bytes)	The total number of uplink IP bytes dropped due to exceeding the maximum bit rate (MBR).
MBR Exceeded (Pkts)	The total number of uplink IP packets dropped due to exceeding the maximum bit rate (MBR).
AMBR Exceeded (Bytes)	The total number of uplink IP bytes dropped due to exceeding the aggregate maximum bit rate (AMBR).
AMBR Exceeded (Pkts)	The total number of uplink IP packets dropped due to exceeding the maximum bit rate (MBR).
Miscellaneous (Bytes)	The total number of uplink IP bytes dropped for miscellaneous reasons.
Miscellaneous (Pkts)	The total number of uplink IP packets dropped for miscellaneous reasons.
Overcharge Prtctn (Bytes)	The total number of IP input bytes dropped due to Overcharging protection.
Overcharge Prtctn (Pkts)	The total number of IP input packets dropped due to overcharging protection.
SGW Restoration (Bytes)	The total number of IP input bytes dropped due to S-GW Restoration.
SGW Restoration (Pkts)	The total number of IP input packets dropped due to S-GW Restoration.
SDF Gate (Bytes)	The total number of IP input bytes dropped due to Dynamic Rule level throttling.
SDF Gate (Pkts)	The total number of IP input packets dropped due to Dynamic Rule level throttling.
ITC Gate (Bytes)	The total number of IP input bytes dropped due to flow limits exceeded.
ITC Gate (Pkts)	The total number of IP input packets dropped due to flow limits being exceeded.
Flow Terminated (Bytes)	The total number of IP input bytes dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Flow Terminated (Pkts)	The total number of IP input packets dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.

Field	Description
Subsession Terminated (Bytes)	The total number of IP input bytes dropped due to Bearer termination.
Subsession Terminated (Pkts)	The total number of IP input packets dropped due to Bearer termination.
Call Terminated (Bytes)	The total number of IP input bytes dropped due to session termination.
Call Terminated (Pkts)	The total number of IP input packets dropped due to session termination.
DCCA Discard (Bytes)	The total number of IP input bytes dropped due to DCCA not enabled but charging action has credit-control configured.
DCCA Discard (Pkts)	The total number of IP input packets dropped due to DCCA not enabled but charging action has credit-control configured.
No Rule Match (Bytes)	The total number of IP input bytes dropped due to no rule match.
No Rule Match (Pkts)	The total number of IP input packets dropped due to no rule match.
ICAP (Bytes)	The total number of IP input bytes dropped due to ICAP (Internet Content Adaption Protocol) action: discard or terminate flow.
ICAP (Pkts)	The total number of IP input packets dropped due to ICAP (Internet Content Adaption Protocol) action: discard or terminate flow.
SFW (Bytes)	The total number of IP input bytes dropped due to SFW (Software Firewall) action.
SFW (Pkts)	The total number of IP input packets dropped due to Software Firewall (SFW) action.
Hierarchical ENF (Bytes)	The total number of IP input bytes dropped due to Hierarchical enforcement flow status.
Hierarchical ENF (Pkts)	The total number of IP input packets dropped due to Hierarchical enforcement flow status.
Dynamic CA Gate (Bytes)	The total number of IP input bytes dropped due to dynamic CA gate.
Dynamic CA Gate (Pkts)	The total number of IP input packets dropped due to dynamic CA gate.

Field	Description
NAT64 Cancel (Bytes)	The total number of IP input bytes dropped because IPv6 packets received are translated to IPv4 by NAT.
NAT64 Cancel (Pkts)	The total number of IP input packets dropped because IPv6 packets received are translated to IPv4 by NAT.
Bearer Not Found (Bytes)	The total number of IP input bytes dropped because an associated bearer was not found.
Bearer Not Found (Pkts)	The total number of IP input packets dropped because no associated bearer was found.
Downlink Dropped: This section provides detailed reasons for downlink byte and packet drops.	
MBR Exceeded (Bytes)	The total number of downlink IP bytes dropped due to exceeding the maximum bit rate (MBR).
MBR Exceeded (Pkts)	The total number of downlink IP packets dropped due to exceeding the maximum bit rate (MBR).
AMBR Exceeded (Bytes)	The total number of downlink IP bytes dropped due to exceeding the aggregate maximum bit rate (AMBR).
AMBR Exceeded (Pkts)	The total number of downlink IP packets dropped due to exceeding the aggregate maximum bit rate (AMBR).
Miscellaneous (Bytes)	The total number of downlink IP bytes dropped for miscellaneous reasons.
Miscellaneous (Pkts)	The total number of downlink IP packets dropped for miscellaneous reasons.
Overcharge Prtctn (Bytes)	The total number of IP output bytes dropped due to Overcharging protection.
Overcharge Prtctn (Pkts)	The total number of IP output packets dropped due to Overcharging protection.
SGW Restoration (Bytes)	The total number of IP output bytes dropped due to SGW Restoration.
SGW Restoration (Pkts)	The total number of IP output packets dropped due to SGW Restoration.
SDF Gate (Bytes)	The total number of IP output bytes dropped due to Dynamic Rule level throttling.
SDF Gate (Pkts)	The total number of IP output packets dropped due to Dynamic Rule level throttling.

Field	Description
ITC Gate (Bytes)	The total number of IP output bytes dropped due to flow limits being exceeded.
ITC Gate (Pkts)	The total number of IP output packets dropped due to flow limits being exceeded.
Flow Terminated (Bytes)	The total number of IP output packets dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Flow Terminated (Pkts)	The total number of IP output packets dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Subsession Terminated (Bytes)	The total number of IP output bytes dropped due to bearer termination.
Subsession Terminated (Pkts)	The total number of IP output packets dropped due to bearer termination.
Call Terminated (Bytes)	The total number of IP output bytes dropped due to session termination.
Call Terminated (Pkts)	The total number of IP output packets dropped due to session termination.
DCCA Discard (Bytes)	The total number of IP output bytes dropped due to DCCA not enabled but charging action has credit-control configured.
DCCA Discard (Pkts)	The total number of IP output packets dropped due to DCCA not enabled but charging action has credit-control configured.
No Rule Match (Bytes)	The total number of IP output bytes dropped due to no rule match.
No Rule Match (Pkts)	The total number of IP output packets dropped due to no rule match.
ICAP (Bytes)	N/A
ICAP (Pkts)	N/A
SFW (Bytes)	The total number of IP output bytes dropped due to SFW (Software Firewall) action.
SFW (Pkts)	The total number of IP output packets dropped due to SFW (Software Firewall) action.

Field	Description
Hierarchical ENF (Bytes)	The total number of IP output bytes dropped due to Hierarchical enforcement flow status.
Hierarchical ENF (Pkts)	The total number of IP output packets dropped due to Hierarchical enforcement flow status.
Dynamic CA Gate (Bytes)	The total number of IP output bytes dropped due to dynamic CA gate.
Dynamic CA Gate (Pkts)	The total number of IP output packets dropped due to dynamic CA gate.
NAT64 Cancel (Bytes)	The total number of IP output bytes dropped because IPv6 packets received are translated to IPv4 by NAT.
NAT64 Cancel (Pkts)	The total number of IP output packets dropped because IPv6 packets received are translated to IPv4 by NAT.
Bearer Not Found (Bytes)	The total number of IP output bytes dropped because an associated bearer was not found.
Bearer Not Found (Pkts)	The total number of IP output packets dropped because an associated bearer was not found.
4G Bearers Released by Reasons	
Admin Disconnect	The total number of 4G bearers released for each QCI 1 through 9 due to an Administrative disconnect.
ARP level distribution of 4G Bearer Released by Reasons	
Admin Disconnect	The total number of administrative disconnects by QCI n/ARP n value. Where QCI n is a value from 1 through 9 and its associated ARP n values are from 1 to 15.
Subscriber QoS Statistics: Provides detailed packet/byte drop statistics for QCI n/ARP n. Where QCI is a value from 1 through 9 and its associated ARP n values are from 1 through 15;	
Bearer Active	
Bearer Released	
Bearer Setup	
Bearer Rejected	
Uplink Bytes forwarded	
Uplink Bytes forwarded	
Uplink Bytes dropped	

Field	Description
Uplink Pkts dropped	
Downlink Bytes forwarded	
Downlink Pkts forwarded	
Downlink Bytes dropped	
Downlink Pkts dropped	
Uplink Dropped: This section provides detailed uplink packet/byte drop information for all QCI n/ARP n values.	
MBR Exceeded (Bytes)	The total number of uplink IP bytes dropped due to exceeding the maximum bit rate (MBR).
MBR Exceeded (Pkts)	The total number of uplink IP packets dropped due to exceeding the maximum bit rate (MBR).
AMBR Exceeded (Bytes)	The total number of uplink IP bytes dropped due to exceeding the aggregate maximum bit rate (AMBR).
AMBR Exceeded (Pkts)	The total number of uplink IP packets dropped due to exceeding the aggregate maximum bit rate (AMBR).
Miscellaneous (Bytes)	The total number of uplink IP bytes dropped for miscellaneous reasons.
Miscellaneous (Pkts)	The total number of uplink IP packets dropped for miscellaneous reasons.
Overcharge Prtctn (Bytes)	The total number of IP input bytes dropped due to Overcharging protection.
Overcharge Prtctn (Pkts)	The total number of IP input packets dropped due to overcharging protection.
SGW Restoration (Bytes)	The total number of IP input bytes dropped due to S-GW Restoration.
SGW Restoration (Pkts)	SGW Restoration (Pkts): The total number of IP input packets dropped due to S-GW Restoration.
SDF Gate (Bytes)	The total number of IP input bytes dropped due to Dynamic Rule level throttling.
SDF Gate (Pkts)	The total number of IP input packets dropped due to Dynamic Rule level throttling.
ITC Gate (Bytes)	The total number of IP input bytes dropped due to flow limits exceeded.

Field	Description
ITC Gate (Pkts)	The total number of IP input packets dropped due to flow limits being exceeded.
Flow Terminated (Bytes)	The total number of IP input bytes dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Flow Terminated (Pkts)	The total number of IP input packets dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Subsession Terminated (Bytes)	The total number of IP input bytes dropped due to Bearer termination.
Subsession Terminated (Pkts)	The total number of IP input packets dropped due to Bearer termination.
Call Terminated (Bytes)	The total number of IP input bytes dropped due to session termination.
Call Terminated (Pkts)	The total number of IP input packets dropped due to session termination.
DCCA Discard (Bytes)	The total number of IP input bytes dropped due to DCCA not enabled but charging action has credit-control configured.
DCCA Discard (Pkts)	The total number of IP input packets dropped due to DCCA not enabled but charging action has credit-control configured.
No Rule Match (Bytes)	The total number of IP input bytes dropped due to no rule match.
No Rule Match (Pkts)	The total number of IP input packets dropped due to no rule match.
ICAP (Bytes)	The total number of IP input bytes dropped due to ICAP (Internet Content Adaption Protocol) action: discard or terminate flow.
ICAP (Pkts)	The total number of IP input packets dropped due to ICAP (Internet Content Adaption Protocol) action: discard or terminate flow.
SFW (Bytes)	The total number of IP input bytes dropped due to SFW (Software Firewall) action.
SFW (Pkts)	The total number of IP input packets dropped due to Software Firewall (SFW) action.

Field	Description
Hierarchical ENF (Bytes)	The total number of IP input bytes dropped due to Hierarchical enforcement flow status.
Hierarchical ENF (Pkts)	The total number of IP input packets dropped due to Hierarchical enforcement flow status.
Dynamic CA Gate (Bytes)	The total number of IP input bytes dropped due to dynamic CA gate.
Dynamic CA Gate (Pkts)	The total number of IP input packets dropped due to dynamic CA gate.
NAT64 Cancel (Bytes)	The total number of IP input bytes dropped because IPv6 packets received are translated to IPv4 by NAT.
NAT64 Cancel (Pkts)	The total number of IP input packets dropped because IPv6 packets received are translated to IPv4 by NAT.
Bearer Not Found (Bytes)	The total number of IP input bytes dropped because an associated bearer was not found.
Bearer Not Found (Pkts)	The total number of IP input packets dropped because an associated bearer was not found.
Downlink Dropped: This section provides detailed downlink packet/byte drop information for all QCI n/ARP n values.	
MBR Exceeded (Bytes)	The total number of downlink IP bytes dropped due to exceeding the maximum bit rate (MBR).
MBR Exceeded (Pkts)	The total number of downlink IP packets dropped due to exceeding the maximum bit rate (MBR).
AMBR Exceeded (Bytes)	The total number of downlink IP bytes dropped due to exceeding the aggregate maximum bit rate (AMBR).
AMBR Exceeded (Pkts)	The total number of downlink IP packets dropped due to exceeding the aggregate maximum bit rate (AMBR).
Miscellaneous (Bytes)	The total number of downlink IP bytes dropped for miscellaneous reasons.
Miscellaneous (Pkts)	The total number of downlink IP packets dropped for miscellaneous reasons.
Overcharge Prtctn (Bytes)	The total number of IP output bytes dropped due to Overcharging protection.
Overcharge Prtctn (Pkts)	The total number of IP output packets dropped due to Overcharging protection.

Field	Description
SGW Restoration (Bytes)	The total number of IP output bytes dropped due to S-GW Restoration.
SGW Restoration (Pkts)	The total number of IP output packets dropped due to S-GW Restoration.
SDF Gate (Bytes)	The total number of IP output bytes dropped due to Dynamic Rule level throttling.
SDF Gate (Pkts)	The total number of IP output packets dropped due to Dynamic Rule level throttling.
ITC Gate (Bytes)	The total number of IP output bytes dropped due to flow limits exceeded.
ITC Gate (Pkts)	The total number of IP output packets dropped due to flow limits being exceeded.
Flow Terminated (Bytes)	The total number of IP output bytes dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Flow Terminated (Pkts)	The total number of IP output packets dropped due to Flow status redirect, Flow status remove, Flow status terminate, Flow action discard, Flow action redirect in charging action, and Redirection from OCS.
Subsession Terminated (Bytes)	The total number of IP output bytes dropped due to Bearer termination.
Subsession Terminated (Pkts)	The total number of IP output packets dropped due to Bearer termination.
Call Terminated (Bytes)	The total number of IP output bytes dropped due to session termination.
Call Terminated (Pkts)	The total number of IP output packets dropped due to session termination.
DCCA Discard (Bytes)	The total number of IP output bytes dropped due to DCCA not enabled but charging action has credit-control configured.
DCCA Discard (Pkts)	The total number of IP output packets dropped due to DCCA not enabled but charging action has credit-control configured.
No Rule Match (Bytes)	The total number of IP output bytes dropped due to no rule match.

Field	Description
No Rule Match (Pkts)	The total number of IP output packets dropped due to no rule match.
ICAP (Bytes)	N/A
ICAP (Pkts)	N/A
SFW (Bytes)	The total number of IP output bytes dropped due to SFW (Software Firewall) action.
SFW (Pkts)	The total number of IP output packets dropped due to SFW (Software Firewall) action.
Hierarchical ENF (Bytes)	The total number of IP output bytes dropped due to Hierarchical enforcement flow status.
Hierarchical ENF (Pkts)	The total number of IP output packets dropped due to Hierarchical enforcement flow status.
Dynamic CA Gate (Bytes)	The total number of IP output bytes dropped due to dynamic CA gate.
Dynamic CA Gate (Pkts)	The total number of IP output packets dropped due to dynamic CA gate.
NAT64 Cancel (Bytes)	The total number of IP output bytes dropped because IPv6 packets received are translated to IPv4 by NAT.
NAT64 Cancel (Pkts)	The total number of IP output packets dropped because IPv6 packets received are translated to IPv4 by NAT.
Bearer Not Found (Bytes)	The total number of IP output bytes dropped because an associated bearer was not found.
Bearer Not Found (Pkts)	The total number of IP output packets dropped because an associated bearer was not found.