

Unified Events

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About the Unified Events

Unified Events provide you a single-screen view of multiple types (connection, intrusion, file, malware, and some security-related connection events) of firewall events. Events associated with each other are stacked together in the table to provide a unified view and more context about the security event. If you have an intrusion event on the Unified Events table, click the intrusion event to highlight the associated connection event. You can then correlate the connection event with the intrusion event to better understand and troubleshoot the network issues, without toggling between multiple event viewers.

The Unified Events table is highly customizable. You can create and apply custom filters to fine-tune the information displayed on the event viewer. Unified events also has option to save the custom filters that you use often for specific needs, and then quickly load the saved filters. Also, you can make a tailored event viewer table by adding or removing columns, pin columns, or drag and re-order the columns.

The **Live View** option in the Unified Events table lets you see the firewall events in real time and monitor the activity on your network. For example, if you are a firewall administrator, viewing event updates in real time after you make a policy change can help you to ensure that the policy changes are correctly enforced on your network.

Requirements and Prerequisites for the Unified Events

Model Support

Any.

Supported Domains

Any.

User Roles

- Admin
- · Security Analyst

Working with Unified Events

View and work with various firewall event types in a single table without needing to switch between multiple event viewers.

Use this view to:

- Look for relationships between events of different types in the unified view.
- See the effects of policy changes in real time.

Before you begin

You must have Admin or Security Analyst privileges to perform this task.

Procedure

- Step 1 Choose Events & Logs > Analysis > Unified Events.
- Step 2 Choose the time range (fixed or sliding). For more information, see Set a Time Range in Unified Events, on page 5.
- Step 3 If you are storing events remotely on a Secure Network Analytics appliance and you have good reason to change the data source, choose a data source. See important information at Work in the Secure Firewall Management Center with Connection Events Stored on a Secure Network Analytics Appliance.
- **Step 4** You can filter the vast list of firewall events that the unified events table initially displays for a more granular contextual picture of events in your network. For more information, see Filters in Unified Events, on page 7.
- **Step 5** Choose more options:

To Do This	Do This		
Customize columns	Add or remove columns:		
	Click the column picker (and choose columns. Values in some fields depend on the event type. The following icons that appear next to each field indicates the event type correspondence:		
	• Connection event (\$)		
	• Security-related connection event (5)		
	• Intrusion event (*)		
	• File event ()		
	• Malware event (**)		
	• Troubleshoot event ()		
	Click the event icon next to the column set filtering options to filter the list of event fields according to the selected event type.		
	Note Including many columns may degrade performance. You can view data for hidden columns by expanding an event row to view event details.		
	Reorder columns:		
	Drag and drop the column heading.		
	• Pin (freeze) columns to the left or right side of the table so they do not scroll:		
	Drag a column all the way to either left or right side of the table.		
	Or, drag and drop a column heading into the pinned area.		
	To unpin a column, drag the column out of the pinned area.		
	Resize columns.		
	Revert columns to the default setting.		
	• Save column sets to quickly reload your customized view later. For more information, see Save a Column Set, on page 8 topic.		
	Data is always sorted by time, with the most recent events on top.		

To Do This	Do This		
Quickly filter by event type	Event type filter buttons, located in the upper left, allow you to quickly apply the event type filters. Each event type button displays the number of events available for the selected time range. Click the event type button to include or exclude that event type.		
	Figure 1: Event Type Filter Buttons		
	%0		
	Note The Troubleshoot Event () button appears under the Troubleshooting tab. To view the troubleshooting events, you must enable the logging of all troubleshooting syslogs in the threat defense device platform settings policy. For more information, see View Troubleshooting Syslogs in the Secure Firewall Management Center.		
Identify related events	Click a row to highlight other events that are related to this event.		
	If needed, filter the events to display a small enough set of events.		
	Note The initiator of a connection is not necessarily the same as the sender of a malware file. Search for the file or malware event associated with a connection event by filtering the unified events table with the Source or Destination IP filter.		
View event details	Click the > (Expand) icon at the left end of the row. Event details do not include the field which has no data to display.		
	Alternatively, double-click on an event row to view the Event Details pane. When the Event Details pane is open, click on any event row in the table to load the details of that event.		
Troubleshoot events using Packet Tracer	a. Click the ellipsis icon (i) adjacent to the row for which you want to run the packet trace.		
	b. Choose Open in Packet Tracer to simulate a packet in the Packet Tracer tool based on the source and destination addresses and protocol characteristics of the event. Trace the simulated packet and use the trace result to troubleshoot the security event. For more information on how to use the packet tracer tool, see Use the Packet Tracer.		
View events in real time	Click Go Live . For more information, see View Live Events in Unified Events, on page 6.		
	If events stream too quickly, enter filter criteria.		
Cross-launch to external resources	Click the ellipsis (*) in a table cell to see the options available for that cell value, if any.		
	For more information, see Event Investigation Using Web-Based Resources.		

To Do This	Do This		
Open multiple unified events windows	You can display different views of the unified events table using multiple browser tabs or windows.		
	Each new tab or window has the characteristics of the most recently modified tab/window.		
	• To make any open tab/window as the template, make a minor change to it.		
	The system processes queries on multiple tabs sequentially.		
	• Depending on the view (complex queries, or viewing in live view mode when the incoming event rate is high, for example), you may experience slower performance if more than 4 tabs are open simultaneously.		
Save searches	Save custom searches as your favorites and quickly load them later. For more information, see Save a Search in Unified Events, on page 8.		
Bookmark or share	Bookmark or copy-paste the URL in the browser window.		
query results	• The URL retrieves different events later if it used the sliding time range.		
	The URL does not capture column visibility, size and order, and real-time streaming settings.		

Set a Time Range in Unified Events

Configure time range in unified events to view firewall events for a specific period. When you change the time range, the unified events table automatically refreshes to reflect your changes.

The time range that you select does not apply to other tables in the event viewer. For example, a time range that you select when viewing connection events does not apply to the unified events table and vice versa.



Important

If your time window extends back beyond the retention period for connection events, look for Security-Related Connection events in the tables under **Events & Logs** > + **Show more** > **Connection** > **Security-Related Events**.

Procedure

- **Step 1** Choose **Events & Logs** > **Analysis** > **Unified Events**.
 - By default, the unified events table displays events from the past hour.
- **Step 2** Click the current time range.
- **Step 3** Choose one of the following:

• If you want to see events for a fixed time range, click **Fixed Time Range** and choose the **Start time** and **End time**.

Tip

Click **Now** to quickly set the current time as the **End time**.

• If you want to configure a sliding default time window of the length you specify, click **Sliding Time Range**.

The appliance displays all the events generated from a specific start time; for example, 1 hour ago, to the present. As you refresh event views, the time window slides so that you always see events from the last hour.

Step 4 Click Apply.

View Live Events in Unified Events

Configure the unified events to display firewall events in real time without manually refreshing the event viewer. In the **Live View** mode, the event logs appear in real time as the security event occurs in your network which helps you to better troubleshoot the issues.

Procedure

Step 1 Choose Events & Logs > Analysis > Unified Events.

By default, the unified events table displays events from the last hour.

Step 2 To see live event updates, click **Go Live**.

New events get populated at the top of the event table. The time range section displays a timer to inform you for how long the unified events table is live.

Note

When using the **Go Live** feature, the following limitation applies for the UDP traffic:

- By default, the **Go Live** feature in Firewall Management Center considers traffic data from the last 30 seconds, which is shorter than the 120 seconds required for UDP connections to be processed into unified events. This may result in incomplete event logging for UDP traffic.
- To improve visibility, configure logging at the beginning of the connection for UDP traffic.

What to do next

To exit the live view mode, click Live.

Filters in Unified Events

The unified events table initially displays multiple types of firewall events from the past hour. You can filter the default view of unified events for a more granular contextual picture of activity on your network. Filters support exclusion as well as inclusion filter criteria.

Filters help you to provide quick access to critical information. For example, if you are a firewall administrator and you want to allow or deny specific application access to some users, you can set user search criteria to scan through the firewall logs. The event viewer displays event logs that match the search criteria.

Procedure

Step 1 Choose Events & Logs > Analysis > Unified Events.

Step 2 Enter the filter criteria:

- To manually enter the filter criteria, type the exact criteria in the search text field, or select the criteria from the drop-down list. Then, provide the filter criteria value. While typing in the values, you are prompted with suggestions in the drop-down list whenever possible.
- Click the dots in a cell for an event in the table and choose an option to include or exclude that value from your filter criteria.

Tip

- Use the **Ctrl+click** (Windows) or **Command-click** (Mac) key to quickly add an inclusion filter criteria.
- Use the Alt+click (Windows) or Option-click (Mac) key to quickly add an exclusion filter criteria.
- Refine your filter criteria. For important information about wildcards and search behavior, see Event Searches.
- Include operators (such as <, >, !, and so on) in the value field, preceding the value. For example, enter !Allow in the **Action** field to find all events with an action other than Allow.

Step 3 Perform the search.

Tin

You can use the **Ctrl+Enter** (Windows) or **Command-Enter** (Mac) key command to initiate a search.

Events in the unified events table are not aggregated when the displayed columns all hold identical values. Every event matching your filter criteria is listed individually.

What to do next

To save a custom filter, see Save a Search in Unified Events, on page 8 topic.

Save a Search in Unified Events

Save custom searches as your favorites and quickly load them later. Note that this option is not available for the **Troubleshooting** table.

Procedure

- Step 1 Choose Events & Logs > Analysis > Unified Events.
- Step 2 Click the Events tab.
- **Step 3** Establish a search criteria as described in the Filters in Unified Events, on page 7 topic.
- Step 4 Click the Favourite Searches (12) icon on the search text box.
- **Step 5** Do one of the following:
 - To save a new search, specify a search name and click Save as new.
 - To overwrite a saved search, click Edit on the saved search that you want to overwrite, and click Overwrite.

What to do next

To load a saved search, see Load a Saved Search in Unified Events, on page 8 topic.

Load a Saved Search in Unified Events

Before you begin

Establish a saved search as described in the Save a Search in Unified Events, on page 8 topic.

Procedure

- Step 1 Choose Events & Logs > Analysis > Unified Events.
- Step 2 Click the Favourite Searches (icon on the search text box.
- **Step 3** Click the saved search that you want to load.

Save a Column Set

Save custom column sets as your favorites to load them later or quickly toggle between custom tables. Note that this option is not available for the **Troubleshooting** table.

Procedure

- Step 1 Choose Events & Logs > Analysis > Unified Events.
- Step 2 Click the column picker Icon (III) and choose the set of columns that you want to save.
- Step 3 Click the Favorite column sets (1) icon.
- **Step 4** Do one of the following:
 - To save a new column set, specify a column set name and click **Save as new**.
 - To overwrite a favorite column set, click **Edit**(1) on the column set that you want to overwrite, and click **Overwrite**.

What to do next

To load a saved column set, see Load a Saved Column Set, on page 9 topic.

Load a Saved Column Set

Before you begin

Save a favorite column set as described in the Save a Column Set, on page 8 topic.

Procedure

- **Step 1** Choose Events & Logs > Analysis > Unified Events.
- **Step 2** Click the column picker icon (III).
- Step 3 Click the Favorite column sets (12).
- **Step 4** Click the column set that you want to load.

View Troubleshooting Syslogs from Threat Defense Devices in Unified Events

You can configure the threat defense devices to log all troubleshooting syslogs to the Firewall Management Center and view them as **Troubleshoot Events** in the **Unified Events** table. This option allows you to view the device syslogs in real-time, and filter and analyze them with other event types in the same table to troubleshoot your Firewall Threat Defense devices.

For more information, see View Troubleshooting Syslogs in the Secure Firewall Management Center.

Before you begin

Ensure that you enable the managed Firewall Threat Defense devices to log all logs to the Firewall Management Center by configuring the **Logging to Secure Firewall Management Center** option in the threat defense platform settings. For more information, see *Enable Logging and Configure Basic Settings* in the Cisco Secure Firewall Management Center Device Configuration Guide.

Procedure

- Step 1 Click Events & Logs > Analysis > Unified Events.
- Step 2 Click the Troubleshooting tab.
- **Step 3** In the troubleshooting events table, you can do the following:
 - View and analyze the troubleshoot events alongside the corresponding connection events to gain additional insights for troubleshooting.
 - Click **Go Live** to view the troubleshoot events in real time. This helps you to correlate the device logs with the recent device configuration changes.

Unified Events Column Descriptions

Values in some fields depend on the event type. Field correspondences for the default fields are as follows:

Unified Events Field Name	Connection or Security Intelligence Event Field Name	Intrusion Event Field Name	File Event Field Name	Malware Event Field Name
Time	First Packet See note below.	Time	Time	Time
Event Type				
Action	Action	Inline Result	Action	Action
Reason	Reason	Reason	(Not applicable)	(Not applicable)
Source IP	Initiator IP	Source IP	Sending IP	Sending IP
Destination IP	Responder IP	Destination IP	Receiving IP	Receiving IP
Source Port/ICMP Type	Source Port	Source Port	Sending Port	Sending Port
Destination Port/ ICMP Type	Destination Port	Destination Port	Receiving Port	Receiving Port
Web Application	Application Web Application		Web Application	Web Application

Unified Events Field Name	Connection or Security Intelligence Event Field Name	Intrusion Event Field Name	File Event Field Name	Malware Event Field Name
Rule	Access Control Rule	Access Control Rule	(Not applicable)	(Not applicable)
Policy	Access Control Policy	Intrusion Policy	File Policy	File Policy
Device	Device	Device	Device	Device

Click the column picker (III) icon to see all event fields and their correspondences.

For field descriptions, see the following topics:

- Connection and Security-Related Connection Event Fields
- Intrusion Event Fields
- File and Malware Event Fields

See also A Note About Initiator/Responder, Source/Destination, and Sender/Receiver Fields.



Note

Even if you have not enabled logging at the beginning of the connection, the system has and uses this value as the time field in the unified events table. To determine whether a connection event was logged at the beginning and end of the connection, expand the event's row to view details. If both ends of the connection were logged, you see a **Last Packet** field.

History for Unified Events

Feature	Minimum Firewall Management Center	Minimum Firewall Threat Defense	Details
View diagnostic syslog messages in the Unified Events table.	7.6.0	Any	You can now view the device syslogs as a new event type called Troubleshoot Events in the Unified Events page. The unified events table allows you to view the troubleshoot events in real-time and correlate them with other event types within the same event table, providing deeper insights to help you troubleshoot the threat defense device configurations. New/modified screens: Analysis > Unified Events > Troubleshooting .
Quickly apply event type filters to the Unified Events table.	7.6.0	Any	Introduced event type filter buttons, which allows you to quickly apply Event Type filters to the unified events table. Additionally, each button shows the count of events that correspond to the chosen time period. New/modified screens: Analysis > Unified Events .

Feature	Minimum Firewall Management Center	Minimum Firewall Threat Defense	Details
Packet tracer for unified events	7.4.1 7.2.6	Any	You can now open the packet tracer from the Unified Events page, to troubleshoot your security events. Click the >(Ellipsis (1)) (Expand) icon next to an event for which you want to run packet trace, and click the Open in Packet Tracer link. Version restrictions: Not supported with Verion 7.3.x or 7.4.0.
Unified events improvements	7.4	Any	Improvements to the save favorite column sets and searches functions.
Save your favorite searches	7.3	Any	Save column sets and searches as your favorites and later launch them quickly.
Unified events table	7.0	Any	View and work in a single table with multiple event types: Connection (including Security Intelligence), intrusion, file, and malware. New/modified screens: New page under Analysis > Unified Events . Supported platforms: Firewall Management Center