

# **Schema: Connection Log Tables**

This chapter contains information on the schema and supported joins for connection data.

For more information, see the sections listed in the following table. The Version column indicates the Database Access versions supported by each listed table.

Table 7-1 Schema for Connection Log Tables

| See                           | For the table that stores information on  | Version |
|-------------------------------|---|---------|
| connection_log, page 7-1      | Individual connections. Supersedes deprecated table <b>rna_flow</b> .           | 5.0+    |
| connection_summary, page 7-15 | Connection log summaries. Supersedes deprecated table <b>rna_flow_summary</b> . | 5.0+    |
| si_connection_log, page 7-19  | Individual connections. Used for security intelligence.                         | 5.3+    |

# connection\_log

The connection\_log table contains information on connection events. The Secure Firewall generates a connection event when a connection between a monitored host and any other host is established; the event contains detailed information about the monitored traffic.

The connection\_log table supersedes the deprecated **rna\_flow** table starting with Version 5.0 of the Secure Firewall.

For more information, see the following sections:

- connection\_log Fields, page 7-1
- connection\_log Joins, page 7-15
- connection\_log Sample Query, page 7-15

# connection\_log Fields

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The following table describes the database fields you can access in the **connection\_log** table.

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#### Table 7-2connection\_log Fields

| Field                      | Description   |  |  |
|----------------------------|---|--|--|
| access_control_policy_name | The access control policy that contains the access control rule (or default action) that logged the connection.   |  |  |
| access_control_policy_UUID | The UUID of the access control policy that contains the access control rule (or default action) that logged the connection.   |  |  |
| access_control_reason      | The reason that the access control rule logged the connection. One or more of the following:  |  |  |
|                            | <ul> <li>IP Block</li> <li>IP Monitor</li> <li>User Bypass</li> </ul>   |  |  |
|                            | <ul><li>File Monitor</li><li>File Block</li></ul>   |  |  |
|                            | <ul><li>Intrusion Monitor</li><li>Intrusion Block</li></ul>   |  |  |
|                            | <ul><li>File Resume Block</li><li>File Resume Allow</li></ul>   |  |  |
|                            | <ul><li>File Custom Detection</li><li>SSL Block</li><li>DNS Block</li></ul>   |  |  |
|                            | <ul> <li>DNS Monitor</li> <li>URL Block</li> </ul>  |  |  |
|                            | <ul> <li>URL Monitor</li> <li>HTTP Injection</li> <li>Intelligent App Bypass</li> <li>blank if there is no connection logged</li> </ul>   |  |  |
| access_control_rule_action | The action associated with the access control rule (or default action): allow, block, and so on.  |  |  |
| access_control_rule_id     | An internal identification number for the rule.   |  |  |
| access_control_rule_name   | The access control rule (or default action) that logged the connection.   |  |  |
| application_protocol_id    | An internal identification number of the application protocol.  |  |  |
| application_protocol_name  | <ul> <li>One of:</li> <li>the name of the application, if a positive identification can be made</li> <li>unknown if the system cannot identify the server based on known server fingerprints</li> <li>ponding if the system requires more data</li> </ul> |  |  |
|                            | <ul><li>blank if there is no application information in the connection</li></ul>  |  |  |
| bytes_recv                 | The total number of bytes transmitted by the session responder.   |  |  |
| bytes_sent                 | Total number of bytes transmitted by the session initiator.   |  |  |
| cert_valid_end_date        | The Unix timestamp on which the SSL certificate used in the connection ceases to be valid.  |  |  |

| Field                      | Description  |  |  |
|----------------------------|--|--|--|
| cert_valid_start_date      | The Unix timestamp when the SSL certificate used in the connection was issued.                         |  |  |
| client_application_id      | An internal identification number for the client application that was used in the intrusion event.     |  |  |
| client_application_name    | The client application, if available, that was used in the intrusion event. One of:                    |  |  |
|                            | • the name of the application, if a positive identification can be made.                               |  |  |
|                            | • a generic client name if the system detects a client application but cannot identify a specific one. |  |  |
|                            | • blank if there is no client application information in the connection.                               |  |  |
| client_application_version | The version of the client application.   |  |  |
| connection_type            | The detection source for the connection information. Either:   |  |  |
|                            | • rna, if detected by a Cisco device   |  |  |
|                            | • netflow, if exported by a NetFlow-enabled device   |  |  |
| counter                    | Counter for the intrusion event associated with the connection event.                                  |  |  |
| dns_ttl                    | The time to live for the DNS response, in seconds.   |  |  |

### Table 7-2 connection\_log Fields (continued)

| Field              | Description   |  |  |
|--------------------|---|--|--|
| dns_response       | DNS Response. Possible values include:  |  |  |
|                    | • 0 — NoError — No Error  |  |  |
|                    | 1 — FormErr — Format Error  |  |  |
|                    | • 2 — ServFail — Server Failure   |  |  |
|                    | • 3 — NXDomain — Non-Existent Domain  |  |  |
|                    | • 4 — NotImp — Not Implemented  |  |  |
|                    | • 5 — Refused — Query Refused   |  |  |
|                    | • 6 — YXDomain — Name Exists when it should not   |  |  |
|                    | • 7 — YXRRSet — RR Set Exists when it should not  |  |  |
|                    | • 8 — NXRRSet — RR Set that should exist does not   |  |  |
|                    | • 9 — NotAuth — Not Authorized  |  |  |
|                    | • 10 — NotZone — Name not contained in zone   |  |  |
|                    | • 16 — BADSIG — TSIG Signature Failure  |  |  |
|                    | • 17 — BADKEY — Key not recognized  |  |  |
|                    | • 18 — BADTIME — Signature out of time window   |  |  |
|                    | • 19 — BADMODE — Bad TKEY Mode  |  |  |
|                    | • 20 — BADNAME — Duplicate key name   |  |  |
|                    | • 21 — BADALG — Algorithm not supported   |  |  |
|                    | • 22 — BADTRUNC — Bad Truncation  |  |  |
|                    | • 3841 — NXDOMAIN — NXDOMAIN response from firewall   |  |  |
|                    | • 3842 — SINKHOLE — Sinkhole response from firewall   |  |  |
| domain_name        | Name of the domain for the session.   |  |  |
| domain_uuid        | UUID of the domain for the session. This is presented in binary.  |  |  |
| endpoint_profile   | Name of the type of device used by the connection endpoint.   |  |  |
| file_count         | The number of files identified by Snort in a session. A record is generated for each file identified in the session.  |  |  |
| first_packet_sec   | The UNIX timestamp of the date and time the first packet of the session was seen.   |  |  |
| first_packet_str   | The date and time the first packet of the session was seen in human-readable format of Year-Month-Day Time. For example, February 4th, 2022 is 2022-02-04 20:18:58. |  |  |
| flow_id            | This field is deprecated and returns null for all queries.  |  |  |
| http_response_code | The response code given to the HTTP request in the connection.  |  |  |
| hostname_in_query  | The hostname used if the connection is a DNS query.   |  |  |
| icmp_code          | ICMP code if the event is ICMP traffic, or null if the event was not generated from ICMP traffic.   |  |  |

# Table 7-2 connection\_log Fields (continued)

## Table 7-2 connection\_log Fields (continued)

| Field                           | Description  |  |  |
|---------------------------------|--|--|--|
| icmp_type                       | ICMP type if the event is ICMP traffic, or null if the event was not generated from ICMP traffic.  |  |  |
| initiator_continent_name        | The name of the continent of the host that initiated the session:  |  |  |
|                                 | ** — Unknown   |  |  |
|                                 | na — North America   |  |  |
|                                 | as — Asia  |  |  |
|                                 | af — Africa  |  |  |
|                                 | eu — Europe  |  |  |
|                                 | sa — South America   |  |  |
|                                 | au — Australia   |  |  |
|                                 | an — Antarctica  |  |  |
| initiator_country_id            | Code for the country of the host that initiated the session.   |  |  |
| initiator_country_name          | Name of the country of the host that initiated the session.  |  |  |
| initiator_ip                    | Field deprecated in Version 5.2. Due to backwards compatibility the value in this field is not set to null, but it is not reliable.            |  |  |
| initiator_ip_address            | Field deprecated in Version 5.0. Returns null for all queries.   |  |  |
| initiator_ipaddr                | A binary representation of the IP address of the host that initiated the session.  |  |  |
| initiator_ipaddr_str            | IP address of the host that initiated the session in human-readable format.  |  |  |
| initiator_ipv4                  | Field deprecated in Version 5.2. Returns null for all queries.   |  |  |
| initiator_port                  | The port used by the session initiator.  |  |  |
| initiator_user_dept             | The department of the user who last logged into the initiator host.  |  |  |
| initiator_user_email            | The email address of the user who last logged into the initiator host.   |  |  |
| initiator_user_first_name       | The first name of the user who last logged into the initiator host.  |  |  |
| initiator_user_id               | An internal identification number for the user who last logged into the initiator host.  |  |  |
| initiator_user_last_name        | The last name of the user who last logged into the initiator host.   |  |  |
| initiator_user_last_seen_sec    | The UNIX timestamp of the date and time the Secure Firewall last detected user activity for the user who last logged into the initiator host.  |  |  |
| initiator_user_last_updated_sec | The UNIX timestamp of the date and time the Secure Firewall last updated the user record for the user who last logged into the initiator host. |  |  |
| initiator_user_name             | The user name of the user who last logged into the initiator host.   |  |  |
| initiator_user_phone            | The phone number of the user who last logged into the initiator host.  |  |  |
| instance_id                     | Numerical ID of the Snort instance on the managed device that generated the event.   |  |  |
| interface_egress_name           | The ingress interface associated with the connection.  |  |  |
| interface_ingress_name          | The egress interface associated with the connection.   |  |  |
| ioc_count                       | Number of indications of compromise found in the connection.   |  |  |

| Table 7-2 | connection_ | log Fields | (continued) |
|-----------|-------------|------------|-------------|
|-----------|-------------|------------|-------------|

| Field               | Description  |  |
|---------------------|--|--|
| ips_event_count     | The number of intrusion events generated in the connection prior to intrusion event thresholding.  |  |
| last_packet_sec     | The UNIX timestamp of the date and time the last packet of the session was seen.   |  |
| last_packet_str     | The date and time the last packet of the session was seen in human-readable format of Year-Month-Day Time. For example, February 4th, 2022 is 2022-02-04 20:18:58. |  |
| location_ip         | IP address of the interface communicating with ISE. Can be IPv4 or IPv6.   |  |
| location_ip_str     | IP address of the interface communicating with ISE in a human-readable format.   |  |
| monitor_rule_id_1   | The ID of the first monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_1.                                |  |
| monitor_rule_id_2   | The ID of the second monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_2.                               |  |
| monitor_rule_id_3   | The ID of the third monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_3.                                |  |
| monitor_rule_id_4   | The ID of the fourth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_4.                               |  |
| monitor_rule_id_5   | The ID of the fifth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_5.                                |  |
| monitor_rule_id_6   | The ID of the sixth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_6.                                |  |
| monitor_rule_id_7   | The ID of the seventh monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_7.                              |  |
| monitor_rule_id_8   | The ID of the eighth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_8.                               |  |
| monitor_rule_name_1 | The name of the first monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_1.                                |  |
| monitor_rule_name_2 | The name of the second monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_2.                               |  |
| monitor_rule_name_3 | The name of the third monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_3.                                |  |
| monitor_rule_name_4 | The name of the fourth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_4.                               |  |
| monitor_rule_name_5 | The name of the fifth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_5.                                |  |
| monitor_rule_name_6 | The name of the sixth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_6.                                |  |
| monitor_rule_name_7 | The name of the seventh monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_7.                              |  |
| monitor_rule_name_8 | The name of the eighth monitor rule associated with the connection. This name is associated with the ID stored in monitor rule id 8.                               |  |

### Table 7-2 connection\_log Fields (continued)

| Field                          | Description  |  |
|--------------------------------|--|--|
| netbios_domain                 | The NetBIOS domain used in the connection.   |  |
| netflow_dst_as                 | Netflow autonomous system number of the destination, either origin or peer.  |  |
| netflow_dst_mask               | Netflow destination address prefix mask.   |  |
| netflow_dst_tos                | Type of service from the IP header when packets are flowing from the destination to the source.  |  |
| netflow_snmp_in                | ID of the interface used by packets flowing from the source to the destination.  |  |
| netflow_snmp_out               | ID of the interface used by packets flowing from the destination to the source.  |  |
| netflow_src_as                 | Netflow autonomous system number of the source, either origin or peer.   |  |
| netflow_src_mask               | Netflow source address prefix mask.  |  |
| netflow_src_tos                | Type of service from the IP header when packets are flowing from the source to the destination.  |  |
| network_analysis_policy_name   | The network analysis policy associated with the intrusion policy that generated the intrusion event.   |  |
| network_analysis_policy_UUID   | The UUID of the network analysis policy associated with the intrusion policy that generated the intrusion event.   |  |
| original_client_continent_name | The name of the continent of the host that originally initiated the session:   |  |
|                                | ** — Unknown   |  |
|                                | na — North America   |  |
|                                | as — Asia  |  |
|                                | af — Africa  |  |
|                                | eu — Europe  |  |
|                                | sa — South America   |  |
|                                | au — Australia   |  |
|                                | an — Antarctica  |  |
|                                | This field is used when there is a proxy in the connection.  |  |
| original_client_country_id     | Code for the country of the host that originally initiated the session. This field is used when there is a proxy in the connection.                      |  |
| original_client_country_name   | Name of the country of the host that originally initiated the session. This field is used when there is a proxy in the connection.                       |  |
| original_client_ipaddr         | A binary representation of the IP address of the host that originally initiated the session. This field is used when there is a proxy in the connection. |  |
| original_client_ipaddr_str     | IP address of the host that originally initiated the session in human-readable format. This field is used when there is a proxy in the connection.       |  |
| packets_recv                   | The total number of packets received by the host that initiated the session.   |  |
| packets_sent                   | The total number of packets transmitted by the host that initiated the session.  |  |

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### Table 7-2 connection\_log Fields (continued)

| Field                                 | Description   |  |
|---------------------------------------|---|--|
| prefilter_policy_name                 | The name of the prefilter policy that generated the intrusion event.                                      |  |
| prefilter_policy_UUID                 | The UUID of the prefilter policy that generated the intrusion event.                                      |  |
| prefilter_rule_id                     | The integer ID of the prefilter/tunnel rule.  |  |
| prefilter_rule_name                   | The name of the prefilter/tunnel rule.  |  |
| protocol_name                         | The name of the protocol used in the connection.  |  |
| protocol_num                          | The IANA number of the protocol as listed in  |  |
|                                       | http://www.iana.org/assignments/protocol-numbers.   |  |
| <pre>qos_applied_interface_name</pre> | The name of the interface on which QoS was applied.   |  |
| <pre>qos_dropped_bytes_recv</pre>     | The number of responder bytes dropped due to QoS.   |  |
| <pre>qos_dropped_bytes_sent</pre>     | The number of initiator bytes dropped due to QoS.   |  |
| <pre>qos_dropped_packets_recv</pre>   | The number of responder packets dropped due to QoS.   |  |
| <pre>qos_dropped_packets_sent</pre>   | The number of initiator packets dropped due to QoS.   |  |
| qos_policy_name                       | The name of the QoS policy.   |  |
| qos_policy_uuid                       | The UUID of the QoS policy.   |  |
| qos_rule_id                           | The integer ID of the QoS rule.   |  |
| <pre>qos_rule_name</pre>              | The name of the QoS rule.   |  |
| responder_continent_name              | The name of the continent of the host that responded to the session initiator:                            |  |
|                                       | ** — Unknown  |  |
|                                       | na — North America  |  |
|                                       | as — Asia   |  |
|                                       | af — Africa   |  |
|                                       | eu — Europe   |  |
|                                       | sa — South America  |  |
|                                       | au — Australia  |  |
|                                       | an — Antarctica   |  |
| responder country id                  | Code for the country of the host that responded to the session initiator.                                 |  |
| responder country name                | Name of the country of the host that responded to the session initiator.                                  |  |
| responder ip                          | Field deprecated in Version 5.2. Due to backwards compatibility the value                                 |  |
|                                       | in this field is not set to null, but it is not reliable.   |  |
| responder_ip_address                  | Field deprecated in Version 5.2. Returns null for all queries.  |  |
| responder_ipaddr                      | A binary representation of the IPv4 or IPv6 address for the host that responded to the session initiator. |  |
| responder_ipaddr_str                  | IPv4 or IPv6 address for the host that responded to the session initiator in human-readable format.       |  |
| responder_ipv4                        | Field deprecated in Version 5.2. Returns null for all queries.  |  |
| responder_port                        | The port used by the session responder.   |  |

| Field                           | Description   |  |  |
|---------------------------------|---|--|--|
| responder_user_dept             | The department of the user who last logged into the host that responded to the session initiator.   |  |  |
| responder_user_email            | The email address of the user who last logged into the host that responded to the session initiator.  |  |  |
| responder_user_first_name       | The first name of the user who last logged into the host that responded to the session initiator.   |  |  |
| responder_user_id               | An internal identification number for the user who last logged into the host that responded to the session initiator.   |  |  |
| responder_user_last_name        | The last name of the user who last logged into the host that responded to the session initiator.  |  |  |
| responder_user_last_seen_sec    | The UNIX timestamp of the date and time the Secure Firewall last detected user activity for the user who last logged into the host that responded to the session initiator.                   |  |  |
| responder_user_last_updated_sec | The UNIX timestamp of the date and time the Secure Firewall last updated<br>the user record for the user who last logged into the host that responded to<br>the session initiator.            |  |  |
| responder_user_name             | The user name of the user who last logged into the host that responded to the session initiator.  |  |  |
| responder_user_phone            | The phone number of the user who last logged into the host that responded to the session initiator.   |  |  |
| security_context                | Description of the security context (virtual firewall) that the traffic passed<br>through. Note that the system only populates this field for<br>ASA FirePOWER devices in multi-context mode. |  |  |
| security_group                  | ID number of the network traffic group.   |  |  |
| security_intelligence_category  | This field is deprecated and returns null for all queries.  |  |  |
| security_intelligence_ip        | Whether the Security Intelligence-monitored IP address associated with the connection is a source IP (src) or destination IP (dst).   |  |  |
| security_zone_egress_name       | The egress security zone in the connection event.   |  |  |
| security_zone_ingress_name      | The ingress security zone in the connection event.  |  |  |
| sensor_address                  | The IP address of the managed device that generated the event. Format is ipv4 address, ipv6 address.  |  |  |
| sensor_name                     | The name of the managed device that monitored the session.  |  |  |
| sensor_uuid                     | A unique identifier for the managed device, or 0 if sensor_name is null.  |  |  |
| sinkhole                        | Revision UUID associated with the sinkhole object.  |  |  |
| source_device                   | Field deprecated in Version 5.0. Returns null for all queries.  |  |  |
| <pre>src_device_ip</pre>        | Field deprecated in Version 5.2. Due to backwards compatibility the value in this field is not set to null, but it is not reliable.   |  |  |
| src_device_ipaddr               | Either:   |  |  |
|                                 | • A binary representation of the IP address of the NetFlow-enabled device that exported the connection data.  |  |  |
|                                 | • 0, for connections detected by Cisco managed devices.   |  |  |

### Table 7-2 connection\_log Fields (continued)

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| Field                            | Description  |  |  |
|----------------------------------|--|--|--|
| <pre>src_device_ipaddr_str</pre> | Either:  |  |  |
|                                  | • The IP address of the NetFlow-enabled device that exported the connection data in human-readable format.   |  |  |
|                                  | • 0, for connections detected by Cisco managed devices.  |  |  |
| src_device_ipv4                  | • Field deprecated in Version 5.2. Returns null for all queries.   |  |  |
| ssl_actual_action                | The action performed on the connection based on the SSL Rule. This ma<br>differ from the expected action, as the action as specified in the rule may b<br>impossible. Possible values include: |  |  |
|                                  | • Unknown  |  |  |
|                                  | • Do Not Decrypt   |  |  |
|                                  | • Block  |  |  |
|                                  | • Block With Reset   |  |  |
|                                  | • Decrypt (Known Key)  |  |  |
|                                  | • Decrypt (Replace Key)  |  |  |
|                                  | • Decrypt (Resign)   |  |  |
| ssl_cipher_suite                 | Encryption suite used by the SSL connection. The value is stored   |  |  |
|                                  | in decimal format. See   |  |  |
|                                  | www.iana.org/assignments/tls-parameters/tls-parameters.  |  |  |
|                                  | xhtml for the cipher suite designated by the value.  |  |  |
| ssl_expected_action              | The action which should be performed on the connection based on the SSL Rule. Possible values include:   |  |  |
|                                  | • Unknown  |  |  |
|                                  | • Do Not Decrypt   |  |  |
|                                  | • Block  |  |  |
|                                  | • Block With Reset   |  |  |
|                                  | • Decrypt (Known Key)  |  |  |
|                                  | • Decrypt (Replace Key)  |  |  |
|                                  | • Decrypt (Resign)   |  |  |

## Table 7-2 connection\_log Fields (continued)

| Table 7-2 | connection_ | log Fields | (continued) |
|-----------|-------------|------------|-------------|
|-----------|-------------|------------|-------------|

| Field          | Description  |
|----------------|--|
| ssl_flow_flags | The debugging level flags for an encrypted connection. Possible values include:                      |
|                | • 0x00000001 — NSE_FLOWVALID — must be set for other fields to be valid                              |
|                | • 0x00000002 — NSE_FLOWINITIALIZED — internal structures ready for processing                        |
|                | • 0x0000004 — NSE_FLOWINTERCEPT — SSL session has been intercepted                                   |
|                | • 0x40000000 — CH_CIPHERS_MODIFIED — Ciphers have been modified in the client hello.                 |
|                | • 0x8000000 — CH_CURVES_MODIFIED — Cipher curves have been modified in the client hello.             |
|                | • 0x10000000 — CH_TLS_DOWNGRADED — The client side has downgraded the TLS version of the connection. |
|                | • 0x20000000 — CH_SESSION_ID_ZEROED — The session ID in the client hello was removed.                |
|                | • 0x40000000 — CH_SESSION_TICKET_ZEROED — The session ticket in the client hello was removed.        |
|                | • 0x80000000 — CH_EXTENSION_REMOVED — A TLS extension was removed from the client hello.             |
|                | • 0x100000000 — CH_ALPN_MODIFIED —The ALPN extension in the client hello was modified.               |
|                | • 0x200000000 — CH_PADDING_MODIFIED — The padding extension in the client hello was modified.        |
|                | • 0x400000000 — CH_MISMATCH — The cached server certificate used at client hello time was changed.   |
|                | • 0x800000000 — CH_ALPN_HAS_H2 — The client hello's ALPN extension had HTTP/2.                       |
|                | • 0x1000000000 — SH_ALPN_HAS_H2 — The server hello's ALPN extension had HTTP/2.                      |

| Table 7-2 connection_ | log Fields | (continued) |
|-----------------------|------------|-------------|
|-----------------------|------------|-------------|

| Field             | Description   |
|-------------------|---|
| ssl_flow_messages | The messages exchanged between client and server during the SSL |
|                   | handshake. See http://tools.ietf.org/html/rfc5246 for more      |
|                   | information.  |
|                   | • 0x00000001 — NSE_MTHELLO_REQUEST                              |
|                   | • 0x00000002 — NSE_MTCLIENT_ALERT                               |
|                   | • 0x00000004 — NSE_MTSERVER_ALERT                               |
|                   | 0x00000008 — NSE_MTCLIENT_HELLO                                 |
|                   | • 0x00000010 — NSE_MTSERVER_HELLO                               |
|                   | • 0x00000020 — NSE_MTSERVER_CERTIFICATE                         |
|                   | • 0x00000040 — NSE_MTSERVER_KEY_EXCHANGE                        |
|                   | 0x00000080 — NSE_MTCERTIFICATE_REQUEST                          |
|                   | Ox00000100 — NSE_MTSERVER_HELLO_DONE                            |
|                   | • 0x00000200 — NSE_MTCLIENT_CERTIFICATE                         |
|                   | • 0x00000400 — NSE_MTCLIENT_KEY_EXCHANGE                        |
|                   | • 0x00000800 — NSE_MTCERTIFICATE_VERIFY                         |
|                   | • 0x00001000 — NSE_MTCLIENT_CHANGE_CIPHER_SPEC                  |
|                   | • 0x00002000 — NSE_MTCLIENT_FINISHED                            |
|                   | • 0x00004000 — NSE_MTSERVER_CHANGE_CIPHER_SPEC                  |
|                   | • 0x00008000 — NSE_MTSERVER_FINISHED                            |
|                   | • 0x00010000 — NSE_MTNEW_SESSION_TICKET                         |
|                   | • 0x00020000 — NSE_MTHANDSHAKE_OTHER                            |
|                   | • 0x00040000 — NSE_MTAPP_DATA_FROM_CLIENT                       |
|                   | • 0x00080000 — NSE_MTAPP_DATA_FROM_SERVER                       |

### Table 7-2 connection\_log Fields (continued)

| Field                  | Description   |  |
|------------------------|---|--|
| ssl_flow_status        | Status of the SSL Flow. These values describe the reason behind the   |  |
|                        | action taken or the error message seen. Possible values include:  |  |
|                        | • 'Unknown'   |  |
|                        | • 'No Match'  |  |
|                        | • 'Success'   |  |
|                        | • 'Uncached Session'  |  |
|                        | • 'Unknown Cipher Suite'  |  |
|                        | • 'Unsupported Cipher Suite'  |  |
|                        | • 'Unsupported SSL Version'   |  |
|                        | • 'SSL Compression Used'  |  |
|                        | <ul> <li>'Session Undecryptable in Passive Mode'</li> </ul>   |  |
|                        | • 'Handshake Error'   |  |
|                        | • 'Decryption Error'  |  |
|                        | • 'Pending Server Name Category Lookup'   |  |
|                        | • 'Pending Common Name Category Lookup'   |  |
|                        | • 'Internal Error'  |  |
|                        | • 'Network Parameters Unavailable'  |  |
|                        | • 'Invalid Server Certificate Handle'   |  |
|                        | • 'Server Certificate Fingerprint Unavailable'  |  |
|                        | • 'Cannot Cache Subject DN'   |  |
|                        | • 'Cannot Cache Issuer DN'  |  |
|                        | • 'Unknown SSL Version'   |  |
|                        | • 'External Certificate List Unavailable'   |  |
|                        | • 'External Certificate Fingerprint Unavailable'  |  |
|                        | • 'Internal Certificate List Invalid'   |  |
|                        | • 'Internal Certificate List Unavailable'   |  |
|                        | • 'Internal Certificate Unavailable'  |  |
|                        | • 'Internal Certificate Fingerprint Unavailable'  |  |
|                        | • 'Server Certificate Validation Unavailable'   |  |
|                        | • 'Server Certificate Validation Failure'   |  |
|                        | • 'Invalid Action'  |  |
| ssl_issuer_common_name | Issuer Common name from the SSL certificate. This is typically the host<br>and domain name of the certificate issuer, but may contain other<br>information. |  |
| ssl_issuer_country     | The country of the SSL certificate issuer.  |  |

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# Table 7-2 connection\_log Fields (continued)

| Field                         | Description   |  |
|-------------------------------|---|--|
| ssl_issuer_organization       | The organization of the SSL certificate issuer.   |  |
| ssl_issuer_organization_unit  | The organizational unit of the SSL certificate issuer.  |  |
| ssl_policy_action             | The default action configured for the policy when no rules match.   |  |
| ssl_policy_name               | ID number of the SSL policy that handled the connection.  |  |
| ssl_policy_reason             | The reason the SSL policy logged the SSL session.   |  |
| ssl_rule_action               | The action selected in the user interface for the SSL rule (allow, block, and so forth).  |  |
| ssl_rule_name                 | ID number of the SSL rule or default action that handled the connection.  |  |
| ssl_serial_number             | The serial number of the SSL certificate, assigned by the issuing CA.   |  |
| ssl_server_name               | Name provided in the server name indication in the SSL Client Hello.  |  |
| ssl_subject_common_name       | Subject Common name from the SSL certificate. This is typically the host<br>and domain name of the certificate subject, but may contain other<br>information. |  |
| ssl_subject_country           | The country of the SSL certificate subject.   |  |
| ssl_subject_organization      | The organization of the SSL certificate subject.  |  |
| ssl_subject_organization_unit | The organizational unit of the SSL certificate subject.   |  |
| ssl_url_category              | Category of the flow as identified from the server name and certificate common name.  |  |
| ssl_version                   | The SSL or TLS protocol version used to encrypt the connection.   |  |
| tcp_flags                     | The TCP flags detected in the session.  |  |
| url                           | The URL requested by the monitored host during the session, if available.   |  |
| url_category                  | This field is deprecated and returns null for all queries.  |  |
| url_reputation                | The reputation of the URL requested by the monitored host. One of the following:  |  |
|                               | • 1 — High risk   |  |
|                               | • 2 — Suspicious sites  |  |
|                               | • 3 — Benign sites with security risks  |  |
|                               | • 4 — Benign sites  |  |
|                               | • 5 — Well known  |  |
| web_application_id            | An internal identification number for the web application.  |  |
| web_application_name          | One of:   |  |
|                               | • the name of the application, if a positive identification can be made.  |  |
|                               | • web browsing if the system detects an application protocol of HTTP but cannot identify a specific web application.  |  |
|                               | • blank if the connection has no HTTP traffic.  |  |

# connection\_log Joins

You cannot perform joins on the connection\_log table.

# connection\_log Sample Query

The following query returns up to 25 connection event records from the **connection\_log** table, sorted in descending order based on packet timestamps.

```
SELECT first_packet_sec, last_packet_sec, initiator_ipaddr, responder_ipaddr,
security_zone_ingress_name, security_zone_egress_name, initiator_port, protocol_name,
responder_port, application_protocol_id, client_application_id, web_application_id, url,
url_category, url_reputation
FROM connection log
```

```
WHERE first_packet_sec <= UNIX_TIMESTAMP("2011-10-01 00:00:00") ORDER BY first_packet_sec
```

DESC, last\_packet\_sec DESC LIMIT 0, 25;

# connection\_summary

The connection\_summary table contains information on connection summaries or aggregated connections. The Secure Firewall aggregates connections over five-minute intervals. To be aggregated, connections must:

- have the same source and destination IP addresses
- use the same protocol
- use the same application
- either be detected by the same managed device (for sessions detected by managed devices with Secure Firewall) or be exported by the same NetFlow-enabled device and processed by the same managed device

The aggregated data in a connection summary includes the total number of packets and bytes sent by the initiator and responder hosts, as well as the number of connections in the summary.

The connection\_summary table supersedes the deprecated rna\_flow\_summary table starting with Version 5.0 of the Secure Firewall.

For more information, see the following sections:

- connection\_summary Fields, page 7-15
- connection\_summary Joins, page 7-18
- connection\_summary Sample Query, page 7-18

# connection\_summary Fields

The following table describes the database fields you can access in the **connection\_summary** table.

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#### Table 7-3 connection\_summary Fields

| Field                           | Description   |
|---------------------------------|---|
| application_protocol_id         | An internal identification number for the application protocol.   |
| application_protocol_name       | One of:   |
|                                 | • the name of the application, if a positive identification can be made   |
|                                 | • unknown if the system cannot identify the server based on known server fingerprints   |
|                                 | • pending if the system requires more data  |
|                                 | • blank if there is no application information in the connection  |
| bytes_recv                      | The total number of bytes transmitted by the session responder.   |
| bytes_sent                      | The total number of bytes transmitted by the session initiator.   |
| connection_type                 | The detection source for the connection information. Either:  |
|                                 | • rna, if detected by a Cisco device  |
|                                 | • netflow, if exported by a NetFlow-enabled device  |
| domain_name                     | Name of the domain for the session.   |
| domain_uuid                     | UUID of the domain for the session. This is presented in binary.  |
| flow_type                       | Field deprecated in Version 5.0. Returns null for all queries.  |
| id                              | An internal identification number for the connection summary.   |
| initiator_ip_address            | Field deprecated in Version 5.2. Returns null for all queries.  |
| initiator_ipaddr                | A binary representation of the IP address of the host that initiated the session.   |
| initiator_user_dept             | The department of the user who last logged into the initiator host.   |
| initiator_user_email            | The email address of the user who last logged into the initiator host.  |
| initiator_user_first_name       | The first name of the user who last logged into the initiator host.   |
| initiator_user_id               | An internal identification number for the user who last logged into the initiator host.   |
| initiator_user_last_name        | The last name of the user who last logged into the initiator host.  |
| initiator_user_last_seen_sec    | The UNIX timestamp of the date and time the Secure Firewall last detected user activity for the user who last logged into the initiator host.   |
| initiator_user_last_updated_sec | The UNIX timestamp of the date and time the Secure Firewall last updated the user record for the user who last logged into the initiator host.  |
| initiator_user_name             | The user name of the user who last logged into the initiator host.  |
| initiator_user_phone            | The phone number of the user who last logged into the initiator host.   |
| interface_egress_name           | This field is deprecated and returns null for all queries.  |
| interface_ingress_name          | This field is deprecated and returns null for all queries.  |
| netmap_num                      | Netmap ID for the domain on which the connection was detected.  |
| num_connections                 | The number of connections in the summary. For long-running connections, that is, connections that span multiple connection summary intervals, only the first connection summary is incremented. |

### Table 7-3 connection\_summary Fields (continued)

| Field                           | Description  |
|---------------------------------|--|
| original_client_ipaddr          | A binary representation of the IP address of the host that originally initiated the session. This field is used when there is a proxy in the connection.   |
| packets_recv                    | The total number of packets transmitted by the session responder.  |
| packets_sent                    | The total number of packets transmitted by the session initiator.  |
| protocol_name                   | The name of the protocol used in the aggregated sessions.  |
| protocol_num                    | The IANA number of the protocol as listed in<br>http://www.iana.org/assignments/protocol-numbers.  |
| responder_ip_address            | Field deprecated in Version 5.2. Returns null for all queries.   |
| responder_ipaddr                | A binary representation of the IP address of the host that responded to the initiator of the aggregated sessions.  |
| responder_port                  | The port used by the responder in the aggregated sessions.   |
| responder_user_dept             | The department of the user who last logged into the host that responded to the initiator of the aggregated sessions.   |
| responder_user_email            | The email address of the user who last logged into the host that responded to the initiator of the aggregated sessions.  |
| responder_user_first_name       | The first name of the user who last logged into the host that responded to the initiator of the aggregated sessions.   |
| responder_user_id               | An internal identification number for the user who last logged into the host that responded to the initiator of the aggregated sessions.   |
| responder_user_last_name        | The last name of the user who last logged into the host that responded to the initiator of the aggregated sessions.  |
| responder_user_last_seen_sec    | The UNIX timestamp of the date and time the Secure Firewall last detected<br>user activity for the user who last logged into the host that responded to the<br>initiator of the aggregated sessions. |
| responder_user_last_updated_sec | The UNIX timestamp of the date and time the Secure Firewall last updated<br>the user record for the user who last logged into the host that responded to<br>the session initiator.                   |
| responder_user_name             | The user name of the user who last logged into the host that responded to the initiator of the aggregated sessions.  |
| responder_user_phone            | The phone number of the user who last logged into the host that responded to the initiator of the aggregated sessions.   |
| security_zone_egress_name       | The egress security zone in the connection event.  |
| security_zone_ingress_name      | The ingress security zone in the connection event.   |
| sensor_address                  | The IP address of the managed device that generated the event. Format is <i>ipv4_address, ipv6_address</i> .   |
| sensor_name                     | The name of the managed device that monitored the aggregated sessions.   |
| sensor_uuid                     | A unique identifier for the managed device, or 0 if sensor_name is null.   |

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| Field          | Description   |  |
|----------------|---|--|
| source_device  | The identification of the source device, which is either:   |  |
|                | • the IP address of the NetFlow-enabled device that exported the data for the connection                                |  |
|                | • Secure Firewall if the connection was detected by a Cisco managed device  |  |
| start_time_sec | The UNIX timestamp of the date and time the five-minute interval used to aggregate the sessions in the summary started. |  |

#### Table 7-3 connection\_summary Fields (continued)

# connection\_summary Joins

The following table describes the joins you can perform using the connection\_summary table.

| You can join this table on | And  |
|----------------------------|--|
| application_protocol_id    | application_info.application_id                              |
|                            | application_host_map.application_id                          |
|                            | application_tag_map.application_id                           |
|                            | <pre>rna_host_service_info.application_protocol_id</pre>     |
|                            | <pre>rna_host_client_app_payload.web_application_id</pre>    |
|                            | <pre>rna_host_client_app_payload.client_application_id</pre> |
|                            | <pre>rna_host_client_app.client_application_id</pre>         |
|                            | <pre>rna_host_client_app.application_protocol_id</pre>       |
|                            | <pre>rna_host_service_payload.web_application_id</pre>       |
| initiator_ipaddr           | rna_host_ip_map.ipaddr                                       |
| or                         | user_ipaddr_history.ipaddr                                   |
| responder_ipaddr           |  |

Table 7-4connection\_summary Joins

# connection\_summary Sample Query

The following query returns up to five connection event summary records detected by the selected device.

```
SELECT initiator_ipaddr, responder_ipaddr, protocol_name, application_protocol_id,
source_device, sensor_name, sensor_address, packets_recv, packets_sent, bytes_recv,
bytes_sent, connection_type, num_connections
```

FROM connection\_summary

WHERE sensor name='linden' limit 5;

# si\_connection\_log

The **si\_connection\_log** table contains information on security intelligence events. The Secure Firewall generates a Security Intelligence event when a connection is on a block list or monitored by Security Intelligence; the event contains detailed information about the monitored traffic.

For more information, see the following sections:

- si\_connection\_log Fields, page 7-19
- si\_connection\_log Joins, page 7-31
- si\_connection\_log Sample Query, page 7-31

# si\_connection\_log Fields

The following table describes the database fields you can access in the **si\_connection\_log** table.

| Field                      | Description   |  |
|----------------------------|---|--|
| access_control_policy_name | The access control policy that contains the access control rule (or default action) that logged the connection.             |  |
| access_control_policy_UUID | The UUID of the access control policy that contains the access control rule (or default action) that logged the connection. |  |
| access_control_reason      | The reason that the access control rule logged the connection. One or more of the following:                                |  |
|                            | • IP Block  |  |
|                            | • IP Monitor  |  |
|                            | • User Bypass   |  |
|                            | • File Monitor  |  |
|                            | • File Block  |  |
|                            | • Intrusion Monitor   |  |
|                            | • Intrusion Block   |  |
|                            | • File Resume Block   |  |
|                            | • File Resume Allow   |  |
|                            | • File Custom Detection   |  |
|                            | • SSL Block   |  |
|                            | • DNS Block   |  |
|                            | • DNS Monitor   |  |
|                            | • URL Block   |  |
|                            | • URL Monitor   |  |
|                            | • HTTP Injection  |  |
|                            | • Intelligent App Bypass  |  |
|                            | • blank if there is no connection logged  |  |
| access_control_rule_action | The action associated with the access control rule (or default action): allow, block, and so on.                            |  |
| access_control_rule_id     | An internal identification number for the rule.   |  |

#### Table 7-5 si\_connection\_log Fields

| Table 7-5 | si_connection_ | log Fields | (continued) |
|-----------|----------------|------------|-------------|
|-----------|----------------|------------|-------------|

| Field                      | Description   |  |
|----------------------------|---|--|
| access_control_rule_name   | The access control rule (or default action) that logged the connection.                               |  |
| application_protocol_id    | An internal identification number of the application protocol.  |  |
| application_protocol_name  | One of:   |  |
|                            | • the name of the application, if a positive identification can be made                               |  |
|                            | • unknown if the system cannot identify the server based on known server fingerprints                 |  |
|                            | • pending if the system requires more data  |  |
|                            | • blank if there is no application information in the connection                                      |  |
| bytes_recv                 | The total number of bytes transmitted by the session responder.                                       |  |
| bytes_sent                 | Total number of bytes transmitted by the session initiator.   |  |
| cert_valid_end_date        | The Unix timestamp on which the SSL certificate used in the connection ceases to be valid.            |  |
| cert_valid_start_date      | The Unix timestamp when the SSL certificate used in the connection was issued.                        |  |
| client_application_id      | An internal identification number for the client application that was used in the intrusion event.    |  |
| client_application_name    | The client application, if available, that was used in the intrusion event. One of:                   |  |
|                            | • the name of the application, if a positive identification can be made                               |  |
|                            | • a generic client name if the system detects a client application but cannot identify a specific one |  |
|                            | • blank if there is no client application information in the connection                               |  |
| client_application_version | The version of the client application.  |  |
| connection_type            | The detection source for the connection information. Either:  |  |
|                            | • rna, if detected by a Cisco device  |  |
|                            | • netflow, if exported by a NetFlow-enabled device  |  |
| counter                    | Counter for the intrusion event associated with the connection event.                                 |  |
| dns_ttl                    | The time to live for the DNS response, in seconds.  |  |

| Field              | Description   |  |  |
|--------------------|---|--|--|
| dns_response       | DNS Response. Possible values include:  |  |  |
|                    | O — NoError — No Error  |  |  |
|                    | 1 — FormErr — Format Error  |  |  |
|                    | • 2 — ServFail — Server Failure   |  |  |
|                    | • 3 — NXDomain — Non-Existent Domain  |  |  |
|                    | • 4 — NotImp — Not Implemented  |  |  |
|                    | • 5 — Refused — Query Refused   |  |  |
|                    | • 6 — YXDomain — Name Exists when it should not   |  |  |
|                    | • 7 — YXRRSet — RR Set Exists when it should not  |  |  |
|                    | • 8 — NXRRSet — RR Set that should exist does not   |  |  |
|                    | • 9 — NotAuth — Not Authorized  |  |  |
|                    | • 10 — NotZone — Name not contained in zone   |  |  |
|                    | • 16 — BADSIG — TSIG Signature Failure  |  |  |
|                    | • 17 — BADKEY — Key not recognized  |  |  |
|                    | • 18 — BADTIME — Signature out of time window   |  |  |
|                    | • 19 — BADMODE — Bad TKEY Mode  |  |  |
|                    | • 20 — BADNAME — Duplicate key name   |  |  |
|                    | • 21 — BADALG — Algorithm not supported   |  |  |
|                    | 22 — BADTRUNC — Bad Truncation  |  |  |
|                    | • 3841 — NXDOMAIN — NXDOMAIN response from firewall   |  |  |
|                    | • 3842 — SINKHOLE — Sinkhole response from firewall   |  |  |
| domain_name        | Name of the domain for the session.   |  |  |
| domain_uuid        | UUID of the domain for the session. This is presented in binary.  |  |  |
| endpoint_profile   | Name of the type of device used by the connection endpoint.   |  |  |
| file_count         | The number of files identified by snort in a session. A record is generated for each file identified in the session.  |  |  |
| first_packet_sec   | The UNIX timestamp of the date and time the first packet of the session was seen.   |  |  |
| first_packet_str   | The date and time the first packet of the session was seen in human-readable format of Year-Month-Day Time. For example, February 4th, 2022 is 2022-02-04 20:18:58. |  |  |
| http_response_code | The response code given to the HTTP request in the connection.  |  |  |
| hostname_in_query  | The hostname used if the connection is a DNS query.   |  |  |
| icmp_code          | ICMP code if the event is ICMP traffic, or null if the event was not generated from ICMP traffic.   |  |  |
| icmp_type          | ICMP type if the event is ICMP traffic, or null if the event was not generated from ICMP traffic.   |  |  |

## Table 7-5 si\_connection\_log Fields (continued)

| Table 7-5 | si_connection_log Fields (continued) |
|-----------|--------------------------------------|
|-----------|--------------------------------------|

| Field                           | Description  |  |  |
|---------------------------------|--|--|--|
| initiator_continent_name        | The name of the continent of the host that initiated the session.  |  |  |
|                                 | ** — Unknown   |  |  |
|                                 | na — North America   |  |  |
|                                 | as — Asia  |  |  |
|                                 | af — Africa  |  |  |
|                                 | eu — Europe  |  |  |
|                                 | sa — South America   |  |  |
|                                 | au — Australia   |  |  |
|                                 | an — Antarctica  |  |  |
| initiator_country_id            | Code for the country of the host that initiated the session.   |  |  |
| initiator_country_name          | Name of the country of the host that initiated the session.  |  |  |
| initiator_ipaddr                | A binary representation of the IP address of the host that initiated the session.  |  |  |
| initiator_ipaddr_str            | IP address of the host that initiated the session in human-readable format.  |  |  |
| initiator_port                  | The port used by the session initiator.  |  |  |
| initiator_user_dept             | The department of the user who last logged into the initiator host.  |  |  |
| initiator_user_email            | The email address of the user who last logged into the initiator host.   |  |  |
| initiator_user_first_name       | The first name of the user who last logged into the initiator host.  |  |  |
| initiator_user_id               | An internal identification number for the user who last logged into the initiator host.  |  |  |
| initiator_user_last_name        | The last name of the user who last logged into the initiator host.   |  |  |
| initiator_user_last_seen_sec    | The UNIX timestamp of the date and time the Secure Firewall last detected user activity for the user who last logged into the initiator host.  |  |  |
| initiator_user_last_updated_sec | The UNIX timestamp of the date and time the Secure Firewall last updated the user record for the user who last logged into the initiator host. |  |  |
| initiator_user_name             | The user name of the user who last logged into the initiator host.   |  |  |
| initiator_user_phone            | The phone number of the user who last logged into the initiator host.  |  |  |
| instance_id                     | Numerical ID of the Snort instance on the managed device that generated the event.   |  |  |
| interface_egress_name           | The ingress interface associated with the connection.  |  |  |
| interface_ingress_name          | The egress interface associated with the connection.   |  |  |
| ioc_count                       | Number of indications of compromise found in the connection.   |  |  |
| ips_event_count                 | The number of intrusion events generated in the connection prior to intrusion event thresholding.  |  |  |
| last_packet_sec                 | The UNIX timestamp of the date and time the last packet of the session was seen.   |  |  |

| Table 7-5 | si_connection_ | log Fields | (continued) |
|-----------|----------------|------------|-------------|
|-----------|----------------|------------|-------------|

| Field               | Description  |
|---------------------|--|
| last_packet_str     | The date and time the last packet of the session was seen in human-readable format of Year-Month-Day Time. For example, February 4th, 2022 is 2022-02-04 20:18:58. |
| location_ip         | IP address of the interface communicating with ISE. Can be IPv4 or IPv6.   |
| location_ip_str     | IP address of the interface communicating with ISE in a human-readable format.   |
| monitor_rule_id_1   | The ID of the first monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_1.                                |
| monitor_rule_id_2   | The ID of the second monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_2.                               |
| monitor_rule_id_3   | The ID of the third monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_3.                                |
| monitor_rule_id_4   | The ID of the fourth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_4.                               |
| monitor_rule_id_5   | The ID of the fifth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_5.                                |
| monitor_rule_id_6   | The ID of the sixth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_6.                                |
| monitor_rule_id_7   | The ID of the seventh monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_7.                              |
| monitor_rule_id_8   | The ID of the eighth monitor rule associated with the connection. This ID is associated with the name stored in monitor_rule_name_8.                               |
| monitor_rule_name_1 | The name of the first monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_1.                                |
| monitor_rule_name_2 | The name of the second monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_2.                               |
| monitor_rule_name_3 | The name of the third monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_3.                                |
| monitor_rule_name_4 | The name of the fourth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_4.                               |
| monitor_rule_name_5 | The name of the fifth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_5.                                |
| monitor_rule_name_6 | The name of the sixth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_6.                                |
| monitor_rule_name_7 | The name of the seventh monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_7.                              |
| monitor_rule_name_8 | The name of the eighth monitor rule associated with the connection. This name is associated with the ID stored in monitor_rule_id_8.                               |
| netbios_domain      | The NetBIOS domain used in the connection.   |
| netflow_dst_as      | Netflow autonomous system number of the destination, either origin or peer.  |
| netflow_dst_mask    | Netflow destination address prefix mask.   |

| Field                          | Description  |  |
|--------------------------------|--|--|
| netflow_dst_tos                | Type of service from the IP header when packets are flowing from the destination to the source.  |  |
| netflow_snmp_in                | ID of the interface used by packets flowing from the source to the destination.  |  |
| netflow_snmp_out               | ID of the interface used by packets flowing from the destination to the source.  |  |
| netflow_src_as                 | Netflow autonomous system number of the source, either origin or peer.   |  |
| netflow_src_mask               | Netflow source address prefix mask.  |  |
| netflow_src_tos                | Type of service from the IP header when packets are flowing from the source to the destination.  |  |
| network_analysis_policy_name   | The network analysis policy associated with the intrusion policy that generated the intrusion event.   |  |
| network_analysis_policy_UUID   | The UUID of the network analysis policy associated with the intrusion policy that generated the intrusion event.   |  |
| original_client_continent_name | The name of the continent of the host that originally initiated the session:   |  |
|                                | ** — Unknown   |  |
|                                | na — North America   |  |
|                                | as — Asia  |  |
|                                | af — Africa  |  |
|                                | eu — Europe  |  |
|                                | sa — South America   |  |
|                                | au — Australia   |  |
|                                | an — Antarctica  |  |
|                                | This field is used when there is a proxy in the connection.  |  |
| original_client_country_id     | Code for the country of the host that originally initiated the session. This field is used when there is a proxy in the connection.                      |  |
| original_client_country_name   | Name of the country of the host that originally initiated the session. This field is used when there is a proxy in the connection.                       |  |
| original_client_ipaddr         | A binary representation of the IP address of the host that originally initiated the session. This field is used when there is a proxy in the connection. |  |
| original_client_ipaddr_str     | IP address of the host that originally initiated the session in human-readable format. This field is used when there is a proxy in the connection.       |  |
| packets_recv                   | The total number of packets received by the host that initiated the session.   |  |
| packets_sent                   | The total number of packets transmitted by the host that initiated the session.  |  |
| prefilter_policy_name          | The name of the prefilter policy that generated the intrusion event.   |  |
| prefilter_policy_UUID          | The UUID of the prefilter policy that generated the intrusion event.   |  |
| prefilter_rule_id              | The integer ID of the prefilter/tunnel rule.   |  |
| prefilter_rule_name            | The name of the prefilter/tunnel rule.   |  |

## Table 7-5 si\_connection\_log Fields (continued)

| Field                                 | Description   |  |  |
|---------------------------------------|---|--|--|
| protocol_name                         | The name of the protocol used in the connection.  |  |  |
| protocol_num                          | The IANA number of the protocol as listed in http://www.iana.org/assignments/protocol-numbers.                        |  |  |
|                                       |   |  |  |
| <pre>qos_applied_interface_name</pre> | The name of the interface on which QoS was applied.   |  |  |
| <pre>qos_dropped_bytes_recv</pre>     | The number of responder bytes dropped due to QoS.   |  |  |
| <pre>qos_dropped_bytes_sent</pre>     | The number of initiator bytes dropped due to QoS.   |  |  |
| <pre>qos_dropped_packets_recv</pre>   | The number of responder packets dropped due to QoS.   |  |  |
| <pre>qos_dropped_packets_sent</pre>   | The number of initiator packets dropped due to QoS.   |  |  |
| <pre>qos_policy_name</pre>            | The name of the QoS policy.   |  |  |
| qos_policy_uuid                       | The UUID of the QoS policy.   |  |  |
| qos_rule_id                           | The integer ID of the QoS rule.   |  |  |
| <pre>qos_rule_name</pre>              | The name of the QoS rule.   |  |  |
| responder_continent_name              | The name of the continent of the host that responded to the session initiator.  |  |  |
|                                       | ** — Unknown  |  |  |
|                                       | na — North America  |  |  |
|                                       | as — Asia   |  |  |
|                                       | af — Africa   |  |  |
|                                       | eu — Europe   |  |  |
|                                       | sa — South America  |  |  |
|                                       | au — Australia  |  |  |
|                                       | an — Antarctica   |  |  |
| responder country id                  | Code for the country of the host that responded to the session initiator.   |  |  |
| responder country name                | Name of the country of the host that responded to the session initiator.  |  |  |
| responder_ipaddr                      | A binary representation of the IPv4 or IPv6 address for the host that responded to the session initiator.             |  |  |
| responder_ipaddr_str                  | IPv4 or IPv6 address for the host that responded to the session initiator in human-readable format.                   |  |  |
| responder_port                        | The port used by the session responder.   |  |  |
| responder_user_dept                   | The department of the user who last logged into the host that responded to the session initiator.                     |  |  |
| responder_user_email                  | The email address of the user who last logged into the host that responded to the session initiator.                  |  |  |
| responder_user_first_name             | The first name of the user who last logged into the host that responded to the session initiator.                     |  |  |
| responder_user_id                     | An internal identification number for the user who last logged into the host that responded to the session initiator. |  |  |
| responder_user_last_name              | The last name of the user who last logged into the host that responded to the session initiator.                      |  |  |

| Table 7-5 | si_connection_ | log Fields | (continued) |
|-----------|----------------|------------|-------------|
|-----------|----------------|------------|-------------|

| Field                            | Description   |  |  |
|----------------------------------|---|--|--|
| responder_user_last_seen_sec     | The UNIX timestamp of the date and time the Secure Firewall last detected user activity for the user who last logged into the host that responded to the session initiator.             |  |  |
| responder_user_last_updated_sec  | The UNIX timestamp of the date and time the Secure Firewall last updated the user record for the user who last logged into the host that responded to the session initiator.            |  |  |
| responder_user_name              | The user name of the user who last logged into the host that responded to the session initiator.  |  |  |
| responder_user_phone             | The phone number of the user who last logged into the host that responded to the session initiator.   |  |  |
| security_context                 | Description of the security context (virtual firewall) that the traffic passed through. Note that the system only populates this field for ASA FirePOWER devices in multi-context mode. |  |  |
| security_group                   | ID number of the network traffic group.   |  |  |
| security_intelligence_category   | This field is deprecated and returns null for all queries.  |  |  |
| security_intelligence_ip         | Whether the Security Intelligence-monitored IP address associated with the connection is a source IP (src) or destination IP (dst).   |  |  |
| security_zone_egress_name        | The egress security zone in the connection event.   |  |  |
| security_zone_ingress_name       | The ingress security zone in the connection event.  |  |  |
| sensor_address                   | The IP address of the managed device that generated the event. Format is ipv4 address, ipv6 address.  |  |  |
| sensor_name                      | The name of the managed device that monitored the session.  |  |  |
| sensor_uuid                      | A unique identifier for the managed device, or 0 if sensor_name is null.  |  |  |
| sinkhole                         | Revision UUID associated with the sinkhole object.  |  |  |
| src_device_ipaddr                | Either:   |  |  |
|                                  | • A binary representation of the IP address of the NetFlow-enabled device that exported the connection data   |  |  |
|                                  | • 0, for connections detected by Cisco managed devices.   |  |  |
| <pre>src_device_ipaddr_str</pre> | Either:   |  |  |
|                                  | • The IP address of the NetFlow-enabled device that exported the connection data in human-readable format.  |  |  |
|                                  | • 0, for connections detected by Cisco managed devices.   |  |  |

| Field               | Description  |
|---------------------|--|
| ssl_actual_action   | The action performed on the connection based on the SSL Rule.                                      |
|                     | This may differ from the expected action, as the action as specified                               |
|                     | in the rule may be impossible. Possible values include:  |
|                     | • 'Unknown'  |
|                     | • 'Do Not Decrypt'   |
|                     | • 'Block'  |
|                     | • 'Block With Reset'   |
|                     | • 'Decrypt (Known Key)'  |
|                     | • 'Decrypt (Replace Key)'  |
|                     | • 'Decrypt (Resign)'   |
| ssl_cipher_suite    | Encryption suite used by the SSL connection. The value is stored                                   |
|                     | in decimal format. See   |
|                     | www.iana.org/assignments/tls-parameters/tls-parameters.  |
|                     | xhtml for the cipher suite designated by the value.  |
| ssl_expected_action | The action which should be performed on the connection based on                                    |
|                     | the SSL Rule. Possible values include:   |
|                     | • 'Unknown'  |
|                     | • 'Do Not Decrypt'   |
|                     | • 'Block'  |
|                     | • 'Block With Reset'   |
|                     | • 'Decrypt (Known Key)'  |
|                     | • 'Decrypt (Replace Key)'  |
|                     | • 'Decrypt (Resign)'   |
| ssl_flow_flags      | The debugging level flags for an encrypted connection. Possible                                    |
|                     | values include:  |
|                     | <ul> <li>0x0000001 — NSE_FLOWVALID — must be set for other fields to<br/>be valid</li> </ul>       |
|                     | <ul> <li>0x0000002 — NSE_FLOWINITIALIZED — internal structures<br/>ready for processing</li> </ul> |
|                     | <ul> <li>0x0000004 — NSE_FLOW_INTERCEPT — SSL session has been<br/>intercepted</li> </ul>          |

# Table 7-5 si\_connection\_log Fields (continued)

| Table 7-5 | si_connection_ | log Fields | (continued) |
|-----------|----------------|------------|-------------|
|-----------|----------------|------------|-------------|

| Description   |
|---|
| The messages exchanged between client and server during the SSL |
| handshake. See http://tools.ietf.org/html/rfc5246 for more      |
| information.  |
| • 0x0000001 — NSE_MTHELLO_REQUEST                               |
| • 0x0000002 — NSE_MTCLIENT_ALERT                                |
| • 0x0000004 — NSE_MTSERVER_ALERT                                |
| 0x0000008 — NSE_MTCLIENT_HELLO                                  |
| 0x0000010 — NSE_MTSERVER_HELLO                                  |
| • 0x0000020 — NSE_MTSERVER_CERTIFICATE                          |
| • 0x00000040 — NSE_MTSERVER_KEY_EXCHANGE                        |
| 0x0000080 — NSE_MTCERTIFICATE_REQUEST                           |
| 0x00000100 — NSE_MTSERVER_HELLO_DONE                            |
| 0x00000200 — NSE_MTCLIENT_CERTIFICATE                           |
| • 0x00000400 — NSE_MTCLIENT_KEY_EXCHANGE                        |
| ox00000800 — NSE_MTCERTIFICATE_VERIFY                           |
| 0x00001000 — NSE_MTCLIENT_CHANGE_CIPHER_SPEC                    |
| 0x00002000 — NSE_MTCLIENT_FINISHED                              |
| 0x00004000 — NSE_MTSERVER_CHANGE_CIPHER_SPEC                    |
| ox00008000 — NSE_MTSERVER_FINISHED                              |
| 0x00010000 — NSE_MTNEW_SESSION_TICKET                           |
| 0x00020000 — NSE_MTHANDSHAKE_OTHER                              |
| • 0x00040000 — NSE_MTAPP_DATA_FROM_CLIENT                       |
| ox00080000 — NSE_MTAPP_DATA_FROM_SERVER                         |
|   |

## Table 7-5 si\_connection\_log Fields (continued)

| Field                  | Description   |
|------------------------|---|
| ssl_flow_status        | Status of the SSL Flow. These values describe the reason behind the   |
|                        | action taken or the error message seen. Possible values include:  |
|                        | • 'Unknown'   |
|                        | • 'No Match'  |
|                        | • 'Success'   |
|                        | • 'Uncached Session'  |
|                        | • 'Unknown Cipher Suite'  |
|                        | • 'Unsupported Cipher Suite'  |
|                        | • 'Unsupported SSL Version'   |
|                        | • 'SSL Compression Used'  |
|                        | <ul> <li>'Session Undecryptable in Passive Mode'</li> </ul>   |
|                        | • 'Handshake Error'   |
|                        | • 'Decryption Error'  |
|                        | • 'Pending Server Name Category Lookup'   |
|                        | • 'Pending Common Name Category Lookup'   |
|                        | • 'Internal Error'  |
|                        | • 'Network Parameters Unavailable'  |
|                        | • 'Invalid Server Certificate Handle'   |
|                        | • 'Server Certificate Fingerprint Unavailable'  |
|                        | • 'Cannot Cache Subject DN'   |
|                        | • 'Cannot Cache Issuer DN'  |
|                        | • 'Unknown SSL Version'   |
|                        | • 'External Certificate List Unavailable'   |
|                        | • 'External Certificate Fingerprint Unavailable'  |
|                        | • 'Internal Certificate List Invalid'   |
|                        | • 'Internal Certificate List Unavailable'   |
|                        | • 'Internal Certificate Unavailable'  |
|                        | • 'Internal Certificate Fingerprint Unavailable'  |
|                        | • 'Server Certificate Validation Unavailable'   |
|                        | • 'Server Certificate Validation Failure'   |
|                        | • 'Invalid Action'  |
| ssl_issuer_common_name | Issuer Common name from the SSL certificate. This is typically the host<br>and domain name of the certificate issuer, but may contain other<br>information. |
| ssl_issuer_country     | The country of the SSL certificate issuer.  |

### Table 7-5 si\_connection\_log Fields (continued)

| Field                              | Description   |
|------------------------------------|---|
| ssl_issuer_organization            | The organization of the SSL certificate issuer.   |
| ssl_issuer_organization_unit       | The organizational unit of the SSL certificate issuer.  |
| ssl_policy_action                  | The default action configured for the policy when no rules match.   |
| ssl_policy_name                    | ID number of the SSL policy that handled the connection.  |
| ssl_policy_reason                  | The reason the SSL policy logged the SSL session.   |
| ssl_rule_action                    | The action selected in the user interface for the SSL rule (allow, block, and so forth).  |
| ssl_rule_name                      | ID number of the SSL rule or default action that handled the connection.  |
| ssl_serial_number                  | The serial number of the SSL certificate, assigned by the issuing CA.   |
| ssl_server_name                    | Name provided in the server name indication in the SSL Client Hello.  |
| <pre>ssl_subject_common_name</pre> | Subject Common name from the SSL certificate. This is typically the host<br>and domain name of the certificate subject, but may contain other<br>information. |
| ssl_subject_country                | The country of the SSL certificate subject.   |
| ssl_subject_organization           | The organization of the SSL certificate subject.  |
| ssl_subject_organization_unit      | The organizational unit of the SSL certificate subject.   |
| ssl_url_category                   | Category of the flow as identified from the server name and certificate common name.  |
| ssl_version                        | The SSL or TLS protocol version used to encrypt the connection.   |
| tcp_flags                          | The TCP flags detected in the session.  |
| url                                | The URL requested by the monitored host during the session, if available.   |
| url_category                       | This field is deprecated and returns null for all queries.  |
| url_reputation                     | The reputation of the URL requested by the monitored host. One of the following:  |
|                                    | • 1 — High risk   |
|                                    | • 2 — Suspicious sites  |
|                                    | • 3 — Benign sites with security risks  |
|                                    | • 4 — Benign sites  |
|                                    | • 5 — Well known  |
| web_application_id                 | An internal identification number for the web application.  |
| web_application_name               | One of:   |
|                                    | • the name of the application, if a positive identification can be made.  |
|                                    | • web browsing if the system detects an application protocol of HTTP but cannot identify a specific web application.  |
|                                    | • blank if the connection has no HTTP traffic.  |

# si\_connection\_log Joins

ſ

You cannot perform joins on the **si\_connection\_log** table.

# si\_connection\_log Sample Query

The following query returns up to 25 connection event records from the **si\_connection\_log** table, sorted in descending order based on packet timestamps.

```
SELECT first_packet_sec, last_packet_sec, initiator_ipaddr, responder_ipaddr,
security_zone_ingress_name, security_zone_egress_name, initiator_port, protocol_name,
responder_port, application_protocol_id, client_application_id, web_application_id, url,
url_category, url_reputation
FROM si_connection_log
WHERE first_packet_sec <= UNIX_TIMESTAMP("2011-10-01 00:00:00") ORDER BY
first_packet_sec
```

DESC, last\_packet\_sec DESC LIMIT 0, 25;