

show radius

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

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show radius client status

Table 1: show radius client status verbose Command Output Descriptions

Field	Description
RADIUS Client Status	The RADIUS client's status as "UP" or "DOWN".
Active nas-ip-address	The NAS IP address configured for the client that is currently active. The NAS IP address is in IPv4 dotted-decimal notation or IPv6 colon-separated hexadecimal notation. **NOTE:** If the RADIUS Client Status is "DOWN", then this field displays "NONE".
Configured Primary nas-ip-address	The NAS IP address configured as the primary and the interface's current status as "UP" or "Down".
Configured Backup nas-ip-address	The NAS IP address configured as the backup and the interface's current status as "UP" or "Down".

show radius counters all

Table 2: show radius counters all Command Output Descriptions

Field	Description
Per-Context RADIUS Authentication Counters	
Access-Request Response	
Invalid Source Address Received	The number of Access-Request responses received from invalid source addresses.

Field	Description
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number of responses dropped due to no matching requests.
Per-Context Change-of-Authorization Counters	
Invalid Source Address Received (RPF check failed)	The number of responses received from invalid source addresses.
Server-specific Change-of-Authorization Counters	
Change-of-Authorization server address	The IP address and port number of the Change-of-Authorization server.
Change-of-Authorization Request received	The number of CoA requests received.
Change-of-Authorization Ack sent	The number of CoA acknowledgements sent.
Change-of-Authorization Nak sent	The number of CoA negative acknowledgements sent.
Change-of-Authorization Nak Unsupported Attribute sent	The number of CoA negative acknowledgements sent with unsupported attribute.
Change-of-Authorization Nak Missing Attribute sent	The number of CoA negative acknowledgements sent with missing attribute.
Change-of-Authorization Nak NAS Id Mismatch sent	The number of CoA negative acknowledgements with NAS ID mismatch sent.
Change-of-Authorization Nak Invalid Request sent	The number of CoA negative acknowledgements with invalid request sent.
Change-of-Authorization Nak Unsupported Service sent	The number of CoA negative acknowledgements with unsupported service sent.
Change-of-Authorization Nak Sess Context Not Found sent	The number of CoA negative acknowledgements with session context not found sent.
Change-of-Authorization Nak Resource Unavailable sent	The number of CoA negative acknowledgements with resource unavailable sent.
Change-of-Authorization Malformed Packet Rcvd	The number of CoA message disconnected due to malformed message.
Change-of-Authorization Msg-Authenticator Mismatch	The number of CoA message disconnected due to message authenticator failure.
Change-of-Authorization Duplicate Request	The number of CoA requests dropped due to duplicate message.
Change-of-Authorization Event-Timestamp Check Failed	The number of CoA requests dropped due to Event-Timestamp attribute issues.
Change-of-Authorization Request Initiated sent	The number of CoA request Initiated sent.

Field	Description
Disconnect-Message Request received	The number of Disconnect-Message Requests received.
Disconnect-Message Ack sent	The number of Disconnect-Message Acknowledgements sent.
Disconnect-Message Ack Residual Session Removed sent	The number of Disconnect-Message Acknowledgements Residual Session Removed sent.
Disconnect-Message Nak sent	The number of Disconnect-Message Negative Acknowledgment sent.
Disconnect-Message Nak Unsupported Attribute sent	The number of Disconnect-Message Negative Acknowledgment with unsupported attributes sent.
Disconnect-Message Nak Missing Attribute sent	The number of Disconnect-Message Negative Acknowledgment with missing attributes sent.
Disconnect-Message Nak NAS Id Mismatch sent	The number of Disconnect-Message Negative Acknowledgment with NAS ID mismatch sent.
Disconnect-Message Nak Invalid Request sent	The number of Disconnect-Message Negative Acknowledgment with invalid requests sent.
Disconnect-Message Nak Unsupported Service sent	The number of Disconnect-Message Negative Acknowledgment with unsupported service sent.
Disconnect-Message Nak Session Context Not Found sent	The number of Disconnect-Message Negative Acknowledgment with session context not found sent.
Disconnect-Message Nak Context Not Removable sent	The number of Disconnect-Message Negative Acknowledgment with context not removable sent.
Disconnect-Message Nak Context Not Removable Dormant	The number of Disconnect-Message Negative Acknowledgment with context not removable dormant.
Disconnect-Message Nak Resource Unavailable sent	The number of Disconnect-Message Negative Acknowledgment with resource unavailable sent.
Disconnect-Message Malformed Packet Rcvd	The number of Disconnect-Message with malformed packet received.
Disconnect-Message Msg-Authenticator Mismatch	The number of Disconnect-Message with message authenticator mismatch.
Disconnect-Message Duplicate Request	The number of Disconnect-Message duplicate requests.
Disconnect-Message Event-Timestamp Check Failed	The number of Disconnect-Message with event timestamp check failed.
Disconnect-Message Request Initiated sent	The number of Disconnect-Message with request initiated sent.
Change-of-Authorization/Disconnect-Message timeout	The number of messenger timeouts while processing the CoA/Dm messages. This will be displayed only in the hidden mode.

Field	Description
Change-of-Authorization/Disc-Message messenger bounce	The number of messenger bounces while processing the CoA/Dm messages. This will be displayed only in the hidden mode.
Server-specific Authentication Counters	
Authentication server address	The IP address, port number, and server group of the RADIUS authentication server. The IP address is in IPv4 dotted-decimal notation or IPv6 colon-separated hexadecimal notation.
Access-Request Sent	The total number of Access Request messages sent by the system to the server.
Access-Request with DMU Attributes Sent	The total number of Access Request messages that have been sent to the server with DMU attributes present.
Access-Request Pending	The total number of Access Request messages that have been sent to the server that are pending a response.
Access-Request Retried	The total number of Access Request messages that have been re-transmitted due to the expiration of the RADIUS timeout parameter.
Access-Request with DMU Attributes Retried	The total number of Access Request messages with DMU attributes present that have been re-transmitted due to the expiration of the RADIUS timeout parameter.
Access-Challenge Received	The total number of Access Challenges received from the server as part of the authentication process.
Access-Accept Received	The total number of Access Accept messages received by the system from the server.
Access-Reject Received	The total number of Access Reject messages received by the system from the server.
Access-Reject Received with DMU Attributes	The total number of Access Reject messages with DMU attributes present received by the system from the server.
Access-Request Timeouts	The total number of times that the configured RADIUS timeout parameter was exceeded causing the system to have to re-send an Access Request message.
Access-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Access-Request messages.
Access-Request Response Bad Authenticator Received	The total number of Accept Request responses received by the system from the server that contains a incorrect Authenticator field, thereby failing message authentication. The system drops these messages.
Access-Request Response Malformed Received	The total number of Accept Request responses received by the system from the server that were malformed. The system drops these messages.
Access-accept Malformed Rulebase Received	The total number of authentication responses received with multiple rulebase attributes.
Access-Request Response Malformed Attribute Received	The total number of malformed or invalid attributes received in Access-Request response messages.

Field	Description
Access-Request Response Unknown Type Received	The total number of Accept Request responses received by the system from the server that contained an unknown message type. The system drops these messages.
Access-Request Response Dropped	The total number of Accept Request responses from the server that were dropped.
Access-Request Response Last Round Trip Time	The time it took for the system to receive a valid response from the server for the last authentication request.
Access-Request Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Access Request Response.
Prepaid Related Statistic Counters	
Online Access-Request Sent	The total number of Online Access Request messages sent.
Online Access-Request Pending	The total number of Online Access Request messages pending.
Online Access-Request Retried	The total number of Online Access Request messages retried.
Online Access-Accept Received	The total number of Online Access Accept messages received.
Online Access-Reject Received	The total number of Online Access Reject messages received.
Online Access-Request Timeouts	The total number of Online Access Request message timeouts.
Online Access-Request Response Bad Authenticator Received	The total number of Online Access Request messages that failed with a bad authenticator.
Online Access-Request Response Malformed Received	The total number of Online Access Request Response messages that were malformed.
Online Access-Request Response Malformed Attr Received	The total number of Online Access Request Response messages that contained a malformed attribute.
Online Access-Request Response Unknown Type Received	The total number of Online Access Request Response messages that are of an unknown type.
Online Access-Request Response Bad Message Authenticator	The total number of Online Access Request Response messages that contained a bad message authenticator.
Online Access-Request Response NO Message Authenticator	The total number of Online Access Request Response messages that contained no message authenticator.
Server-specific Probing Counters	
State	The state of the RADIUS server. Enabled or Disabled.
Number of transactions issued	The total number of transactions issued to the RADIUS server.
Number of successful transactions	The total number of complete successful transactions to the RADIUS server.
Number of failed transactions	The total number of failed transactions to the RADIUS server.

Field	Description
Last successful transaction time	The time of day that the last successful transaction was completed with the RADIUS server.
Last failed transaction time	The time of day that the last failed transaction with the RADIUS Server occurred.
Last roundtrip time	The amount of time, in milliseconds, that it took from when a request was sent to and acknowledgement was received from the RADIUS server.
Server-specific Keepalive Auth Counters	
Keepalive Access-Request Sent	The number of keepalive access requests that were sent.
Keepalive Access-Request Retried	The number of keepalive access-requests that were retried.
Keepalive Access-Request Timeouts	The number of keepalive access-requests that timed out.
Keepalive Access-Accept Received	The number of keepalive access-accept messages that were received.
Keepalive Access-Reject Received	The number of keepalive access-reject messages that were received
Keepalive Access-Response Bad Authenticator Received	The number of bad authenticator keepalive access-response that were received.
Keepalive Access-Response Malformed Received	The number of malformed keepalive-access responses that were received.
Keepalive Access-Response Malformed Attribute Received	The number of malformed attributes for keepalive-access responses that were received.
Keepalive Access-Response Unknown Type Received	The number of unknown keepalive-access responses that were received.
Keepalive Access-Response Dropped	The number of keepalive-access responses that were dropped.
Per-Context RADIUS Accounting Counters	
Accounting Response	
Invalid Source Address Received	The number of Accounting responses received from invalid source addresses.
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number of responses dropped due to no matching requests.
Server-specific Accounting Counters	
Accounting server address	The IP address, port number, and server group of the RADIUS accounting server, and the UDP port over which the system exchanges accounting data with the server. The IP address is in IPv4 dotted-decimal notation or IPv6 colon-separated hexadecimal notation.
Accounting-Request Sent	The total number of Accounting Request messages sent by the system to the server.

Field	Description
Accounting-Start Sent	The total number of Accounting sessions that have been established.
Accounting-Stop Sent	The total number of Accounting sessions that have been stopped.
Accounting-Interim Sent	The total number of Accounting Interim messages that have been sent to the server. This mainly contains the accumulated packets/bytes counts.
Accounting-On Sent	The total number of Accounting-on sessions that have been sent.
Accounting-Off Sent	The total number of Accounting-off sessions that have been stopped.
Accounting-Request Pending	The total number of Accounting Request messages that have been sent to the server that are pending a response.
Accounting-Request Retried	The total number of Accounting-requests that have been retried.
Accounting-Start Retried	The total number of Accounting-start messages that have been retried
Accounting-Stop Retried	The total number of Accounting-stop messages that have been retried.
Accounting-Interim Retried	The total number of Accounting-interim messages that have been retried.
Accounting-On Retried	The total number of Accounting-on messages that have been retried.
Accounting-Off Retried	The total number of Accounting-off messages that have been retried.
Accounting-Response Received	The total number of Accounting-response messages that have been received.
Accounting-Request Timeouts	The total number of Accounting-request messages that have timed out.
Accounting-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Accounting-Request messages.
Accounting-Response Bad Response Received	The total number of Accounting-Response messages that failed with a bad authenticator.
Accounting-Response Malformed Received	The total number of Accounting-Response responses received by the system from the server that were malformed.
Accounting-Response Unknown Type Received	The total number of Accounting-Response responses received by the system from the server that contained an unknown message type.
Accounting-Response Dropped	The total number of keepalive Accounting Response messages that were dropped.
Accounting-Response Last Round Trip Time	The time it took for the system to receive a valid response from the server for the last Accounting Response.
Accounting-Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Accounting Responses.
Accounting Total G1 (Acct-Output-Octets)	The total number of accounted bytes outputted to user.
Accounting Total G2 (Acct-Input-Octets)	The total number of accounted bytes as user input.

Field	Description
Server-specific Keepalive Acct Counters	
Keepalive Accounting-Request Sent	The total number of keepalive accounting request messages sent.
Keepalive Accounting-Request Retried	The total number of keepalive accounting messages retried.
Keepalive Accounting-Request Successful	The total number of successful keepalive accounting messages.
Keepalive Accounting-Request Timeouts	The total number of keepalive accounting timeout messages.
Keepalive Accounting-Response Bad Response Received	The total number of keepalive accounting request response messages that failed with a bad authenticator.
Keepalive Accounting-Response Malformed Received	The total number of keepalive accounting request response messages that were malformed.
Keepalive Accounting-Response Unknown Type Received	The total number of keepalive accounting request response messages that failed with an unknown type.
Keepalive Accounting-Response Dropped	The total number of keepalive accounting request response messages that were dropped.
Per-Context RADIUS Mediation Accounting Counters	
Accounting Response	
Invalid Source Address Received	The number of Mediation Accounting responses received from invalid source addresses.
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number os responses dropped due to no matching requests being found.
Server-specific Mediation Accounting Counters	
Mediation Accounting server address	The IP address of the RADIUS Mediation accounting server, and the UDP port over which the system exchanges accounting data with the mediation server. The IP address is in IPv4 dotted-decimal notation or IPv6 colon-separated hexadecimal notation.
Accounting-Request Sent	Indicates the total number of Accounting-Request messages sent by the system to the Mediation server.
Accounting-Start Sent	Indicates the total number of Accounting sessions that have been established with Mediation server.
Accounting-Stop Sent	The total number of Accounting sessions that have been stopped by Mediation server.
Accounting-Interim Sent	The total number of Accounting-Interim messages that have been sent to the Mediation server. This mainly contains the accumulated packets/bytes counts.
Accounting-On Sent	The total number of Accounting-On sessions that have been sent.

Field	Description
Accounting-Off Sent	The total number of Accounting-Off sessions that have been stopped.
Accounting-Request Pending	The total number of Accounting-Request messages that have been sent to the mediation server that are pending a response.
Accounting-Request Retried	The total number of Accounting-Requests that have been retried.
Accounting-Start Retried	The total number of Accounting-Start messages that have been retried
Accounting-Stop Retried	The total number of Accounting-Stop messages that have been retried.
Accounting-Interim Retried	The total number of Accounting-Interim messages that have been retried.
Accounting-On Retried	The total number of Accounting-On messages that have been retried.
Accounting-Off Retried	The total number of Accounting-Off messages that have been retried.
Accounting-Response Received	The total number of Accounting-Response that were received.
Accounting-Request Timeouts	The total number of Accounting-Request timeouts.
Accounting-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Accounting-Request messages.
Accounting-Response Bad Response Received	The total number of Accounting-Response messages that failed with a bad authenticator.
Accounting-Response Malformed Received	The total number of Accounting-Response responses received by the system from the server that were malformed.
Accounting-Response Unknown Type Received	The total number of Accounting-Response messages received by the system from the Mediation server that contained an unknown message type. The system drops these messages.
Accounting-Response Dropped	The total number of Accounting-Response messages from the server that were dropped.
Access-Response Last Round Trip Time	The amount of time it took for the system to receive a valid response from the mediation server for the last Access-Response messages.
Accounting-Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Accounting-Response messages.
Accounting-Request Timeouts Due to Context Switching	The total accounting response messages dropped due to SGW context replacement.
Accounting-Response Dropped Due to Context Switching	The total accounting request messages timed out due to SGW context replacement.

show radius servers

Table 3: show radius servers detail Command Output Descriptions

Field	Description
vvvvv	

Field	Description
	Displays information about the type and state of the RADIUS server. From left-to-right, the first character represents the RADIUS server **Type** as one of the following: • (A) - Authentication • (a) - Accounting • (C) - Charging • (c) - Charging Accounting • (M) - Mediation • (m) - Mediation Accounting From left-to-right, the second character represents the RADIUS server **Preference** as one of the following: • (P) - Primary • (S) - Secondary From left-to-right, the third character represents the RADIUS server **State** as one of the following: • (A) - Active • (N) - Not Responding • (D) - Down • (W) - Waiting Accounting-On • (I) - Initializing • (w) - Waiting Accounting-Off • (a) Active Pending • (U) - Unknown From left-to-right, the fourth character indicates the RADIUS server **Admin**istrative **Status** (which is saved in the configuration file for re-establishment at reboot) as one of the following: (E) - Enabled (D) - Disabled From left-to-right, the fifth character indicates whether the RADIUS server's saved **Admin**istrative **Status** may be overridden at the next reboot: (O) - Overridden: (Note: to preserve the desired Administrative State, use the appropriate configuration mode radius [accounting| charging|charging accounting] server command to reset the admin-status.) (.) - Not Overridden

Field	Description
IP	Displays the IP address of the RADIUS server. The IP address is in IPv4 dotted-decimal notation or IPv6 colon-separated hexadecimal notation.
Port	Displays the UDP port used to communicate with the RADIUS server.
Group	Display the RADIUS server group to which the server belongs.
Event History	Displays a historical record of state information for the server including a time/date stamp.
Total servers matching specified criteria	Displays the total number of RADIUS servers returned by the execution of the command.