ThreatQuotient

Recorded Future Action Bundle

Version 1.2.0

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Contents

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Support Email: support@threatq.com
Support Web: https://support.threatq.com
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Integration Details

ThreatQuotient provides the following details for this integration:

Current Integration Version	1.2.0
Compatible with ThreatQ Versions	>= 5.19.0
ThreatQ TQO License Required	Yes
Support Tier	ThreatQ Supported

Introduction

The Recorded Future Action bundle submits any supported object types from a Data Collection to the Recorded Future API. Recorded Future, based on the action used, can return a risk score and associated rule for each Indicator of Compromise (if found) as well as additional information about vulnerabilities and related IOCs.

The integration provides the following actions:

- **Recorded Future** - retrieves the risk score of an IP address, domain or URL, hash, vulnerability as well as the rules and values of the provided IP address, domain, URL, hash, vulnerability which tells how critical the object is.
- **Recorded Future Vulnerabilities** - retrieves the rules and values of the provided IP address, domain, URL, hash, vulnerability which tells how critical the object is.
- **Recorded Future - GeoIP Lookup** - retrieves the geographical location and proxy information of the provided IP address.

The actions are compatible with the following object types:

- Indicators
  - MD5
  - SHA-1
  - SHA-256
  - SHA-512
  - IP Address
  - Domain
  - CVE
  - URL
- Vulnerabilities

The action returns the following enriched data:

- Indicators
  - Indicator Attributes
  - Indicator Tags
- Vulnerabilities

This action is intended for use with ThreatQ TDR Orchestrator (TQO). An active TQO license is required for this feature.

Prerequisites

- An active ThreatQ TDR Orchestrator (TQO) license.
- Recorded Future API key.
- A data collection containing at least one of the following object types:
  - Indicators
    - IP Address
    - Domains
    - URLs
    - Hashes
  - Vulnerabilities

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 action zip file.
3. Navigate to the integrations management page on your ThreatQ instance.
4. Click on the **Add New Integration** button.
5. Upload the action zip file using one of the following methods:
   - Drag and drop the zip file into the dialog box
   - Select **Click to Browse** to locate the zip file on your local machine
6. Select the action(s) to install.

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

You will still need to configure the action.

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:

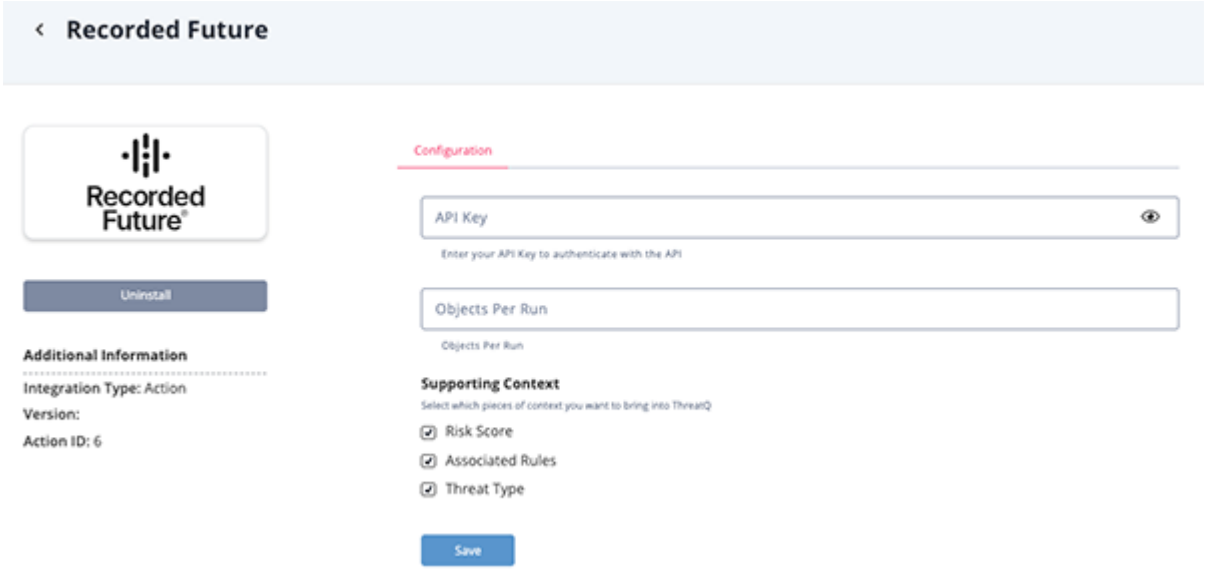
1. Navigate to your integrations management page in ThreatQ.
2. Select the **Actions** option from the *Category* dropdown (optional).
3. Click on the action entry to open its details page.
4. Enter the following parameters under the **Configuration** tab:

> The configurations set on this page will be used as the default settings when inserting this action into a new workflow. Updating the configurations on this page will not update any instances of this action that have already been deployed to a workflow. In that scenario, you must update the action's configurations within the workflow itself.

Recorded Future Parameters

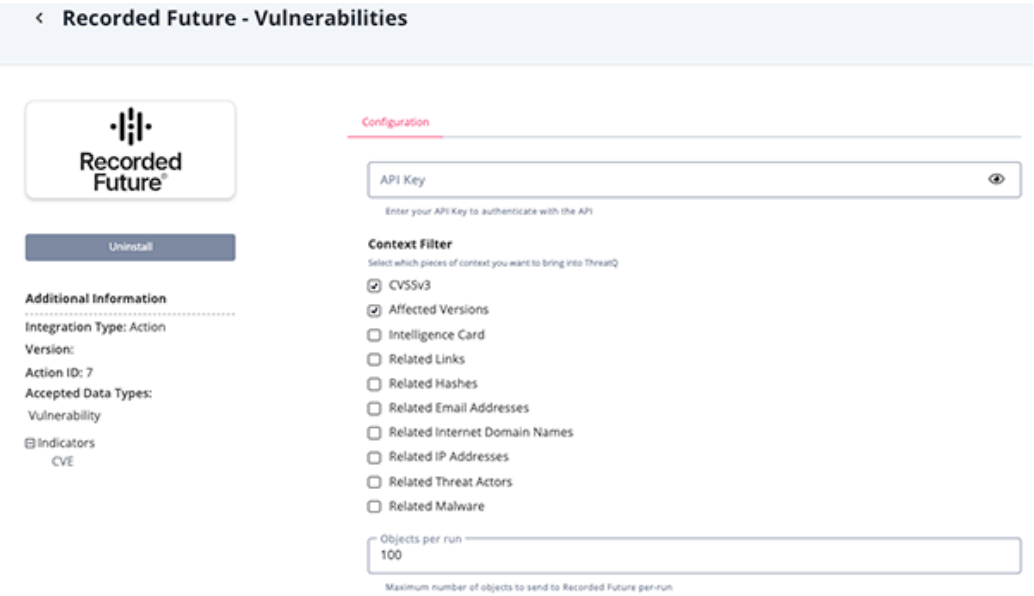
PARAMETER	DESCRIPTION
API Key	Your Recorded Future API Key.
Objects Per Run	The number of object to return with each run.
Supporting Context *(Recorded Future action)*	Select the context for the action to return. Options include: ◦ Risk Score ◦ Associated Rules ◦ Threat Type
Supporting Context *(Recorded Future Vulnerabilities action)*	Select the context for the action to return. Options include: ◦ CVSSv3 (default) - ingests attributes related to CVSS ◦ Affected Versions (default) - ingests cpe22Uri information as one attribute ◦ Intelligence Card - ingests the attribute Intelligence Card ◦ Related Links - ingests the attribute Related Links

PARAMETER	DESCRIPTION
	◦ Related Hashes - ingests hash values as related indicators ◦ Related Email Addresses - ingests email addresses as related indicators ◦ Related Internet Domain Names - ingests FQDNs as related indicators ◦ Related IP Addresses - ingests IP Addresses as related indicators ◦ Related Threat Actors - ingests threat actors as related adversaries ◦ Related Malware - ingests malware as related malware



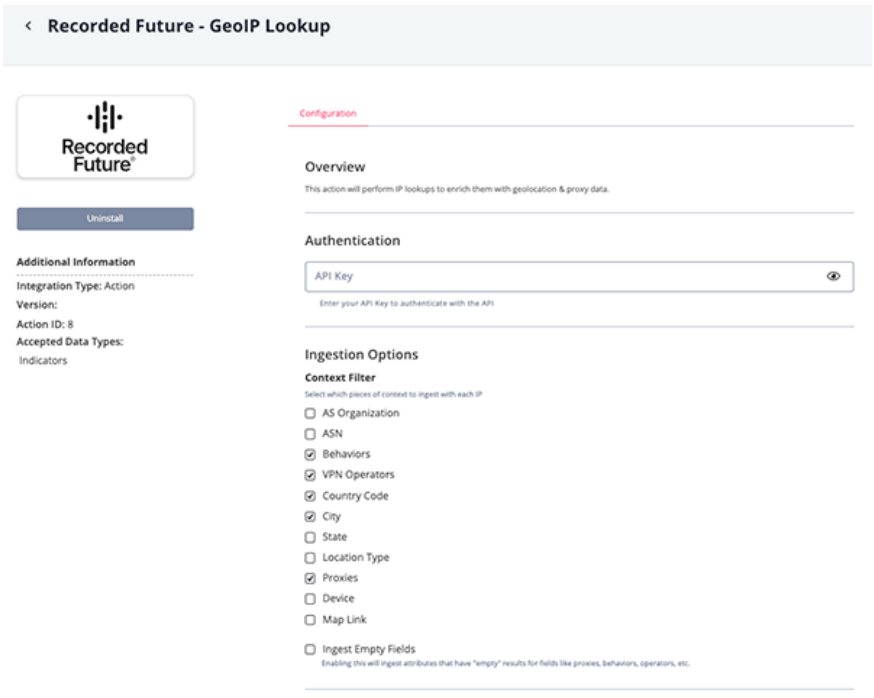
Recorded Future - Vulnerabilities Parameters

PARAMETER	DESCRIPTION
API Key	Your Recorded Future API Key.
Objects Per Run	The number of object to return with each run.
Supporting Context	Select the context for the action to return. Options include: ◦ **CVSSv3 (default)** - ingests attributes related to CVSS ◦ **Affected Versions (default)** - ingests cpe22Uri information as one attribute ◦ **Intelligence Card** - ingests the attribute Intelligence Card ◦ **Related Links** - ingests the attribute Related Links ◦ **Related Hashes** - ingests hash values as related indicators ◦ **Related Email Addresses** - ingests email addresses as related indicators ◦ **Related Internet Domain Names** - ingests FQDNs as related indicators ◦ **Related IP Addresses** - ingests IP Addresses as related indicators ◦ **Related Threat Actors** - ingests threat actors as related adversaries ◦ **Related Malware** - ingests malware as related malware



Recorded Future - GeoIP Lookup Parameters

PARAMETER	DESCRIPTION
API Key	Your Recorded Future API Key.
Context Filter	Select which pieces of context to ingest with each IP. Options include: ◦ AS Organization ◦ ASN ◦ Behaviors (default) ◦ VPN Operators (default) ◦ Country Code (default) ◦ City (default) ◦ State ◦ Location Type ◦ Proxies (default) ◦ Device ◦ Map Link
Ingest Empty Fields	Enable this parameter to ingest attributes that have empty results for fields such as proxies, behaviors, and operators. This parameter is disabled by default.
Objects Per Run	The number of object to return with each run.



5. Review any additional settings, make any changes if needed, and click on **Save**.

Actions Functions

The following actions are available with the integration:

ACTION	DESCRIPTION	OBJECT TYPE	OBJECT SUBTYPE
Recorded Future	Submits the data to the SOAR Enrichment API and gets the IOC related data	Indicator	MD5, SHA-1, SHA-256, SHA-512, IP Address, Domain, URL, CVE
Recorded Future - Vulnerabilities	Submits the data to the Vulnerability API and gets more information and related IOCs	Indicator, Vulnerability	Indicator Type: CVE
Recorded Future - GeoIP Lookup	Retrieves the geographical location and proxy information of the provided IP address.	Indicator	IP Address

Recorded Future

The Recorded Future action collects the user data fields and submits it to the Recorded Future API via POST call. The API analyzes the IP Address or url or domain which we have passed as run_params, sends the risk score, rule associated to it and even the threat type of the object.

`POST https://api.recordedfuture.com:443/v2/soar/enrichment`

Sample Response:


```
[
    {
        "Recorded_Future_action": {
            "results": [
                {
                    "entity": {
                        "id": "ip:5.39.93.43",
                        "name": "5.39.93.43",
                        "type": "IpAddress"
                    },
                    "risk": {
                        "context": {
                            "c2": {
                                "rule": {
                                    "count": 0,
                                    "maxCount": 2
                                },
                                "score": 0.0
                            },
                            "phishing": {
                                "rule": {
                                    "count": 0,
                                    "maxCount": 3
                                },
                                "score": 0.0
                            },
                            "public": {
                                "mostCriticalRule": "Historical Positive
Malware Verdict",
                                "rule": {
                                    "maxCount": 63
                                },
                                "score": 24.0,
                                "summary": [
                                    {
                                        "count": 6.0,
                                        "level": 1.0
                                    }
                                ]
                            }
```

```
                        },
                        "level": 1.0,
                        "rule": {
                            "count": 6,
                            "evidence": {
                                "analystNote": {
                                    "count": 1,
                                    "description": "1 sighting on 1 source: <e
id=VKz42X>Insikt Group</e>. 1 report: Recorded Future-analyzed sample
communicates with <e id=ip:5.39.93.43>5[.]39[.]93[.]43</e>, historical <e
id=LPc838>C&C server</e>. Most recent link (Jul 30, 2018): https://
app.recordedfuture.com/live/sc/5UVpLbAD91Ga",
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historically Reported by Insikt
Group",
                                    "sightings": 1,
                                    "timestamp": "2018-07-30T00:00:00.000Z"
                                },
                                "cncServer": {
                                    "count": 2,
                                    "description": "3 sightings on 2 sources:
<e id=RqhhKn>BroadAnalysis</e>, <e id=VKz42X>Insikt Group</e>.",
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historical C&C Server",
                                    "sightings": 3,
                                    "timestamp": "2022-09-08T07:45:46.296Z"
                                },
                                "historicalThreatListMembership": {
                                    "count": 1,
                                    "description": "Previous sightings on 1
source: <e id=report:Tluf00>Recorded Future Analyst Community Trending
Indicators</e>. Observed between Aug 13, 2018, and Aug 21, 2018.",
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historically Reported in Threat
List",
                                    "sightings": -1,
                                    "timestamp": "2022-09-08T07:45:46.296Z"
                                },
                                "linkedIntrusion": {
                                    "count": 2,
                                    "description": "3 sightings on 2 sources:
<e id=LErKlJ>Malware-Traffic-Analysis.net - Blog Entries</e>, <e
id=TbciDE>ReversingLabs</e>. 5 related intrusion methods: <e id=JVTS__>Exploit
Kit</e>, <e id=QhiNin>CryptMix</e>, <e id=LFGSHZ>RIG Exploit Kit</e>, <e
id=J0Nl-p>Ransomware</e>, <e id=ctmpMt>Trojan.Hydracrypt</e>. Most recent link
(Oct 19, 2016): https://a1000.reversinglabs.com/accounts/login/?next=/
%3Fq%3D573c68bd0951e81e24d4fc5ca8fb9756866e53aefa8ea085a0d5aa31f28dbf08",
```

```
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historically Linked to Intrusion
Method",
                                    "sightings": 3,
                                    "timestamp": "2016-10-19T12:26:00.000Z"
                                },
                                "positiveMalwareVerdict": {
                                    "count": 2,
                                    "description": "3 sightings on 2 sources:
<e id=LErKlJ>Malware-Traffic-Analysis.net - Blog Entries</e>, <e
id=TbciDE>ReversingLabs</e>. Most recent link (Oct 17, 2016): http://malware-
traffic-analysis.net/2016/10/17/index.html",
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historical Positive Malware
Verdict",
                                    "sightings": 3,
                                    "timestamp": "2016-10-19T00:00:00.000Z"
                                },
                                "threatResearcher": {
                                    "count": 1,
                                    "description": "2 sightings on 1 source: <e
id=RqhhKn>BroadAnalysis</e>. Most recent link (Oct 17, 2016): http://
www.broadanalysis.com/2016/10/17/rig-exploit-kit-via-eitest-delivers-crypt2-
ransomware-c2-5-39-93-43/",
                                    "level": 1,
                                    "mitigation": "",
                                    "rule": "Historical Threat Researcher",
                                    "sightings": 2,
                                    "timestamp": "2016-10-17T18:27:32.000Z"
                                }
                            },
                            "maxCount": 64,
                            "mostCritical": "Historical Positive Malware
Verdict",
                            "summary": [
                                {
                                    "count": 6.0,
                                    "level": 1.0
                                }
                            ]
                        },
                        "score": 24
                    }
                }
            ]
        }
```

```
    }
]
```

ThreatQuotient provides the following default mapping for this function:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.tags`	Indicator.Tag	Tag	N/A	`Emotet`	
`.attributes`	Indicator.Attribute	Attribute	N/A	`Emotet`	
`.md5_hash`	Indicator.Value	MD5	N/A	N/A	
`.sha1_hash`	Indicator.Value	SHA-1	N/A	N/A	
`.sha256_hash`	Indicator.Value	SHA-256	N/A	N/A	
`.sha512_hash`	Indicator.Value	SHA-512	N/A	N/A	
`.c2`	Indicator.Value	IP ADDRESS	N/A	`5.39.93.43`	
`.c2`	Indicator.Value	URL	N/A	`https://www.gmail.com/malware.php`	
`.c2`	Indicator.Value	Domain	N/A	`google.com`	

Recorded Future - Vulnerabilities

The Recorded Future - Vulnerabilities action submits CVE type indicators or vulnerabilities to Recorded Future Vulnerability API. The API returns more information about the vulnerability and related IOCs. Depending on user data fields the selected pieces of information are ingested to the ThreatQ platform.

`GET https://api.recordedfuture.com/v2/vulnerability/CVE-2021-21033`

Sample Query Request:

```
{
  "fields":
"nvdDescription,entity,timestamps,relatedEntities,cvssv3,cpe22uri,intelCard,relatedLinks"
}
```

Sample Response:

```
{
  "data": {
    "relatedLinks": [
      "https://github.com/zldww2011/CVE-2018-0802_POC",
      "http://www.securityfocus.com/bid/102347"
    ],
    "timestamps": {
      "lastSeen": "2023-10-02T21:36:50.949Z",
      "firstSeen": "2018-01-09T18:54:06.320Z"
    },
    "cvssv3": {
      "scope": "UNCHANGED",
      "exploitabilityScore": 1.8,
      "modified": "2020-08-24T17:37:00.000Z",
      "baseSeverity": "HIGH",
      "baseScore": 7.8,
      "privilegesRequired": "NONE",
      "userInteraction": "REQUIRED",
      "impactScore": 5.9,
      "attackVector": "LOCAL",
      "integrityImpact": "HIGH",
      "confidentialityImpact": "HIGH",
      "vectorString": "CVSS:3.0/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H",
      "version": "3.0",
      "attackComplexity": "LOW",
      "created": "2018-01-10T01:29:00.000Z",
      "availabilityImpact": "HIGH"
    },
    "intelCard": "https://app.recordedfuture.com/live/sc/entity/U_3qAY",
    "cpe22uri": [
      "cpe:/a:microsoft:word:2016",
      "cpe:/a:microsoft:office:2013:sp1:~~~rt~~"
    ],
    "entity": {
      "id": "U_3qAY",
      "name": "CVE-2018-0802",
      "type": "CyberVulnerability",
      "description": "Equation Editor in Microsoft Office 2007, Microsoft Office 2010, Microsoft
Office 2013, and Microsoft Office 2016 allow a remote code execution vulnerability due to the way
objects are handled in memory, aka \"Microsoft Office Memory Corruption Vulnerability\". This CVE is
unique from CVE-2018-0797 and CVE-2018-0812."
    },
    "relatedEntities": [
```

```
{
  "entities": [
    {
      "count": 6,
      "entity": {
        "id": "hash:4195192b66a50fd0641019f634d2c86c",
        "name": "4195192b66a50fd0641019f634d2c86c",
        "type": "Hash"
      }
    }
  ],
  "type": "RelatedHash"
},
{
  "entities": [
    {
      "count": 2,
      "entity": {
        "id": "email:kevin.beaumont@gmail.com",
        "name": "kevin.beaumont@gmail.com",
        "type": "EmailAddress"
      }
    }
  ],
  "type": "RelatedEmailAddress"
},
{
  "entities": [
    {
      "count": 13,
      "entity": {
        "id": "idn:cracking.to",
        "name": "cracking.to",
        "type": "InternetDomainName"
      }
    }
  ],
  "type": "RelatedInternetDomainName"
},
{
  "entities": [
    {
      "count": 1501,
      "entity": {
        "id": "B56PMu",
        "name": "SHA-256",
        "type": "Technology"
      }
    }
  ],
  "type": "RelatedTechnology"
},
{
  "entities": [
    {
      "count": 7,
      "entity": {
        "id": "ip:118.189.81.19",
        "name": "118.189.81.19",
        "type": "IpAddress"
      }
    }
  ],
  "type": "RelatedIpAddress"
```

```
    },
    {
      "entities": [
        {
          "count": 1,
          "entity": {
            "id": "izUZWO",
            "name": "RedFoxtrot",
            "type": "Organization"
          }
        }
      ],
      "type": "RelatedAttacker"
    },
    {
      "entities": [
        {
          "count": 637,
          "entity": {
            "id": "QIfsz2",
            "name": "Trillium Security MultiSploit Tool",
            "type": "Malware"
          }
        }
      ],
      "type": "RelatedMalware"
    },
    {
      "entities": [
        {
          "count": 446,
          "entity": {
            "id": "0efpT",
            "name": "Trojan",
            "type": "MalwareCategory"
          }
        }
      ],
      "type": "RelatedMalwareCategory"
    },
    {
      "entities": [
        {
          "count": 13063,
          "entity": {
            "id": "ROY7kq",
            "name": "CWE-787",
            "type": "CyberVulnerability"
          }
        }
      ],
      "type": "RelatedCyberVulnerability"
    },
    {
      "entities": [
        {
          "count": 582,
          "entity": {
            "id": "UUJs-s",
            "name": "Trillium",
            "type": "Person"
          }
        }
      ],
```

```
        "type": "RelatedThreatActor"
      },
      {
        "entities": [
          {
            "count": 2,
            "entity": {
              "id": "Ee0a8",
              "name": "People's Liberation Army (China)",
              "type": "Organization"
            }
          }
        ],
        "type": "RelatedTarget"
      },
      {
        "entities": [
          {
            "count": 709,
            "entity": {
              "id": "0fsV7",
              "name": "Zero Day Exploit",
              "type": "AttackVector"
            }
          }
        ],
        "type": "RelatedAttackVector"
      }
    ],
    "nvdDescription": "Equation Editor in Microsoft Office 2007, Microsoft Office 2010, Microsoft Office 2013, and Microsoft Office 2016 allow a remote code execution vulnerability due to the way objects are handled in memory, aka \"Microsoft Office Memory Corruption Vulnerability\". This CVE is unique from CVE-2018-0797 and CVE-2018-0812."
  }
}
```

ThreatQuotient provides the following default mapping for this function:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.data.entity.name`	Indicator.Value/ Vulnerability.Value	CVE/N/A	.data.timestamps.firstSeen	CVE-2018-0802	The object has the same type as the input value from the ThreatQ collection.
`.data.nvdDescription`	Indicator.Description/ Vulnerability.Description	N/A	N/A	Equation Editor in Microsoft Office 2007, Microsoft Office 2010...	N/A
`.data.cpe22uri[]`	Indicator.Attribute/ Vulnerability.Attribute	Affected Versions	.data.timestamps.firstSeen	cpe:/a:microsoft:word:2016, cpe:/a:microsoft2013:sp1:~~-rt~~	If `cpe22Uri` user config is enabled. Values are concatenated
`.data.cvssv3.created`	Indicator.Attribute/ Vulnerability.Attribute	CVSS3 Created Date	.data.timestamps.firstSeen	2018-01-10T01:29:00.000Z	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.baseSeverity`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Base Severity	.data.timestamps.firstSeen	HIGH	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.baseScore`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Base Score	.data.timestamps.firstSeen	7.8	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.exploitabilityScore`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Exploitability Score	.data.timestamps.firstSeen	1.8	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.impactScore`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Impact Score	.data.timestamps.firstSeen	5.9	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.version`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Version	.data.timestamps.firstSeen	3.0	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.vectorString`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Vector String	.data.timestamps.firstSeen	CVSS:3.0/AV:L/AC:L/ PR:N/UI:R/S:U/C:H/I:H/A:H	If `CVSSv3` user config is enabled. The attribute will be updated if it already exists.
`.data.cvssv3.attac`	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Attack Vector	.data.timestamps.firstSeen	LOCAL	If `CVSSv3` user config is enabled. The attribute will be

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
kVector					updated if it already exists.
.data.cvssv3.attackComplexity	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Attack Complexity	.data.timestamps.firstSeen	LOW	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.privilegesRequired	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Privileges Required	.data.timestamps.firstSeen	NONE	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.userInteraction	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 User Interaction	.data.timestamps.firstSeen	REQUIRED	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.scope	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Scope	.data.timestamps.firstSeen	UNCHANGED	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.confidentialityImpact	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Confidentiality Impact	.data.timestamps.firstSeen	HIGH	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.integrityImpact	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Integrity Impact	.data.timestamps.firstSeen	HIGH	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.availabilityImpact	Indicator.Attribute/ Vulnerability.Attribute	CVSSv3 Availability Impact	.data.timestamps.firstSeen	HIGH	If CVSSv3 user config is enabled. The attribute will be updated if it already exists.
.data.cvssv3.intelCard	Indicator.Attribute/ Vulnerability.Attribute	Intelligence Card	.data.timestamps.firstSeen	https://app.recordedfuture.com/live/sc/entity/U_3qAY	If Intelligence Card user config is enabled.
.data.cvssv3.relatedLinks[]	Indicator.Attribute/ Vulnerability.Attribute	Related Link	.data.timestamps.firstSeen	https://github.com/zldww2011/CVE-2018-0802_POC	If Related Links user config is enabled.
.data.cvssv3.relatedEntities[].entit	Related Indicator.Value	MD5/ SHA-1/ SHA-256/ SHA-512	.data.timestamps.firstSeen	4195192b66a50fd0641019f634d2c86c	If Related Hashes user config is enabled and .data.cvssv3.rel

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
ies[].entity.name					atedEntities[].type is Hash.
.data.cvssv3.relatedEntities[].entities[].entity.name	Related Indicator.Value	Email Address	.data.timestamps.firstSeen	kevin.beaumont@gmail.com	If Related Email Addresses user config is enabled and .data.cvssv3.relatedEntities[].type is RelatedEmailAddress.
.data.cvssv3.relatedEntities[].entities[].entity.name	Related Indicator.Value	FQDN	.data.timestamps.firstSeen	cracking.to	If Related Internet Domain Names user config is enabled and .data.cvssv3.relatedEntities[].type is RelatedInternetDomainName.
.data.cvssv3.relatedEntities[].entities[].entity.name	Related Indicator.Value	IP Address	.data.timestamps.firstSeen	118.189.81.19	If Related IP Addresses user config is enabled and .data.cvssv3.relatedEntities[].type is RelatedIpAddress.
.data.cvssv3.relatedEntities[].entities[].entity.name	Related Adversary.Name	N/A	.data.timestamps.firstSeen	Trillium	If Related Threat Actors user config is enabled and .data.cvssv3.relatedEntities[].type is RelatedThreatActor.
.data.cvssv3.relatedEntities[].entities[].entity.name	Related Malware.Name	N/A	.data.timestamps.firstSeen	Trillium Security MultiSploit Tool	If Related Malware user config is enabled and .data.cvssv3.relatedEntities[].type is RelatedMalware.

Recorded Future - GeoIP Lookup

The Recorded Future - GeoIP Lookup action takes a data collection of IP addresses and performs a lookup to fetch geolocation and proxy information. You can find out information such as the location data, behaviors, VPN operators, and more.

```
GET https://api.recordedfuture.com/v2/ip/{{ value }}/extension/active_ip_geo
```

Sample Response:


```
{
  "data": {
    "organization": "PT. SUITEN INOVASI SUKSES",
    "proxies": ["No proxied traffic detected on this IP."],
    "ip": {
      "id": "ip:103.120.66.51",
      "name": "103.120.66.51",
      "type": "IpAddress"
    },
    "map": {
      "url": "https://www.google.com/maps/search/?api=1&query=ID country",
      "name": "Google Maps (precision: country)"
    },
    "geo": {
      "country": "ID",
      "type": "Hosting Location"
    },
    "support_link": {
      "url": "https://support.recordedfuture.com/hc/en-us/articles/
1500011643082",
      "name": "External Link"
    },
    "asn": {
      "id": "asn:AS137373",
      "name": "AS137373",
      "type": "ASNumber"
    },
    "behaviors": ["Behavioral analysis not available for this IP."],
    "operators": ["No VPN operations detected on this IP."],
    "devices": "estimate unavailable"
  }
}
```

ThreatQuotient provides the following default mapping for this function:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES
`.organization`	Indicator.Attribute	AS Organization	N/A	`PT. SUITEN INOVASI SUKSES`
`.proxies[]`	Indicator.Attribute	Proxy	N/A	N/A
`.map.url`	Indicator.Attribute	Map Link	N/A	N/A
`.geo.country`	Indicator.Attribute	Country Code	N/A	`US`
`.geo.city`	Indicator.Attribute	City	N/A	`San Francisco`
`.geo.state`	Indicator.Attribute	State	N/A	`California`
`.geo.type`	Indicator.Attribute	Location Type	N/A	`Hosting Location`
`.asn.name`	Indicator.Attribute	ASN	N/A	`AS137373`
`.behaviors[]`	Indicator.Attribute	Behavior	N/A	N/A
`.operators[]`	Indicator.Attribute	VPN Operator	N/A	N/A
`.devices`	Indicator.Attribute	Device	N/A	N/A

Enriched Data

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

Recorded Future

METRIC	RESULT
Run Time	2 minutes
Indicators	100
Indicator Attributes	300

Recorded Future - Vulnerabilities

METRIC	RESULT
Run Time	2 minutes
Indicators	781
Indicator Attributes	16
Vulnerability	3
Vulnerability Attributes	67

Recorded Future - GeoIP Lookup

METRIC	RESULT
Run Time	1 minute
Indicators	5
Indicator Attributes	50

Use Case Example

1. A user submits IP Address `5.39.93.43` data using the Recorded Future action to the Recorded Future Enrichment SOAR API.
2. The Recorded Future API queries to submitted data for IP Address type data.
3. The action returns a list of dictionary type data from the provider which contains details like Risk score, Associated Rule, Threat Type etc.

Known Issues / Limitations

- This enrichment action utilizes Recorded Future's "SOAR Enrichment" API, which only returns a subset of everything Recorded Future knows about a given IOC.
- Long runs with data collections larger than 1,000 objects may cause the Recorded Future API to timeout.

Change Log

- **Version 1.2.0**
  - Added a new action: **Recorded Future - GeoIP Lookup**. This action retrieves the geographical location and proxy information for submitted IP addresses.
  - Added a new known issue where long runs with data collections larger than 1,000 objects may cause the Recorded Future API to timeout.
- **Version 1.1.0**
  - Added new action: **Recorded Future - Vulnerabilities**.
  - Updated minimum ThreatQ version to 5.19.0.
  - Updated user guide name to Recorded Future Action Bundle.
- **Version 1.0.0**
  - Initial release