

ThreatQuotient



National Vulnerability Database CDF Guide

Version 3.0.0

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ThreatQuotient

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ThreatQ Supported

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Support Email: support@threatq.com

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Integration Details

ThreatQuotient provides the following details for this integration:

Current Integration Version	3.0.0
Compatible with ThreatQ Versions	>= 4.27.0
Support Tier	ThreatQ Supported
ThreatQ Marketplace	https://marketplace.threatq.com/details/national-vulnerability-database-nvd

Introduction

The National Vulnerability Database (NVD) CVE feed consumes information published by NIST about vulnerabilities. Historic data is provided in a specific package for that year and any new data, updates, or corrections defined from the previous eight days are provided in the "modified" package. Currently, historic records are available for all years between 2002 and present time.

The integration provides the following feed:

- **NVD CVE** - ingests information about vulnerabilities.

The integration ingests the following system objects:

- Indicators
 - Indicator Attributes
- Vulnerabilities
 - Vulnerability Attributes

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 **OSINT** 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:

PARAMETER	DESCRIPTION
Save CVE Data as	This parameter is required and can be configured to have the feed ingest CVE data such as indicators, vulnerabilities, or both.
Verify SSL Certificate	Whether to verify the server's SSL Certificate.
Date used for Filtering the Data	Select which data fields should be used for filtering the data. Options include Publish Date (default) and Modified Date .
CVSSv3 Severity Rating	Filter the data based on the CVSSv3 Severity Rating. Options include: ◦ All (default) ◦ Low ◦ Medium ◦ High ◦ Critical

Filter the results based on a keyword, phrase or multiple keywords in the description of a CVE	Enter keyword(s) to be used to filter the results.
Use Keyword Exact Match	Enable this option in the event of using multiple keywords in the parameter above.

< NVD CVE

Disabled ☒ Enabled

Uninstall

Additional Information

Integration Type: Feed

Version:

Accepted Data Types:

ConfigurationActivity Log

☒ Verify SSL
If true, specifies that this feed should verify SSL connections with the provider.

Save CVE Data As
ThreatQuotient maps CVE data as CVE indicators by default.

☒ Indicators

☐ Vulnerabilities

Date Used For Filtering The Data
Publish Date
Which data fields should be used for filtering the data.

CVSSv3 Severity Rating
All
Filter based on the CVSSv3 Severity Rating.

Filter the results based on a keyword, phrase or multiple keywords in the description of a CVE.

☐ Use Keyword Exact Match
Use Exact Match in case of multiple keywords.

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

NVD CVE

Scheduled runs ingest CVE data from the "modified" package. Manual runs will request the package for the year specified by the `start_date` parameter. When triggering a manual run, only the year field of the `start_date` is evaluated. If a `start_date` prior to 2002 is selected for a manual feed run, the 2002 package will be requested.



Ingested CVE data can be mapped as CVE Indicators (default configuration), Vulnerabilities, or both.

GET <https://services.nvd.nist.gov/rest/json/cves/2.0>

Sample Response:

```
{
  "resultsPerPage": 10,
  "startIndex": 0,
  "totalResults": 10,
  "format": "NVD_CVE",
  "version": "2.0",
  "timestamp": "2023-04-07T08:55:08.963",
  "vulnerabilities": [
    {
      "cve": {
        "id": "CVE-2022-41696",
        "sourceIdentifier": "ics-cert@hq.dhs.gov",
        "published": "2023-03-21T23:15:12.167",
        "lastModified": "2023-03-23T16:11:41.357",
        "vulnStatus": "Analyzed",
        "descriptions": [
          {
            "lang": "en",
            "value": "Versions of VISAM VBASE Automation Base prior to 11.7.5 may disclose information if a valid user opens a specially crafted file."
          }
        ],
        "metrics": {
          "cvssMetricV31": [
            {
              "source": "nvd@nist.gov",
              "type": "Primary",
              "cvssData": {
                "version": "3.1",
                "vectorString": "CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:N/A:N",
                "attackVector": "LOCAL",
                "attackComplexity": "LOW",
                "privilegesRequired": "NONE",
```


ThreatQuotient provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.vulnerabilities[].cve.id	Indicator.Value / Vulnerability.Value	CVE / N/A	.vulnerabilities[].cve.published	CVE-2018-6363	N/A
.vulnerabilities[].cve.descriptions[].value	Vulnerability.Description / Indicator.Description	N/A	.vulnerabilities[].cve.published	SQL Injection exists in Task Rabbit Clone 1.0 via the single_blog.php id parameter.	N/A
.vulnerabilities[].cve.lastModified	Vulnerability.Attribute / Indicator.Attribute	Last Modified	.vulnerabilities[].cve.published	2023-03-24T20:34:11.990	Extracted from .vulnerabilities[].cve.id
.vulnerabilities[].cve.id	Vulnerability.Attribute / Indicator.Attribute	Year	.vulnerabilities[].cve.published	2018	N/A
.vulnerabilities[].cve.references[].url	Vulnerability.Attribute / Indicator.Attribute	Reference URL	.vulnerabilities[].cve.published	https://packetstormsecurity.com/files/146131/Task-Rabbit-Clone-1.0-SQL-Injection.html	N/A
.vulnerabilities[].cve.references[].tags[]	Vulnerability.Attribute / Indicator.Attribute	CVE Reference Tag	.vulnerabilities[].cve.published	["Exploit", "Third Party Advisory", "VDB Entry"]	N/A
.vulnerabilities[].cve.references[].source	Vulnerability.Attribute / Indicator.Attribute	CVE Reference Source	.vulnerabilities[].cve.published	MISC	N/A
.vulnerabilities[].cve.configurations[].nodes[].cpeMatch[].criteria	Vulnerability.Attribute / Indicator.Attribute	CPE	.vulnerabilities[].cve.published	cpe:2.3:a:taskrabbit_clone_project:taskrabbit_clone:1.0:::*:*	N/A
.vulnerabilities[].cve.configurations[].nodes[].cpeMatch[].criteria	Vulnerability.Attribute / Indicator.Attribute	Affected Vendor	.vulnerabilities[].cve.published	taskrabbit_clone_project	Parsed in order to extract the needed information
.vulnerabilities[].cve.configurations[].nodes[].cpeMatch[].criteria	Vulnerability.Attribute / Indicator.Attribute	Affected Product	.vulnerabilities[].cve.published	taskrabbit_clone v1.0	Parsed in order to extract the needed information
.vulnerabilities[].cve.weaknesses[].description[].value	Vulnerability.Attribute / Indicator.Attribute	CVE Weakness	.vulnerabilities[].cve.published	CWE-89	N/A
.vulnerabilities[].cve.metrics.cvssMetricV31.impactScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Impact Score	.vulnerabilities[].cve.published	5.9	N/A
.vulnerabilities[].cve.metrics.cvssMetricV31.exploitabilityScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Exploitability Score	.vulnerabilities[].cve.published	2.8	N/A
.vulnerabilities[].cve.metrics.cvssMetricV31.cvssData.attackVector	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Attack Vector	.vulnerabilities[].cve.published	ADJACENT_NETWORK	N/A
.vulnerabilities[].cve.metrics.cvssMetricV31.cvssData.attackComplexity	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Attack Complexity	.vulnerabilities[].cve.published	LOW	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.availabilityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Availability Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.baseScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Base Score	.vulnerabilities[].cve.published	6.5	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.baseSeverity	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Base Severity	.vulnerabilities[].cve.published	MEDIUM	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.confidentiality Impact	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Confidentiality Impact	.vulnerabilities[].cve.published	PARTIAL	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.integrityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Integrity Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.privilegesRequired	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Privileges Required	.vulnerabilities[].cve.published	NONE	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.scope	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Scope	.vulnerabilities[].cve.published	UNCHANGED	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.userInteraction	Vulnerability.attribute / Indicator.Attribute	CVSSv31 User Interaction	.vulnerabilities[].cve.published	REQUIRED	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.vectorString	Vulnerability.attribute / Indicator.Attribute	CVSSv31 Vector String	.vulnerabilities[].cve.published	CVSS:3.0/AV:A/AC:L/PR:N/C:N/I:H/A:H	N/A
.vulnerabilities[].cve. metrics.cvssMetricV31. cvssData.version	Vulnerability.Attribute / Indicator.Attribute	CVSSv31 Version	.vulnerabilities[].cve.published	3.1	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. impactScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Impact Score	.vulnerabilities[].cve.published	5.9	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. exploitabilityScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Exploitability Score	.vulnerabilities[].cve.published	2.8	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.attackVector	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Attack Vector	.vulnerabilities[].cve.published	ADJACENT_NETWORK	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.attackComplexity	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Attack Complexity	.vulnerabilities[].cve.published	LOW	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.availabilityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Availability Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.baseScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Base Score	.vulnerabilities[].cve.published	6.5	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.baseSeverity	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Base Severity	.vulnerabilities[].cve.published	MEDIUM	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.confidentiality Impact	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Confidentiality Impact	.vulnerabilities[].cve.published	PARTIAL	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.integrityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Integrity Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.privileges Required	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Privileges Required	.vulnerabilities[].cve.published	NONE	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.scope	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Scope	.vulnerabilities[].cve.published	UNCHANGED	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.userInteraction	Vulnerability.attribute / Indicator.Attribute	CVSSv30 User Interaction	.vulnerabilities[].cve.published	REQUIRED	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.vectorString	Vulnerability.attribute / Indicator.Attribute	CVSSv30 Vector String	.vulnerabilities[].cve.published	CVSS:3.0/AV:A/AC:L/PR:N/C:N/I:H/ A:H	N/A
.vulnerabilities[].cve. metrics.cvssMetricV30. cvssData.version	Vulnerability.Attribute / Indicator.Attribute	CVSSv30 Version	.vulnerabilities[].cve.published	3.0	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. impactScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Impact Score	.vulnerabilities[].cve.published	5.9	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. exploitabilityScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Exploitability Score	.vulnerabilities[].cve.published	2.8	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. acInsufInfo	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 AC Insuf Info	.vulnerabilities[].cve.published	true	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. obtainOtherPrivilege	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Obtain Other Privilege	.vulnerabilities[].cve.published	false	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. obtainUserPrivilege	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Obtain User Privilege	.vulnerabilities[].cve.published	false	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. obtainAllPrivilege	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Obtain All Privilege	.vulnerabilities[].cve.published	false	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. userInteractionRequired	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 User Interaction Required	.vulnerabilities[].cve.published	false	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. baseSeverity	Vulnerability.attribute / Indicator.Attribute	CVSSv2 Base Severity	.vulnerabilities[].cve.published	HIGH	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.accessComplexity	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Access Complexity	.vulnerabilities[].cve.published	LOW	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.availabilityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Availability Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.accessVector	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Access Vector	.vulnerabilities[].cve.published	NETWORK	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.authentication	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Authentication	.vulnerabilities[].cve.published	SINGLE	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.baseScore	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Base Score	.vulnerabilities[].cve.published	6.5	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.confidentiality Impact	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Confidentiality Impact	.vulnerabilities[].cve.published	PARTIAL	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.integrityImpact	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Integrity Impact	.vulnerabilities[].cve.published	HIGH	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.vectorString	Vulnerability.attribute / Indicator.Attribute	CVSSv2 Vector String	.vulnerabilities[].cve.published	CVSS:3.0/AV:A/AC:L/PR:N/C:N/I:H/ A:H	N/A
.vulnerabilities[].cve. metrics.cvssMetricV2. cvssData.version	Vulnerability.Attribute / Indicator.Attribute	CVSSv2 Version	.vulnerabilities[].cve.published	2.0	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.

METRIC	RESULT
Run Time	1 minute
Indicators	142
Indicator Attributes	1,999
Vulnerabilities	142
Vulnerability Attributes	1,999

Known Issues / Limitations

- The maximum allowable range is 120 consecutive days. If a larger date range is selected, the feed will change the end date to start date plus 120 days.

Change Log

- **Version 3.0.0**
 - Updated the feed to use the NVD 2.0.0 API
 - Added new configuration options:
 - Date used for Filtering the Data
 - CVSSv3 Severity Rating
 - Filter the results based on Keyword
 - Use Keyword Exact Match
- **Version 2.2.3**
 - Fixed an attribute scoring bug where scoring attributes with a value of 0 were not created.
- **Version 2.2.2**
 - Added description to indicators and vulnerabilities.
- **Version 2.2.1**
 - Documentation updates and more attributes added
- **Version 2.2.0**
 - Update endpoint for NVD's change, `/cve/1.0/nvdcve-1.0-` --> `/cve/1.1/nvdcve-1.1-`
- **Version 2.1.0**
 - Added missing objects attributes
- **Version 2.0.0**
 - Initial release