

Schema: Statistics Tracking Tables

This chapter contains information on the schema and supported joins for application and URL statistics tracking tables. These tables collect statistical information on:

- access control and intrusion events by application and by user
- bandwidth usage and connection decisions by application and by user
- bandwidth usage and connection decisions by URL reputation (risk) and by URL business relevance

For links to details on each table, see the following table.

Table 5-1 Application and URL Statistics Tables

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| See | For the table that stores statistics on | Version | |
|--|---|---------|--|
| app_ids_stats_current_timeframe, page 5-4 | Access control and intrusion protection activity, by application and a range of application attributes. | 5.0+ | |
| app_stats_current_timeframe, page 5-6 | Traffic volume and system access control activity (connections allowed or denied), by application and a range of application attributes. | | |
| geolocation_stats_current_timeframe, page 5-7 | Access control activity by location. | 5.2+ | |
| ids_impact_stats_current_timeframe, page 5-9 | Statistics for intrusion events (connections blocked and would have dropped) by impact levels. | 5.1.1+ | |
| session_stats_current_timeframe, page 5-10 | Contain statistics for all connections. Statistics can be extracted based on bytes, connection, sensor, and time. | 5.2+ | |
| ssl_stats_current_timeframe, page 5-11 | Contain statistics for SSL connections. Statistics can be extracted based on bytes, connection, sensor, and time. | 5.4+ | |
| storage_stats_by_disposition_current_timeframe , page 5-14 | Contain statistics for files based on disposition. Statistics can be extracted based on bytes, disposition, sensor, and time. | 5.3+ | |
| storage_stats_by_file_type_current_timeframe, page 5-15 | Contain statistics for files based on file type. Statistics can be extracted based on bytes, file type, sensor, and time. | 5.3+ | |
| transmission_stats_by_file_type_current_timefra me, page 5-16 | Contain statistics for connections based on file type. Statistics can be extracted based on bytes, connection, file type, sensor, and time. | 5.3+ | |
| url_category_stats_current_timeframe, page 5-17 | Traffic volume and system access control activity (connections allowed or denied), by the category of the requested website. | 5.0+ | |

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| See | For the table that stores statistics on | |
|--|--|------|
| url_reputation_stats_current_timeframe, page 5-19 | Traffic volume and system access control activity (connections allowed or denied), by the reputation of the requested website. | 5.0+ |
| user_ids_stats_current_timeframe, page 5-20 | Access control and intrusion protection activity, by user. | 5.0+ |
| user_stats_current_timeframe, page 5-21 | Traffic volume and system access control activity (connections allowed or denied), by user. | 5.0+ |

Table 5-1 Application and URL Statistics Tables (continued)

Understanding Statistics Tracking Tables

A table's name ends with current_day, current_month, or current_year to indicate the timeframe of its data. For example, the app_ids_stats_current_timeframe describes app_stats_current_day, app_stats_current_month, and app_stats_current_year. The app_stats_current_year table stores statistics for 360 days; the current_month table stores statistics for 30 days.

Each time the Defense Center receives raw counts from managed devices in your network, it updates all three table types, but does so at successively coarser resolution. The **current_day** table has the finest resolution (15 seconds or 5 minutes, depending on the particular table); the **current_year** table has the coarsest resolution (24 hours). See Storage Characteristics for Statistics Tracking Tables, page 5-2 for specific information.

Storage Characteristics for Statistics Tracking Tables

See the following table for important details.

| Table Type | Interval (Resolution) | Storage Lifespan |
|---------------|--|--|
| current_day | 15 seconds for | current interval plus all intervals in the |
| | <pre>app_ids_stats_current_timeframe and</pre> | preceding 24 hours |
| | <pre>user_ids_stats_current_timeframe</pre> | |
| | 5 minutes for | current interval plus all intervals in the |
| | <pre>app_stats_current_timeframe,</pre> | preceding 24 hours |
| | <pre>user_stats_current_timeframe,</pre> | |
| | <pre>url_category_stats_current_timeframe, and</pre> | |
| | <pre>url_reputation_stats_current_timeframe</pre> | |
| current_month | one hour | current hour plus the hours stretching back 30 days |
| current_year | 24 hours | current day plus the preceding 360 days |

Table 5-2 Storage Characteristics of Statistics Tables

A storage interval is defined by its start time. For example, the current_month table contains counts for the hour 10:00:00 - 10:59:59 as one record with a timestamp of 10:00:00. Note that a day begins at 00:00:00 and ends at 23:59:59. Interval start times are stored as UNIX timestamps (GMT).

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Specifying Time Intervals When Querying Statistics Tables

The effective time interval for a query is defined by both the table and the time_start_sec field in the query.

For example, if your SQL statement specifies time_start_sec = 6:00:00, the interval varies for each table type:

- for current_day tables: either 6:00:00 to 6:00:14 (for 15 second tables) or 6:00:00 to 6:04:59 (for 5 minute tables).
- for current month tables: 6:00:00 to 6:59:59.
- for current_year tables: 0:00:00 to 23:59:59 on the following day.

The simplest way to retrieve data is to state the interval start time. For example, to retrieve from the app_ids_stats_current_day table, specify one of the following:

```
00:00:00
00:00:15
00:00:30
23:59:45
```

If your query contains a timestamp that is other than an interval start time, the system modifies the request as follows:

- rounds up the start time to the nearest interval time
- rounds down the end time to the nearest interval time

For example, the following query rounds up the start time:

```
SELECT application_id
FROM app_ids_stats_current_month
WHERE start_time_sec = UNIX_TIMESTAMP("2011-12-01 12:30:00");
```

and is the same as:

```
SELECT application_id
FROM app_ids_stats_current_month
WHERE start_time_sec = UNIX_TIMESTAMP("2011-12-01 01:00:00");
```

When querying a range of intervals, the starting time interval is rounded up, and the ending time interval is rounded down. For example:

```
SELECT application_id
FROM app_ids_stats_current_month
WHERE start_time_sec BETWEEN UNIX_TIMESTAMP("2011-12-10 12:59:00") and
UNIX_TIMESTAMP("2011-12-10 16:28:00");
```

is changed to:

```
SELECT application_id
FROM app_ids_stats_current_month
WHERE start_time_sec BETWEEN UNIX_TIMESTAMP("2011-12-10 13:00:00") and
UNIX_TIMESTAMP("2011-12-12 16:00:00");
```

If your query interval extends beyond a table's time frame, you can usually obtain the additional data from another table, although the data in the other table will have a coarser resolution. For example, to retrieve bandwidth usage for the past two days, you can get results for yesterday from the current_day table (at 5 minute resolution), but you can get statistics for the previous day only from current_month (in hour chunks) or current_year (in day chunks).

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app_ids_stats_current_timeframe

The app_ids_stats_current_timeframe tables contain statistics about application activity and intrusion events on your monitored network. Statistics can be extracted per detected application, per application type (application protocol, client application, or web application), and also per risk and business relevance of the application. The tables also track blocked connections due to intrusion policy violations and the estimated potential impact of an intrusion.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **app_ids_stats_current**_timeframe tables, see the following sections:

- app_ids_stats_current_timeframe Fields, page 5-4
- app_ids_stats_current_timeframe Joins, page 5-5
- app_ids_stats_current_timeframe Sample Query, page 5-5

app_ids_stats_current_timeframe Fields

The following table describes the fields you can access in the app_ids_stats_current_timeframe tables. All tables of this type contain the same fields.

| Table 5-3 | app_ids_stats_curre | nt_timeframe Fields |
|-----------|---------------------|---------------------|
|-----------|---------------------|---------------------|

| Field | Description | | |
|--------------------------------|--|--|--|
| application_id | The internal identification number for the application. | | |
| application_name | The application name that appears in the user interface. | | |
| blocked | Number of connections blocked due to violation of an intrusion policy. | | |
| business_relevance | An index (from 1 to 5) of the application's relevance to business productivity where 1 is very low and 5 is very high. | | |
| business_relevance_description | A description of business relevance (very low, low, medium, high, very high). | | |
| <pre>impact_level_1</pre> | The number of impact level 1 (vulnerable) intrusion events recorded for th application. | | |
| impact_level_2 | The number of impact level 2 (potentially vulnerable) intrusion events. | | |
| <pre>impact_level_3</pre> | The number of impact level 3 (host currently not vulnerable) intrusion events. | | |
| impact_level_4 | The number of impact level 4 (unknown target) intrusion events. | | |
| impact_level_5 | The number of impact level 5 (unknown vulnerability) intrusion events. | | |
| is_client_application | A true-false flag that indicates if the detected application is a client application. | | |
| is_server_application | A true-false flag that indicates if the detected application is an application protocol. | | |
| is_web_application | A true-false flag that indicates if the detected application is a web application. | | |
| risk | An index (from 1 to 5) of the application's estimated risk where 1 is very low risk and 5 is critical risk. | | |

| Field | Description |
|--------------------|---|
| risk_description | A description of the estimated risk (very low, low, medium, high, critical). |
| sensor_address | The IP address of the managed device that generated the event. Format is <i>ipv4_address, ipv6_address</i> . |
| sensor_id | ID of the device that provided the event. |
| sensor_name | The name of the managed device that generated the intrusion event. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |
| would_have_dropped | Number of packets that would have been dropped if the intrusion policy had been configured to drop packets in an inline deployment. |

Table 5-3 app_ids_stats_current_timeframe Fields (continued)

app_ids_stats_current_timeframe Joins

The following table describes the joins you can perform on the **app_ids_stats_current**_timeframe tables.

Table 5-4 app_ids_stats_current_timeframe Joins

| You can join this table on | And |
|----------------------------|--|
| application_id | application_info.application_id |
| | application_host_map.application_id |
| | application_tag_map.application_id |
| | <pre>rna_host_service_info.application_protocol_id</pre> |
| | rna_host_client_app_payload.web_application_id |
| | rna_host_client_app_payload.client_application_id |
| | <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> |

app_ids_stats_current_timeframe Sample Query

The following query returns up to 25 application records from the app_ids_stats_current_month table. Each record contains the number of blocked connections and intrusion events for the application over the time interval.

```
SELECT from_unixtime(start_time_sec), sum(blocked)
FROM app_ids_stats_current_day
WHERE start_time_sec = unix_timestamp("2013-12-15");
```

app_stats_current_timeframe

The app_stats_current_timeframe tables contain statistics on bandwidth usage and access control actions (connection allowed or denied), by application and by device that monitored the traffic. You can filter these statistics by the business relevance, estimated risk, and type of the application.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **app_stats_current**_timeframe tables, see the following sections:

- app_stats_current_timeframe Fields, page 5-6
- app_stats_current_timeframe Joins, page 5-7
- app_stats_current_timeframe Sample Query, page 5-7

app_stats_current_timeframe Fields

The following table describes the fields you can access in the **app_stats_current**_timeframe tables.

| Field | Description | | |
|--------------------------------|--|--|--|
| application_id | The internal identification number for the application. | | |
| application_name | The application name that appears in the user interface. | | |
| business_relevance | An index (from 1 to 5) of the application's relevance to business productivity where 1 is very low and 5 is very high. | | |
| business_relevance_description | A description of business relevance (very low, low, medium, high, very high). | | |
| bytes_in | The bytes of inbound traffic for the application during the specified interval. | | |
| bytes_out | The bytes of outbound traffic for the application during the specified interval. | | |
| connections_allowed | The number of connections allowed. | | |
| connections_denied | The number of connections denied due to violation of an access control policy. | | |
| is_client_application | A true-false flag that indicates if the detected application is a client application. | | |
| is_server_application | A true-false flag that indicates if the detected application is an application protocol. | | |
| is_web_application | A true-false flag that indicates if the detected application is a web application. | | |
| risk | An index (from 1 to 5) of the application's estimated risk where 1 is very low risk and 5 is critical risk. | | |
| risk_description | A description of the estimated risk (very low, low, medium, high, critical) | | |
| sensor_address | The IP address of the managed device that monitored the traffic. Format is <i>ipv4_address, ipv6_address</i> . | | |
| sensor_id | The internal identification number of the managed device that detected the traffic. | | |

| Table 5-5 app | _stats_ | _current_ | timeframe | Fields |
|---------------|---------|-----------|-----------|--------|
|---------------|---------|-----------|-----------|--------|

| Field | Description | | |
|----------------|---|--|--|
| sensor_name | The name of the managed device that detected the traffic. | | |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. | | |
| start_time_sec | The UNIX timestamp of the start of the measurement interval. For information on specifying the start time, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. | | |

Table 5-5 app_stats_current_timeframe Fields (continued)

app_stats_current_timeframe Joins

The following table describes the joins you can perform on the **app_stats_current**_timeframe tables.

Table 5-6 app_stats_current_timeframe Joins

| You can join this table on | And |
|----------------------------|--|
| application_id | application_info.application_id |
| | application_host_map.application_id |
| | application_tag_map.application_id |
| | <pre>rna_host_service.application_protocol_id</pre> |
| | rna_host_client_app_payload.web_application_id |
| | <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> |

app_stats_current_timeframe Sample Query

The following query returns the inbound and outbound traffic load associated with applications that have low business relevance and high risk in the period of a day, for all managed devices connected to the Defense Center.

```
SELECT start_time_sec, sum(bytes_in), sum(bytes_out)
FROM app_stats_current_day
WHERE business_relevance <= 2
AND risk >= 4 AND start_time_sec = unix_timestamp("2013-12-15");
```

geolocation_stats_current_timeframe

The **geolocation_stats**_timeframe tables contain statistics regarding intrusion events based on location levels. Statistics can be extracted based on impact level, device, and how the packets are handled.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the geolocation_stats_current_timeframe tables, see the following sections:

• geolocation_stats_current_timeframe Fields, page 5-8

- geolocation_stats_current_timeframe Joins, page 5-9
- geolocation_stats_current_timeframe Sample Query, page 5-9

geolocation_stats_current_timeframe Fields

The following table describes the fields you can access in the geolocation_stats_current_timeframe tables. All tables of this type contain the same fields.

| Table 5-7 | geolocation | stats current | timeframe Fields |
|-----------|-------------|---------------|------------------|
|-----------|-------------|---------------|------------------|

| Field | Description |
|-----------------------|--|
| bytes_from | The total number of bytes transmitted by the session responder. |
| bytes_to | Total number of bytes transmitted by the session initiator. |
| destination_continent | The name of the continent of the destination host. |
| | ** — Unknown |
| | na — North America |
| | as — Asia |
| | af — Africa |
| | eu — Europe |
| | sa — South America |
| | au — Australia |
| | an — Antarctica |
| destination_country | Code for the country of the destination host. |
| flows_allowed | The number of flows allowed. |
| flows_denied | The number of flows denied due to violation of an access control policy. |
| sensor_address | The IP address of the managed device that generated the event. Format is |
| | ipv4_address,ipv6_address. |
| sensor_id | ID of the device that provided the event. |
| sensor_name | The name of the managed device that generated the intrusion event. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| source_continent | The name of the continent of the source host. |
| | ** — Unknown |
| | na — North America |
| | as — Asia |
| | af — Africa |
| | eu — Europe |
| | sa — South America |
| | au — Australia |
| | an — Antarctica |

| Field | Description |
|----------------|---|
| source_country | Code for the country of the source host. |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

| Table 5-7 | geolocation_stat | s_current_timeframe | Fields (continued) |
|-----------|------------------|---------------------|--------------------|
| | | | |

geolocation_stats_current_timeframe Joins

You cannot perform joins on the geolocation_stats_current_timeframe tables.

geolocation_stats_current_timeframe Sample Query

The following query returns source country and sensor name for the first 25 connection events from Asia during the current day.

SELECT sensor_name, source_continent
FROM geolocation_stats_current_year
WHERE destination_continent='as'
LIMIT 20;

ids_impact_stats_current_timeframe

The **ids_impact_stats**_timeframe tables contain statistics regarding intrusion events based on impact levels. Statistics can be extracted based on impact level, device, and how the packets are handled.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **ids_impact_stats_current**_timeframe tables, see the following sections:

- ids_impact_stats_current_timeframe Fields, page 5-9
- ids_impact_stats_current_timeframe Joins, page 5-10
- ids_impact_stats_current_timeframe Sample Query, page 5-10

ids_impact_stats_current_timeframe Fields

The following table describes the fields you can access in the **ids_impact_stats_current**_timeframe tables. All tables of this type contain the same fields.

| Field | Description | |
|--------------------|---|--|
| blocked | Number of connections blocked due to violation of an intrusion policy. | |
| impact_level_1 | The number of impact level 1 (vulnerable) intrusion events recorded for the application. | |
| impact_level_2 | The number of impact level 2 (potentially vulnerable) intrusion events. | |
| impact_level_3 | The number of impact level 3 (host currently not vulnerable) intrusion events. | |
| impact_level_4 | The number of impact level 4 (unknown target) intrusion events. | |
| impact_level_5 | The number of impact level 5 (unknown vulnerability) intrusion events. | |
| sensor_address | The IP address of the managed device that generated the event. Format is <i>ipv4_address, ipv6_address</i> . | |
| sensor_id | ID of the device that provided the event. | |
| sensor_name | The name of the managed device that generated the intrusion event. | |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. | |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. | |
| would_have_dropped | Number of packets that would have been dropped if the intrusion policy had been set to drop packets in an inline deployment. | |

| Table 5-8 | ids_impact_stats_current_ | timeframe Fields |
|-----------|---------------------------|------------------|
|-----------|---------------------------|------------------|

ids_impact_stats_current_timeframe Joins

You cannot perform joins on the ids_impact_stats_current_timeframe tables.

ids_impact_stats_current_timeframe Sample Query

The following query returns the first 25 blocked and would_have_dropped events during the current day. SELECT blocked, would_have_dropped

FROM ids_impact_stats_current_year LIMIT 25;

session_stats_current_timeframe

The **session_stats**_timeframe tables contain statistics for all connections. Statistics can be extracted based on bytes, connection, sensor, and time.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **session_stats_current**_timeframe tables, see the following sections:

session_stats_current_timeframe Fields, page 5-11

- session_stats_current_timeframe Joins, page 5-11
- session_stats_current_timeframe Sample Query, page 5-11

session_stats_current_timeframe Fields

The following table describes the fields you can access in the **session_stats_current**_timeframe tables. All tables of this type contain the same fields.

Table 5-9 session_stats_current_timeframe Fields

| Field | Description | |
|---------------------|---|--|
| bytes_in | The bytes of inbound traffic during the specified interval. | |
| bytes_out | The bytes of outbound traffic during the specified interval. | |
| connections_allowed | The number of connections allowed for the specified URL category. | |
| connections_denied | The number of connections denied for the specified URL category due to violation of an access control policy. | |
| id | This field is not used and will always return 0. | |
| sensor_address | The IP address of the managed device that generated the event. Format is <i>ipv4_address, ipv6_address</i> . | |
| sensor_id | ID of the device that provided the event. | |
| sensor_name | The name of the managed device that generated the intrusion event. | |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. | |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. | |

session_stats_current_timeframe Joins

You cannot perform joins on the **session_stats_current**_timeframe tables.

session_stats_current_timeframe Sample Query

The following query returns the number of denied and allowed connections for each sensor, in descending order by sensor_name during the current day.

SELECT sensor_name, connections_denied, connections_allowed

FROM session_stats_current_day

ORDER BY sensor_id DESC;

ssl_stats_current_timeframe

The **ssl_stats_current**_timeframe tables contain statistics for SSL connections. Statistics can be extracted based on bytes, connection, sensor, and time.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **ssl_stats_current**_timeframe tables, see the following sections:

- ssl_stats_current_timeframe Fields, page 5-12
- ssl_stats_current_timeframe Joins, page 5-13
- ssl_stats_current_timeframe Sample Query, page 5-14

ssl_stats_current_timeframe Fields

The following table describes the fields you can access in the **ssl_stats_current**_timeframe tables. All tables of this type contain the same fields.

Table 5-10 ssl_stats_current_timeframe Fields

| Field | Description |
|---|---|
| block | Number of SSL sessions dropped with no reset. |
| block_with_reset | Number of SSL sessions dropped with reset. |
| cached_session | Number of SSL sessions found in the session cache. |
| cannot_determine_verdict | Number of handshake errors that occurred while evaluating SSL rules. |
| cert_expired | Number of SSL sessions in which the certificate was expired. |
| cert_invalid_issuer | Number of SSL sessions in which the certificate issuer was either not valid or not found in the Trusted CA list. |
| cert_invalid_signature | Number of SSL sessions in which the certificate had an invalid signature. |
| cert_not_checked | Number of SSL sessions in which the certificate was not checked. |
| cert_not_yet_valid | Number of SSL sessions in which the certificate was not yet valid. |
| cert_revoked | Number of SSL sessions in which the certificate had been revoked. |
| cert_self_signed | Number of SSL sessions in which the certificate was self-signed. |
| cert_unknown | Number of SSL sessions in which the certificate status was unknown. |
| cert_valid | Number of SSL sessions in which the certificate was valid. |
| cert_validation_cache_hit | Number of times a certificate was found in the validation cache. |
| cert_validation_cache_miss | Number of times a certificate was not found in the validation cache. |
| decrypt_resign_self_signed | Number of times an SSL session using a self-signed certificate was decrypted using the decrypt-resign method. |
| <pre>decrypt_resign_self_signed_replace_key_o nly</pre> | Number of times an SSL session using a self-signed certificate was decrypted using the decrypt-resign with replace key only method. |
| decrypt_resign_signed_cert | Number of times an SSL session using a signed certificate was decrypted using the decrypt-resign method. |
| decrypt_with_known_key | Number of times an SSL session was decrypted using the known-key method. |
| decryption_error | Number of SSL sessions which suffered an error during decryption. |
| do_not_decrypt | Number of times an SSL session was found but not decrypted. |
| handshake_error | Number of handshake errors that occurred prior to evaluating SSL rules. |

| Field | Description | |
|---------------------------------------|---|--|
| orig_cert_cache_hit | Number of times an original certificate was found in the cache. | |
| orig_cert_cache_miss | Number of times an original certificate was not found in the cache. | |
| resigned_cert_cache_hit | Number of times a resigned certificate was found in the cache. | |
| resigned_cert_cache_miss | Number of times a resigned certificate was not found in the cache. | |
| sensor_address | The IP address of the managed device that generated the event. Format is <i>ipv4_address, ipv6_address</i> . | |
| sensor_id | ID of the device that provided the event. | |
| sensor_name | The name of the managed device that generated the event. | |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. | |
| session_cache_hit | Number of times an SSL session ID or ticket was found in the cache. | |
| session_cache_miss | Number of times an SSL session ID or ticket was not found in the cache. | |
| session_incorrectly_identified_as_ssl | Number of sessions that were incorrectly identified as using SSL. | |
| ssl_compression | Number of sessions that used SSL compression. | |
| ssl_sessions_decrypted | Number of SSL sessions that were successfully decrypted. | |
| ssl_sessions_not_decrypted | Number of SSL sessions that were not successfully decrypted. | |
| ssl_sessions_reused_by_id | Number of times an SSL session reused an ID. | |
| ssl_sessions_reused_by_ticket | Number of times an SSL session reused a ticket. | |
| ssl_sessions_with_errors | Number of SSL sessions which have errors. | |
| ssl_v20 | Number of SSL sessions using SSL version 2.0 | |
| ssl_v30 | Number of SSL sessions using SSL version 3.0 | |
| ssl_version_unknown | Number of SSL sessions using an unknown SSL version. | |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. | |
| tls_v10 | Number of SSL sessions using TLS version 1.0 | |
| tls_v11 | Number of SSL sessions using TLS version 1.1 | |
| tls_v12 | Number of SSL sessions using TLS version 1.2 | |
| total_ssl_sessions | Total number of SSL sessions detected. | |
| uncached_session | Number of times that a cache miss on an ID or ticket prevented decryption. | |
| undecryptable_in_passive_mode | Number of SSL sessions that could not be decrypted because the device is in passive mode. | |
| unknown_cipher_suite | Number of SSL sessions using an unknown cipher suite. | |
| unsupported_cipher_suite | Number of SSL sessions using a cipher suite which is known but not supported. | |

ssl_stats_current_timeframe Joins

Γ

You cannot perform joins on the **ssl_stats_current**_timeframe tables.

ssl_stats_current_timeframe Sample Query

The following query returns the number of SSL sessions, sessions that were decrypted, sessions that were not decrypted, and sessions which cannot be decrypted in passive mode for each sensor, in descending order by sensor_name during the current day.

```
SELECT sensor_name, total_ssl_sessions, ssl_sessions_decrypted,
ssl_sessions_not_decrypted, undecryptable_in_passive_mode
FROM ssl_stats_current_day
ORDER BY sensor_id DESC;
```

storage_stats_by_disposition_current_timeframe

The **storage_stats_by_disposition**_timeframe tables contain statistics for stores files. Statistics can be extracted based on bytes, connection, sensor, and time.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **storage_stats_by_disposition**_timeframe tables, see the following sections:

- storage_stats_by_disposition_current_timeframe Fields, page 5-14
- storage_stats_by_disposition_current_timeframe Joins, page 5-15
- storage_stats_by_disposition_current_timeframe Sample Query, page 5-15

storage_stats_by_disposition_current_timeframe Fields

The following table describes the fields you can access in the **storage_stats_by_disposition_current**_timeframe tables. All tables of this type contain the same fields.

| Field | Description | |
|----------------|---|--|
| bytes_written | The size of the file, in bytes. | |
| disposition | The malware status of the file. Possible values include: | |
| | • CLEAN — The file is clean and does not contain malware. | |
| | • UNKNOWN — It is unknown whether the file contains malware. | |
| | • MALWARE — The file contains malware. | |
| | • UNAVAILABLE — The software was unable to send a request to the Cisco cloud for a disposition, or the Cisco cloud services did not respond to the request. | |
| | • CUSTOM SIGNATURE — The file matches a user-defined hash, and is treated in a fashion designated by the user. | |
| number_dropped | Number of files of this disposition dropped. | |
| number_stored | Number of files of this disposition stored. | |

Table 5-11 storage_stats_by_disposition_current_timeframe Fields

| Field | Description |
|----------------|---|
| sensor | ID of the device that detected the file. |
| 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 generated the intrusion event. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

Table 5-11 storage_stats_by_disposition_current_timeframe Fields (continued)

storage_stats_by_disposition_current_timeframe Joins

You cannot perform joins on the **session_stats_current**_timeframe tables.

storage_stats_by_disposition_current_timeframe Sample Query

The following query returns the number of dropped and stored files for each sensor, in descending order by sensor_name during the current day.

SELECT sensor_name, number_dropped, number_stored
FROM storage_stats_by_disposition_current_day
ORDER BY sensor_name DESC;

storage_stats_by_file_type_current_timeframe

The **storage_stats_by_file_type_current**_timeframe tables contain statistics for stored files by file type. Statistics can be extracted based on bytes, connection, sensor, and time.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **storage_stats_by_file_type_current**_timeframe tables, see the following sections:

- storage_stats_by_file_type_current_timeframe Fields, page 5-15
- storage_stats_by_file_type_current_timeframe Joins, page 5-16
- storage_stats_by_file_type_current_timeframe Sample Query, page 5-16

storage_stats_by_file_type_current_timeframe Fields

The following table describes the fields you can access in the **storage_stats_by_file_type_current**_timeframe tables. All tables of this type contain the same fields.

| Table 5-12 storage_stats_by | _file_type_current_timeframe Fields |
|-----------------------------|-------------------------------------|
|-----------------------------|-------------------------------------|

| Field | Description |
|----------------|---|
| bytes_written | The size of the file, in bytes. |
| file_type | The file type of the detected or quarantined file. |
| file_type_id | ID number that maps to the file type. |
| number_dropped | Number of files of this type dropped. |
| number_stored | Number of files of this type stored. |
| sensor | ID of the device that detected the file. |
| 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 generated the intrusion event. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

storage_stats_by_file_type_current_timeframe Joins

You cannot perform joins on the **session_stats_current**_timeframe tables.

storage_stats_by_file_type_current_timeframe Sample Query

The following query returns the number of dropped and stored files for each sensor, in descending order by file_type during the current day.

```
SELECT sensor_name, number_dropped, number_stored, file_type
FROM storage_stats_by_file_type_current_day
ORDER BY file_type DESC;
```

transmission_stats_by_file_type_current_timeframe

The **transmission_stats_by_file_type_current**_*timeframe* tables contain statistics for stored files by file type. Statistics can be extracted based on bytes, connection, sensor, and time.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the transmission_stats_by_file_type_current_timeframe tables, see the following sections:

- transmission_stats_by_file_type_current_timeframe Fields, page 5-17
- transmission_stats_by_file_type_current_timeframe Joins, page 5-17
- transmission_stats_by_file_type_current_timeframe Sample Query, page 5-17

transmission_stats_by_file_type_current_timeframe Fields

The following table describes the fields you can access in the **storage_stats_by_file_type_current**_timeframe tables. All tables of this type contain the same fields.

 Table 5-13
 transmission_stats_by_file_type_current_timeframe Fields

| Field | Description |
|----------------|---|
| bytes_sent | The number of transmitted bytes. |
| file_type | The file type of the detected or quarantined file. |
| file_type_id | ID number that maps to the file type. |
| number_dropped | Number of files of this type dropped. |
| number_sent | Number of files of this type sent. |
| sensor | ID of the device that detected the file. |
| 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 generated the intrusion event. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the date and time the measurement interval starts. For detailed information, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

transmission_stats_by_file_type_current_timeframe Joins

You cannot perform joins on the transmission_stats_current_timeframe tables.

transmission_stats_by_file_type_current_timeframe Sample Query

The following query returns the number of dropped and sent connections for each sensor, in descending order by $file_type$ during the current day.

SELECT sensor_name, number_dropped, number_sent, file_type
FROM transmission_stats_by_file_type_current_day
ORDER BY file_type DESC;

url_category_stats_current_timeframe

The **url_category_stats_current**_timeframe tables contain statistics on the bandwidth usage and connections associated with requests to URLs in specified URL categories. You can also constrain queries on the managed device that monitored the traffic.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

 $For more information on the \verb"url_category_stats_current_timeframe" tables, see the following sections:$

- url_category_stats_current_timeframe Fields, page 5-18
- url_category_stats_current_timeframe Joins, page 5-18
- url_category_stats_current_timeframe Sample Query, page 5-18

url_category_stats_current_timeframe Fields

The following table describes the fields you can access in the **url_category_stats_current**_timeframe tables.

| Field | Description |
|---------------------|---|
| bytes_in | The bytes of inbound traffic during the specified interval. |
| bytes_out | The bytes of outbound traffic during the specified interval. |
| category | The category of the URL. |
| connections_allowed | The number of connections allowed for the specified URL category. |
| connections_denied | The number of connections denied for the specified URL category due to violation of an access control policy. |
| sensor_address | The IP address of the managed device that monitored the traffic. Format is <i>ipv4_address, ipv6_address</i> . |
| sensor_id | The internal identification number of the managed device that detected the traffic. |
| sensor_name | The managed device that monitored the traffic. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the start of the measurement interval. For information on specifying the start time, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

Table 5-14 url_category_stats_current_timeframe Fields

url_category_stats_current_timeframe Joins

You cannot perform joins on the url_category_stats_current_timeframe tables.

url_category_stats_current_timeframe Sample Query

The following query returns up to 25 URL category records. Each record contains the bytes of associated inbound and outbound traffic, as well as allowed and denied connections, over the specified time interval.

```
SELECT category, sensor_name, sensor_address, start_time_sec, bytes_in, bytes_out, connections_allowed, connections_denied
```

FROM url_category_stats_current_year
WHERE category="Games"

LIMIT 0, 25;

url_reputation_stats_current_timeframe

The **url_reputation_stats_current**_timeframe tables contain statistics on the bandwidth usage and connections associated with requests to URLs with specified reputations. Query results can also be constrained on the managed device that monitored the traffic.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information on the **url_reputation_stats_current**_timeframe tables, see the following sections:

- url_reputation_stats_current_timeframe Fields, page 5-19
- url_reputation_stats_current_timeframe Joins, page 5-20
- url_reputation_stats_current_timeframe Sample Query, page 5-20

url_reputation_stats_current_timeframe Fields

The following table describes the fields you can access in the **url_category_stats_current**_timeframe tables.

| Field | Description |
|---------------------|---|
| bytes_in | The bytes of inbound traffic during the specified interval. |
| bytes_out | The bytes of outbound traffic during the specified interval. |
| connections_allowed | The number of connections allowed. |
| connections_denied | The number of connections denied due to violation of an access control policy. |
| reputation | The risk associated with the requested URL. One of the following: |
| | • High risk |
| | • Suspicious site |
| | • Benign site with security risks |
| | • Benign site |
| | • Well known |
| | • Risk unknown |
| sensor_address | The IP address of the managed device that monitored the traffic. Format is <i>ipv4_address, ipv6_address</i> . |
| sensor_id | Internal identification number of the managed device that monitored the traffic. |
| sensor_name | The name of the managed device that monitored the traffic. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the start of the measurement interval. For information on specifying the start time, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |

Table 5-15 url_reputation_stats_current_timeframe Fields

url_reputation_stats_current_timeframe Joins

You cannot perform joins on the url_reputation_stats_current_timeframe tables.

url_reputation_stats_current_timeframe Sample Query

The following query returns up to 25 URL reputation records from the url_reputation_stats_current_month table. Each record contains the bytes of inbound and outbound traffic, as well as allowed and denied connections over the measurement time interval.

```
SELECT sensor_name, sensor_address, reputation, start_time_sec, bytes_in, bytes_out,
connections_allowed, connections_denied
FROM url_reputation_stats_current_year
WHERE reputation="High risk"
```

LIMIT 0, 25;

user_ids_stats_current_timeframe

The user_ids_stats_current_timeframe tables are round-robin tables that contain statistics on access filtering and impact statistics by user.

For an understanding of the current_day, current_month, and current_year tables in this type, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For general information on using the round robin statistics tables, see Understanding Statistics Tracking Tables, page 5-2.

For more information on the user_ids_stats_current_timeframe tables, see the following sections:

- user_ids_stats_current_timeframe Fields, page 5-20
- user_ids_stats_current_timeframe Joins, page 5-21
- user_ids_stats_current_timeframe Sample Query, page 5-21

user_ids_stats_current_timeframe Fields

The following table describes the fields you can access in the **user_ids_stats_current**_timeframe tables.

| Field | Description |
|---------------------------|--|
| blocked | The number of connections blocked due to violation of an intrusion policy. |
| impact_level_1 | The number of impact level 1 (vulnerable) intrusion events recorded for the user. |
| <pre>impact_level_2</pre> | The number of impact level 2 (potentially vulnerable) intrusion events recorded for the user. |
| <pre>impact_level_3</pre> | The number of impact level 3 (host currently not vulnerable) intrusion events recorded for the user. |

Table 5-16 user_ids_stats_current_timeframe Fields

| Field | Description |
|---------------------------|---|
| <pre>impact_level_4</pre> | The number of impact level 4 (unknown target) intrusion events recorded for the user. |
| impact_level_5 | The number of impact level 5 (unknown vulnerability) intrusion events recorded for the user. |
| sensor_address | The IP address of the managed device that monitored the traffic. Format is <i>ipv4_address, ipv6_address</i> . |
| sensor_id | The internal identification number of the managed device that detected the traffic. |
| sensor_name | The name of the managed device that detected the traffic. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the start of the measurement interval. For information on specifying the start time, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |
| user_id | An internal identification number for the user who last logged into the host. |
| username | The user name of the user who last logged into the host. |
| would_have_dropped | Number of packets that would have been dropped if the intrusion policy had been configured to drop packets in an inline deployment. |

user_ids_stats_current_timeframe Joins

You cannot perform joins on the user_ids_stats_current_timeframe tables.

user_ids_stats_current_timeframe Sample Query

The following query returns up to 25 user records from the user_ids_stats_current_month table. Each record contains the number of blocked connections and intrusion events for the selected username.

```
SELECT username, start_time_sec, blocked, impact_level_1, impact_level_2,
impact_level_3, impact_level_4, impact_level_5 FROM user_ids_stats_current_year
WHERE username="username"
LIMIT 0, 25;
```

user_stats_current_timeframe

The user_stats_current_timeframe tables contain statistics on bandwidth usage and access control actions (connection allowed or denied) by user. You can also constrain queries on the managed device that monitored the traffic.

For an understanding of the current_day, current_month, and current_year statistics tables, see Storage Characteristics for Statistics Tracking Tables, page 5-2.

For more information, see the following sections:

user_stats_current_timeframe Fields, page 5-22

- user_stats_current_timeframe Joins, page 5-22
- user_stats_current_timeframe Sample Query, page 5-22

user_stats_current_timeframe Fields

The following table describes the fields you can access in the user_stats_current_timeframe tables.

| Field | Description |
|---------------------|---|
| bytes_in | The number of bytes of inbound traffic for the user in the measured interval. |
| bytes_out | The number of bytes of outbound traffic for the user in the measured interval. |
| connections_allowed | The number of connections allowed for this user in the measured time frame. |
| connections_denied | The number of connections denied for this user due to violation of an access control policy. |
| sensor_address | The IP address of the managed device that monitored the traffic. Format is <i>ipv4_address, ipv6_address</i> . |
| sensor_id | The internal identification number of the managed device that detected the traffic. |
| sensor_name | The name of the managed device that detected the traffic. |
| sensor_uuid | A unique identifier for the managed device, or 0 if sensor_name is null. |
| start_time_sec | The UNIX timestamp of the start of the measurement interval. For information on specifying the start time, see Specifying Time Intervals When Querying Statistics Tables, page 5-3. |
| user_id | The internal identification number for the user who last logged into the host that generated the traffic. |
| username | User name for the user who last logged into the host that generated the traffic. |

 Table 5-17
 user_stats_current_timeframe Fields

user_stats_current_timeframe Joins

You cannot perform joins on the user_stats_current_timeframe tables.

user_stats_current_timeframe Sample Query

The following query returns up to 25 user records. Each record contains the bytes of inbound and outbound traffic, as well as allowed and denied connections over the measurement time interval.

SELECT sensor_name, sensor_address, username, start_time_sec, bytes_in, bytes_out, connections_allowed, connections_denied FROM user_stats_current_year WHERE username="username" LIMIT 0, 25;