



## Schema: User Activity Tables

This chapter contains information on the schema and supported joins for user activity and identity events. The Firepower System can detect user activity on your network by tracking various types of user logins, including LDAP, POP3, IMAP, SMTP, AIM, and SIP.

For more information, see the sections listed in the following table.

**Table 8-1** Schema for User Identity Tables

See...	For the table that stores information on...	Version
<a href="#">discovered_users, page 8-1</a>	Information about the users detected by the system.	5.0+
<a href="#">user_discovery_event, page 8-2</a>	User discovery events, which communicate the details of user activity on your network.	5.0+
<a href="#">user_ioc_state, page 8-4</a>	Stores compromise state for users.	6.2+

### discovered\_users

The `discovered_users` table contains detailed information about each user detected by the system.

The `discovered_users` table supersedes the deprecated `rua_user` table starting with Version 5.0 of the Firepower System.

For more information, see the following sections:

- [discovered\\_users Fields, page 8-1](#)
- [discovered\\_users Joins, page 8-2](#)
- [discovered\\_users Sample Query, page 8-2](#)

### discovered\_users Fields

The following table describes the fields you can access in the `discovered_users` table.

**Table 8-2** `discovered_users` Fields

Field	Description
<code>dept</code>	The department of the user.
<code>email</code>	The email address for the user.

Table 8-2 *discovered\_users Fields (continued)*

Field	Description
first_name	The first name for the user.
ip_address	This field has been deprecated and returns null for all queries.
ipaddr	A binary representation of the IPv4 or IPv6 address for the host where the user login was detected.
last_name	The last name for the user.
last_seen_sec	The UNIX timestamp of the date and time the system last reported a login for the user.
last_updated_sec	The UNIX timestamp of the date and time the user's information was last updated.
name	The name for the user.
phone	The phone number for the user.
rna_service	Field deprecated in Version 5.0. Returns null for all queries.
user_id	The internal identification number of the user who last logged onto the host.

## discovered\_users Joins

The following table describes the joins you can perform on the `rua_user` table.

Table 8-3 *discovered\_users Joins*

You can left join on this field...	With other tables that have join type of...
user_id	<code>user_discovery_event.user_id</code> <code>user_ipaddr_history.user_id</code> <code>user_ioc_state.user_id</code>

## discovered\_users Sample Query

The following query returns up to 25 discovered user records that were generated since a specified date and time.

```
SELECT user_id, ip_address, email, name, last_seen_sec, last_updated_sec
FROM discovered_users
WHERE last_seen_sec >= UNIX_TIMESTAMP("2011-10-01 00:00:00")
LIMIT 0, 25;
```

## user\_discovery\_event

The `user_discovery_event` table contains a record for each user discovery event.

Note that starting in Version 5.0, the Firepower System records the detection of user activity at the managed device level, no longer by detection engine. The `detection_engine_name` and `detection_engine_uuid` fields in this table have been replaced by the `sensor_name` and `sensor_uuid` fields respectively. Queries on these fields will return information about the managed device that generated the user discovery event.

For more information, see the following sections:

- [user\\_discovery\\_event Fields, page 8-3](#)
- [user\\_discovery\\_event Joins, page 8-4](#)
- [user\\_discovery\\_event Sample Query, page 8-4](#)

## user\_discovery\_event Fields

The following table describes the fields you can access in the `user_discovery_event` table.

**Table 8-4** *user\_discovery\_event Fields*

Field	Description
<code>application_protocol_id</code>	An internal identifier for the detected application protocol.
<code>application_protocol_name</code>	One of: <ul style="list-style-type: none"> <li>• the name of the application used in the connection: LDAP, POP3, and so on</li> <li>• <code>pending</code> if the system cannot identify the application for one of several reasons</li> <li>• blank if there is no application information in the connection</li> </ul>
<code>description</code>	The user name when the discovery event type is either Delete User Identity, or User Identity Dropped. Otherwise, blank.
<code>domain_name</code>	Name of the domain for the on which the user was detected.
<code>domain_uuid</code>	UUID of the domain in which the user was detected. This is presented in binary.
<code>endpoint_profile</code>	Name of the type of device used by the connection endpoint.
<code>event_id</code>	An internal identification number for the discovery event.
<code>event_time_sec</code>	The UNIX timestamp of the date and time of the discovery event.
<code>event_type</code>	The type of discovery event. For example, <code>New User Identity</code> or <code>User Login</code> .
<code>ip_address</code>	Field deprecated in Version 5.2. Returns <code>null</code> for all queries.
<code>ipaddr</code>	A binary representation of the IP address of the host where the user activity was detected.
<code>location_ip</code>	IP address of the interface communicating with ISE. Can be IPv4 or IPv6.
<code>reported_by</code>	The IPv4 address, IPv6 address, or NetBIOS name of the Active Directory server reporting a user login.
<code>security_group</code>	ID number of the network traffic group.
<code>sensor_address</code>	The IP address of the managed device that detected the user discovery event. Format is <code>ipv4_address</code> , <code>ipv6_address</code> .
<code>sensor_name</code>	The text name of the managed device that detected the user discovery event.
<code>sensor_uuid</code>	A unique identifier for the managed device, or 0 if <code>sensor_name</code> is <code>null</code> .
<code>user_dept</code>	The department of the user who last logged onto the host.
<code>user_email</code>	The email address of the user who last logged onto the host.
<code>user_first_name</code>	The first name of the user.
<code>user_id</code>	The internal identification number of the user who last logged onto the host.
<code>user_last_name</code>	The last name of the user.

Table 8-4 user\_discovery\_event Fields (continued)

Field	Description
user_last_seen_sec	The UNIX timestamp of the date and time the system last reported a login for the user.
user_last_updated_sec	The UNIX timestamp of the date and time the user's information was last updated.
user_name	The user name for the user who last logged onto the host.
user_phone	The phone number for the user who last logged onto the host.

## user\_discovery\_event Joins

The following table describes the joins you can perform on the `user_discovery_event` table.

Table 8-5 user\_discovery\_event Joins

You can join this table on...	And...
ipaddr	<code>rna_host_ip_map.ipaddr</code> <code>user_ipaddr_history.ipaddr</code>
user_id	<code>discovered_users.user_id</code> <code>user_ipaddr_history.user_id</code> <code>user_ioc_state.user_id</code>

## user\_discovery\_event Sample Query

The following query returns up to 25 user event records generated by a selected managed device since a particular date and time.

```
SELECT event_time_sec, ipaddr, sensor_name, event_type, user_name, user_last_seen_sec,
user_last_updated_sec
FROM user_discovery_event
WHERE sensor_name = sensor_name
AND user_last_seen_sec >= UNIX_TIMESTAMP("2011-10-01 00:00:00") ORDER BY event_type ASC
LIMIT 0, 25;
```

## user\_ioc\_state

The `user_ioc_state` table stores the IOC state for users in your monitored network.

For more information, see the following sections:

- [user\\_ioc\\_state Fields, page 8-5](#)
- [user\\_ioc\\_state Joins, page 8-7](#)
- [user\\_ioc\\_state Sample Query, page 8-7](#)

## user\_ioc\_state Fields

The following table describes the fields you can access in the `user_ioc_state` table.

**Table 8-6** *user\_ioc\_state Fields*

Field	Description
<code>first_seen</code>	Unix timestamp when the compromise was first detected.
<code>first_seen_sensor_address</code>	The IP address of the managed device that first detected the compromise. Format is <i>ipv4_address, ipv6_address</i> .
<code>first_seen_sensor_name</code>	The managed device that first detected the compromise.
<code>user_id</code>	ID number of the user.
<code>ioc_category</code>	The category for the compromise. Possible values include: <ul style="list-style-type: none"> <li>• CnC Connected</li> <li>• Exploit Kit</li> <li>• High Impact Attack</li> <li>• Low Impact Attack</li> <li>• Malware Detected</li> <li>• Malware Executed</li> <li>• Dropper Infection</li> <li>• Java Compromise</li> <li>• Word Compromise</li> <li>• Adobe Reader Compromise</li> <li>• Excel Compromise</li> <li>• PowerPoint Compromise</li> <li>• QuickTime Compromise</li> </ul>
<code>ioc_description</code>	Description of the compromise.

Table 8-6 user\_ioc\_state Fields (continued)

Field	Description
ioc_event_type	<p>The event type for the compromise. Possible values include:</p> <ul style="list-style-type: none"> <li>• Adobe Reader launched shell</li> <li>• Dropper Infection Detected by AMP for Endpoints</li> <li>• Excel Compromise Detected by AMP for Endpoints</li> <li>• Excel launched shell</li> <li>• Impact 1 Intrusion Event – attempted-admin</li> <li>• Impact 1 Intrusion Event – attempted-user</li> <li>• Impact 1 Intrusion Event – successful-admin</li> <li>• Impact 1 Intrusion Event – successful-user</li> <li>• Impact 1 Intrusion Event – web-application-attack</li> <li>• Impact 2 Intrusion Event – attempted-admin</li> <li>• Impact 2 Intrusion Event – attempted-user</li> <li>• Impact 2 Intrusion Event – successful-admin</li> <li>• Impact 2 Intrusion Event – successful-user</li> <li>• Impact 2 Intrusion Event – web-application-attack</li> <li>• Intrusion Event – exploit-kit</li> <li>• Intrusion Event – malware-backdoor</li> <li>• Intrusion Event – malware-CnC</li> <li>• Java Compromise Detected by AMP for Endpoints</li> <li>• Java launched shell</li> <li>• PDF Compromise Detected by AMP for Endpoints</li> <li>• PowerPoint Compromise Detected by AMP for Endpoints</li> <li>• PowerPoint launched shell</li> <li>• QuickTime Compromise Detected by AMP for Endpoints</li> <li>• QuickTime launched shell</li> <li>• Security Intelligence Event – CnC</li> <li>• Suspected Botnet Detected by AMP for Endpoints</li> <li>• Threat Detected by AMP for Endpoints – Subtype is 'executed'</li> <li>• Threat Detected by AMP for Endpoints – Subtype is not 'executed'</li> <li>• Threat Detected in File Transfer – Action is not 'block'</li> <li>• Word Compromise Detected by AMP for Endpoints</li> <li>• Word launched shell</li> </ul>
ioc_id	Unique ID number for the compromise.
is_disabled	Whether this compromise has been disabled.
last_seen	Unix timestamp when this compromise was last detected.

**Table 8-6** *user\_ioc\_state Fields (continued)*

Field	Description
last_seen_sensor_address	The IP address of the managed device that last detected the compromise. Format is <i>ipv4_address, ipv6_address</i> .
last_seen_sensor_name	The managed device that last detected the compromise.

## user\_ioc\_state Joins

The following table describes the joins you can perform on the `user_ioc_state` table.

**Table 8-7** *user\_ioc\_state Joins*

You can join this table on...	And...
user_id	<code>discovered_users.user_id</code> <code>user_ipaddr_history.user_id</code> <code>user_discovery_event.user_id</code>

## user\_ioc\_state Sample Query

The following query returns up to 25 hosts with their ioc within a specified timespan.

```
SELECT user_id, ioc_id
FROM user_ioc_state
WHERE first_seen
BETWEEN UNIX_TIMESTAMP("2011-10-01 00:00:00")
AND UNIX_TIMESTAMP("2011-10-07 23:59:59")
ORDER BY ioc_id DESC
LIMIT 0, 25;
```

