

ThreatQuotient



VirusTotal Operation Implementation Guide

Version 2.2.2

Tuesday, September 29, 2020

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Contents

Versioning	5
Introduction	6
Installation	7
Configuration	8
Actions	9
submit_ip	9
submit_domain	16
submit_url	26
scan	26
report	26
submit_file	29
scan	29
report	29
submit_hash	40
Change Log	41

Versioning

- Operation Version: 2.2.2
- Minimum ThreatQ Version: 4.22.0

Introduction

The VirusTotal Operation enriches ThreatQ objects with context obtained from the VirusTotal API.

Installation

Perform the following steps to install or upgrade the VirusTotal operation.

1. Log into <https://marketplace.threatq.com>.
2. Locate and download the VirusTotal operation file.
3. Navigate to your ThreatQ instance.
4. From the ThreatQ navigation menu, choose the **Settings** icon > **Operations Management**.
5. Click on the **Install Operation** button.
6. Perform one of the following options:
 - Drag and drop the operation file into the dialog box.
 - Select **Click to browse** to locate the operation file on your local machine.



If the operation already exists on the platform, ThreatQ will inform you that the operation already exists on the platform and will require confirmation to continue with the installation process.

The Operation will appear in your list of installed operations once the installation process has completed. You will still need to [configure](#) and then enable the operation.

Configuration



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

To Configure the VirusTotal Operation:

1. Click on the **Settings** icon and select **Operations Management**
2. Locate the **VirusTotal** operation and click on **Operation Settings**.
3. Enter the following configuration parameters:

Parameter	Description
API Key	The private or public VirusTotal API key.
Automatically Add Attributes	If checked, indicator attributes are added automatically.
Automatically Add Indicators	If checked, related indicators, along with their attributes, are added automatically. If this option is not checked, users can select which indicators will be added (without their attributes).

4. Click on **Save Changes** then click on the toggle switch next to the operation name to enable the operation.

Actions

Action	Description	Object Type	Object Subtype
submit_ip	Submits IP for analysis	Indicator	IP
submit_domain	Submits domain for analysis	Indicator	FQDN
submit_url	Submits URL for analysis	Indicator	URL, FQDN
submit_file	Submits file for analysis	ThreatFile	
submit_hash	Submits hash for analysis	Indicator	MD5, SHA-1, SHA-256

submit_ip

Uses the <https://www.virustotal.com/vtapi/v2/ip-address/report> endpoint

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicators	N/A	undetected_downloaded_samples[].sha256, detected_downloaded_samples[].sha256, detected_referrer_samples[].sha256, undetected_referrer_samples[].sha256, detected_communicating_samples[].sha256, undetected_com-	SHA-256

TQ	TQ Attribute Name	VirusTotal	Indicator Type
		<code>communicating_samples[].sha256</code>	
Related Indicator Attributes	Positives	<code>undetected_downloaded_samples[].positives</code> , <code>detected_downloaded_samples[].positives</code> , <code>detected_referrer_samples[].positives</code> , <code>undetected_referrer_samples[].positives</code> , <code>detected_communicating_samples[].positives</code> , <code>undetected_communicating_samples[].positives</code> , <code>detected_urls[].positives</code>	N/A
Related Indicator Attributes	Total	<code>undetected_downloaded_samples[].total</code> , <code>detected_downloaded_samples[].total</code> , <code>detected_referrer_samples[].total</code> , <code>undetected_referrer_samples[].total</code> , <code>detected_communicating_samples[].total</code> , <code>undetected_communicating_samples[].total</code> , <code>detected_urls[].total</code>	N/A
Related Indicator Attributes	Date	<code>undetected_downloaded_samples[].date</code> , <code>detected_downloaded_samples[].date</code> , <code>detected_referrer_samples[].date</code> , <code>detected_communicating_samples[].date</code> , <code>undetected_communicating_samples[].date</code> , <code>detected_urls[].scan_date</code>	N/A
Related Indicators	N/A	<code>resolutions[].hostname</code>	FQDN
Related Indicator Attributes	Last Resolved	<code>resolutions[].last_resolved</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicators	N/A	<code>detected_urls[].url</code>	URL
Indicator Attribute	VirusTotal AS Owner	<code>as_owner</code>	N/A
Indicator Attribute	VirusTotal ASN	<code>asn</code>	N/A
Indicator Attribute	VirusTotal Whois	<code>whois</code>	N/A
Indicator Attribute	VirusTotal Country	<code>country</code>	N/A
Indicator Attribute	VirusTotal Verbose Response	<code>verbose_msg</code>	N/A
Indicator Attribute	VirusTotal Undetected Urls	<code>undetected_urls</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	VirusTotal Continent	<code>continent</code>	N/A
Indicator Attribute	VirusTotal Whois Timestamp	<code>whois_timestamp</code>	N/A
Indicator Attribute	VirusTotal Network	<code>network</code>	N/A
Indicator Attribute	VirusTotal: HTTPS Certificate Date	<code>https_certificate_date</code>	N/A
Indicator Attribute	Public Key Algorithm	<code>last_https_certificate.public_key.algorithm</code>	N/A
Indicator Attribute	Public Key RSA	<code>last_https_certificate.public_key.rsa</code>	N/A
Indicator Attribute	Public Key EC	<code>last_https_certificate.public_key.ec</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicator	N/A	<code>last_https_certificate.thumbprint_sha256</code>	SHA-256
Indicator Attribute	Tag	<code>last_https_certificate.tags</code>	N/A
Indicator Attribute	Signature Algorithm	<code>last_https_certificate.signature_algorithm</code>	N/A
Indicator Attribute	Certificate Subject	<code>last_https_certificate.subject</code>	N/A
Indicator Attribute	Certificate Validity	<code>last_https_certificate.validity</code>	N/A
Indicator Attribute	Certificate Version	<code>last_https_certificate.version</code>	N/A
Indicator Attribute	Certificate Policies	<code>last_https_certificate.extensions.certificate_policies</code>	N/A
Indicator Attribute	Extended Key Usage	<code>last_https_certificate.extensions.extended_key_usage</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	Subject Alternative Name	<code>last_https_certificate.extensions.subject_alternative_name</code>	N/A
Indicator Attribute	Tag	<code>last_https_certificate.extensions.tags</code>	N/A
Indicator Attribute	Certificate Subject Key Identifier	<code>last_https_certificate.extensions.subject_key_identifier</code>	N/A
Indicator Attribute	CRL Distribution Points	<code>last_https_certificate.extensions.crl_distribution_points</code>	N/A
Indicator Attribute	Key Usage	<code>last_https_certificate.extensions.key_usage</code>	N/A
Indicator Attribute	CA	<code>last_https_certificate.extensions.CA</code>	N/A
Indicator	CA Inform-	<code>last_https_certificate.extensions.ca_information_access</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute	ation Access		
Indicator Attribute	Certificate Signature	<code>last_https_certificate.cert_signature</code>	N/A
Indicator Attribute	Certificate Serial Number	<code>last_https_certificate.serial_number</code>	N/A
Indicator Attribute	Certificate Thumbprint	<code>last_https_certificate.thumbprint</code>	N/A
Indicator Attribute	Certificate Issuer	<code>last_https_certificate.issuer</code>	N/A
Indicator Attribute	Certificate Size	<code>last_https_certificate.size</code>	N/A

submit_domain

Uses the <https://www.virustotal.com/vtapi/v2/domain/report> endpoint.

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicators	N/A	<code>detected_downloaded_samples[].sha256</code> , <code>undetected_referrer_samples[].sha256</code> , <code>undetected_downloaded_samples[].sha256</code> , <code>detected_referrer_samples[].sha256</code> , <code>undetected_communicating_samples[].sha256</code> , <code>detected_communicating_samples[].sha256</code>	SHA-256
Related Indicator Attributes	Positives	<code>detected_downloaded_samples[].positives</code> , <code>undetected_referrer_samples[].positives</code> , <code>undetected_downloaded_samples[].positives</code> , <code>detected_referrer_samples[].positives</code> , <code>undetected_communicating_samples[].positives</code> , <code>detected_communicating_samples[].positives</code> , <code>detected_urls[].positives</code>	N/A
Related Indicator Attributes	Total	<code>detected_downloaded_samples[].total</code> , <code>undetected_referrer_samples[].total</code> , <code>undetected_downloaded_samples[].total</code> , <code>detected_referrer_samples[].total</code> , <code>undetected_communicating_samples[].total</code> , <code>detected_communicating_samples[].total</code> , <code>detected_urls[].total</code>	N/A
Related Indicator	Date	<code>detected_downloaded_samples[].date</code> , <code>undetected_referrer_samples[].date</code> , <code>undetected_downloaded_samples[].date</code> , <code>detected_referrer_samples</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attributes		<code>[].date</code> , <code>undetected_communicating_samples[].date</code> <code>detected_communicating_samples[].date</code> <code>detected_urls[].scan_date</code>	
Related Indicators	N/A	<code>resolutions[].ip_address</code>	IP Address
Related Indicator Attributes	Last Resolved	<code>resolutions[].last_resolved</code>	N/A
Related Indicators	N/A	<code>domain_siblings[]</code>	FQDN
Related Indicators	N/A	<code>subdomains[]</code>	FQDN
Related Indicators	N/A	<code>detected_urls[].url</code>	URL
Indicator Attribute	VirusTotal Category	<code>categories</code>	N/A
Indicator	VirusTotal	<code>whois_timestamp</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute	Whois Timestamp		
Indicator Attribute	VirusTotal Whois	whois	N/A
Indicator Attribute	VirusTotal BitDefender category	BitDefender category	N/A
Indicator Attribute	VirusTotal Dr.Web category	Dr.Web category	N/A
Indicator Attribute	VirusTotal Opera domain info	Opera domain info	N/A
Indicator Attribute	VirusTotal Websense ThreatSeeker category	Websense ThreatSeeker category	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	VirusTotal Webutation Domain Info Safety score	<code>Webutation Domain Info.Safety score</code>	N/A
Indicator Attribute	VirusTotal Webutation Domain Info Adult content	<code>Webutation Domain Info.Adult content</code>	N/A
Indicator Attribute	VirusTotal Webutation Domain Info Verdict	<code>Webutation Domain Info.Verdict</code>	N/A
Indicator Attribute	VirusTotal Verbose Response	<code>verbose_msg</code>	N/A
Indicator Attribute	VirusTotal Alexa Cat- egory	<code>Alexa category</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	VirusTotal Undetected Urls	<code>undetected_urls</code>	N/A
Indicator Attribute	VirusTotal Dns Records Date	<code>dns_records_date</code>	N/A
Indicator Attribute	Public Key Algorithm	<code>last_https_certificate.public_key.algorithm</code>	N/A
Indicator Attribute	Public Key RSA	<code>last_https_certificate.public_key.rsa</code>	N/A
Indicator Attribute	Public Key EC	<code>last_https_certificate.public_key.ec</code>	N/A
Related Indicator	N/A	<code>last_https_certificate.thumbprint_sha256</code>	SHA-256
Indicator Attribute	Tag	<code>last_https_certificate.tags</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	Signature Algorithm	<code>last_https_certificate.signature_algorithm</code>	N/A
Indicator Attribute	Certificate Subject	<code>last_https_certificate.subject</code>	N/A
Indicator Attribute	Certificate Validity	<code>last_https_certificate.validity</code>	N/A
Indicator Attribute	Certificate Version	<code>last_https_certificate.version</code>	N/A
Indicator Attribute	Certificate Policies	<code>last_https_certificate.extensions.certificate_policies</code>	N/A
Indicator Attribute	Extended Key Usage	<code>last_https_certificate.extensions.extended_key_usage</code>	N/A
Indicator Attribute	Subject Alternative Name	<code>last_https_certificate.extensions.subject_alternative_name</code>	N/A
Indicator	Tag	<code>last_https_certificate.extensions.tags</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute			
Indicator Attribute	Certificate Subject Key Identifier	<code>last_https_certificate.extensions.subject_key_identifier</code>	N/A
Indicator Attribute	CRL Distribution Points	<code>last_https_certificate.extensions.crl_distribution_points</code>	N/A
Indicator Attribute	Key Usage	<code>last_https_certificate.extensions.key_usage</code>	N/A
Indicator Attribute	CA	<code>last_https_certificate.extensions.CA</code>	N/A
Indicator Attribute	CA Information Access	<code>last_https_certificate.extensions.ca_information_access</code>	N/A
Indicator Attribute	Certificate Signature	<code>last_https_certificate.cert_signature</code>	N/A
Indicator	Certificate	<code>last_https_certificate.serial_number</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute	Serial Number		
Indicator Attribute	Certificate Thumbprint	<code>last_https_certificate.thumbprint</code>	N/A
Indicator Attribute	Certificate Issuer	<code>last_https_certificate.issuer</code>	N/A
Indicator Attribute	Certificate Size	<code>last_https_certificate.size</code>	N/A
Indicator Attribute	VirusTotal Wot Domain Info	<code>WOT domain info</code>	N/A
Indicator Attribute	Websense ThreatSeeker Category	<code>Websense ThreatSeeker Category</code>	N/A
Indicator Attribute	VirusTotal HTTPS Certificate Date	<code>https_certificate_date</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	VirusTotal Alexa Domain Info	Alexa Domain Info	N/A
Indicator Attribute	VirusTotal Bit-defender Domain Info	BitDefender domain info	N/A
Indicator Attribute	VirusTotal Forcepoint Threatseeker Category	Forcepoint ThreatSeeker category	N/A
Indicator Attribute	VirusTotal Favicon	favicon	N/A
Indicator Attribute	VirusTotal Trendmicro Category	TrendMicro category	N/A
Indicator Attribute	Majestic Rank	popularity_ranks.Majestic.rank	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	Statvoo Ranks	<code>popularity_ranks.Statvoo.rank</code>	N/A
Indicator Attribute	Alexa Ranks	<code>popularity_ranks.Alexa.rank</code>	N/A
Indicator Attribute	Cisco Umbrella Ranks	<code>popularity_ranks.Cisco Umbrella.rank</code>	N/A
Indicator Attribute	Quantcast Ranks	<code>popularity_ranks.Quantcast.rank</code>	N/A
Indicator Attribute	DNS Records	<code>dns_records</code>	N/A

submit_url

Uses the <https://www.virustotal.com/vtapi/v2/url/scan> and <https://www.virustotal.com/vtapi/v2/url/report> endpoints.

scan

By running the action the first time on an indicator the 'scan' endpoint is used to send the url to VirusTotal for analysis, returning a scan ID that will be used in the report endpoint in order to retrieve the analysis report.

ThreatQ	ThreatQ Attribute Name	VirusTotal	Indicator Type
Indicator Attribute	VirusTotal Permanent Link	<code>permalink</code>	N/A
Indicator Attribute	VirusTotal Scan ID	<code>scan_id</code>	N/A

report

The second time the action is executed on the indicator that has a 'VirusTotal Scan ID' attribute the 'report' endpoint is used.

All the related indicators are related to the enriched indicator.

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicator #1	N/A	url	URL
Related Indicator #1 & Indicator Attributes	first_seen	published_at	N/A
Related Indicator #2	N/A	additional_info.resolution	IP Address
Related Indicator #2 Attributes	Resolution Country	additional_info.resolution_country	N/A
Indicator Attribute	Positives	positives	N/A
Indicator Attribute	File Scan ID	filescan_id	N/A
Indicator Attribute	Total	total	N/A
Indicator Attribute	Last Seen	attribute	N/A
Indicator & Related Indicator #1 Attribute	Sophos Description	additional_info.Sophos description	N/A
Indicator & Related Indicator #1 Attribute	Sophos Description	additional_info.BitDefender Category	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Indicator & Related Indicator #1 Attribute	URL Contact Error	<code>additional_info.URL con- tact error</code>	N/A
Indicator & Related Indicator #1 Attribute	Forcepoint ThreatSeeker Category	<code>additional_info.For- cepoint ThreatSeeker cat- egory</code>	N/A
Indicator & Related Indicator #1 Attribute	Redirector	<code>additional_info.re- director</code>	N/A
Indicator & Related Indicator #1 Attribute	<code>scans[].dict_key</code> Scan: Did/Did NOT (if <code>scans.- detected</code>) Detect - <code>scans.result</code> with detail <code>scans.- detail</code>	<code>scans[]</code>	N/A
Indicator & Related Indicator #1 Attribute	VirusTotal PermaLink	<code>permalink</code>	N/A

submit_file

Uses the <https://www.virustotal.com/vtapi/v2/file/report> and <https://www.virustotal.com/vtapi/v2/file/scan> endpoints.

scan

By running the action the first time on an indicator the 'scan' endpoint is used to send the file to VirusTotal for analysis, returning a scan ID that will be used in the report endpoint in order to retrieve the analysis report.

ThreatQ	ThreatQ Attribute Name	VirusTotal	Indicator Type
Related Indicator	N/A	md5	MD5
Related Indicator	N/A	sha1	SHA-1
Related Indicator	N/A	sha256	SHA-256
Indicator Attribute	VirusTotal Permanent Link	permalink	N/A
Indicator & Threat File Attribute	VirusTotal Scan ID	scan_id	N/A

report

All the related indicators are related to the enriched indicator.

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicator #1	N/A	md5	MD5
Related Indicator #1	N/A	sha1	SHA-1
Related Indicator #1	N/A	sha256	SHA-256
Related Indicator #1	N/A	ssdeep	Fuzzy Hash
Related Indicator #1	N/A	authentihash	Fuzzy Hash
Related Indicator <code>authentihash</code> Attribute	Authenticode Hash: "Yes"	N/A	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal File Type	type	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal Unique Sources	unique_sources	N/A
ThreatFile, Related Indicator #1 Attribute	Published at	first_seen	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
ThreatFile, Related Indicator #1 Attribute	VirusTotal Number of Positives	<code>positives</code>	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal Community Reputation	<code>community_reputation</code>	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal Harmless Votes	<code>harmless_votes</code>	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal Malicious Votes	<code>malicious_votes</code>	N/A
ThreatFile Attribute	VirusTotal Verbose Response	<code>verbose_msg</code>	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal PermaLink	<code>permalink</code>	N/A
ThreatFile, Related Indicator #1 Attribute	VirusTotal Scan Date	<code>scan_date</code>	N/A
Related Indicator #2	N/A	<code>submission_names</code>	FilePath / FileName
ThreatFile Attributes	<code>scans[].dict_key</code> Scan: (if scans.-	<code>scans</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
	<code>detected) scans.result</code> Detected on <code>scans.update with version scans.version</code> <code>(else if not scans.detected)</code> <code>scans.version NOT Detected on scans.up-</code> <code>date</code>		
ThreatFile Attributes	Portable Executable Timestamp	<code>additional_info.pe-timestamp</code>	N/A
ThreatFile Attributes	<code>additional_info.exiftool.dict_key</code> ExifTool	<code>additional_info.exiftool</code>	N/A
Related Indicator #3	N/A	<code>additional_info.pe-imphash</code>	MD5
Related Indicator <code>additional_info.pe-imphash</code> Attribute	Import Hash: 'Yes'	N/A	N/A
ThreatFile Attributes	Portable Executable <code>additional_info.pe-resource-langs.dict_key</code> Lang	<code>additional_info.pe-resource-langs</code>	N/A
ThreatFile Attributes	DeepGuard	<code>additional_info.deepguard</code>	N/A
ThreatFile Attributes	Sigcheck <code>additional_info.sigcheck</code>	<code>additional_info.sigcheck</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
ThreatFile Attributes	Positives Delta	<code>additional_info.positives_delta</code>	N/A
ThreatFile Attributes	Portable Executable Machine Type	<code>additional_info.pe-machine-type</code>	N/A
ThreatFile Attributes	TrID	<code>additional_info.trid</code>	N/A
ThreatFile Attributes	VirusTotal Private API Magic	<code>additional_info.magic</code>	N/A
Related Indicator #3	N/A	<code>additional_info.main_icon-raw_md5</code>	MD5
Related Indicator <code>additional_info.main_icon.raw_md5</code> Attribute	Main Icon: 'Yes'	N/A	N/A
Related Indicator #3 Attribute	Main Icon DHash	<code>additional_info.main_icon-dhash</code>	N/A
ThreatFile Attribute	Process Name	<code>additional_info.behaviour-v1.process.tree.name</code>	N/A
ThreatFile Attribute	Runtime DLL: Successfully Run / Failed to Run	<code>additional_info.behaviour-</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
	(if additional_info.behaviour-v1.runtime-dlls.success) additional_info.behaviour-v1.runtime-dlls.file	v1.runtime-dlls	
Related Indicator #4	N/A	additional_info.behaviour-v1.mutex.opened	Mutex
Related Indicator additional_info.behaviour-v1.mutex.opened Attribute	additional_info.behaviour-v1.mutex.opened.mutex: Opened Mutex	N/A	N/A
Related Indicator #4	N/A	additional_info.behaviour-v1.created	Mutex
Related Indicator additional_info.behaviour-v1.created Attribute	additional_info.behaviour-v1.created.mutex: Created Mutex	N/A	N/A
Related Indicator #2	N/A	additional_info.behaviour-v1.filesystem.opened	FilePath
Related Indicator additional_info.behaviour-v1.-	additional_info.behaviour-v1.-	N/A	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
info.behaviour-v1.- filesystem.opened Attribute	filesystem.opened.path: File Successfully Opened		
Related Indicator #2	N/A	additional_info.behaviour- v1.filesystem.read	FilePath
Related Indicator additional_ info.behaviour-v1.- filesystem.read Attribute	additional_info.behaviour-v1.- filesystem.read.path: File Successfully Read	N/A	N/A
Related Indicator #2	N/A	additional_info.behaviour- v1.filesystem.moved	FilePath
Related Indicator additional_ info.behaviour-v1.- filesystem.moved Attribute	additional_info.behaviour-v1.- filesystem.read.moved: File Successfully Moved	N/A	N/A
Related Indicator #2	N/A	additional_info.behaviour- v1.filesystem.downloaded	FilePath
Related Indicator additional_ info.behaviour-v1.- filesystem.downloaded	additional_info.behaviour-v1.- filesystem.read.downloaded: File Suc- cessfully Downloaded	N/A	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute			
Related Indicator #2	N/A	<code>additional_info.behaviour-v1.filesystem.written</code>	FilePath
Related Indicator <code>additional_info.behaviour-v1.filesystem.written</code> Attribute	<code>additional_info.behaviour-v1.filesystem.read.written</code> : File Successfully Written	N/A	N/A
Related Indicator #2	N/A	<code>additional_info.behaviour-v1.filesystem.replaced</code>	FilePath
Related Indicator <code>additional_info.behaviour-v1.filesystem.replaced</code> Attribute	<code>additional_info.behaviour-v1.filesystem.read.replaced</code> : File Successfully Replaced	N/A	N/A
Related Indicator #2	N/A	<code>additional_info.behaviour-v1.filesystem.deleted</code>	FilePath
Related Indicator <code>additional_info.behaviour-v1.filesystem.deleted</code> Attribute	<code>additional_info.behaviour-v1.filesystem.read.deleted</code> : File Suc-	N/A	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
filesystem.deleted Attribute	Successfully Deleted		
Related Indicator #2	N/A	additional_info.behaviour-v1.filesystem.copied	FilePath
Related Indicator additional_info.behaviour-v1.filesystem.copied Attribute	additional_info.behaviour-v1.filesystem.read.copied: File Successfully Copied	N/A	N/A
ThreatFile Attribute	Portable Executable Resource Type additional_info.pe-resource-types.dict_key	additional_info.pe-resource-types	N/A
Related Indicator #4	N/A	additional_info.network_infrastructure	URL
ThreatFile Attribute	Portable Executable Entry Point	additional_info.pe-entry-point	N/A
Related Indicator #5	N/A	additional_info.pe-resource-detail[].sha256	SHA-256

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Related Indicator #5 Attribute	Portable Executable Language"	<code>additional_info.pe-resource-detail[].lang</code>	N/A
Related Indicator #5 Attribute	Portable Executable Chi Squared"	<code>additional_info.pe-resource-detail[].chi2</code>	N/A
Related Indicator #5 Attribute	Portable Executable File Type"	<code>additional_info.pe-resource-detail[].filetype</code>	N/A
Related Indicator #5 Attribute	Portable Executable Entropy"	<code>additional_info.pe-resource-detail[].entropy</code>	N/A
Related Indicator #5 Attribute	Portable Executable Type"	<code>additional_info.pe-resource-detail[].type</code>	N/A
Related Indicator #6	N/A	<code>additional_info.contacted_domains</code>	FQDN
Related Indicator <code>additional_info.contacted_domains</code> Attribute	Malware Contacted Domain: Yes	N/A	N/A
ThreatFile, Related Indicator #1	Officecheck Document Summary Info <code>addi-</code>	<code>additional_info.of-</code>	N/A

TQ	TQ Attribute Name	VirusTotal	Indicator Type
Attribute	tional_info.officecheck.document_summary_info.dict_hey	ficecheck.document_summary_info	
ThreatFile, Related Indicator #1 Attribute	Officecheck Summary Info additional_info.officecheck.summary_info.dict_hey	additional_info.officecheck.summary_info	N/A
ThreatFile, Related Indicator #1 Attribute	Library imported from additional_info.imports.dict_hey	additional_info.imports	N/A

submit_hash

Uses the <https://www.virustotal.com/vtapi/v2/file/report> endpoint

Mapping is the same as [submit_file - report](#).

Change Log

- **Version 2.2.2**
 - UI message improvements.
 - Added a new user field.
 - Mapping field updates.
- **Version 2.2.1**
 - Fixed a details column formatting bug.
- **Version 2.2.0**
 - Added additional attributes that were missing from previous versions.
- **Version 2.1.0**
 - Better Error Handling for finished, queued or pending scans.
 - Create relation between enriched indicator and returned indicators
 - Bug Fix for Internal 5XX errors
- **Version 2.0.0**
 - Initial Release