

show rp

This chapter describes the output of the **show rp** command.

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show rp

Table 1: show rp Command Output Descriptions

Field	Description
RP Summary	
RP Sessions In Progress	Indicates the total number of sessions being facilitated.
Registration Request/Reply	
Renew RRQ Accepted	Indicates the total number of registration request renewals accepted.
Discarded	Indicates the total number of registration requests that have been discarded.
Intra PDSN Active H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was active.
Intra PDSN Dormant H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was dormant. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Inter PDSN Handoff RRQ Accepted	Indicates the total number of registration requests for inter-PDSN handoffs that have been accepted.
Reply Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
Registration Update/Ack	
Initial Update Transmitted	Indicates the total number of registration updates that have been transmitted.

show rp

Field	Description
Update Retransmitted	Indicates the total number of registration updates that have been re-transmitted.
Denied	Indicates the total number of registration updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of registration updates and/or acknowledgements that have not been acknowledged by the PCF.
Reg Ack Received	Indicates the total number of registration acknowledgements that have been discarded.
Reg Ack Discarded	Indicates the total number of registration acknowledgements that have been received.
Update Send Error	Indicates the total number of registration updates for which errors were experienced during transmission.
Registration Update Send Reason	
Lifetime Expiry	Indicates the total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Upper Layer Initiated	Indicates the total number of registration updates that were initiated by upper processing layers.
Other Reasons	Indicates the total number of registration updates that were sent due to reasons other than those listed here.
Handoff Release	Indicates the total number of registration updates that were sent due to handoff releases.
Session Manager Died	Indicates the total number of registration updates that were sent due to the termination of Session Manager tasks. **NOTE:** If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
Registration Update Denied	
Reason Unspecified	Indicates the total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	Indicates the total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Authentication	Indicates the total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Session Update/Ack	
Initial Update Transmitted	Indicates the total number of session updates that have been transmitted.

Field	Description
Update Retransmitted	Indicates the total number of session updates that have been re-transmitted.
Denied	Indicates the total number of session updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of session updates that have not been acknowledged by the PCF.
Sess Update Ack Received	Indicates the total number of session acknowledgements that have been received.
Sess Update Ack Discarded	Indicates the total number of session acknowledgements that have been discarded.
Sess Update Send Error	Indicates the total number of session updates for which errors were experienced during transmission.
Session Update Send Reason	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
QoS Update Reason	
TFT Violation	Indicates that a TFT violation is the reason for QoS update.
Traffic Violation	Indicates that a traffic violation is the reason for the QoS update.
Traffic Policing	Indicates that a traffic policing action is the reason for the QoS update
Operator Triggered	Indicates that an operator triggered the QoS update.
Session Update Denied	
Reason Unspecified	Indicates the total number of session updates denied with a code of 80H (Session Denied - reason unspecified).
Insufficient Resources	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
Admin Prohibited	Indicates the total number of denied session updates denied with a status code of 81H (Session Denied - administratively prohibited).
Parameter not updated	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
PDSN Failed Authentication	Indicates the total number of denied session updates denied with a status code of 83H (Session Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied session updates denied with a status code of 85H (Session Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied session updates denied with a status code of 86H (Session Denied - poorly formed request).

Field	Description
Data	
GRE Packets Received	Indicates the total number of Generic Routing Encapsulation (GRE) packets received.
GRE Bytes Received	Indicates the total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
GRE Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.
GRE Packets Sent in SDB Form	This indicates the total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Bytes Sent in SDB Form	This indicates the total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Segmentation	
Total Packets Received with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets received with segmentation indication.
Total Packets Sent with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets sent with segmentation indication.
Total successful reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were successfully reassembled.
Total packets processed without proper reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were processed without proper reassembly.

show rp full username

Table 2: show rp full username Command Output Descriptions

Field	Description
Username	The subscriber's username.
Callid	The subscriber's call identification (callid) number.
Msid	The subscriber's mobile station identification (MSID) number.
MN Sess Ref ID	The reference identification (Ref ID) number received from the mobile node.
GRE Key	The Generic Routing Encapsulation (GRE) key used with the subscribers session.
PCF Address	The IP address of the Packet Control Function (PCF) facilitating the subscriber's session.
PDSN Address	The IP address of the R-P interface on the Packet Data Service Node's that is facilitating the subscriber's session.

Field	Description
Lifetime	The maximum time that the session A10 connection can exist before it becomes expired. This value is assigned by the PDSN.
Remaining Lifetime	Remaining RP lifetime for the session.
SPI	The particular Security Parameter Index (SPI) that associates the PDSN and the PCF facilitating the session.
Service Option	RP service option for the session.
Flow Control State	Displays the Flow Control State for the session.
Prev System Id	System ID of the previous PCF for the session.
Current System Id	System ID of the current PCF for the session.
Prev Network Id	Network ID of the previous PCF for the session.
Current Network Id	Network ID of the current PCF for the session.
Prev Packet Zone Id	Packet zone ID of the previous PCF for the session.
Current Packet Zone Id	Packet zone ID of the current PCF for the session.
BSID	Base transceiver Station ID (Base Station ID) of the current PCF
A 10 Connection	
GRE Receive	
Total Packets Rcvd	The total number of packets received for the A10 connection.
Total Bytes Rcvd:	The total number of bytes received for the A10 connection.
GRE Send	
Total Packets Sent	The total number of packets sent for the A10 connection.
Total Bytes Sent:	The total number of bytes sent for the A10 connection.
Data Over Signaling Packets:	The total number of Data Over Signaling packets sent for the A10 connection.
Data Over Signaling Bytes:	The total number of Data Over Signaling bytes sent for the A10 connection.
Registration Request/Reply	
Renew RRQ Accepted	The total number of registration request renewals accepted.
Discarded	The total number of registration requests replies that have been discarded.
Intra PDSN Active H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was active.

Field	Description
Intra PDSN Dormant H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was dormant. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Inter PDSN Handoff RRQ Accepted	The total number of registration requests for inter-PDSN handoffs that have been accepted.
Reply Send Error	The total number of registration replies for which errors were experienced during transmission.
Registration Update/Ack	
Initial Update Transmitted	The total number of registration updates that have been transmitted.
Update Retransmitted	The total number of registration updates that have been re-transmitted.
Denied	The total number of registration updates that have been denied by the PCF.
Not Acknowledged	The total number of registration updates and/or acknowledgements that have not been acknowledged by the PCF.
Reg Ack Received	The total number of registration acknowledgements that have been received.
Reg Ack Discarded	The total number of registration acknowledgements that have been received.
Update Send Error	The total number of registration updates for which errors were experienced during transmission.
Registration Update Send Reason	
Lifetime Expiry	The total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Upper Layer Initiated	The total number of registration updates that were initiated by upper processing layers.
Other Reasons	The total number of registration updates that were sent due to reasons other than those listed here.
Handoff Release	The total number of registration updates that were sent due to handoff releases.
Session Manager Exited	The total number of registration updates that were sent due to the termination of Session Manager tasks. **NOTE:** If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
Registration Update Denied	
Reason Unspecified	The total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).

Field	Description
Admin Prohibited	The total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Authentication	The total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	The total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	The total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Session Update/Ack	
Initial Update Transmitted	Indicates the total number of session updates that have been transmitted.
Update Retransmitted	Indicates the total number of session updates that have been re-transmitted.
Denied	Indicates the total number of session updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of session updates that have not been acknowledged by the PCF.
Sess Update Ack Received	Indicates the total number of session acknowledgements that have been received.
Sess Update Ack Discarded	Indicates the total number of session acknowledgements that have been discarded.
Sess Update Send Error	Indicates the total number of session updates for which errors were experienced during transmission.
Session Update Send Reason	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
QoS Update Reason	
TFT Violation	Indicates that a TFT violation is the reason for QoS update.
Traffic Violation	Indicates that a traffic violation is the reason for the QoS update.
Traffic Policing	Indicates that a traffic policing action is the reason for the QoS update
Operator Triggered	Indicates that an operator triggered the QoS update.
Session Update Denied	
Reason Unspecified	Indicates the total number of session updates denied with a code of 80H (Session Denied - reason unspecified).
Insufficient Resources	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).

Field	Description
Admin Prohibited	Indicates the total number of denied session updates denied with a status code of 81H (Session Denied - administratively prohibited).
Parameter not updated	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
PDSN Failed Authentication	Indicates the total number of denied session updates denied with a status code of 83H (Session Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied session updates denied with a status code of 85H (Session Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied session updates denied with a status code of 86H (Session Denied - poorly formed request).
Profile ID Not Supported	Indicates that the profile ID is not supported.
Handoff in Progress	Indicates that a handoff is in progress.
GRE Receive	
Total Packets Received	The total number of Generic Routing Encapsulation (GRE) packets received.
Protocol Type Error	The total GRE packet s received with an unsupported protocol field in the header.
Total Bytes Received	The total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Key Absent	The number of GRE packets received without a GRE key in the header.
GRE Checksum Error	GRE packets received that had a checksum error.
Invalid Packet Length	GRE packets received with invalid packet length.
GRE Send	
Total Packets Sent	The total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	The total number of Generic Routing Encapsulation (GRE) bytes transmitted.
Total Packets Sent in SDB	The total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
Total Bytes Sent in SDB	The total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Flow Control	
Total Packets Received with XOFF	The total number of packets received for this username while the flow control was set to XOFF.
Total Packets Received with XON	The total number of packets received for this username while the flow control was set to XON.

Field	Description
Total XON->XOFF Transactions	The total number of times the flow control indicator was changed from XON to XOFF for sessions involving this username.
Total Output Packets Dropped on XOFF	The total number of packets dropped after receiving an XOFF flow control command from the RAN.
Total Output Bytes Dropped on XOFF	The total number of bytes dropped after receiving an XOFF flow control command from the RAN.
Total RP sessions matching specified criteria	The total number of sessions that had the username specified on the command line.

show rp statistics pdsn-service

Table 3: show rp statistics pdsn-service Command Output Descriptions

Field	Description
PDSN Service	Displays the name of the PDSN services for which the statistics were gathered.
Session Stats	
Total Sessions Current	Indicates the total number of sessions that are in progress. These could be either active, dormant, being set up, or being disconnected.
Total Setup	Indicates the total number of sessions that have been successfully set up since system started.
Total Released	Indicates the total number of sessions that have successfully been disconnected.
Total Rev-A Sessions Current	Indicates the total number of Rev-A sessions that are in progress.
Total Rev-A Setup	Indicates the total number of Rev-A sessions that have been successfully set up since system started.
Total Rev-A Released	Indicates the total number of Rev-A sessions that have successfully been disconnected.
Total Downgraded from Rev-A to Rev-0	Indicates the total number of Rev-A sessions that have successfully been downgraded from Rev-A to Rev-0.
Session Releases	
De-registered	Indicates the total number of sessions that were disconnected through a normal de-registration process.
Lifetime Expiry	Indicates the total number of sessions that were disconnected due to the expiration of their lifetime timer.
PPP Layer Command	Indicates the number of sessions disconnected due to PPP initiating a tear-down.

Field	Description
PCF-Monitor Fail	The total number of sessions disconnected because the PCF monitor function detected that the PCF was down.
GRE Key Mismatch	The total number of sessions disconnected because the GRE key changed for a session.
Purged via Audit	The total number of sessions disconnected due to audit failures on session recovery.
Other Reasons	Indicates the number of sessions disconnected due to reasons other than those listed here.
Registration Request/Reply	
Total RRQ/Renew/Dereg RX	The total number of registration requests, renewals, and de-registrations received.
Total Accept	The total number of registration requests that have been accepted.
Total Denied	The total number of registration requests that have been rejected.
Total Discard	The total number of registration requests that have been discarded.
Init RRQ RX	The total number of initial registration requests that have been received.
Init RRQ Accept	The total number of initial registration requests received and accepted.
Init RRQ Denied	The total number of initial registration requests received and rejected.
Init RRQ Discard	The total number of initial registration requests that have been received and discarded.
Init Setup/Start RRQ RX	The total number of initial setup or start registration requests that have been received.
Init Setup/Start RRQ Denied	The total number of initial start or setup registration requests that have been received and rejected.
Init Setup/Start RRQ Acc	The total number of initial start or setup registration requests that have been received and accepted.
Init Setup/Start RRQ Dis	The total number of initial start or setup registration requests that have been received and discarded.
Renew RRQ RX	The total number of registration request renewals received.
Renew RRQ Accept	The total number of registration request renewals received and accepted.
Renew RRQ Denied	The total number of registration request renewals received and rejected.
Renew RRQ Discard	The total number of registration request renewals received and discarded
Renew No Airlink RX	The total number of registration request renewals received due to "No airlink".
Renew No Airlink Accept	The total number of registration request renewals received due to "No airlink" and accepted.
Renew No Airlink Denied	The total number of registration request renewals received due to "No airlink" and denied.

Field	Description
Renew No Airlink Discard	The total number of registration request renewals received due to "No airlink" and discarded.
Renew Actv Start RX	The total number of RRQ renewals with an Active Start record received.
Renew Actv Start Accept	The total number of RRQ renewals with an Active Start record received and accepted.
Renew Actv Start Denied	The total number of RRQ renewals with an Active Start record received and denied.
Renew Actv Start Discard	The total number of RRQ renewals with an Active Start record received and discarded.
Renew Actv Stop RX	The total number of RRQ renewals with an Active Stop record received.
Renew Actv Stop Accept	The total number of RRQ renewals with an Active Stop record received and accepted.
Renew Actv Stop Denied	The total number of RRQ renewals with an Active Stop record received and denied.
Renew Actv Stop Discard	The total number of RRQ renewals with an Active Stop record received and discarded.
Dereg Active Stop Accept	The total number of de-registration requests with an active stop that were accepted.
Dereg RRQ RX	The total number of de-registration requests that have been received.
Dereg RRQ Accept	The total number of de-registration requests received and accepted.
Dereg RRQ Denied	The total number of de-registration requests received and rejected
Dereg RRQ Discard	The total number of de-registration requests received and discarded.
Dereg No Active Stop RX	The total number of de-registration requests with a No Active Stop record received.
Dereg No Active Stop Accp	The total number of de-registration requests with a No Active Stop record received and accepted.
Dereg No Active Stop Denied	The total number of de-registration requests with a No Active Stop record received and denied
Dereg No Active Stop Disc	The total number of de-registration requests with a No Active Stop record received and discarded.
Dereg Active Stop RX	The total number of de-registration request with an Active Stop record received.
Dereg Active Stop Accp	The total number of de-registration request with an Active Stop record received and accepted.
Reply Send Error	The total number of registration replies for which errors were experienced during transmission.
Airlink Seq Num Invalid	The total number of replies sent when an invalid airlink sequence number is received in RRQ.
Intra PDSN Active ANID Handoff RRQ RX	The total number of intra PDSN handoff RRQs with active Access Network IDentifier (ANID) received.

Field	Description
Intra PDSN Active ANID Handoff RRQ Accepted	The total number of intra PDSN handoff RRQs with active ANID received and accepted.
Intra PDSN Active ANID Handoff RRQ Denied	The total number of intra PDSN handoff RRQs with active ANID received and denied.
Intra PDSN Active ANID Handoff RRQ Discarded	The total number of intra PDSN handoff RRQs with active ANID received and discarded.
Intra PDSN Dormant ANID Handoff RRQ RX	The total number of intra PDSN handoff RRQs with dormant ANID received. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Intra PDSN Dormant ANID Handoff RRQ Accepted	The total number of intra PDSN handoff RRQs with dormant ANID received and accepted. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Intra PDSN Dormant ANID Handoff RRQ Denied	The total number of intra PDSN handoff RRQs with dormant ANID received and denied. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Intra PDSN Dormant ANID Handoff RRQ Discarded	The total number of intra PDSN handoff RRQs with dormant ANID received and discarded. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Inter PDSN Active MEI ANID Handoff RRQ RX	The total number of inter PDSN handoff RRQs with active Mobility Event Indicator (MEI) and ANID received.
Inter PDSN Active MEI ANID Handoff RRQ Accepted	The total number of inter PDSN handoff RRQs with active MEI and ANID received and accepted.
Inter PDSN Active MEI ANID Handoff RRQ Denied	The total number of inter PDSN handoff RRQs with active MEI and ANID received and denied.
Inter PDSN Active MEI ANID Handoff RRQ Discarded	The total number of inter PDSN handoff RRQs with active MEI and ANID received and discarded.
Intra PDSN Active Handoff RRQ Accepted	Indicates the total number of registration requests received for active sessions going through an intra-PDSN handoff.

Field	Description
Intra PDSN Dormant Handoff RRQ Accepted	Indicates the total number of registration requests received for dormant sessions going through an intra-PDSN handoff. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Inter PDSN Handoff RRQ Accepted	Indicates the total number of registration requests received for sessions going through an inter-PDSN handoff.
Reply Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
Registration Request Denied	
Unspecified Reason	Indicates the total number of registration requests that were denied using reply code of 80H (Registration Denied - reason unspecified)
Admin Prohibited	Indicates the total number of registration requests that were denied using reply code of 81H (Registration Denied - administratively prohibited).
Insufficient Resources	Indicates the total number of registration requests that were denied using reply code of 82H (Registration Denied - insufficient resources).
PCF Failed Auth	Indicates the total number of registration requests that were denied using reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of registration requests that were denied using reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Request	Indicates the total number of registration requests that were denied using reply code of 86H (Registration Denied - poorly formed request).
Unknown PDSN Address	Indicates the total number of registration requests that were denied using reply code of 88H (Registration Denied - unknown PDSN address)
Reverse Tunnel Unavail	Indicates the total number of registration requests that were denied using reply code of 89H (Registration Denied - requested reverse tunnel unavailable).
Reverse Tunnel Required	Indicates the total number of registration requests that were denied using reply code of 8AH (Registration Denied - reverse tunnel is mandatory and "T"-bit not set).
Unrecognized Vendor Id	Indicates the total number of registration requests that were denied using reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE).
Session Already Closed	Renew and RRQ denied due to the session not present in the PDSN Dereq. Error code 0x8e.
RRQ Denied - Insufficient Resource Reasons	

Field	Description
No Session Manager	Indicates the total number of registration requests that were denied due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of registration requests that were denied due to insufficient memory.
Session Managers Retried	Indicates that the system unsuccessfully attempted to try multiple Session Manager tasks to establish a session.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Policy Rejected	The Registration Request was denied because the policy was rejected.
Session Manager Rejected	The Registration Request was rejected by the Session Manager.
A11 Manager Rejected	The Registration Request was rejected by the A11 Manager.
RRQ Denied - Poorly Formed Request Reasons	
Session Already Dormant	The number of RRQs that had Active Stop for a session that was already dormant. **Note:** Sessions facilitated through PDSN Closed R-P services are always displayed as "Active" due to the fact that PDSN Closed R-P services do not receive dormancy information from the PCF.
Already Active	The number of RRQs that had Active Start for a session that was already active.
Airlink Setup Absent	The number of RRQs denied due to an absent connection-setup record in the initial RRQ.
Mismatched CoA/Src addr	The number of RPs denied due to a mismatch in the care-of-address field and the request source address.
Other Reasons	The number of RRQs denied due to other reasons for a badly formed RRQ.
RRQ Denied - Overload/Congestion Control	
Admin Prohibited (reject)	RRQs denied with error code 0x81h due to congestion control mechanism.
Unknown PDSN (redirect)	RRQs denied with error code 0x88 due to congestion control mechanism.
Registration Request Discard Reasons	
No Session Manager	Indicates the total number of registration requests that were discarded due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of registration requests that were discarded due to insufficient memory.
Malformed	Indicates the total number of registration requests that were discarded due to being poorly formed.

Field	Description
Auth Failure	Indicates the total number of registration requests that were discarded due to the mobile node failing authentication.
Session Manager Dead	Indicates the total number of registration requests that were discarded due to the termination of Session Manager tasks. **NOTE:** If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
Admin Prohibited	Indicates the total number of registration requests that were discarded due to being administratively prohibited.
Session Manager NotReady	Indicates the total number of registration requests that were discarded due to a Session Manager task not being ready. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
Unknown PDSN	Indicates the total number of registration requests that were discarded due to the request specifying an unknown PDSN address.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced was not successfully sent.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Max Sessions Reached	Indicates the total number of registration requests that were discarded due to the PDSN service reaching its configured maximum number of subscribers or the exceeding of the system's session capacity license.
Invalid Pkt Len	Indicates the total number of registration requests that were discarded due to having an invalid packet length.
GRE Key Changed	RRQs discarded due to GRE key change in RRQ message.
Overload/Congestion	RRQs discarded due to congestion control mechanism.
Dropped During Handoff	RRQs dropped during handoff.
Misc Reasons	Indicates the number of registration requests that were discarded due to reasons other than those listed here.
Registration Update/Ack	
Reg Update Transmitted	Indicates the total number of registration updates that were transmitted.
Accepted	Indicates the total number of registration updates that were accepted by the PCF.
Denied	Indicates the total number of registration updates that were denied.
Not Acknowledged	Indicates the total number of registration updates that were not acknowledged.
Initial Update TX	Indicates the total number of initial registration updates that were transmitted.

Field	Description
Update Re-TX	Indicates the total number of registration updates that were re-transmitted.
Reg Ack Received	Indicates the total number of registration acknowledgements that were received.
Reg Ack Discard	Indicates the total number of registration acknowledgements that were discarded.
Update Send Error	Indicates the total number of registration updates for which errors were experienced during transmission.
Registration Update Send Reason	
Lifetime Expiry	Indicates the total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Other Reasons	Indicates the total number of registration updates that were sent due to reasons other than those listed here.
Upper Layer Initiated	Indicates the total number of registration updates that were initiated by upper processing layers.
Handoff Release	Indicates the number of registration updates that were sent due to handoff releases.
Session Manager Exited	Indicates the number of registration updates that were sent due to the termination of a Session Manager task.
Registration Update Denied	
Reason Unspecified	Indicates the total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	Indicates the total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Auth	Indicates the total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Registration Ack Discard Reasons	
Session Absent	Indicates the total number of registration acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.
No Memory	Indicates the total number of registration acknowledgements that were discarded due to insufficient memory.
Malformed	Indicates the total number of registration acknowledgements that were discarded due to being poorly formed.

Field	Description
Auth Failure	Indicates the total number of registration acknowledgements that were discarded due to the mobile node failing authentication.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced (was not successfully sent).
Input-Q Exceeded	Indicates the number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Mismatched Id	Indicates the total number of discarded registration acknowledgements due to reply code 85H (Registration Denied - identification mismatch).
Invalid Pkt Len	Indicates the total number of registration acknowledgements that were discarded due to having an invalid packet length.
Misc Reasons	Indicates the number of registration acknowledgements that were discarded due to reasons other than those listed here.
Session Update/Ack	
Sess Update Transmitted	This is a session update statistic that is not supported at this time.
Accepted	This is a session update statistic that is not supported at this time.
Denied	This is a session update statistic that is not supported at this time.
Not Acknowledged	This is a session update statistic that is not supported at this time.
Initial Update TX	This is a session update statistic that is not supported at this time.
Update Retransmitted	This is a session update statistic that is not supported at this time.
Sess Ack Received	This is a session update statistic that is not supported at this time.
Sess Ack Discarded	This is a session update statistic that is not supported at this time.
Sess Update Send Error	This is a session update statistic that is not supported at this time.
Session Update Send Reason	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
Session Update Denied	
Reason Unspecified	This is a session update statistic that is not supported at this time.
Insufficient Resources	This is a session update statistic that is not supported at this time.
Admin Prohibited	This is a session update statistic that is not supported at this time.
Parameter not updated	This is a session update statistic that is not supported at this time.

Field	Description
PDSN Failed Auth	This is a session update statistic that is not supported at this time.
Identification Mismatch	This is a session update statistic that is not supported at this time.
Poorly Formed Update	This is a session update statistic that is not supported at this time.
Session Update Ack Discard Reasons	
Session Absent	Indicates the total number of session acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.
No Memory	Indicates the total number of session acknowledgements that were discarded due to insufficient memory.
Malformed	Indicates the total number of session acknowledgements that were discarded due to being poorly formed.
Auth Failure	Indicates the total number of session acknowledgements that were discarded due to the mobile node failing authentication.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced (was not successfully sent).
Input-Q Exceeded	Indicates the number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Mismatched Id	Indicates the total number of discarded session acknowledgements due to reply code 85H (Registration Denied - identification mismatch).
Invalid Packet Length	Indicates the total number of session acknowledgements that were discarded due to having an invalid packet length.
Misc Reasons	Indicates the number of session acknowledgements that were discarded due to reasons other than those listed here.
Security Violations	
Total Violations	Indicates the total number of security violations that occurred.
Bad SPI #	Indicates the total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that was in the reserved range (0 through 255).
Bad Authenticator	Indicates the total number of security violations that occurred due to a mis-computed authentication field.
Unknown SPI #	Indicates the total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that is not configured on the PDSN.
Missing MN-HA Auth Extension	Indicates the total number of security violations that occurred due to missing mobile node-home agent authentication extensions.
Missing Reg Update Auth Extension	Indicates the total number of security violations that occurred due to missing registration update authentication extensions

Field	Description
GRE Receive	
Total Packets Received	Indicates the total number of Generic Routing Encapsulation (GRE) packets received.
Protocol Type Error	Indicates the total number of GRE packets received with an unsupported protocol type field in the header.
Total Bytes Received	Indicates the total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Key Absent	Indicates the total number of GRE packets received with no GRE key in the header.
GRE Checksum Error	Indicates the number of errors that occurred in GRE packets.
Invalid Packet Length	Indicates the total number of GRE packets received with invalid packet lengths.
No Session Found	Indicates the total number of GRE packets received for which no sessions can be found.
GRE Send	
Total Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.
GRE Packets Sent in SDB Form	This indicates the total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Bytes Sent in SDB Form	This indicates the total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Flow Control	
Total Packets Received with XOFF	The total number of packets received for this username while the flow control was set to XOFF.
Total Packets Received with XON	The total number of packets received for this username while the flow control was set to XON.
Total XON->XOFF Transactions	The total number of times the flow control indicator was changed from XON to XOFF for sessions involving this username.
Total Output Packets Dropped on XOFF	The total number of packets dropped after receiving an XOFF flow control command from the RAN.
Total Output Bytes Dropped on XOFF	The total number of bytes dropped after receiving an XOFF flow control command from the RAN.
Total RP sessions matching specified criteria	The total number of sessions that had the username specified on the command line.
GRE Segmentation	
Total Packets Received with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets received with segmentation indication.

Field	Description
Total Packets Sent with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets sent with segmentation indication.
Total successful reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were successfully reassembled.
Total packets processed without proper reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were processed without proper reassembly.