# ThreatQuotient

## Recorded Future CDF

**Version 2.10.0**

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# Warning and Disclaimer

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# Support

This integration is designated as **ThreatQ Supported**.

**Support Email**: support@threatq.com
**Support Web**: https://support.threatq.com
**Support Phone**: 703.574.9893

Integrations/apps/add-ons designated as **ThreatQ Supported** are fully supported by ThreatQuotient's Customer Support team.

ThreatQuotient strives to ensure all ThreatQ Supported integrations will work with the current version of ThreatQuotient software at the time of initial publishing. This applies for both Hosted instance and Non-Hosted instance customers.

> ThreatQuotient does not provide support or maintenance for integrations, apps, or add-ons published by any party other than ThreatQuotient, including third-party developers.

# Integration Details

ThreatQuotient provides the following details for this integration:

| | |
|---|---|
| **Current Integration Version** | 2.10.0 |
| **Compatible with ThreatQ Versions** | >= 5.6.0 |
| **Support Tier** | ThreatQ Supported |

# Introduction

The Recorded Future CDF ingests threat intelligence data from the following feeds published by the *Recorded Future* vendor:

- **Recorded Future Domain Risk List** - retrieves information in the form of a CSV list where the first token is risk data and the last token containing the supporting context.
- **Recorded Future IP Risk List** - retrieves IP Addresses from the provider.
- **Recorded Future URL Risk List** - retrieves URLS from the provider.
- **Recorded Future Vulnerability Risk List** - retrieves CVEs from the provider.
- **Recorded Future Hash Risk List** - retrieves Hashes from the provider.
- **Recorded Future Analyst Note** - retrieves Reports, Indicators, and Attack Patterns from the provider.
- **Recorded Future Alerts** - retrieves Alerts from the provider.
- **Recorded Future Alerts Details (Supplemental)** - retrieves related data for each of the ingested events retrieved from the Alert endpoint.
- **Recorded Future Playbook Alerts** - retrieves a list of alerts filtered by the values provided in the configuration section.
- **Recorded Future - Get Playbook Alerts (Supplemental)** - retrieves related data for each of the ingested events retrieved from the Alert endpoint.
- **Recorded Future Fusion Files** - ingests threat intelligence information from the user selected Fusion feeds.

The integration ingests the following system objects:

- Adversaries
- Assets
- Attack Patterns
- Events
- Identities
- Indicators
- Malware
- Reports
- Vulnerabilities

# Prerequisites

The following is required to install and run the integration:

- MITRE ATT&CK attack patterns must have already been ingested by a previous run of the MITRE ATT&CK feeds in order for MITRE ATT&CK attack patterns ingested by the Analyst Note feed to be created. MITRE ATT&CK attack patterns are ingested from the following feeds:
  - MITRE Enterprise ATT&CK
  - MITRE Mobile ATT&CK
  - MITRE PRE-ATT&CK

# Installation

Perform the following steps to install the integration:

> The same steps can be used to upgrade the integration to a new version.

1. Log into https://marketplace.threatq.com/.
2. Locate and download the integration file.
3. Navigate to the integrations management page on your ThreatQ instance.
4. Click on the **Add New Integration** button.
5. Upload the integration yaml file using one of the following methods:
   - Drag and drop the yaml file into the dialog box
   - Select **Click to Browse** to locate the yaml file on your local machine
6. Select the individual feeds to install, when prompted, and click **Install**. The feed will be added to the integrations page.

   > ThreatQ will inform you if the feed already exists on the platform and will require user confirmation before proceeding. ThreatQ will also inform you if the new version of the feed contains changes to the user configuration. The new user configurations will overwrite the existing ones for the feed and will require user confirmation before proceeding.

You will still need to configure and then enable the feed.

# Configuration

ThreatQuotient does not issue API keys for third-party vendors. Contact the specific vendor to obtain API keys and other integration-related credentials.

To configure the integration:

1. Navigate to your integrations management page in ThreatQ.
2. Select the **Commercial** option from the *Category* dropdown (optional).

   If you are installing the integration for the first time, it will be located under the **Disabled** tab.

3. Click on the integration entry to open its details page.
4. Enter the following parameters under the **Configuration** tab:

   All Recorded Future feeds require the Recorded Future API Key. The tables below provide any additional parameters required for specific feeds included with this integration.

## Recorded Future Domain Risk List Parameters

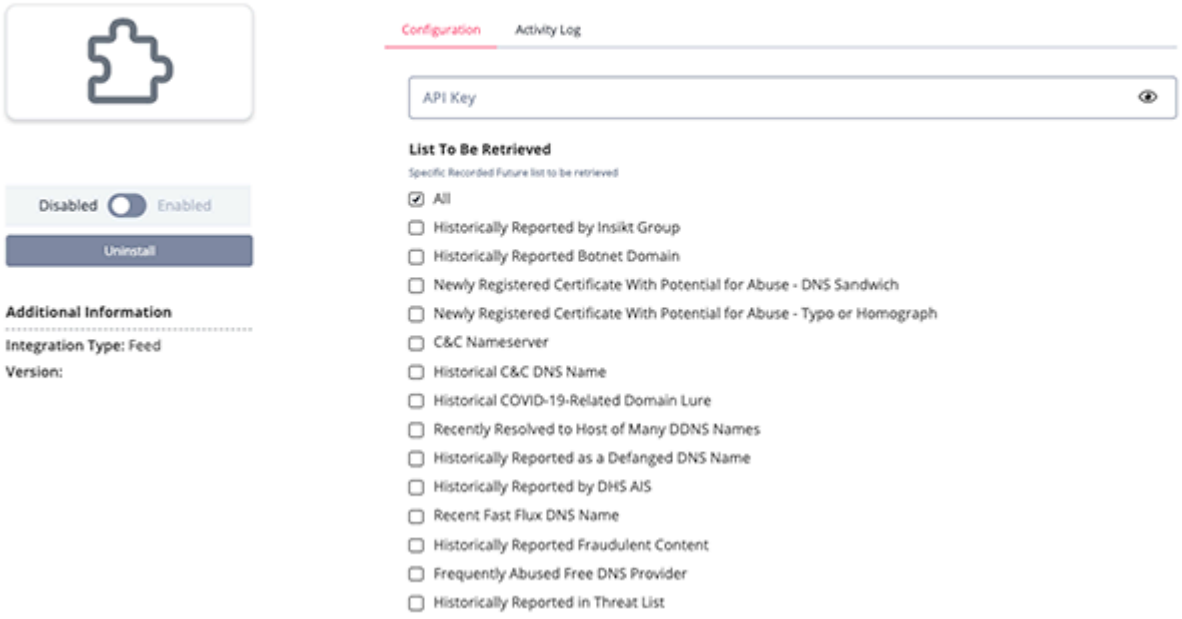
| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **List to be Retrieved** | Use the checkboxes provided to select specific Recorded Future lists to be retrieved.<br><br>It is highly recommended to use the **All** option as it will ingest the latest information from Recorded Future. If you are using the **All** option, confirm that you have unselected the other options. Running the feed with the **All** option selected along with other individual list options, will cause the feed to fail. This is a known issue and will be addressed in a future release of the integration.<br><br>You should schedule feed runs hourly or longer when using the **All** option. |

| PARAMETER | DESCRIPTION |
| --- | --- |
| | Options include:<br>○ All (default)<br>○ Historically Reported by Insikt Group<br>○ Historically Reported Botnet Domain<br>○ Newly Registered Certificate With Potential for Abuse - DNS Sandwich<br>○ Newly Registered Certificate With Potential for Abuse - Typo or Homograph<br>○ C&C Nameserver<br>○ Historical C&C DNS Name<br>○ Historical COVID-19-Related Domain Lure<br>○ Recently Resolved to Host of Many DDNS Names<br>○ Historically Reported as a Defanged DNS Name<br>○ Historically Reported by DHS AIS<br>○ Recent Fast Flux DNS Name<br>○ Historically Reported Fraudulent Content<br>○ Frequently Abused Free DNS Provider<br>○ Historically Reported in Threat List<br>○ Historically Linked to Cyber Attack<br>○ Historically Detected Malware Operation<br>○ Historically Suspected Malware Operation<br>○ Historically Detected Cryptocurrency Mining Techniques<br>○ Blacklisted DNS Name<br>○ No Risk Observed<br>○ Observed in the Wild by Recorded Future Telemetry<br>○ Historical Phishing Lure<br>○ Historically Detected Phishing Techniques<br>○ Historically Suspected Phishing Techniques<br>○ Active Phishing URL<br>○ Recorded Future Predictive Risk Model<br>○ Recently Reported Fraudulent Content<br>○ Recently Linked to Cyber Attack<br>○ Recently Detected Malware Operation<br>○ Recently Suspected Malware Operation<br>○ Recent Cryptocurrency Mining Pool<br>○ Recently Detected Cryptocurrency Mining Techniques<br>○ Recent Phishing Lure: Malicious<br>○ Recent Phishing Lure: Suspicious<br>○ Recently Detected Phishing Techniques<br>○ Recently Suspected Phishing Techniques<br>○ Recent Web Filter Avoidance Proxy Domain<br>○ Recent Punycode Domain<br>○ Recently Referenced by Insikt Group<br>○ Recently Reported Spam or Unwanted Content<br>○ Recent Suspected C&C DNS Name<br>○ Recent Threat Researcher<br>○ Recent Typosquat Similarity - DNS Sandwich<br>○ Recent Typosquat Similarity - Typo or Homograph<br>○ Recent Ukraine-Related Domain Lure: Malicious<br>○ Recent Ukraine-Related Domain Lure: Suspicious<br>○ Recently Active Weaponized Domain |

| PARAMETER | DESCRIPTION |
| --- | --- |
| | ○ Historically Detected Web Filter Avoidance Proxy Domain<br>○ Historical Punycode Domain<br>○ Recently Reported by Insikt Group<br>○ Recently Reported Botnet Domain<br>○ Recent C&C DNS Name<br>○ Recent COVID-19-Related Domain Lure: Malicious<br>○ Recent COVID-19-Related Domain Lure: Suspicious<br>○ Recently Reported as a Defanged DNS Name<br>○ Recently Reported by DHS AIS<br>○ Recently Defaced Site<br>○ Historically Referenced by Insikt Group<br>○ Recently Resolved to Malicious IP<br>○ Recently Resolved to Suspicious IP<br>○ Recently Resolved to Unusual IP<br>○ Recently Resolved to Very Malicious IP<br>○ Trending in Recorded Future Analyst Community<br>○ Historically Reported Spam or Unwanted Content<br>○ Historical Suspected CANDC DNS Name<br>○ Historical Threat Researcher<br>○ Historical Typosquat Similarity - DNS Sandwich<br>○ Historical Typosquat Similarity - Typo or Homograph<br>○ Historical Ukraine-Related Domain Lure<br>○ Historically Active Weaponized Domain |
| **Minimum Risk Score Threshold** | The numeric value representing the minimum risk score required to ingest an IOC. The default setting is 50. |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**. |

| PARAMETER | DESCRIPTION |
| --- | --- |
| | **Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical`<br>This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |
| **Filter Out Entries with No New Evidence** | Enabling this option will filter out entries that have no new evidence. A risk list is a rolling list of indicators. As a result, there are entries within the list that may be from days, months, or even years ago. Once the feed runs historically and ingests all the entries, subsequent runs do not need to re-ingest the same entries again if there is no new evidence. Disabling it will re-ingest all entries, with solely the old evidence being filtered out. This parameter is enabled by default. |

**Recorded Future Domain Risk List**

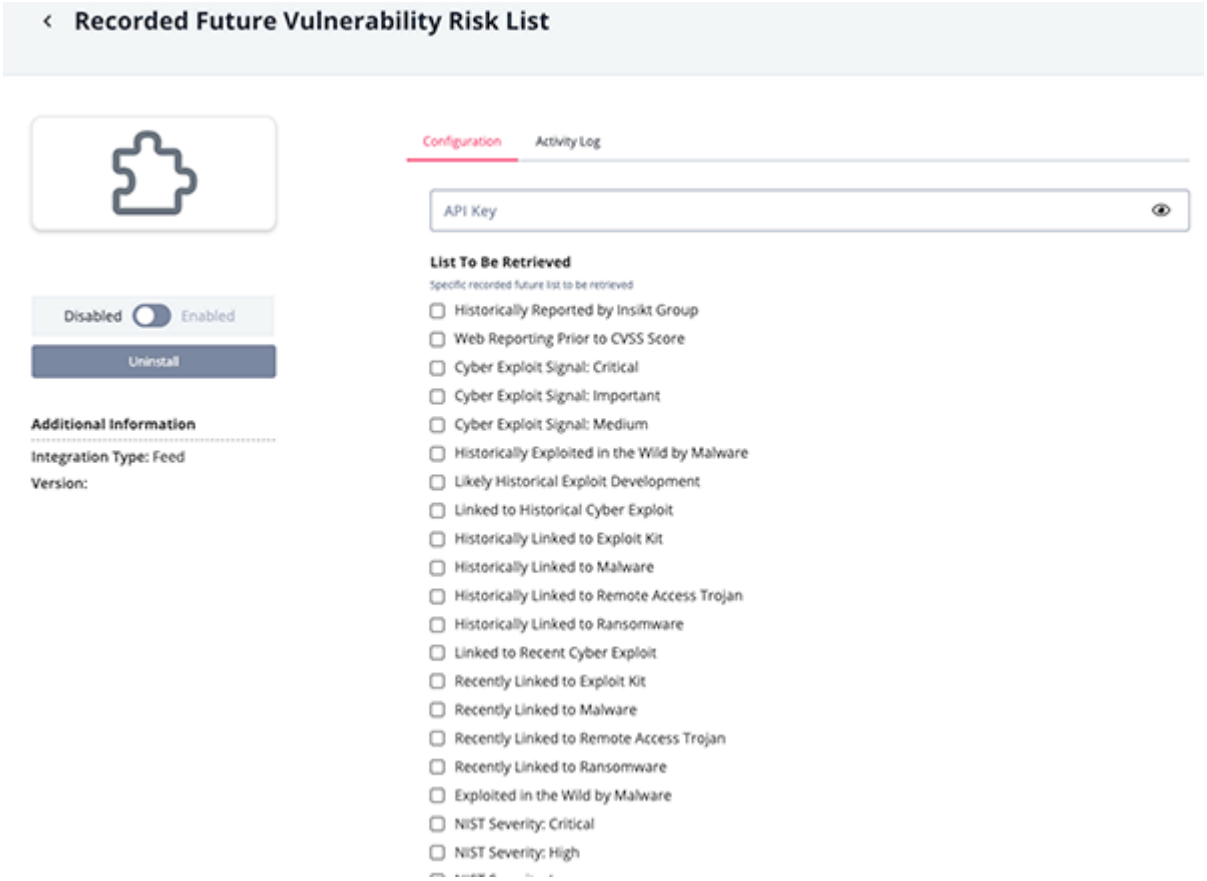


# Recorded Future Vulnerability Risk List Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **List to be Retrieved** | Use the checkboxes provided to select specific Recorded Future lists to be retrieved. Options include:<br>○ Historically Reported by Insikt Group<br>○ Web Reporting Prior to CVSS Score<br>○ Cyber Exploit Signal: Critical<br>○ Cyber Exploit Signal: Important<br>○ Cyber Exploit Signal: Medium<br>○ Historically Exploited in the Wild by Malware<br>○ Likely Historical Exploit Development<br>○ Linked to Historical Cyber Exploit<br>○ Historically Linked to Exploit Kit<br>○ Historically Linked to Malware<br>○ Historically Linked to Remote Access Trojan<br>○ Historically Linked to Ransomware<br>○ Linked to Recent Cyber Exploit<br>○ Recently Linked to Exploit Kit<br>○ Recently Linked to Malware<br>○ Recently Linked to Remote Access Trojan<br>○ NIST Severity: Low<br>○ NIST Severity: Medium<br>○ Web Reporting Prior to NVD Disclosure<br>○ Historical Unverified Proof of Concept Available<br>○ Historical Verified Proof of Concept Available<br>○ Historical Verified Proof of Concept Available Using Remote Execution<br>○ Recently Reported by Insikt Group<br>○ Exploit Likely in Active Development<br>○ Exploited in the Wild by Recently Active Malware<br>○ Recent Unverified Proof of Concept Available<br>○ Recent Verified Proof of Concept Available<br>○ Recent Verified Proof of Concept Available Using Remote Execution<br>○ Recently Referenced by Insikt Group<br>○ Recently Linked to Penetration Testing Tools<br>○ Historically Referenced by Insikt Group<br>○ Historically Linked to Penetration Testing Tools<br>○ Vendor Severity: Critical<br>○ Vendor Severity: High<br>○ Vendor Severity: Low<br>○ Vendor Severity: Medium |

| PARAMETER | DESCRIPTION |
| --- | --- |
| | ◦ Recently Linked to Ransomware<br>◦ Exploited in the Wild by Malware<br>◦ NIST Severity: Critical<br>◦ NIST Severity: High |
| **Save CVE Data As** | Select whether to ingest CVEs as: Vulnerabilities, Indicators, or Both.<br>  The default setting is to ingest Indicators objects. |
| **Minimum Risk Score Threshold** | The numeric value representing the minimum risk score required to ingest an IOC. The default setting is 50. |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**.<br><br>**Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical`<br><br>  This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |
| **Filter Out Entries with No New Evidence** | Enabling this option will filter out entries that have no new evidence. A risk list is a rolling list of indicators. As a result, there are entries within the list that may be from days, months, or even years ago. Once the feed runs historically and ingests all the entries, subsequent runs do not need to re-ingest the same entries again if there is no new evidence. Disabling it will re-ingest all entries, with |

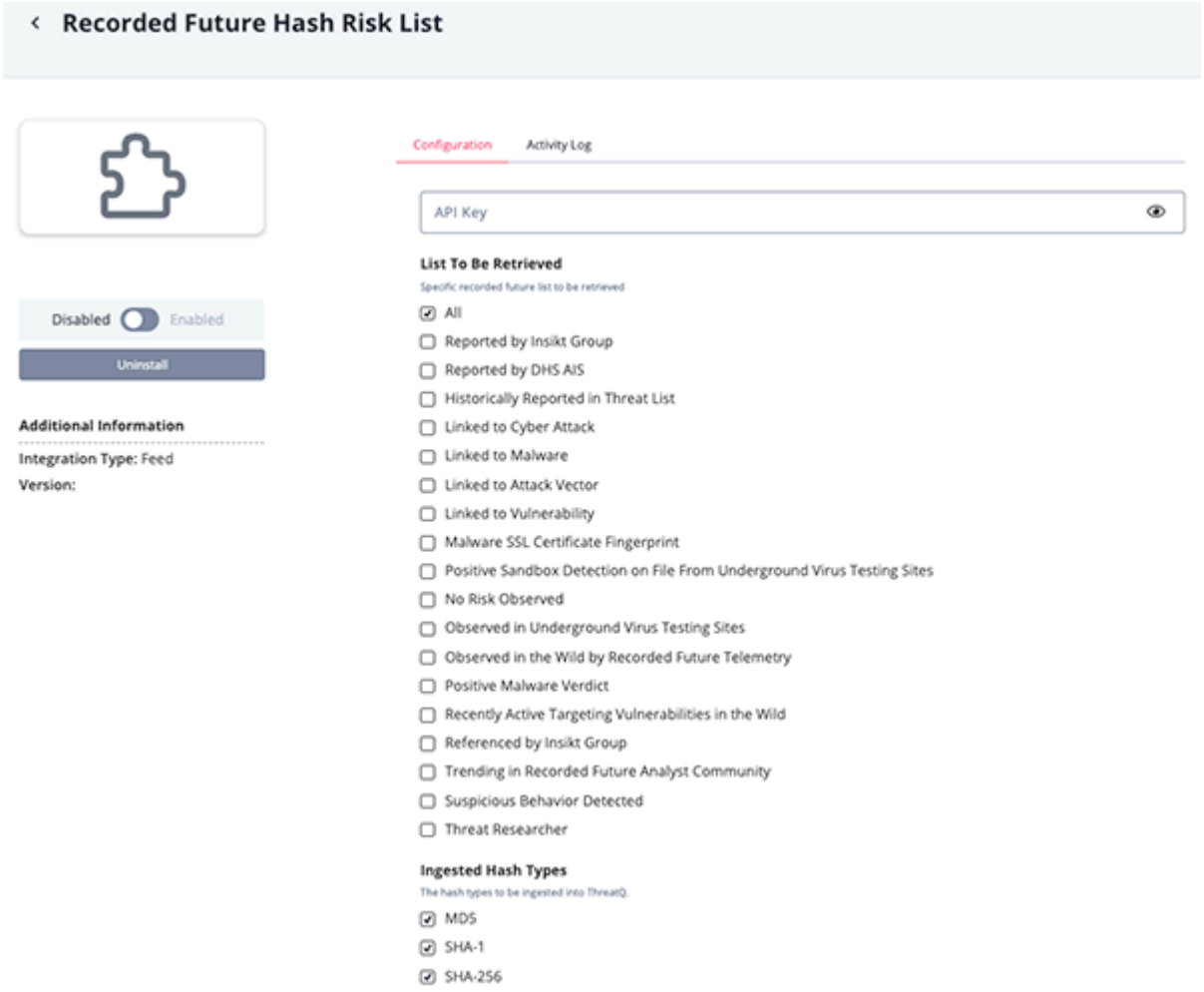
| PARAMETER | DESCRIPTION |
| --- | --- |
| | solely the old evidence being filtered out. This parameter is enabled by default. |



# Recorded Future Hash Risk List Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **List to be Retrieved** | Use the checkboxes provided to select specific Recorded Future lists to be retrieved.<br><br>⚠ It is highly recommended to use the **All** option as it will ingest the latest information from Recorded Future. If you are using the **All** option, confirm that you have unselected the other options. Running the feed with the **All** option selected along with other individual list options, will cause the feed to fail. This is a known issue and will be addressed in a future release of the integration.<br><br>You should schedule feed runs hourly or longer when using the **All** option.<br><br>Options include:<br><br>○ All (default)<br>○ Reported by Insikt Group<br>○ Reported by DHS AIS<br>○ Historically Reported in Threat List<br>○ Linked to Cyber Attack<br>○ Linked to Malware<br>○ Linked to Attack Vector<br>○ Linked to Vulnerability<br>○ Malware SSL Certificate Fingerprint<br>○ Positive Sandbox Detection on File From Underground Virus Testing Sites<br>○ No Risk Observed<br>○ Observed in Underground Virus Testing Sites<br>○ Observed in the Wild by Recorded Future Telemetry<br>○ Positive Malware Verdict<br>○ Recently Active Targeting Vulnerabilities in the Wild<br>○ Referenced by Insikt Group<br>○ Trending in Recorded Future Analyst Community<br>○ Suspicious Behavior Detected<br>○ Threat Researcher |
| **Ingested Hash Types** | Select the type of hashes to be ingested into ThreatQ. Options include<br>○ MD5<br>○ SHA-1<br>○ SHA-256 |

| PARAMETER | DESCRIPTION |
|---|---|
| **Minimum Risk Score Threshold** | The numeric value representing the minimum risk score required to ingest an IOC. The default setting is 50. |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**.<br><br>**Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical`<br><br>This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |
| **Filter Out Entries with No New Evidence** | Enabling this option will filter out entries that have no new evidence. A risk list is a rolling list of indicators. As a result, there are entries within the list that may be from days, months, or even years ago. Once the feed runs historically and ingests all the entries, subsequent runs do not need to re-ingest the same entries again if there is no new evidence. Disabling it will re-ingest all entries, with solely the old evidence being filtered out. This parameter is enabled by default. |

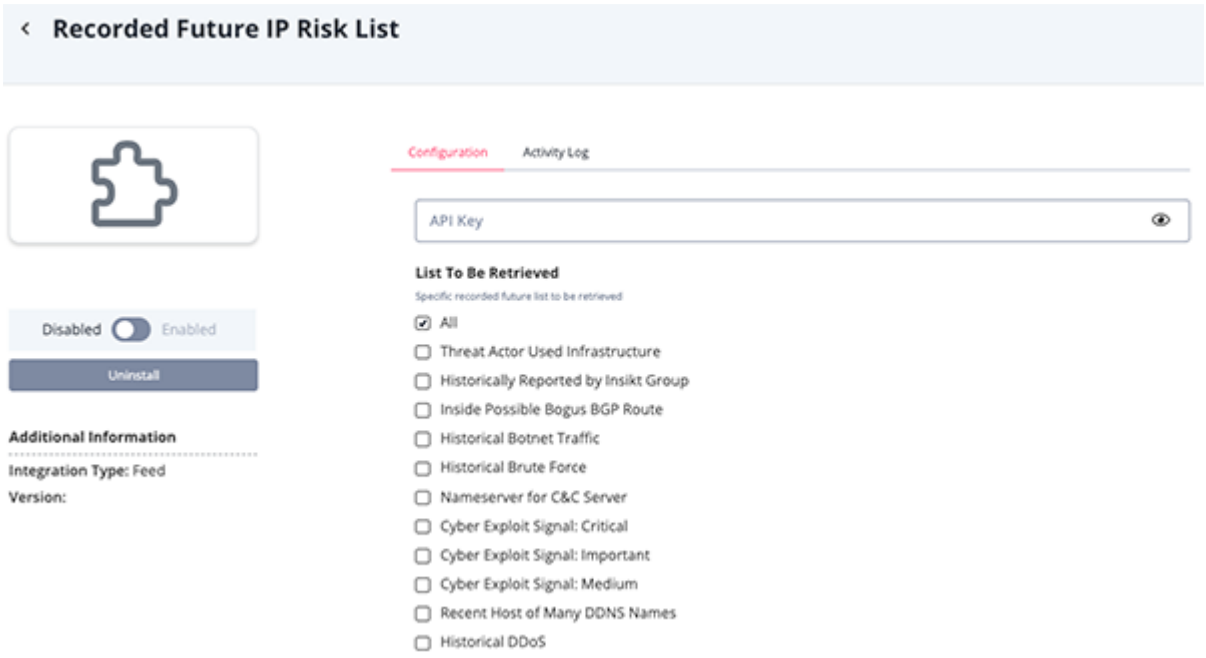

Recorded Future Hash Risk List
Disabled
Enabled
Uninstall
Additional Information
Integration Type: Feed
Version:
Configuration
Activity Log
API Key
List To Be Retrieved
Specific recorded future list to be retrieved
All
Reported by Insikt Group
Reported by DHS AIS
Historically Reported in Threat List
Linked to Cyber Attack
Linked to Malware
Linked to Attack Vector
Linked to Vulnerability
Malware SSL Certificate Fingerprint
Positive Sandbox Detection on File From Underground Virus Testing Sites
No Risk Observed
Observed in Underground Virus Testing Sites
Observed in the Wild by Recorded Future Telemetry
Positive Malware Verdict
Recently Active Targeting Vulnerabilities in the Wild
Referenced by Insikt Group
Trending in Recorded Future Analyst Community
Suspicious Behavior Detected
Threat Researcher
Ingested Hash Types
The hash types to be ingested into ThreatQ.
MD5
SHA-1
SHA-256

# Recorded Future IP Risk List Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **List to be Retrieved** | Use the checkboxes provided to select specific Recorded Future lists to be retrieved.<br><br>⚠ It is highly recommended to use the **All** option as it will ingest the latest information from Recorded Future. If you are using the **All** option, confirm that you have unselected the other options. Running the feed with the **All** option selected along with other individual list options, will cause the feed to fail. This is a known issue and will be addressed in a future release of the integration.<br><br>You should schedule feed runs hourly or longer when using the **All** option.<br><br>Options include:<br><br>○ All (default)<br>○ Threat Actor Used Infrastructure<br>○ Historically Reported by Insikt Group<br>○ Inside Possible Bogus BGP Route<br>○ Historical Botnet Traffic<br>○ Historical Brute Force<br>○ Nameserver for C&C Server<br>○ Cyber Exploit Signal: Critical<br>○ Cyber Exploit Signal: Important<br>○ Cyber Exploit Signal: Medium<br>○ Recent Host of Many DDNS Names<br>○ Historical DDoS<br>○ Historically Reported as a Defanged IP<br>○ Historically Reported by DHS AIS<br>○ Historical DNS Abuse<br>○ Recent DNS Abuse<br>○ Recent Honeypot Sighting<br>○ Recently Linked to Intrusion Method<br>○ Recently Linked to APT<br>○ Recently Linked to Cyber Attack<br>○ Recent Malicious Infrastructure Admin Server<br>○ Recent Malware Delivery<br>○ Recent Multicategory Blocklist<br>○ Recent Open Proxies<br>○ Recent Phishing Host<br>○ Recent Positive Malware Verdict<br>○ Recently Referenced by Insikt Group<br>○ Recently Reported C&C Server<br>○ Recently Communicating With Reported C&C Server<br>○ Recent Spam Source |

| PARAMETER | DESCRIPTION |
|---|---|
| | ○ Resolution of Fast Flux DNS Name<br>○ Historically Reported in Threat List<br>○ Historical Honeypot Sighting<br>○ Honeypot Host<br>○ Recently Communicating Validated C&C Server<br>○ Historically Linked to Intrusion Method<br>○ Historically Linked to APT<br>○ Historically Linked to Cyber Attack<br>○ Historical Malicious Infrastructure Admin Server<br>○ Suspected Malicious Packet Source<br>○ Historical Malware Delivery<br>○ Historical Multicategory Blocklist<br>○ Observed in the Wild by Recorded Future Telemetry<br>○ Historical Open Proxies<br>○ Historical Phishing Host<br>○ Historical Positive Malware Verdict<br>○ Recorded Future Predictive Risk Model<br>○ Actively Communicating Validated C&C Server<br>○ Recently Reported by Insikt Group<br>○ Recent Botnet Traffic<br>○ Recent Brute Force<br>○ Recent DDoS<br>○ Recently Reported as a Defanged IP<br>○ Recently Reported by DHS AIS<br>○ Recent SSH/Dictionary Attacker<br>○ Recent Bad SSL Association<br>○ Recent Suspected C&C Server<br>○ Recent Threat Researcher<br>○ Recent Tor Node<br>○ Recent Unusual IP<br>○ Validated C&C Server<br>○ Recently Communicating With Validated C&C Server<br>○ Recently Defaced Site<br>○ Historically Referenced by Insikt Group<br>○ Historically Reported C&C Server<br>○ Trending in Recorded Future Analyst Community<br>○ Historical Spam Source<br>○ Historical SSH/Dictionary Attacker<br>○ Historical Bad SSL Association<br>○ Historical Suspected C&C Server<br>○ Suspected Phishing Host<br>○ Historical Threat Researcher<br>○ Tor Node<br>○ Unusual IP<br>○ Previously Validated C&C Server<br>○ Vulnerable Host<br>○ Observed High-Impact Vulnerability |
| **Save CVE Data As** | Select whether to ingest CVEs as: Vulnerabilities, Indicators, or Both.<br>The default setting is to ingest Indicators objects. |

| PARAMETER | DESCRIPTION |
|---|---|
| **Minimum Risk Score Threshold** | The numeric value representing the minimum risk score required to ingest an IOC. The default setting is 50. |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**.<br><br>**Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical`<br><br>This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |
| **Filter Out Entries with No New Evidence** | Enabling this option will filter out entries that have no new evidence. A risk list is a rolling list of indicators. As a result, there are entries within the list that may be from days, months, or even years ago. Once the feed runs historically and ingests all the entries, subsequent runs do not need to re-ingest the same entries again if there is no new evidence. Disabling it will re-ingest all entries, with solely the old evidence being filtered out. This parameter is enabled by default. |

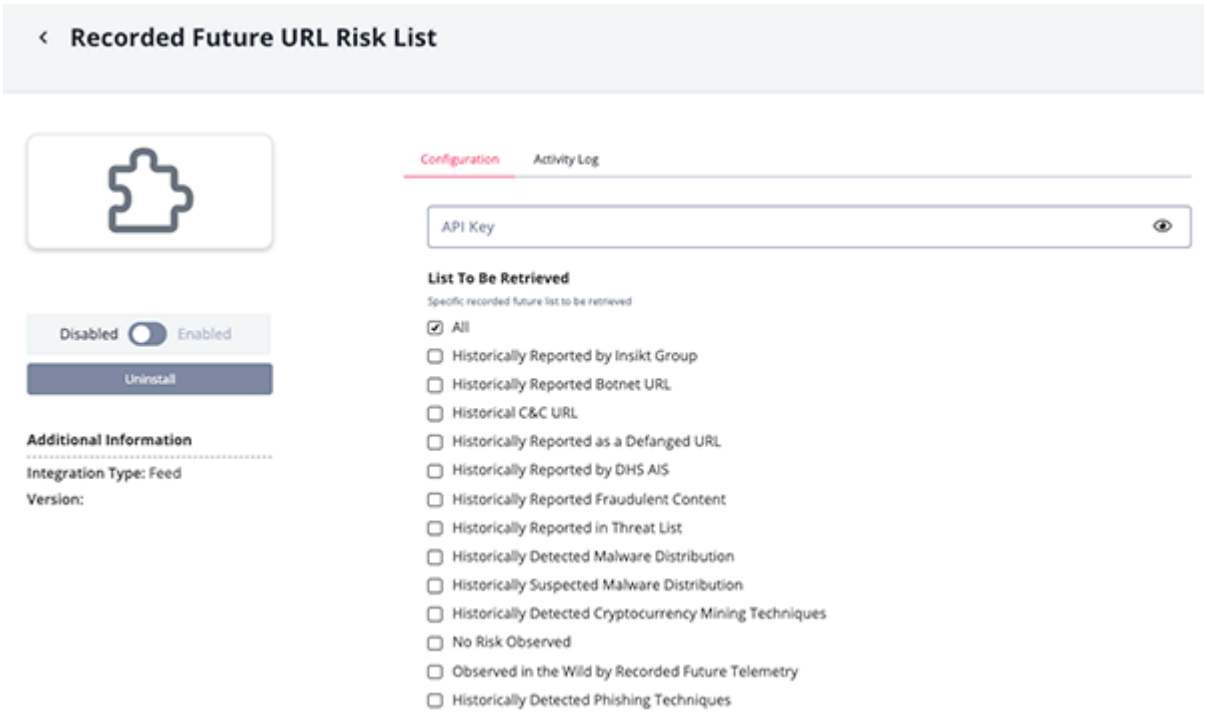

Recorded Future IP Risk List
Disabled
Enabled
Uninstall
Additional Information
Integration Type: Feed
Version:
Configuration
Activity Log
API Key
List To Be Retrieved
Specific recorded future list to be retrieved
All
Threat Actor Used Infrastructure
Historically Reported by Insikt Group
Inside Possible Bogus BGP Route
Historical Botnet Traffic
Historical Brute Force
Nameserver for C&C Server
Cyber Exploit Signal: Critical
Cyber Exploit Signal: Important
Cyber Exploit Signal: Medium
Recent Host of Many DDNS Names
Historical DDoS

# Recorded Future URL Risk List Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **List to be Retrieved** | Use the checkboxes provided to select specific Recorded Future lists to be retrieved.<br><br>⚠ It is highly recommended to use the **All** option as it will ingest the latest information from Recorded Future. If you are using the **All** option, confirm that you have unselected the other options. Running the feed with the **All** option selected along with other individual list options, will cause the feed to fail. This is a known issue and will be addressed in a future release of the integration.<br><br>You should schedule feed runs hourly or longer when using the **All** option.<br><br>Options include:<br><br>○ All (default)<br>○ Historically Reported by Insikt Group<br>○ Historically Reported Botnet URL<br>○ Historical C&C URL<br>○ Historically Reported as a Defanged URL<br>○ Historically Reported by DHS AIS<br>○ Historically Reported Fraudulent Content<br>○ Historically Reported in Threat List<br>○ Historically Detected Malware Distribution<br>○ Historically Suspected Malware Distribution<br>○ Historically Detected Cryptocurrency Mining Techniques<br>○ No Risk Observed<br>○ Recently Reported as a Defanged URL<br>○ Recently Reported by DHS AIS<br>○ Recently Reported Fraudulent Content<br>○ Recently Detected Malware Distribution<br>○ Recently Suspected Malware Distribution<br>○ Recently Detected Cryptocurrency Mining Techniques<br>○ Recently Detected Phishing Techniques<br>○ Recently Suspected Phishing Techniques<br>○ Recent Web Filter Avoidance Proxy URL |

| PARAMETER | DESCRIPTION |
|---|---|
| | ○ Observed in the Wild by Recorded Future Telemetry<br>○ Historically Detected Phishing Techniques<br>○ Historically Suspected Phishing Techniques<br>○ Historically Detected Web Filter Avoidance Proxy URL<br>○ Recently Reported by Insikt Group<br>○ Recently Reported Botnet URL<br>○ Recent C&C URL<br>○ Recently Referenced by Insikt Group<br>○ Recent Reported C&C URL<br>○ Recently Reported Spam or Unwanted Content<br>○ Recent Suspected C&C URL<br>○ Recently Active URL on Weaponized Domain<br>○ Historically Referenced by Insikt Group<br>○ Historical Reported C&C URL<br>○ Historically Reported Spam or Unwanted Content<br>○ Historical Suspected C&C URL |
| **Save CVE Data As** | Select whether to ingest CVEs as: Vulnerabilities, Indicators, or Both.<br>The default setting is to ingest Indicators objects. |
| **Minimum Risk Score Threshold** | The numeric value representing the minimum risk score required to ingest an IOC. The default setting is 50. |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**.<br>**Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical` |

| PARAMETER | DESCRIPTION |
| --- | --- |
| | This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |
| **Filter Out Entries with No New Evidence** | Enabling this option will filter out entries that have no new evidence. A risk list is a rolling list of indicators. As a result, there are entries within the list that may be from days, months, or even years ago. Once the feed runs historically and ingests all the entries, subsequent runs do not need to re-ingest the same entries again if there is no new evidence. Disabling it will re-ingest all entries, with solely the old evidence being filtered out. This parameter is enabled by default. |

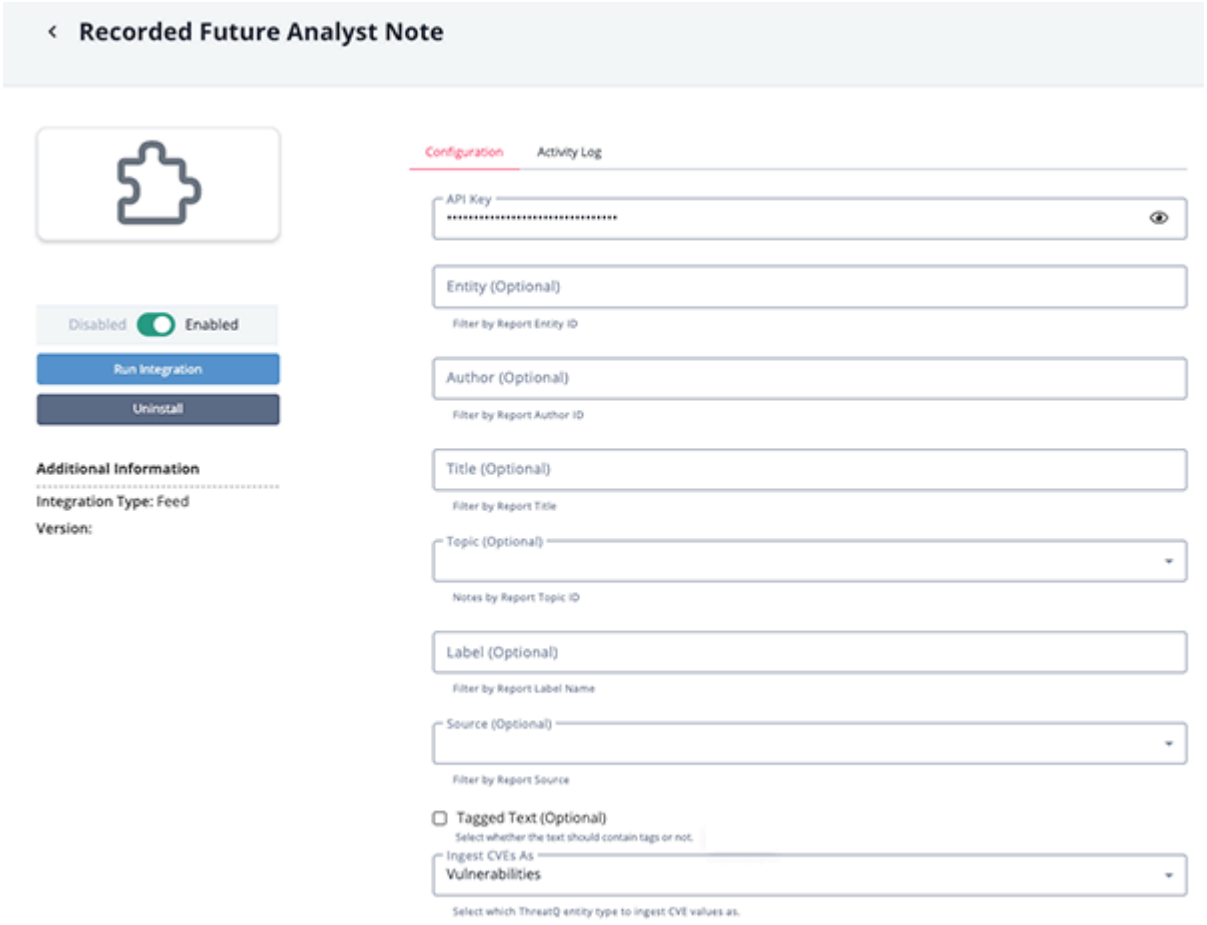


# Recorded Future Analyst Note Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **Entity** | A string to search for notes by entity ID. |
| **Author** | A string to search for notes by author ID. |
| **Title** | A string to search for notes by title. |
| **Topic** | A string to search for notes by topic ID. The options for this user field are:<br>• Actor Profile<br>• Analyst On-Demand Report<br>• Cyber Threat Analysis<br>• Flash Report<br>• Geopolitical Intelligence Summary<br>• Geopolitical Flash Event<br>• Geopolitical Threat Forecast<br>• Geopolitical Validated Event<br>• Hunting Package<br>• Indicator<br>• Insikt Research Lead<br>• Informational<br>• Malware/Tool Profile<br>• Regular Vendor Vulnerability Disclosures<br>• Sigma Rule<br>• SNORT Rule<br>• Source Profile<br>• The Record by Recorded Future<br>• Threat Lead<br>• TTP Instance<br>• Validated Intelligence Event<br>• Weekly Threat Landscape<br>• YARA Rule |
| **Label** | A string that helps searching for notes by label, by name. |
| **Source** | A string that helps sorting by the source of note. The options for this user field will be:<br>○ Insikt Group<br>○ ThreatQuotient - Partner Notes |

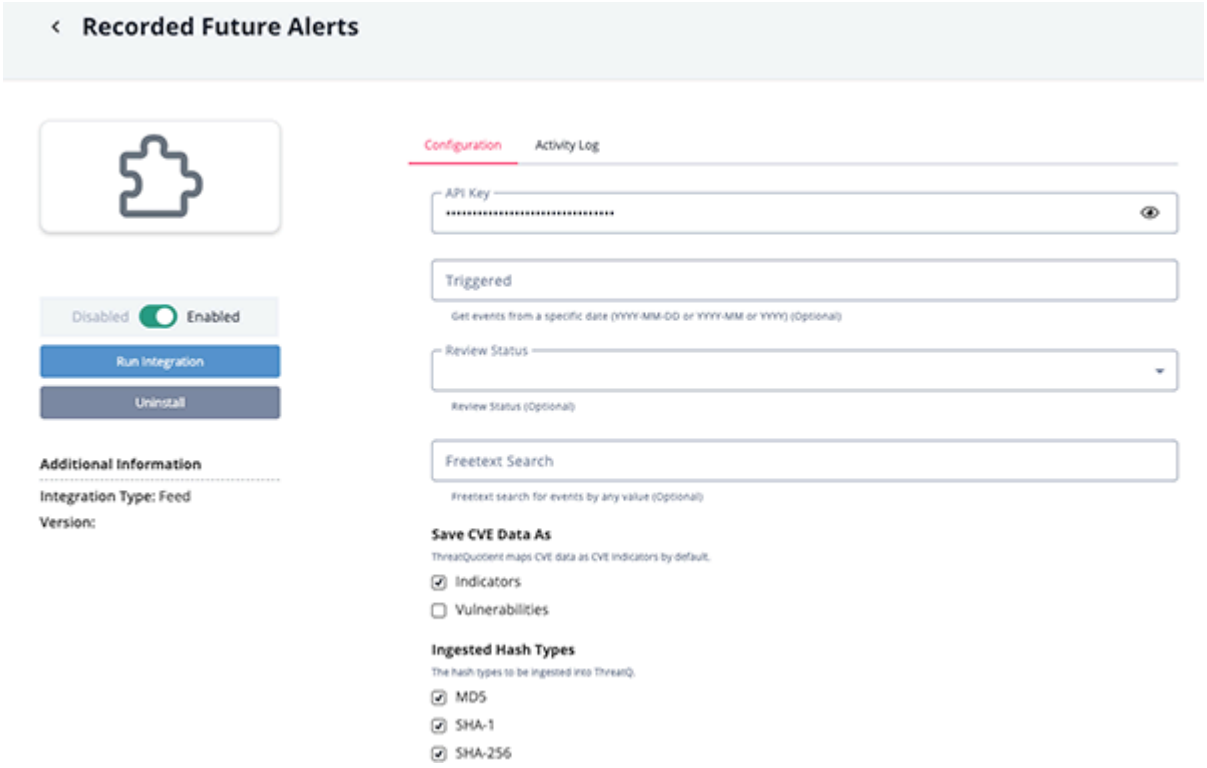
| PARAMETER | DESCRIPTION |
|---|---|
| **Tagged Text** | Select whether the text should contain tags or not. Possible values are:<br>○ True<br>○ False |
| **Ingest CVEs As** | Select which ThreatQ entity type to ingest CVE values as. Options include **Vulnerabilities** (default) and **Indicators**. |
| **Ingest Selected Primary Entities as Indicators** | Select which entity types to ingest as indicators of compromise into ThreatQ. Options include:<br>○ URLs (default)<br>○ Internet Domain Names (default)<br>○ IP Addresses (default)<br>○ Hashes (default)<br>○ Email Addresses (default)<br>○ Usernames<br>○ Filenames<br>⚠ This will only ingest the selected types from the "primary" entities (note_entities), and not the "supporting" entities (context_entities). This is so we can reduce the amount of false positives being ingested into the platform. Even if you do not select any of these, they will still be included in the description of the note. |
| **Ingest Selected Supporting Entities as Indicators** | Select which entity types to ingest as indicators of compromise into ThreatQ. Options include:<br>○ Internet Domain Names<br>○ IP Addresses<br>○ Hashes<br>○ Email Addresses<br>○ Usernames<br>○ Filenames<br>⚠ This will only enable the ingestion of the selected types from the "supporting" entities (context_entities), and not the "primary" entities (note_entities). **ThreatQuotient does not recommend enabling option due to the high likelihood of false positives.** Even if you do not select any of these, they will still be included in the description of the note. |

| PARAMETER | DESCRIPTION |
| --- | --- |
| **Ingested Hash Types** | Select the type of hashes to be ingested into ThreatQ. Options include<br>◦ MD5<br>◦ SHA-1<br>◦ SHA-256 |
| **Limit** | The maximum number of records per request. This will be used in the pagination. |



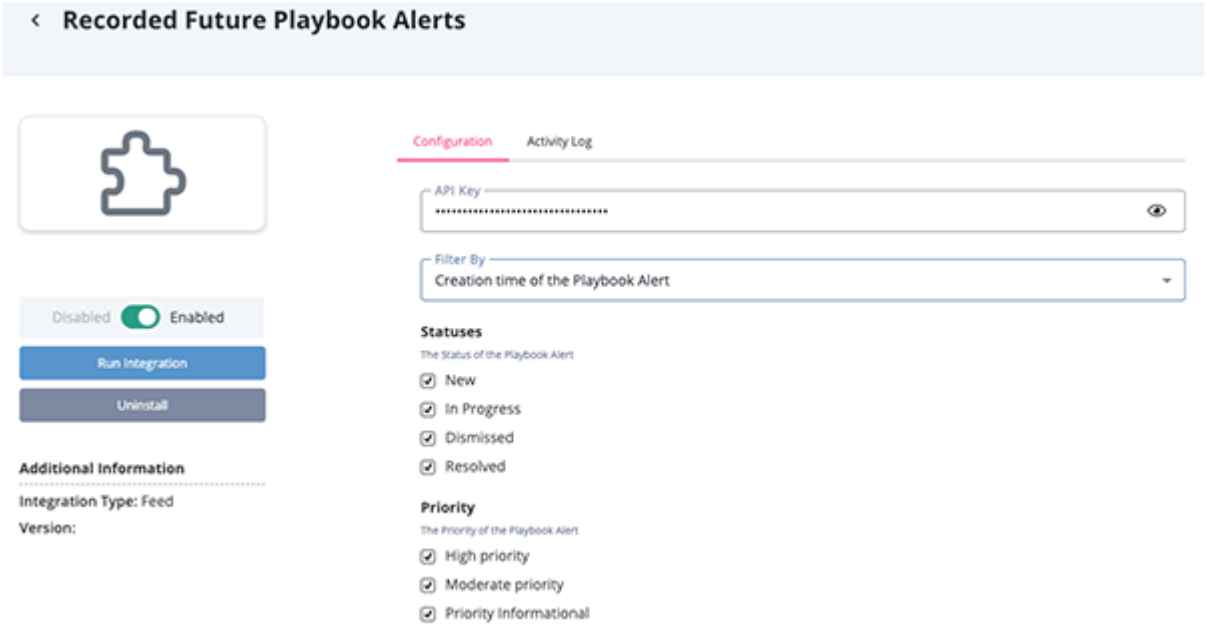
# Recorded Future Alerts Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **Triggered** | A string to search for events from a specific date (**YYYY-MM-DD** or **YYYY-MM** or **YYYY**). |
| **Review Status** | A string to search for events by status (Unassigned, Assigned, No Action and Tuning). If no specific status is selected, all event statuses are returned by the provider. |
| **Freetext Search** | A string to search for events by any value. |
| **Save CVE Data as** | Select whether to ingest CVEs as: Vulnerabilities or Indicators. |
| **Ingested Hash Types** | Select the type of hashes to be ingested into ThreatQ. Options include<br>○ MD5<br>○ SHA-1<br>○ SHA-256 |


Recorded Future Alerts
Disabled
Enabled
Run Integration
Uninstall
Additional Information
Integration Type: Feed
Version:
Configuration
Activity Log
API Key
Triggered
Get events from a specific date (YYYY-MM-DD or YYYY-MM or YYYY) (Optional)
Review Status
Review Status (Optional)
Freetext Search
Freetext search for events by any value (Optional)
Save CVE Data As
ThreatQuotient maps CVE data as CVE indicators by default.
Indicators
Vulnerabilities
Ingested Hash Types
The hash types to be ingested into ThreatQ.
MD5
SHA-1
SHA-256

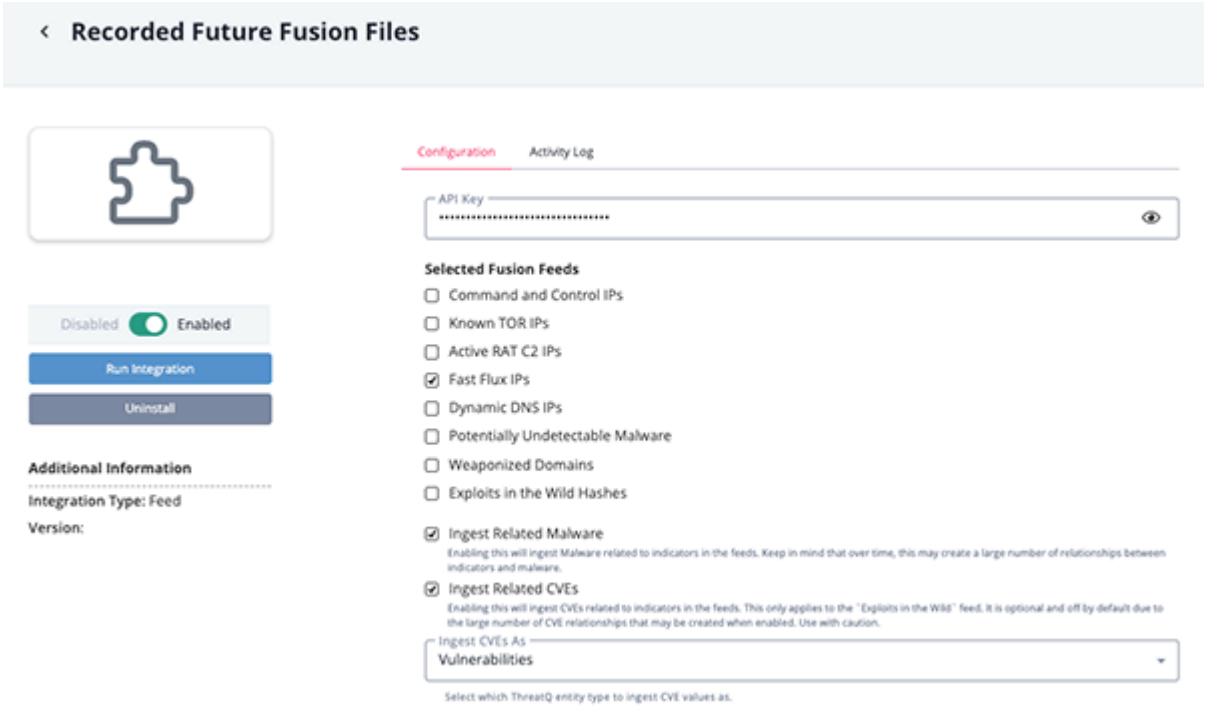
# Recorded Future Playbook Alerts Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **Filter By** | The date that will be used for filtering the alerts: `Creation` or `Update` time of the Playbook Alert. |
| **Statuses** | The Status of the Playbook Alert. Options include:<br>○ New<br>○ In Progress<br>○ Dismissed<br>○ Resolved |
| **Priority** | The Priority of the Playbook Alert. Options include:<br>○ High Priority<br>○ Moderate Priority<br>○ Priority Informational |
| **Normalize Risk Score** | Enable this parameter ingest a normalized risk score value as a scorable attribute. |
| **Risk Score Normalization Mapping** | Mapping used to normalize the numeric risk score values to the scorable attribute, `Normalized Risk`. The Risk Score itself will always be ingested. This mapping should contain a line-separated CSV formatted string with the following columns: **Minimum**, **Maximum**, and **Normalized Value**.<br><br>**Default Values**<br>`0,25,Low`<br>`26,50,Medium`<br>`51,75,High`<br>`76,100,Critical`<br><br>This parameter is only accessible if you have enabled the **Normalize Risk Score** parameter. |


Recorded Future Playbook Alerts
Disabled
Enabled
Run Integration
Uninstall
Additional Information
Integration Type: Feed
Version:
Configuration
Activity Log
API Key
Filter By
Creation time of the Playbook Alert
Statuses
The Status of the Playbook Alert
New
In Progress
Dismissed
Resolved
Priority
The Priority of the Playbook Alert
High priority
Moderate priority
Priority Informational

# Recorded Future Fusion Files Parameters

| PARAMETER | DESCRIPTION |
|---|---|
| **API Key** | Your API Key to be used in HTTP headers for accessing feed data. |
| **Selected Fusion Feeds** | Select the Fusion Files to be retrieved. Options include:<br>○ Command and Control IPs<br>○ Known TOR IPs<br>○ Active RAT C2 IPs<br>○ Fast Flux IPs<br>○ Dynamic DNS IPs<br>○ Potentially Undetectable Malware<br>○ Weaponized Domains<br>○ Exploits in the Wild Hashes |
| **Ingest Related Malware** | Enabling this will ingest Malware related to indicators in the feeds.<br>⚠ It is important to note that over time, this may create a large number of relationships between indicators and malware. |
| **Ingest Related CVEs** | Optional - Enabling this will ingest CVEs related to indicators in the feeds.<br>⚠ This parameter only applies to the `Exploits in the Wild` feed and is disabled by default due to the large number of CVE relationships that may be created when enabled. Exercise caution when enabled this parameter. |
| **Ingest CVEs As** | Select whether to ingest CVEs as Vulnerabilities (default) or Indicators. |




5. Review any additional settings, make any changes if needed, and click on **Save**.
6. Click on the toggle switch, located above the *Additional Information* section, to enable it.

# ThreatQ Mapping

## Recorded Future Domain Risk List

The data on this feed comes in form of a CSV list. The first token is the actual risk data (domain), and the last token (EvidenceDetails) contains supporting context. This token is a JSON-formatted string of an array of dictionaries.

`GET https://api.recordedfuture.com/v2/domain/risklist`

**Sample Response:**

```
'ns513726.ip-192-99-148.net', '92', '3/32',
'{"EvidenceDetails":
    [
        {
            "CriticalityLabel": "Unusual",
            "Rule": "Historical Malware Analysis DNS Name",
            "EvidenceString": "6 sightings on 1 source: VirusTotal...",
            "Timestamp": "2015-04-04T00:00:00.000Z",
            "Criticality": 1
        },
        {
            "CriticalityLabel": "Suspicious",
            "Rule": "Blacklisted DNS Name",
            "EvidenceString": "1 sighting on 1 source: DShield: Suspicious
Domain List.",
            "Timestamp": "2018-12-26T07:12:00.936Z",
            "Criticality": 2
        },
        {
            "CriticalityLabel": "Very Malicious",
            "Rule": "C&C DNS Name",
            "EvidenceString": "1 sighting on 1 source: Abuse.ch: ZeuS Domain
Blocklist (Standard).",
            "Timestamp": "2018-12-26T07:12:00.936Z",
            "Criticality": 4
        }
    ]
}'
```

ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 0 (first token) | Indicator.Value | FQDN | N/A | ns513726.ip-192-99-148.net | N/A |
| 1 (second token) | Indicator.Attribute | Risk Score | N/A | 66 | Updatable |
| 1 (second token) | Indicator.Attribute | Normalized Risk | N/A | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| 2 (third token) | Indicator.Attribute | Risk String | N/A | 2/32 | Updatable |
| 3 (fourth token) []CriticalityLabel | Indicator.Attribute | Criticality | 3 (fourth token) []Timestamp | Suspicious | Updatable |
| 3 (fourth token) []Rule | Indicator.Attribute | Associated Rule | 3 (fourth token) []Timestamp | Blacklisted DNS Name | N/A |
| 3 (fourth token) []EvidenceString | Indicator.Attribute | Evidence | 3 (fourth token) []Timestamp | 1 sighting on 1 source: Abuse.ch: ZeuS Domain Blocklist (Standard). | N/A |

# Recorded Future IP Risk List

Similar to the above feed, this feed gets IP addresses as indicators.

`GET https://api.recordedfuture.com/v2/ip/risklist`

**Sample Response:**

```
'5.120.187.119", '65', '1/49',
'{"EvidenceDetails":
    [
        {
            "CriticalityLabel": "Malicious",
            "Rule": "Recent Positive Malware Verdict",
            "EvidenceString": "1 sighting on 1 source: ReversingLabs....",
            "Timestamp": "2018-11-22T00:00:00.000Z",
            "Criticality": 3
        }
    ]
}'
```

ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 0 (first token) | Indicator.Value | IP Address | N/A | 5.120.187.119 | N/A |
| 1 (second token) | Indicator.Attribute | Risk Score | N/A | 65 | Updatable |
| 1 (second token) | Indicator.Attribute | Normalized Risk | N/A | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| 2 (third token) | Indicator.Attribute | Risk String | N/A | 1/49 | Updatable |
| 3 (fourth token) []CriticalityLabel | Indicator.Attribute | Criticality | 3 (fourth token) []Timestamp | Malicious | Updatable |
| 3 (fourth token) []Rule | Indicator.Attribute | Associated Rule | 3 (fourth token) []Timestamp | Recent Positive Malware Verdict | N/A |
| 3 (fourth token) []EvidenceString | Indicator.Attribute | Evidence | 3 (fourth token) []Timestamp | 1 sighting on 1 source: ReversingLabs. | N/A |

# Recorded Future URL Risk List

Similar to the above feeds, this feed gets URLs as indicators.

```
GET https://api.recordedfuture.com/v2/url/risklist
```

**Sample Response:**

```
'http://handle.booktobi.com/css/index.html', '65', '1/7',
'{"EvidenceDetails":
    [
        {
            "CriticalityLabel": "Malicious",
            "Rule": "Active Phishing URL",
            "EvidenceString": "1 sighting on 1 source: PhishTank: Phishing
Reports.",
            "Timestamp": "2018-12-26T16:15:44.750Z",
            "Criticality": 3
        }
    ]
}'
```

ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 0 (first token) | Indicator.Value | URL | N/A | http://handle.booktobi.com/css/index.html | N/A |
| 1 (second token) | Indicator.Attribute | Risk Score | N/A | 65 | Updatable |
| 1 (second token) | Indicator.Attribute | Normalized Risk | N/A | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| 2 (third token) | Indicator.Attribute | Risk String | N/A | 1/7 | Updatable |
| 3 (fourth token) []CriticalityLabel | Indicator.Attribute | Criticality | 3 (fourth token) []Timestamp | Malicious | Updatable |
| 3 (fourth token) []Rule | Indicator.Attribute | Associated Rule | 3 (fourth token) []Timestamp | Active Phishing URL | N/A |
| 3 (fourth token) []EvidenceString | Indicator.Attribute | Evidence | 3 (fourth token) []Timestamp | 1 sighting on 1 source: PhishTank: Phishing Reports. | N/A |

# Recorded Future Vulnerability Risk List

Similar to the above feeds, this feed gets CVEs.

`GET https://api.recordedfuture.com/v2/vulnerability/risklist`

**Sample Response:**

```
'CVE-2018-0802', '89', '11/18',
'{"EvidenceDetails":
    [
        {
            "CriticalityLabel": "Low",
            "Rule": "Linked to Historical Cyber Exploit",
            "EvidenceString": "4281 sightings on 351 sources including: ...",
            "Timestamp": "2018-11-14T22:31:30.000Z",
            "Criticality": 1
        },
        {
            "CriticalityLabel": "Low",
            "Rule": "Historically Linked to Penetration Testing Tools",
            "EvidenceString": "1 sighting on 1 source: @DTechCloud....",
            "Timestamp": "2018-05-07T20:31:29.000Z", "Criticality": 1
        },
    ]
}'
```

ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 0 (first token) | Indicator.Value/ Vulnerability.Value | CVE/N/A | N/A | CVE-2018-0802 | N/A |
| 1 (second token) | Indicator.Attribute/ Vulnerability.Attribute | Risk Score | N/A | 89 | Updatable |
| 1 (second token) | Indicator.Attribute | Normalized Risk | N/A | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| 2 (third token) | Indicator.Attribute/ Vulnerability.Attribute | Risk String | N/A | 11/18 | Updatable |
| 3 (fourth token) [].CriticalityLabel | Indicator.Attribute/ Vulnerability.Attribute | Criticality | 3 (fourth token) [].Timestamp | Low | Updatable |
| 3 (fourth token) [].Rule | Indicator.Attribute/ Vulnerability.Attribute | Associated Rule | 3 (fourth token) [].TimeStamp | Linked to Historical Cyber Exploit | N/A |
| 3 (fourth token) [].EvidenceString | Indicator.Attribute/ Vulnerability.Attribute | Evidence | 3 (fourth token) [].Timestamp | 1 sighting on 1 source: @DTechCloud.... | N/A |

# Recorded Future Hash Risk List

Similar to the above feeds, this feed gets Hashes.

`GET https://api.recordedfuture.com/v2/hash/risklist`

**Sample Response:**

```
'ed01ebfbc9eb5bbea545af4d01bf5f1071661840480439c6e5babe8e080e41aa', 'SHA-256',
'89', '4/10',
'{"EvidenceDetails":
    [
        {
            "CriticalityLabel": "Unusual",
            "Rule": "Threat Researcher",
            "EvidenceString": "21 sightings on 9 sources including: ...",
            "Timestamp": "2018-01-28T11:24:35.942Z",
            "Criticality": 1.0
        },
        {
            "CriticalityLabel": "Suspicious",
            "Rule": "Linked to Vulnerability",
            "EvidenceString": "5 sightings on 2 sources: ...",
            "Timestamp": "2017-08-08T14:10:11.410Z",
            "Criticality": 2
        },
        {
            "CriticalityLabel": "Suspicious",
            "Rule": "Linked to Malware",
            "EvidenceString": "Previous sightings on 36 sources
including: ...",
            "Timestamp": "2017-05-12T15:39:30.000Z",
            "Criticality": 2
        },
    ]
}'
```

ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 0 (first token) | Indicator.Value | 1 (second token) | N/A | 00d48afbba5ef9eadb572730b2d0cafa | N/A |
| 2 (third token) | Indicator.Attribute | Risk Score | N/A | 89 | Updatable |
| 2 (third token) | Indicator.Attribute | Normalized Risk | N/A | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| 3 (fourth token) | Indicator.Attribute | Risk String | N/A | 4/10 | Updatable |
| 4 (fifth token) []CriticalityLabel | Indicator.Attribute | Criticality | 4 (fifth token) []Timestamp | Suspicious | Updatable |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| 4 (fifth token) []\.Rule | Indicator.Attribute | Associated Rule | 4 (fifth token) []\.Timestamp | Linked to Malware | N/A |
| 4 (fifth token) []\.EvidenceString | Indicator.Attribute | Evidence | 4 (fifth token) []\.Timestamp | Previous sightings on 36 sources including: ... | N/A |

# Recorded Future Analyst Note

This feed gets Reports, Indicators and Attack Patterns. The data sample and mapping are below:

`GET https://api.recordedfuture.com/v2/analystnote/search`

**Sample Response:**


```
{
    "data": {
        "results": [
            {
                "source": {
                    "id": "VKz42X",
                    "name": "Insikt Group",
                    "type": "Source"
                },
                "attributes": {
                    "validated_on": "2020-02-06T06:59:32.784Z",
                    "published": "2020-02-06T06:59:32.784Z",
                    "text": "some text",
                    "topic": [
                        {
                            "id": "TXSFt0",
                            "name": "Flash Report",
                            "type": "Topic"
                        }
                    ],
                    "title": "Mailto Ransomware Targets Enterprise Networks",
                    "note_entities": [
                        {
                            "id": "bLfMiL",
                            "name": "Mailto Ransomware",
                            "type": "Malware"
                        }
                    ],
                    "context_entities": [
                        {
                            "id": "J6UzbO",
                            "name": "Bleeping Computer",
                            "type": "Source"
                        }
                    ],
                    "validation_urls": [
                        {
                            "id": "url:url:https://www.bleepingcomputer.com/
news/security/mailto-netwalker-ransomware-targets-enterprise-networks/",
                            "name": "url:https://www.bleepingcomputer.com/news/
security/mailto-netwalker-ransomware-targets-enterprise-networks/",
                            "type": "URL"
```

```
                        },
                        {
                            "id": "url:url:https://twitter.com/VK_Intel/status/
1225086186445733889?s=20",
                            "name": "url:https://twitter.com/VK_Intel/status/
1225086186445733889?s=20",
                            "type": "URL"
                        }
                    ]
                },
                "id": "cu1WGK"
            }
        ]
    },
    "counts": {
        "returned": 10,
        "total": 19216
    }
}
```


ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | EXAMPLES | NOTES |
|---|---|---|---|---|
| .data.results[].attributes.title | Report.Name | Report | "Mailto Ransomware Targets Enterprise Networks" | N/A |
| .data.results[].attributes.published | Report.Published_at | N/A | "2020-02-06T06:59:32.784Z" | This date will also be used for related indicators and attack patterns. |
| .data.results[].attributes.text | Report.Description | Description | "text" | N/A |
| .data.results[].source.name | Report.Attribute | Recorded Future Source | "Insikt Group" | N/A |
| .data.results[].attributes.topic[].name | Report.Attribute | Topic Name | "Flash Report" | N/A |
| .data.results[].attributes.validated_on | Report.Attribute | Validated On | "2020-02-06T06:59:32.784Z" | Attribute updated if already exists. |
| .data.results[].attributes.context_entities | N/A | N/A | N/A | *See entities mapping. |
| .data.results[].attributes.note_entities | N/A | N/A | N/A | *See entities mapping. |

## Entities Mapping

This mapping will be used to map both values from `context_entities` and `note_entities`. The data sample and mapping are below:

**Sample Response:**

```
{
    "context_entities": [
        {
            "id": "J6UzbO",
            "name": "Bleeping Computer",
            "type": "Source",
            "description": "some description"
        }
    ]
}
```

```
 indicator_type_map:
    InternetDomainName: FQDN
    URL: URL
    IpAddress: IP Address
    EmailAddress: Email Address
    FileName: Filename
    Username: Username
    Hash: MD5, SHA-1, SHA-256
    CyberVulnerability: CVE
```

The integration will filter based by type. If the value of the `type` key is contained in the indicator_type_map below or is equal to `Hash`, an indicator will be ingested (the published_at date will be the same as for the report object). If the `type` key is equal to `Malware`, an object of type Malware type will be ingested. If the `type` key is equal to `MitreAttackIdentifier`, an object of Attack Pattern type will be ingested. Else, attributes will be created for the main `report` object.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | EXAMPLES | NOTES |
|---|---|---|---|---|
| .name | Report.Attribute/ Indicator.Attribute | .type | N/A | *See the `Event Attributes Mapping table`. If `type` is `Product` and there are related vulnerabilities, change the `Product` attribute key to `Affected Product` |
| .text | Report.Attribute | .description | N/A | N/A |
| .name | Indicator.Value | .type | `98.123.54.12` | IOC is enabled `Ingest Selected Primary Entities as Indicators` or `Ingest Selected Supporting Entities as Indicators` |
| .type | Indicator.Type | .name | Ip Address | The value for this will be `indicator_type_map[.type]` if it exists there. If the value is `Hash`, the value length will be analyzed and based on it it will be either `MD5`, `SHA-1`, or `SHA-256`. |
| .name | Adversary.Value | N/A | N/A | If `.type` is `Organization` |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | EXAMPLES | NOTES |
|---|---|---|---|---|
| .name | Adversary.Attribute | Category | "Bleeping Computer" | If `.type` is `CyberThreatActorCategory` |
| .name | Identity.Value | N/A | `john.doe@acme.com` | We ingest the Email Address as a Identity from "supporting" entities |
| .name | Attack Pattern.Value | N/A | `T1023 - MITRE Technique Name` | If `type` is equal to `MitreAttackIdentifier` |
| .name | Malware.Value | N/A | `Mailto Ransomware` | If `.type` is equal to `Malware` |
| .name | Malware.Attribute | Category | N/A | If `.type` id equal to `MalwareCategory` |
| .name | Vulnerability.Value | N/A | N/A | If the `.type` is equal to `CyberVulnerability` |
| .name | Vulnerability.Attribute/ Indicator.Attribute | Affected Product | `Citrix` | Object type is based on `Ingest CVEs As` selection |

Context (i.e. Malware, Adversaries, Attributes, and Attack Patterns) from the "primary" entities list will now be applied to the indicators of compromise from the "primary" entities list.

# Recorded Future Alerts

The Alerts feed retrieves Alerts from the provider.

`GET https://api.recordedfuture.com/v3/alert/`

**Sample Response:**


```
{
  "data": [
    {
      "review": {
        "note": null,
        "status_in_portal": "New",
        "assignee": null,
        "status": "no-action"
      },
      "owner_organisation_details": {
        "organisations": [
          {
            "organisation_id": "uhash:ER135KQ6oL",
            "organisation_name": "ThreatQ - Partner"
          }
        ],
        "enterprise_id": "uhash:DimzHe41vx",
        "enterprise_name": "ThreatQ - Partner"
      },
      "url": {
        "api": "https://api.recordedfuture.com/v3/alerts/rj540x",
        "portal": "https://app.recordedfuture.com/live/sc/notification/?id=rj540x"
      },
      "rule": {
        "name": "Cyber Espionage, Related Vulnerabilities",
        "id": "nt4XZZ",
        "url": {
          "portal": "https://app.recordedfuture.com/live/sc/
ViewIdkobra_view_report_item_alert_editor?
view_opts=%7B%22reportId%22%3A%22nt4XZZ%22%2C%22bTitle%22%3Atrue%2C%22title%22%3A%22Cyber+Espionage
%2C+Related+Vulnerabilities%22%7D"
        }
      },
      "id": "rj540x",
      "hits": [
        {
          "entities": [
            {
              "id": "B_HE4",
              "name": "Google",
              "type": "Company"
            },
            {
              "id": "idn:reuters.com",
              "name": "reuters.com",
              "type": "InternetDomainName"
            },
            {
              "id": "Xw2PY",
              "name": "Frankfurt",
              "type": "Airport"
            },
            {
              "id": "rVnb7k",
```

```
              "name": "Rhysida",
              "type": "Malware"
            },
            {
              "id": "J0Nl-p",
              "name": "Ransomware",
              "type": "MalwareCategory"
            },
            {
              "id": "K_4o-y",
              "name": "Anonymous Sudan",
              "type": "Organization"
            },
            {
              "id": "I_7J4G",
              "name": "Hacktivist",
              "type": "CyberThreatActorCategory"
            },
            {
              "id": "mitre:T1048",
              "name": "T1048",
              "type": "MitreAttackIdentifier"
            },
            {
              "id": "email:mary.silverstein@delta.com",
              "name": "mary.silverstein@delta.com",
              "type": "EmailAddress"
            },
            {
              "id": "jc5TL-",
              "name": "ProxyShell",
              "type": "CyberVulnerability",
              "description": "ProxyShell and Log4J Vulnerabilities Were the Most Exploited Flaws in
2021."
            }
          ],
          "document": {
            "source": {
              "id": "source:hPTFPY",
              "name": "RedAlert | Blog",
              "type": "Source"
            },
            "title": "2022 Activities Summary of SectorA groups (ENG)",
            "url": "https://redalert.nshc.net/2023/06/08/2022-activities-summary-of-sectora-groups-
eng/",
            "authors": []
          },
          "fragment": "In this operation, the group targeted engineering companies in the <e
id=0qjp>energy</e> and military sectors and damaged their systems by <i id=HE-xwAAZh-v>exploiting
the <e id=kvXvR5>Log4Shell</e></i> vulnerability with an initial infiltration method.",
          "id": "HE-xwAAZh-v",
          "language": "eng",
          "primary_entity": {
            "id": "kvXvR5",
            "name": "CVE-2021-44228",
            "type": "CyberVulnerability",
            "description": "Apache Log4j2 2.0-beta9 through 2.15.0 (excluding security releases
2.12.2, 2.12.3, and 2.3.1) JNDI features used in configuration, log messages, and parameters do not
protect against attacker controlled LDAP and other JNDI related endpoints. An attacker who can
control log messages or log message parameters can execute arbitrary code loaded from LDAP servers
when message lookup substitution is enabled. From log4j 2.15.0, this behavior has been disabled by
default. From version 2.16.0 (along with 2.12.2, 2.12.3, and 2.3.1), this functionality has been
completely removed. Note that this vulnerability is specific to log4j-core and does not affect
log4net, log4cxx, or other Apache Logging Services projects."
```

```
        },
        "analyst_note": null
      }
    ],
    "ai_insights": {
      "comment": "The Recorded Future AI requires more references in order to produce a summary.",
      "text": null
    },
    "log": {
      "note_author": null,
      "note_date": null,
      "status_date": null,
      "triggered": "2023-06-08T04:53:13.444Z",
      "status_change_by": null
    },
    "title": "Cyber Espionage, Related Vulnerabilities - Rise: CVE-2021-44228",
    "type": "ENTITY"
  }
 ],
 "counts": {
   "returned": 10,
   "total": 2653
 }
}
```


ThreatQuotient provides the following default mapping for this feed:

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| .data[].title | Event.Title | N/A | .data[].log.note_date / .data[].log.triggered | Cyber Espionage, Related Vulnerabilities - Rise: CVE-2021-44228 | If `.data[].log.note_date` is not present `.data[].log.triggered` is used as `Published Date` |
| .data[].log.triggered | Event.Happened_at | N/A | N/A | 2023-06-08T04:53:13.444Z | N/A |
| .data[].ai_insights.text | Event.Description | N/A | N/A | N/A | N/A |
| .data[].ai_insights.comment | Event.Description | N/A | N/A | The Recorded Future AI requires more references in order to produce a summary. | N/A |
| .data[].review.assignee | Event.Attribute | Assignee | .data[].log.note_date / .data[].log.triggered | N/A | If the attribute already exists, the value will be updated. |
| .data[].log.note_author | Event.Attribute | Note Author | .data[].log.note_date / .data[].log.triggered | N/A | N/A |
| .data[].review.status_in_portal | Event.Attribute | Alert Status | .data[].log.note_date / .data[].log.triggered | no-action | If the attribute already exists, the value will be updated. |
| .data[].rule.name | Event.Attribute | Triggered Rule Name | .data[].log.note_date / .data[].log.triggered | Cyber Espionage, Related Vulnerabilities | N/A |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| .data[].type | Event.Attribute | Alert Type | .data[].log.note_date / .data[].log.triggered | ENTITY | N/A |
| .data[].owner_organisation_details.enterprise_name | Event.Attribute | Organisation Enterprise name | .data[].log.note_date / .data[].log.triggered | ThreatQ - Partner | N/A |
| .data[].hits[].document.url | Event.Attribute | URL | N/A | https://www.virustotal.com/84387248326473645 | Ingested as attribute if 'www.virustotal.com' in .url |
| .data[].hits[].entities[].name | Event.Tags | N/A | N/A | ddosattacks | If `data.hits[].entities[].type` is `Hashtag`. Character `#` is removed. |
| .data[].hits[].entities[].name | Indicator.Value | data.hits[].entities[].type | N/A | N/A | See `Related Indicator Type Mapping` table below. |
| .data[].hits[].entities[].name | Event.Attribute | data.hits[].entities[].type | N/A | N/A | See `Event Attributes Mapping` table below. |
| .data[].hits[].entities[].name | Related.Malware.Value | N/A | N/A | Rhysida | If `data.hits[].entities[].type` is `Malware` |
| .data[].hits[].entities[].name | Related.Malware.Attribute | Malware Category | N/A | Ransomware | If `data.hits[].entities[].type` is `MalwareCategory` |
| .data[].hits[].entities[].name | Event.Attribute | Malware Category | N/A | Ransomware | If `data.hits[].entities[].type` is `MalwareCategory` |
| .data[].hits[].entities[].name | Event.Attribute | Organization | N/A | Anonymous Sudan | If `data.hits[].entities[].type` is `Organization` and it is not an Adversary |
| .data[].hits[].entities[].name | Related.Adversary.Value | N/A | N/A | Anonymous Sudan | If `data.hits[].entities[].type` is `Organization` |
| .data[].hits[].entities[].type | Related.Adversary.Attribute | Type | N/A | Organization | If `data.hits[].entities[].type` is `Organization` |
| .data[].hits[].entities[].name | Related.Adversary.Tags | N/A | N/A | Hacktivist | If `data.hits[].entities[].type` is `CyberThreatActorCategory` |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| .data[].hits[].entities[].name | Event.Attribute | Cyber Threat Actor Category | N/A | Hacktivist | If `data.hits[].entities[].type` is `CyberThreatActorCategory` |
| .data[].hits[].entities[].name | Related.Attack Patten.Value | N/A | N/A | T1048 | If `data.hits[].entities[].type` is `MitreAttackIdentifier` |
| .data[].hits[].entities[].name | Related.Vulnerability.Value | N/A | N/A | ProxyShell | If `data.hits[].entities[].type` is `CyberVulnerability` or user config `Save CVE Data as` contains `Vulnerabilities` |
| .data[].hits[].entities[].name | Related.Identity.Value | N/A | N/A | mary.silverstein@delta.com | If `data.hits[].entities[].type` is `EmailAddress` |

In the previous table, there is a Related Indicator that is set dynamically. This is because the ThreatQ Object Type is extracted from the same path `.data.hits[].entities[].type` if the `.data.hits[].entities[].type` is one from the Related Indicator Type Mapping table listed below.

## Related Indicator Type Mapping

| RECORDED FUTURE INDICATOR TYPE | THREATQ INDICATOR TYPE | NOTES |
|---|---|---|
| Hash | MD5 | If the length of the hash value is 32 characters |
| Hash | SHA-1 | If the length of the hash value is 40 characters |
| Hash | SHA-256 | If the length of the hash value is 64 characters |
| CyberVulnerability | CVE | If '.data.hits[].entities[].name' contains 'CVE' and user config `Save CVE Data as` contains `Indicators` |

## Event Attributes Mapping

In the previous table, **Related Indicator Type Mapping**, there is a **Related Indicator Attribute** that is set dynamically. We do this because the `Attribute Key` is extracted from the same path `.data.hits[].entities[].type` if the `.data.hits[].entities[].type` is one from the table listed below.

| RECORDED FUTURE ATTRIBUTE TYPE | THREATQ ATTRIBUTE KEY |
|---|---|
| AttackVector | Attack Vector |
| Product | Affected Product |
| Company | Company |
| City | City |
| Country | Country |
| Facility | Facility |
| FileNameExtension | File Extension |
| FileType | File Type |
| GeoEntity | Geo Entity |
| Industry | Industry |
| IndustryTerm | Industry Term |
| Logotype | Logotype |
| Operation | Operation |
| OrgEntity | Organization Entity |

| RECORDED FUTURE ATTRIBUTE TYPE | THREATQ ATTRIBUTE KEY |
|---|---|
| PhoneNumber | Phone Number |
| ProvinceOrState | State |
| Region | Region |
| Technology | Technology |
| Topic | Topic |

# Recorded Future Playbook Alerts

The Recorded Future Playbook Alerts feed retrieves a list of alerts filtered by the values provided in the configuration section. For each of the alerts, the `playbook_alert_id` is used to call the Recorded Future - Get Playbook Alerts by Category supplemental feed, to fetch the full alert context.

`POST https://api.recordedfuture.com/playbook-alert/search`

**Sample Response:**


```
{
    "status": {
        "status_code": "Ok",
        "status_message": "Playbook alert search successful"
    },
    "data": [
        {
            "playbook_alert_id": "task:2803c5f5-aa32-41ce-98c1-41a7771cd9ad",
            "created": "2022-11-08T09:44:02.447Z",
            "updated": "2022-11-08T09:44:06.584Z",
            "status": "New",
            "category": "domain_abuse",
            "priority": "Informational",
            "title": "juhaokan.ga",
            "owner_id": "uhash:ER135KQ6oL",
            "owner_name": "ThreatQ - Partner",
            "organisation_id": "uhash:DimzHe41vx",
            "organisation_name": "ThreatQ - Partner"
        }
    ]
}
```


ThreatQuotient provides the following default mapping for this feed:

> The mapping for this feed is based on the JSON response from the **Recorded Future - Get Playbook Alerts by Category supplemental feed**. Each mapping is based on an item within the data list within the JSON response.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.panel_status.case_rule_label, .panel_status.entity_name, .panel_status.priority, .panel_status.entity_criticality` | Event.Title | Recorded Future Alert | `.panel_status.created` | `Domain Abuse Alert: juhaokan.ga Priority: Informational Criticality: Medium` | We use the four values to create an unique title |
| `.panel_status.title` | Event.Title | Recorded Future Alert | `.panel_status.created` | `juhaokan.ga` | N/A |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.panel_evidence_summary.*`, `.panel_evidence_whois.*` | Event.Description | N/A | N/A | N/A | Description HTML is built based on available fields |
| `.panel_status.status` | Event.Attribute | Status | `.panel_status.created` | `New` | Updatable |
| `.panel_status.case_rule_label` | Event.Attribute | Category | `.panel_status.created` | `Domain Abuse` | Updatable |
| `.panel_status.priority` | Event.Attribute | Priority | `.panel_status.created` | `Informational` | Updatable |
| `.panel_status.owner_name` | Event.Attribute | Owner | `.panel_status.created` | `Acme Corp` | Updatable |
| `.panel_status.organisation_name` | Event.Attribute | Organization | `.panel_status.created` | `Acme Corp` | N/A |
| `.panel_status.assignee_name` | Event.Attribute | Assignee | `.panel_status.created` | `John Doe` | N/A |
| `.panel_status.lifecycle_stage` | Event.Attribute | Lifecycle Stage | `.panel_status.created` | `Disclosure` | Only available for Cyber Vulnerability Alerts |
| `.panel_status.entity_name` | Related.Indicator | FQDN | `.panel_status.created` | `jlonsdale.social` | N/A |
| `.panel_status.entity_name` | Related.Vulnerability | N/A | `.panel_status.created` | `jlonsdale.social` | N/A |
| `.panel_status.risk_score` | Event.Attribute, Related.Indicator.Attribute | Risk Score | `.panel_status.created` | `5` | Updatable |
| `.panel_status.risk_score` | Indicator.Attribute | Normalized Risk | `.panel_status.created` | High | Mapped using `Risk Score Normalization Mapping` user field; Updatable |
| `.panel_status.entity_criticality` | Event.Attribute, Related.Indicator.Attribute | Criticality | `.panel_status.created` | `Low` | Updatable |
| `.panel_status.context_list[].context` | Event.Attribute, Related.Indicator.Attribute | Context Data | `.panel_status.created` | `Phishing Host` | N/A |
| `.panel_evidence_dns.ip_list[].entity` | Related.Indicator | IP Address | `.panel_status.created` | `217.160.0.153` | N/A |
| `.panel_evidence_dns.ip_list[].record_type` | Related.Indicator.Attribute | Record Type | `.panel_status.created` | N/A | Updatable |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| .panel_evidence_dns.ip_list[].risk_score | Related.Indicator.Attribute | Risk Score | .panel_status.created | 27 | Updatable |
| .panel_evidence_dns.ip_list[].criticality | Related.Indicator.Attribute | Criticality | .panel_status.created | Medium | Updatable |
| .panel_evidence_dns.ip_list[].context_list[].context | Related.Indicator.Attribute | Context Data | .panel_status.created | Phishing Host | N/A |
| .panel_evidence_dns.mx_list[].entity | Related.Indicator | FQDN | .panel_status.created | mx00.ionos.co.uk | N/A |
| .panel_evidence_dns.mx_list[].record_type | Related.Indicator.Attribute | Record Type | .panel_status.created | N/A | Updatable |
| .panel_evidence_dns.mx_list[].risk_score | Related.Indicator.Attribute | Risk Score | .panel_status.created | 0 | Updatable |
| .panel_evidence_dns.mx_list[].criticality | Related.Indicator.Attribute | Criticality | .panel_status.created | 0 | Updatable |
| .panel_evidence_dns.mx_list[].context_list[].context | Related.Indicator.Attribute | Context Data | .panel_status.created | Active Mail Server | N/A |
| .panel_evidence_dns.ns_list[].entity | Related.Indicator | FQDN | .panel_status.created | ns1025.ui-dns.org | N/A |
| .panel_evidence_dns.ns_list[].record_type | Related.Indicator.Attribute | Record Type | .panel_status.created | N/A | Updatable |
| .panel_evidence_dns.ns_list[].risk_score | Related.Indicator.Attribute | Risk Score | .panel_status.created | 5 | Updatable |
| .panel_evidence_dns.ns_list[].criticality | Related.Indicator.Attribute | Criticality | .panel_status.created | Low | Updatable |
| .panel_evidence_dns.ns_list[].context_list[].context | Related.Indicator.Attribute | Context Data | .panel_status.created | Active Mail Server | N/A |
| .panel_evidence_summary.affected_products[].name | Related.Vulnerability.Attribute | Affected Product | .panel_status.created | MySQL | Also applied to main event |
| .panel_evidence_summary.assessments[].evidence. | Related.Indicator | IP Address | .panel_status.created | N/A | N/A |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `data[].malwareIpAddress` | | | | | |
| `.panel_evidence_summary.assessments[].evidence.data[].malwareFamily` | Related.Malware | N/A | `.panel_status.created` | `Lazarus` | N/A |
| `.panel_evidence_summary.assessments[].evidence.data[].clientIpAddress` | Related.Asset | N/A | `.panel_status.created` | N/A | N/A |

## Recorded Future - Get Playbook Alerts by Category (Supplemental)

The Recorded Future - Get Playbook Alerts by Category supplemental feed related data for each of the ingested events retrieved from the Alert endpoint. The key `.data[].playbook_alert_id` is used to call the supplemental feed.

```
POST https://api.recordedfuture.com/playbook-alert/{{ category }}
```

The API will return a slightly different response based on the category of the alert. See the Recorded Future Playbook Alerts feed for the mapping of the data.

### Domain Abuse

**Sample Response:**


```
{
    "status": {
        "status_code": "Ok",
        "status_message": "Domain Abuse lookup successful"
    },
    "data": {
        "panel_status": {
            "entity_name": "lonsdale.social",
            "entity_criticality": "Low",
            "risk_score": 5,
            "context_list": [
                {
                    "context": "Phishing Host"
                },
                {
                    "context": "Active Mail Server"
                }
            ],
            "targets": [
                "idn:lonsdale.fr",
                "idn:lonsdale.us",
                "idn:lonsdale.porn",
                "idn:lonsdale.club"
            ],
            "status": "New",
            "priority": "High",
            "created": "2022-11-09T08:20:15.778Z",
            "case_rule_id": "report:nvAj-X",
            "case_rule_label": "Domain Abuse",
            "owner_id": "uhash:ER135KQ6oL",
            "owner_name": "ThreatQ - Partner",
            "organisation_id": "uhash:DimzHe41vx",
            "organisation_name": "ThreatQ - Partner"
```

```
        },
        "panel_action": [],
        "panel_evidence_summary": {
            "explanation": "Alert was created as a result of a triggered
typosquat detection",
            "resolved_record_list": [
                {
                    "entity": "idn:ns1025.ui-dns.org",
                    "risk_score": 5,
                    "criticality": "Low",
                    "record_type": "NS",
                    "context_list": []
                },
                {
                    "entity": "ip:217.160.0.153",
                    "risk_score": 27,
                    "criticality": "Medium",
                    "record_type": "A",
                    "context_list": [
                        {
                            "context": "Phishing Host"
                        }
                    ]
                },
                {
                    "entity": "idn:mx00.ionos.co.uk",
                    "risk_score": 0,
                    "criticality": "0",
                    "record_type": "MX",
                    "context_list": [
                        {
                            "context": "Active Mail Server"
                        }
                    ]
                },
                {
                    "entity": "idn:mx01.ionos.co.uk",
                    "risk_score": 0,
                    "criticality": "0",
                    "record_type": "MX",
                    "context_list": [
                        {
                            "context": "Active Mail Server"
                        }
                    ]
                }
            ],
            "screenshots": [
                {
                    "description": "An image associated with the Playbook
```

```
Alert",
                    "image_id": "img:349f92e2-fa93-4282-be15-e7a330130686",
                    "created": "2022-11-09T08:20:51.685Z"
                }
            ]
        },
        "panel_evidence_dns": {
            "ip_list": [
                {
                    "entity": "ip:217.160.0.153",
                    "risk_score": 27,
                    "criticality": "Medium",
                    "record_type": "A",
                    "context_list": [
                        {
                            "context": "Phishing Host"
                        }
                    ]
                }
            ],
            "mx_list": [
                {
                    "entity": "idn:mx00.ionos.co.uk",
                    "risk_score": 0,
                    "criticality": "0",
                    "record_type": "MX",
                    "context_list": [
                        {
                            "context": "Active Mail Server"
                        }
                    ]
                }
            ],
            "ns_list": [
                {
                    "entity": "idn:ns1115.ui-dns.de",
                    "risk_score": 0,
                    "criticality": "0",
                    "record_type": "NS",
                    "context_list": [
                        {
                            "context": "Active Mail Server"
                        }
                    ]
                },
                {
                    "entity": "idn:ns1090.ui-dns.biz",
                    "risk_score": 5,
                    "criticality": "Low",
                    "record_type": "NS",
                    "context_list": []
```

```
            }
        ]
    },
    "panel_evidence_whois": {
        "body": [
            {
                "provider": "whois",
                "entity": "idn:lonsdale.social",
                "attribute": "attr:whois",
                "value": {
                    "privateRegistration": false,
                    "status": "clientTransferProhibited addPeriod",
                    "nameServers": [
                        "idn:ns1066.ui-dns.com",
                        "idn:ns1025.ui-dns.org",
                        "idn:ns1115.ui-dns.de",
                        "idn:ns1090.ui-dns.biz"
                    ],
                    "registrarName": "IONOS SE",
                    "createdDate": "2022-11-08T19:44:16.000Z"
                },
                "added": "2022-11-09T08:21:13.682Z"
            },
            {
                    "provider": "whois",
                    "entity": "idn:btbo2.top",
                    "attribute": "attr:whoisContacts",
                    "value": {
                        "organization": "REDACTED FOR PRIVACY",
                        "city": "REDACTED FOR PRIVACY",
                        "name": "REDACTED FOR PRIVACY",
                        "state": "REDACTED FOR PRIVACY",
                        "street1": "REDACTED FOR PRIVACY",
                        "country": "REDACTED FOR PRIVACY",
                        "postalCode": "REDACTED FOR PRIVACY",
                        "telephone": "REDACTED FOR PRIVACY",
                        "type": "technicalContact"
                    },
                    "added": "2022-11-08T10:28:20.712Z"
                }
        ]
    },
    "panel_log": [
        {
            "id": "uuid:26b4be48-e1e0-4773-97d7-b8c8260fe53b",
            "created": "2022-11-09T08:27:31.377Z",
            "modified": "2022-11-09T08:27:31.377Z",
            "action_priority": "Informational"
        }
    ]
```

```
    }
}
```

### Third Party Risk

**Sample Response:**


```
{
  "status": {
    "status_code": "Ok",
    "status_message": "Playbook alert bulk lookup successful."
  },
  "data": [
    {
      "playbook_alert_id": "task:220833e1-6a00-489c-8e6f-08cb11561aea",
      "panel_status": {
        "status": "New",
        "priority": "Moderate",
        "created": "2024-05-09T18:03:42.784Z",
        "updated": "2024-05-13T05:11:28.845Z",
        "case_rule_id": "report:r2TUUz",
        "case_rule_label": "Third Party Risk",
        "owner_id": "uhash:1RmVv0sQ33",
        "owner_name": "Acme Corp",
        "organisation_id": "uhash:4WfuvVnaap",
        "organisation_name": "Acme Corp",
        "owner_organisation_details": {
          "organisations": [
            {
              "organisation_id": "uhash:4WfuvVnaap",
              "organisation_name": "Acme Corp"
            }
          ],
          "enterprise_id": "uhash:4WfuvVnaap",
          "enterprise_name": "Acme Corp"
        },
        "entity_id": "CEBTA",
        "entity_name": "Tele Communications",
        "entity_criticality": "Medium",
        "risk_score": 64,
        "targets": [
          {
            "name": "Infections Recently Reported in Company Infrastructure"
          },
          {
            "name": "Recent Possible Malware in Company Infrastructure"
          }
        ],
        "actions_taken": []
      },
```

```
      "panel_evidence_summary": {
        "assessments": [
          {
            "risk_rule": "Infections Recently Reported in Company
Infrastructure",
            "level": 2,
            "added": "2024-05-13T05:11:09.882Z",
            "evidence": {
              "type": "ip_rule",
              "summary": "4 sightings: Suspected Malicious Packet Source seen
for 1 IP Address on company infrastructure: 121.241.162.25. Recent Botnet
Traffic seen for 3 IP Addresses on company infrastructure: 203.199.243.0,
14.143.123.78, 14.143.187.214",
              "data": [
                {
                  "name": "Suspected Malicious Packet Source",
                  "criticality": 2,
                  "number_of_ip_addresses": 1
                },
                {
                  "name": "Recent Botnet Traffic",
                  "criticality": 2,
                  "number_of_ip_addresses": 3
                }
              ]
            }
          },
          {
            "risk_rule": "Recent Possible Malware in Company Infrastructure",
            "level": 2,
            "added": "2024-05-13T05:11:09.882Z",
            "evidence": {
              "type": "ip_rule",
              "summary": "1 sighting: Recent Positive Malware Verdict seen for
1 IP Address on company infrastructure: 14.142.45.148",
              "data": [
                {
                  "name": "Recent Positive Malware Verdict",
                  "criticality": 2,
                  "number_of_ip_addresses": 1
                }
              ]
            }
          }
        ]
      }
    }
  ]
}
```

### Cyber Vulnerability

**Sample Response:**


```
{
  "status": {
    "status_code": "Ok",
    "status_message": "Playbook alert bulk lookup successful."
  },
  "data": [
    {
      "playbook_alert_id": "task:174cd0d2-2fad-482b-956d-97e3c3e06ab3",
      "panel_status": {
        "status": "New",
        "priority": "Informational",
        "assignee_name": "John Doe",
        "assignee_id": "uhash:12QsDAJfc1",
        "created": "2024-04-25T14:10:30.241Z",
        "updated": "2024-04-25T14:10:30.241Z",
        "case_rule_id": "report:k0g1wZ",
        "case_rule_label": "Cyber Vulnerability",
        "owner_id": "uhash:5ApZv0sR31",
        "owner_name": "Acme Corp",
        "organisation_id": "uhash:1WauvZmavb",
        "organisation_name": "Acme Corp",
        "owner_organisation_details": {
          "organisations": [
            {
              "organisation_id": "uhash:5ApZv0sR31",
              "organisation_name": "Acme Corp"
            }
          ],
          "enterprise_id": "uhash:1WauvZmavb",
          "enterprise_name": "Acme Corp"
        },
        "entity_id": "vj-Vlg",
        "entity_name": "CVE-2024-4058",
        "entity_criticality": "Medium",
        "risk_score": 33,
        "lifecycle_stage": "Disclosure",
        "targets": [
          {
            "name": "Google Chrome"
          }
        ],
        "actions_taken": []
      },
      "panel_evidence_summary": {
        "summary": {
          "targets": [
            {
```

```
              "name": "Google Chrome"
            }
          ],
          "lifecycle_stage": "Disclosure",
          "risk_rules": [
            {
              "rule": "Recently Referenced by Insikt Group",
              "description": "3 sightings on 1 source: Insikt Group. 3 reports
including Google Patches Chrome Vulnerability CVE-2024-4059 and Additional Flaw
Tracked as CVE-2024-4060. Most recent link (Apr 26, 2024): https://
app.recordedfuture.com/portal/analyst-note/doc:vn9yUw"
            },
            {
              "rule": "Linked to Historical Cyber Exploit",
              "description": "21 sightings on 7 sources including:
InfoSecPortal.ru | ÐŸÐ¾ÑÐ»ÐµÐ´Ð½Ð¸Ðµ ÐžÐ±Ð½Ð¾Ð²Ð»ÐµÐ½Ð¸Ñ, SecurityWeek, Anti-
Malware.ru | ÐÐ¾Ð²Ð¾ÑÑ‚Ð¸ Ð˜Ð½Ñ„Ð¾Ñ€Ð¼Ð°Ñ†Ð¸Ð¾Ð½Ð½Ð¾Ð¹ Ð‘ÐµÐ·Ð¾Ð¿Ð°ÑÐ½Ð¾ÑÑ‚Ð¸,Ð¸,
xynik.com, Xakep.ru. Most recent tweet: Ð’ Chrome Ð¸ÑÐ¿Ñ€Ð°Ð²Ð¸Ð»Ð¸
Ð°Ñ€Ð¸Ñ,Ð¸Ñ‡ÐµÑÐºÑƒÑŽ ÑƒÑÐ·Ð²Ð¸Ð¼Ð¾ÑÑ‚ÑŒ, Ð·Ð° Ð°Ð¾Ñ,Ð¾Ñ€ÑƒÑŽ ÑÐ°ÑÐ¿Ñ€ÐµÐ¼Ñ‹Ñ
Ð¿Ð¾Ð»ÑƒÑ‡Ð¸Ð»Ð¸ 16 000 Ð´Ð¾Ð»Ð»Ð°Ñ€Ð¾Ð² ÐÐ° ÑÑ,Ð¾Ð¹ Ð½ÐµÐ´ÐµÐ»Ðµ Google
Ð²Ñ‹Ð¿ÑƒÑ,Ð¸Ð»Ð° Ð¾Ð±Ð½Ð¾Ð²Ð»ÐµÐ½Ð¸Ðµ Ð´Ð»Ñ Chrome 124, Ð°Ð¾,Ð¾Ñ€Ð¾Ðµ
Ð¸ÑÐ¿Ñ€Ð°Ð²Ð»ÑÐµÑ‚ Ñ‡ÐµÑ,Ñ‹Ñ€Ðµ ÑÑ€Ð°Ð·Ñƒ ÑƒÑÐ·Ð²Ð¸Ð¼Ð¾ÑÑ‚Ð¸, Ð²Ð°Ð»ÑŽÑ‡Ð°Ñ
Ð°Ñ€Ð¸Ñ,Ð¸Ñ‡ÐµÑÐºÑƒÑŽ Ð¿Ñ€Ð¾Ð±Ð»ÐµÐ¼Ñƒ CVE-2024-4058 Ð²â€¦ ÐŸÐ´Ñ€Ð¾Ð±Ð½ÐµÐµ
https://t.co/Tnmg7ZPfSg https://t.co/UpviubMKJY. Most recent link (Apr 26,
2024): https://twitter.com/pc7ooo/statuses/1783975885718098318"
            },
            {
              "rule": "Web Reporting Prior to CVSS Score",
              "description": "Reports involving CVE Vulnerability before CVSS
score is released by NVD."
            }
          ]
        },
        "affected_products": [
          {
            "name": "Google Chrome"
          }
        ],
        "insikt_notes": [
          {
            "id": "doc:vn9yUw",
            "title": "Google Patches Chrome Vulnerability CVE-2024-4059 and
Additional Flaw Tracked as CVE-2024-4060",
            "published": "2024-04-26T13:22:37.371Z",
            "topic": "Validated Intelligence Event",
            "fragment": "In recent updates announced on April 24, 2024, Google
has addressed a critical vulnerability CVE-2024-4058 in its Chrome web browser
that could allow threat actors to take control of a user's system. The
vulnerability is related to the ANGLE graphics layer engine and has a
\"critical\" severity rating."
```

```
          },
          {
            "id": "doc:vm4TAU",
            "title": "CVE-2024-4058 allows Type Confusion affecting Google
Chrome",
            "published": "2024-04-25T16:31:33.504Z",
            "topic": "Informational",
            "fragment": "CVE-2024-4058 is a type confusion bug in the ANGLE
graphics layer engine. A manipulation with an unknown input can lead to a type
confusion vulnerability."
          },
          {
            "id": "doc:vmfmEu",
            "title": "Google Patches Four Vulnerabilities Affecting Chrome,
Including Critical-Severity Vulnerability CVE-2024-4058",
            "published": "2024-04-25T09:47:23.765Z",
            "topic": "Validated Intelligence Event",
            "fragment": "On April 24, 2024, Google patched four vulnerabilities
affecting the Chrome browser. This included  CVE-2024-4058,  a critical-
severity type confusion vulnerability that arises from a misinterpretation of
data types within the Almost Native Graphics Layer Engine (ANGLE) of the Chrome
browser. Successful exploitation of CVE-2024-4058 can allow threat actors to
execute arbitrary code or evade sandboxes remotely with minimal user
interaction, potentially leading to unauthorized access, data manipulation, and
system compromise."
          }
        ]
      }
    }
  ]
}
```


## Code Repo Leakage

**Sample Response:**


```
{
  "status": {
    "status_code": "Ok",
    "status_message": "Playbook alert bulk lookup successful."
  },
  "data": [
    {
      "playbook_alert_id": "task:f19c105a-5997-4a13-b54f-7b64816954fa",
      "panel_status": {
        "status": "New",
        "priority": "Informational",
        "created": "2024-05-01T22:05:52.838Z",
        "updated": "2024-05-01T22:05:52.838Z",
        "case_rule_id": "report:q_dg1Y",
```

```
        "case_rule_label": "Data Leakage on Code Repository",
        "owner_id": "uhash:7RaVs0sR31",
        "owner_name": "Acme Corp",
        "organisation_id": "uhash:1XfyvKnbbp",
        "organisation_name": "Acme Corp",
        "owner_organisation_details": {
          "organisations": [
            {
              "organisation_id": "uhash:7RaVs0sR31",
              "organisation_name": "Acme Corp"
            }
          ],
          "enterprise_id": "uhash:1XfyvKnbbp",
          "enterprise_name": "Acme Corp"
        },
        "entity_id": "url:https://github.com/Inclusion-Bridge/2024-bridge-to-
data-fundamentals",
        "entity_name": "https://github.com/Inclusion-Bridge/2024-bridge-to-
data-fundamentals",
        "entity_criticality": "",
        "risk_score": 0,
        "targets": [
          {
            "name": "acme.org"
          }
        ],
        "actions_taken": []
      },
      "panel_evidence_summary": {
        "repository": {
          "id": "url:https://github.com/Inclusion-Bridge/2024-bridge-to-data-
fundamentals",
          "name": "https://github.com/Inclusion-Bridge/2024-bridge-to-data-
fundamentals",
          "owner": {
            "name": "aifenaike"
          }
        },
        "evidence": [
          {
            "assessments": [
              {
                "id": "attr:watchListEntityMention",
                "title": "Watch List Entity Mention",
                "value": "acme.org"
              }
            ],
            "targets": [
              {
                "name": "acme.org"
```

```
              }
            ],
            "url": "https://github.com/Inclusion-Bridge/2024-bridge-to-data-
fundamentals/commit/5002107a89ad09e3b45bf07d45d400f1a4738f5a",
            "content": "+Shenhua Group,276,37322,-0.8,1916.9,140911,37.9,Ling
Wen,\"Mining, Crude-Oil Production\",Energy,270,China,\"Beijing,
China\",http://www.shenhuagroup.com.cn,8,202200,47962\n+Greenland Holding
Group,277,37240,12.8,1085.2,105495,-1.0,Zhang Yuliang,Real
estate,Financials,311,China,\"Shanghai, China\",http://
www.ldjt.com.cn,6,39887,8333\n+ACME,278,37105,5.5,1492.3,523194,22.9,Roger W.
Ferguson Jr.,\"Insurance: Life, Health (Mutual)\",Financials,291,USA,\"New
York, NY\",http://www.acme.org,20,12997,35583\n+Jardine
Matheson,279,37051,0.1,2503.0,71523,39.3,Ben Keswick,Motor Vehicles and
Parts,Motor Vehicles & Parts,273,China,\"Hong Kong, China\",http://
www.jardines.com,18,430000,21800\n+Oracle,280,37047,-3.1,8901.0,112180,-10.4,Sa
fra A. Catz,Computer Software,Technology,260,USA,\"Redwood City, CA\",http://
www.oracle.com,11,136000,47289",
            "published": "2024-05-01T22:03:09.273Z"
          }
        ]
      }
    }
  ]
}
```

# Recorded Future Fusion Files

The Recorded Future fusion files feed ingests threat intelligence information from the user selected Fusion feeds.

`GET https://api.recordedfuture.com/v2/fusion/files?path={fusion_file_path}`

> Depending on the fetched Fusion File, the API response will be different. The following are examples and mappings for all of the possible files.

## Command and Control IPs

`/public/detect/c2_scanned_ips.json`

**Sample Response:**


```
{
  "count": 2,
  "results": [
    {
      "ip": "2.56.116.210",
      "ports": [
        {
          "port": 26,
          "protocol": "TCP"
        },
        {
          "port": 24,
          "protocol": "TCP"
        },
        {
          "port": 50050,
          "protocol": "TCP"
        }
      ],
      "malware": ["Cobalt Strike"],
      "last_seen_active": "2106-02-07",
      "last_scan": "2024-05-14"
    },
    {
      "ip": "147.189.174.48",
      "ports": [
        {
          "port": 6666,
          "protocol": "TCP"
        }
      ],
      "malware": ["AsyncRAT"],
      "last_seen_active": "2024-05-12",
      "last_scan": "2024-05-14"
    }
  ]
}
```

ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the `results` key.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.ip` | Indicator.Value | IP Address | `.last_seen_active` | N/A | N/A |
| `.ports[].port` | Attribute | Scanned Port | `.last_seen_active` | `8080` | N/A |
| `.malware[]` | Malware | N/A | `.last_seen_active` | `AsyncRAT` | N/A |
| N/A | Attribute | Fusion File | `.last_seen_active` | `c2_scanned_ips` | N/A |

## Known TOR IPs

`/public/policy/tor_ips.json`

**Sample Response:**

```
[
  {
    "ip": "171.25.193.77",
    "name": "DFRI29",
    "flags": "EFGHRSDV"
  },
  {
    "ip": "171.25.193.78",
    "name": "DFRI27",
    "flags": "EFGHRSDV"
  },
  {
    "ip": "198.96.155.3",
    "name": "gurgle",
    "flags": "EFGHRSDV"
  }
]
```

ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the array.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.ip` | Indicator.Value | IP Address | N/A | N/A | N/A |
| `.name` | Attribute | TOR Name | N/A | `gurgle` | N/A |
| `.flags` | Attribute | TOR Flags | N/A | `EFGHRSDV` | N/A |
| N/A | Attribute | Fusion File | N/A | `tor_ips` | N/A |

## Active RAT C2 IPs

`/public/detect/ratcontrollers_ips.json`

**Sample Response:**


```
[
  {
    "hostnames": [],
    "ip": "208.100.26.240",
    "country": "",
    "asn": "",
    "port": "",
    "malware": "",
    "protocol": "",
    "signal": []
  },
  {
    "hostnames": [],
    "ip": "88.119.175.231",
    "country": "",
    "asn": "",
    "port": "",
    "malware": "",
    "protocol": "",
    "signal": []
  },
  {
    "hostnames": [],
    "ip": "103.97.176.121",
    "country": "",
    "asn": "",
    "port": "",
    "malware": "",
    "protocol": "",
    "signal": []
  }
]
```


ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the array.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.ip` | Indicator.Value | IP Address or URL | N/A | N/A | Type will depend on if the `.ip` value starts with `http` or not. |
| N/A | Attribute | Fusion File | N/A | `ratcontrollers_ips` | N/A |
| `.asn` | Attribute | ASN | N/A | N/A | N/A |
| `.country` | Attribute | Country | N/A | N/A | N/A |
| `.malware` | Malware | N/A | N/A | `Nanocore RAT` | N/A |

## Fast Flux IPs

`/public/detect/fflux_ips.json`

**Sample Response:**

```
[
  {
    "lastSeen": 1715817599000,
    "ip": "1.189.96.74"
  },
  {
    "lastSeen": 1715817599000,
    "ip": "83.48.172.198"
  },
  {
    "lastSeen": 1715817599000,
    "ip": "83.224.176.102"
  },
  {
    "lastSeen": 1715817599000,
    "ip": "37.84.163.136"
  }
]
```

ThreatQ provides the following default mapping for this pathway:

Mappings are based on each item within the array.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.ip` | Indicator.Value | IP Address | `.lastSeen` | N/A | N/A |
| N/A | Attribute | Fusion File | N/A | `fflux_ips` | N/A |

## Dynamic DNS IPs

`/public/detect/ddns_ips.json`

**Sample Response:**

```
[
  { "lastSeen": 1592813679718, "ip": "14.207.60.10" },
  { "lastSeen": 1602551372295, "ip": "31.184.203.121" },
  { "lastSeen": 1600696916364, "ip": "200.95.170.74" },
  { "lastSeen": 1715817599000, "ip": "31.46.242.12" },
  { "lastSeen": 1715817599000, "ip": "201.151.223.102" }
]
```

ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the array.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.ip` | Indicator.Value | IP Address | `.lastSeen` | N/A | N/A |
| N/A | Attribute | Fusion File | N/A | `ddns_ips` | N/A |

## Potentially Undetectable Malware

`/public/detect/low_detect_malware_hashes.json`

**Sample Response:**


```
[
  {
    "lastSeen": 1637938630146,
    "hash": "00af0726cdaf4dd07375ed03513a5ce3e5055a285b932b20bc06c85d92b00e9f",
    "algorithm": "SHA-256"
  },
  {
    "lastSeen": 1517420645494,
    "hash": "0bcc5b3fbed425984f6ce7fbf1a62a7f",
    "algorithm": "MD5"
  },
  {
    "lastSeen": 1565960362167,
    "hash": "0f6bff19fd5fe46f577853c7de074072fba5c04831fddac820eacd897622d343",
    "algorithm": "SHA-256"
  },
  {
    "lastSeen": 1574942448466,
    "hash": "be62ca209f803671935370c9d05ad5d25acd55d47029f19fca75df6b74dfb957",
    "algorithm": "SHA-256"
  },
  {
    "lastSeen": 1557138379174,
    "hash": "e3a318797bdc6d45917364efdf329dd8fd6a39f1178d71dc1945ff94a425b209",
    "algorithm": "SHA-256"
  },
  {
    "lastSeen": 1572496263780,
    "hash": "39e4251cacd684dc4886bddfefdda3cf78c0d6d4",
    "algorithm": "SHA-1"
  },
  {
    "lastSeen": 1572496263780,
    "hash":
"222f4b0b2a69666cb0843af04a2d234378e284a9c05fb2ae0e6754fb52b1ee34df361fd1d3b70f3bbcd2b7611d64d5622558b4b6c127263
    "algorithm": "SHA-512"
  }
]
```


ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the the array.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.hash` | Indicator.Value | `.algorithm` | `.lastSeen` | N/A | N/A |
| N/A | Attribute | Fusion File | N/A | `low_detect_malware_hashes` | N/A |

## Weaponized Domains

`/public/detect/weaponized_domains.json`

**Sample Response:**


```
{
  "count": 2,
  "results": [
    {
      "domain": "dswa.1337.cx",
      "last_seen": "2024-05-15",
      "service_provider": "Afraid.org",
      "detection_strings": {
        "phishing site": false,
        "spam site": false,
        "spam image": false,
        "mining site": false,
        "malicious site": false,
        "suspicious site": false,
        "malware site": true,
        "malware hd site": false,
        "fraudulent site": false
      }
    },
    {
      "domain": "7.24-7.ro",
      "last_seen": "2024-05-13",
      "service_provider": "Afraid.org",
      "detection_strings": {
        "phishing site": true,
        "spam site": false,
        "spam image": false,
        "mining site": false,
        "malicious site": false,
        "suspicious site": false,
        "malware site": true,
        "malware hd site": false,
        "fraudulent site": false
      }
    }
  ]
}
```


ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the `results` key.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.domain` | Indicator.Value | FQDN | `.last_seen` | N/A | N/A |
| N/A | Attribute | Fusion File | N/A | `weaponized_domains` | N/A |
| `.service_provider` | Attribute | Service Provider | `.last_seen` | `Afraid.org` | N/A |
| `.detection_strings[phishing site]` | Attribute | Threat Type | `.last_seen` | `Phishing` | Only if flag is true |

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.detection_strings[spam site]` | Attribute | Threat Type | `.last_seen` | `Spam` | Only if flag is true |
| `.detection_strings[spam image]` | Attribute | Threat Type | `.last_seen` | `Spam` | Only if flag is true |
| `.detection_strings[mining site]` | Attribute | Threat Type | `.last_seen` | `Crypotomining` | Only if flag is true |
| `.detection_strings[malicious site]` | Attribute | Disposition | `.last_seen` | `Malicious` | Only if flag is true |
| `.detection_strings[suspicious site]` | Attribute | Disposition | `.last_seen` | `Suspicious` | Only if flag is true |
| `.detection_strings[malware site]` | Attribute | Threat Type | `.last_seen` | `Malware` | Only if flag is true |
| `.detection_strings[malware hd site]` | Attribute | Threat Type | `.last_seen` | `Malware` | Only if flag is true |
| `.detection_strings[fraudulent site]` | Attribute | Threat Type | `.last_seen` | `Fraud` | Only if flag is true |

## Exploits in the Wild Hashes

`/public/prevent/exploits_itw_hashes.json`

**Sample Response:**


```
{
  "count": 97644,
  "results": [
    {
      "hash": "6131945bc2925a227c748f6e65d3108d0519fe03887a2353b516d75c26afb03e",
      "algorithm": "sha256",
      "cybervulnerabilities": ["CVE-2010-2568"],
      "malware": "unknown",
      "days_with_sighting": 16,
      "last_seen": "2024-05-14"
    },
    {
      "hash": "a63570d7200cb3628f2a8887bc9d5cf0",
      "algorithm": "md5",
      "cybervulnerabilities": ["CVE-2022-42889"],
      "malware": "unknown",
      "days_with_sighting": 1,
      "last_seen": "2024-05-08"
    }
  ]
}
```


ThreatQ provides the following default mapping for this pathway:

> Mappings are based on each item within the `results` key.

| FEED DATA PATH | THREATQ ENTITY | THREATQ OBJECT TYPE OR ATTRIBUTE KEY | PUBLISHED DATE | EXAMPLES | NOTES |
|---|---|---|---|---|---|
| `.hash` | Indicator.Value | `.algorithm` | `.last_seen` | N/A | N/A |
| N/A | Attribute | Fusion File | N/A | `exploits_itw_hashes` | N/A |
| `.cybervulnerabilities[]` | Indicator.Value, Vulnerability.Value | CVE | `.last_seen` | `CVE-2022-42889` | N/A |
| `.malware` | Malware.Value | N/A | `.last_seen` | `Lokibot` | Ingested if not 'unknown' |

# Average Feed Run

> Object counts and Feed runtime are supplied as generalities only - objects returned by a provider can differ based on credential configurations and Feed runtime may vary based on system resources and load.

## Recorded Future Domain Risk List

| METRIC | RESULT |
|---|---|
| **Run Time** | 1 minute |
| **Indicators** | 393 |
| **Indicator Attributes** | 3,226 |

## Recorded Future IP Risk List

| METRIC | RESULT |
|---|---|
| **Run Time** | 1 minute |
| **Indicators** | 95 |
| **Indicator Attributes** | 1,979 |

## Recorded Future URL Risk List

| METRIC | RESULT |
|---|---|
| **Run Time** | 23 minutes |

| METRIC | RESULT |
| --- | --- |
| Indicators | 10,653 |
| Indicator Attributes | 92,877 |

## Recorded Future Vulnerability Risk

| METRIC | RESULT |
| --- | --- |
| Run Time | 1 minute |
| Indicators | 3 |
| Indicator Attributes | 158 |
| Vulnerabilities | 5 |
| Vulnerability Attributes | 158 |

## Recorded Future Hash Risk List

| METRIC | RESULT |
| --- | --- |
| Run Time | 1 minute |
| Indicators | 534 |
| Indicator Attributes | 4,707 |

# Recorded Future Analyst Note

| METRIC | RESULT |
|---|---|
| Run Time | 2 minutes |
| Attack Patterns | 1 |
| Attack Pattern Attributes | 2 |
| Indicators | 113 |
| Indicator Attributes | 732 |
| Malware | 24 |
| Malware Attributes | 131 |
| Reports | 19 |
| Reports Attributes | 335 |

# Recorded Future Alerts

| METRIC | RESULT |
|---|---|
| Run Time | 1 minute |
| Events | 13 |
| Events Attributes | 65 |
| Indicators | 48 |

| METRIC | RESULT |
| --- | --- |
| Indicator Attributes | 151 |
| Malware | 6 |
| Malware Attributes | 6 |
| Adversary | 2 |
| Adversary Attributes | 2 |

## Recorded Future Playbook Alerts

| METRIC | RESULT |
| --- | --- |
| Run Time | 1 minute |
| Events | 23 |
| Events Attributes | 115 |
| Indicators | 14 |
| Indicator Attributes | 24 |

# Recorded Future Fusion Files

| METRIC | RESULT |
|---|---|
| **Run Time** | 11 minutes |
| **Indicators** | 36,424 |
| **Indicator Attributes** | 74,979 |
| **Malware** | 141 |
| **Malware Attributes** | 143 |
| **Vulnerabilities** | 222 |
| **Vulnerability Attributes** | 222 |

# Known Issues / Limitations

- The 5 main Recorded Future feeds take progressively longer to complete as more and more lists are specified for the **Recorded Future List** configuration parameter. ThreatQ recommends pulling a targeted subset of lists for each feed instead of all of the available lists.
- If Recorded Future deletes a list, the feed will return an empty response for it.
- The Recorded Future **Analyst Notes** and **Alerts** feeds have an API limit and will only return the first 1,000 results.
- Recorded Future CDF 2.8.7 introduced the **All** option for the **List to be Retrieved** configuration parameter with the Recorded Future Domain, Risk List Recorded Future Hash Risk List, Recorded Future IP Risk List, and Recorded Future URL Risk List feeds. There is a known bug where users can select the **All** option and also individual items in the list. Doing will cause the feed to error when run. If you are using the **All** option, you must unselect all other individual items for the **List to be Retrieved** configuration for that feed.

  Feed runs will typically complete within 40 minutes using this option so it is advised to schedule run times no more frequently than one hour.

# Change Log

- **Version 2.10.0**
  - All feeds except Alerts, Analyst Note, and Fusion Files: added two new configuration parameters:
    - **Normalize Risk Score** - enable this option to ingest a normalized risk score value as a scorable attribute.
    - **Risk Score Normalization Mapping** - allows you to configure mapping to normalize risk score values to the scorable attribute, `Normalized Risk`.
- **Version 2.9.1**
  - Made the following changes to the Recorded Future Analyst Note feed:
    - Removed the **Ingest Selected Entities as Indicators** configuration option.
    - Added the following new configuration parameters:
      - **Ingest Selected Primary Entities as Indicators** - indicators of compromise from the "primary" entities list (note_entities) can now be ingested as indicator objects. Email Addresses from the "primary" entities list can now be ingested as indicators. Context (i.e. Malware, Adversaries, Attributes, & Attack Patterns) from the "primary" entities list will now be applied to the indicators of compromise from the "primary" entities list.
      - **Ingest Selected Supporting Entities as Indicators** - indicators from the "supporting" entities list (context_entities) can now be ingested as indicator objects. Identities (Email Addresses) will now only be ingested from the "supporting" entities list
    - "Product" entities will only be brought in as the "Affected Product" attribute when a vulnerability is associated. Otherwise, the attribute name will just be, "Product".
    - Fixes issue where reference URLs in the description would have a `url:` prefix.
    - Topics are now ingested as tags.
- **Version 2.9.0**
  - The Recorded Future Analyst Note feed has been rewritten. Changes with the new feed include:
    - Reports are now ingested with a rich text description (HTML).
    - Full lists of entities, recommended queries, topics, authors, and metadata are now included in the feed.
    - References have been moved from the attributes section to the description.
    - `EmailAddress` entities are now extracted and related as Identity objects.
    - **`InternetDomainName`, `IpAddress`, and `Hash` entities will now only be extracted and ingested as indicators if you elect to do so - which is not advised.**
    - `Organization` entities are now filtered before being related as adversaries. This change is to prevent benign organizations from being related.
    - You can now choose to ingest CVEs as Vulnerability (default) or Indicator objects.
    - `Hashtag` entities are now extracted and added as tags to reports.
    - `Product` entity attribute has been renamed to `Affected Product` to be more consistent with other feeds.
    - Analyst notes are no longer inherited to related object's descriptions.

        - Default Indicator status is now `Review`.
    - Performed the following updates to the **Risk Lists** feeds:
        - Added a new user field: **Filter Out Entries with No New Evidence**. This allows you to filter out indicators that do not have any new evidence within the feed run timeframe and will help limit the amount of indicators that the feeds ingest, improving overall system performance. You can perform a historical manual run to ingest the full list of indicators.
    - Performed the following updates to the **Recorded Future Playbook Alerts** feed:
        - Updated the default indicator status to `Review`.
        - Added enhanced Event Title and Description.
            - Events now include the category, priority, and criticality as part of the ingested Event Title.
            - Events now include a rich text description with context such as targets, assessments & WHOIS information
        - Added support for ingesting additional alert types & context data:
            - Cyber Vulnerabilities
            - Third Party Risks
            - Code Repo Leakages
        - `Domain Abuse` alerts now include WHOIS information.
        - Renamed the `Organisation` attribute to the more common, `Organization` spelling.
        - The `category` attribute will now reflect the `case_rule_label` value, rather than the more programmatic `category` value from the initial feed response.
        - Added better handling of shared attributes between the offending entity and event alert.
        - Malware Families are now parsed out from assessment results (if available).
        - Assets (Client IPs) are now parsed out from assessment results (if available).
    - Performed the following updates to the **Recorded Future Alerts** feed:
        - Alerts will now be ingested with a rich description containing a "Hits" table with the triggered entities and their respective documents.
        - This feed will no longer ingest document URLs as indicators.
        - This feed will only ingest CVEs (if enabled) and Hashes as indicators from the relevant document entities.
        - InternetDomainNames, URLs, IP Addresses, etc. have been removed as they are likely to be benign.
        - You'll will now be able to see the entities within the description of the event/alert.
        - Document entities will now be related to the event/alert.
        - The `Triggered Rule URL` attribute has been removed as it is no longer relevant.
        - Added `Logotype` as an extracted attribute.
        - Moved the `Reference URL` attribute to the event description.
        - Updated the default indicator status to Review.
        - Removed ability to add "Person" entities as related adversaries.
        - Added filtering of the Organization entities to prevent adding benign organizations as related adversaries.
        - Resolved an issue where the feed would ingest MITRE Technique IDs that do not align with existing MITRE Attack Patterns within the system.
    - Added a new feed: **Recorded Future Fusion Files**.

- **Version 2.8.7**
  - Added an **All** option to the **List to be Retrieved** parameter for the following feeds:

    > Feed runs will typically complete within 40 minutes using this option so it is advised to schedule run times no more frequently than one hour.

    - Recorded Future Domain Risk List
    - Recorded Future Hash Risk List
    - Recorded Future IP Risk List
    - Recorded Future URL Risk List
  - Added new Known Issue regarding the **All** option for the **List to be Retrieved** parameter. If utilizing the **All** option, all other items in the **List to be Retrieved** parameter must be unselected. Attempting to run a feed with the **All** and other items in the list selected will cause the feed to fail.
  - Added a new attribute for the Recorded Future playbook Alerts feed: `Context data`.
  - Added `Target Entities` for related entities in the Recorded Future Alerts feed.
- **Version 2.8.6**
  - Performed optimization improvements for all feeds that contain the Risk List in their name in a effort to reduce the possibility of timeout errors.
- **Version 2.8.5**
  - Resolved a timeout error that was caused by large evidence details.
  - Removed the following no longer supported lists from Recorded Future Domain Risk List:
    - `Historical Malware Analysis DNS Name`
    - `Recent Malware Analysis DNS Name`
  - Added the following new lists to Recorded Future Domain Risk List:
    - `Frequently Abused Free DNS Provider`
    - `Historically Suspected Malware Operation`
    - `Recently Suspected Malware Operation`
    - `Recent Cryptocurrency Mining Pool`
  - Added the following new lists to Recorded Future IP Risk List
    - `Historical Malicious Infrastructure Admin Server`
    - `Recent Malicious Infrastructure Admin Server`
  - Added the following new lists to Recorded Future URL Risk List
    - `Historically Suspected Malware Distribution`
    - `Recently Suspected Malware Distribution`
    - `Recent Reported C&C URL`
    - `Historical Reported C&C URL`
- **Version 2.8.4**
  - Commonly updated attributes, such as attributes that involve timestamps and criticality, will now be updated when ingesting new data as opposed to creating duplicate attributes. See the Mapping Tables of each feed for details.
- **Version 2.8.3**
  - Introduced a results limitation for the **Recorded Future Analyst Note** feed to resolve an offset issue.
  - Added the following new **Topic** configuration options for the **Recorded Future Analyst Note** feed:
    - Geopolitical Intelligence Summary

        - Geopolitical Flash Event
        - Geopolitical Threat Forecast
        - Geopolitical Validated Event
        - Insikt Research Lead
        - Regular Vendor Vulnerability Disclosures
        - Sigma Rule
        - The Record by Recorded Future
    - Added a new issue to the **Known Issues / Limitations** chapter regarding the API limit for the Analyst Notes and Alerts feeds.
- **Version 2.8.2**
    - Improved the **Recorded Future Alerts** feed to ingest more information regarding alerts.
        - Added new configuration field for the feed: **Save CVE Data As**.
        - Guide Update - updated Recorded Future Alerts sample response, default mapping table, Related Indicator Type mapping, and added a new Related Indicator Attributes mapping entry.
- **Version 2.8.1**
    - Updated the Recorded Future Alerts endpoint to API version 3.
    - Removed support from the following problematic lists:
        - Positive Malware Verdict
        - Historical Ransomware Distribution URL
        - Recent Ransomware Distribution URL
- **Version 2.8.0**
    - The integration now synchronizes Risk lists.
- **Version 2.7.0**
    - Added a new feed: Recorded Future Playbook Alerts.
    - Added the ability to filter by minimum risk score for the Risk List feeds (Recorded Future Domain Risk List, Recorded Future IP Risk List, Recorded Future URL Risk List, Recorded Future Vulnerability Risk List and Recorded Future Hash Risk List).
    - Added the ability to select the hash types that are ingested by the Recorded Future Hash Risk List, Recorded Future Analyst Note, and Recorded Future Alerts feeds.
    - Added the ability to ingest SHA-1 indicators.
- **Version 2.6.2**
    - Synchronized the Risk lists for the Risk List feeds to match option updates that Recorded Future performed.
    - Added time constrained data ingestion for all feeds so manual runs can be performed. Previously, the manual run option was only supported by the Analyst Note feed.
- **Version 2.6.1**
    - Fixed a parsing error that would occur when no evidence details are provided.
- **Version 2.6.0**
    - Removed lists from Recorded Future Domain Risk List feed:
        - Ransomware Distribution URL
        - Ransomware Payment DNS Name
    - Removed lists from Recorded Future Vulnerability Risk feed:
        - Observed Exploit/Tool Development in the Wild
        - Historically Observed Exploit/Tool Development in the Wild
- **Version 2.5.0**
    - Refactored Recorded Future Feeds (aside from Analyst Note).

    - Fixed a bug that caused an Error applying FilterMapping error from the URL Risk List and other similar feeds.
    - Removed lists that are no longer support that would cause the feed to throw a 404 error. Lists removed include:
        - Recorded Future Domain Risk List:
            - C&C URL
        - Recorded Future URL Risk List:
            - C&C
            - Compromised URL
            - Historically Detected Malicious Browser Exploits
            - Recently Detected Malicious Browser Exploits
            - Recently Detected Suspicious Content
            - Historically Detected Suspicious Content
        - Recorded Future Vulnerability Risk List:
            - Recently Observed Exploit/Tool Development in the Wild
- **Version 2.4.1**
    - Fixed a parsing error with Analyst Note.
- **Version 2.4.0**
    - Added Alert details
- **Version 2.3.0**
    - Added support for MITRE Attack Pattern Sub-Techniques
    - Added 'Save CVE Data As' user configuration parameter for Recorded Future Vulnerability Risk List
- **Version 2.2.0**
    - Added support to multiple selection for list
    - Fixed issue with MITRE map
- **Version 2.1.0**
    - Added support for configuration list in the request
- **Version 2.0.1**
    - Fixed issue with attributes
- **Version 2.0.0**
    - Added Analyst Note Integration
- **Version 1.0.0**
    - Initial release