DomainTools Operation Implementation Guide

Version 2.0.0

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Introduction

The Domain Tools Operation provides context in the form of attributes and indicators of compromise from the DomainTools API.

Versioning

- Current integration version: `2.0.0`
- Supported on ThreatQ versions: `4.21.0` or higher

Requirements

The DomainTools Operation requires a **DomainTools API Key** from the vendor before it can be enabled in ThreatQ.

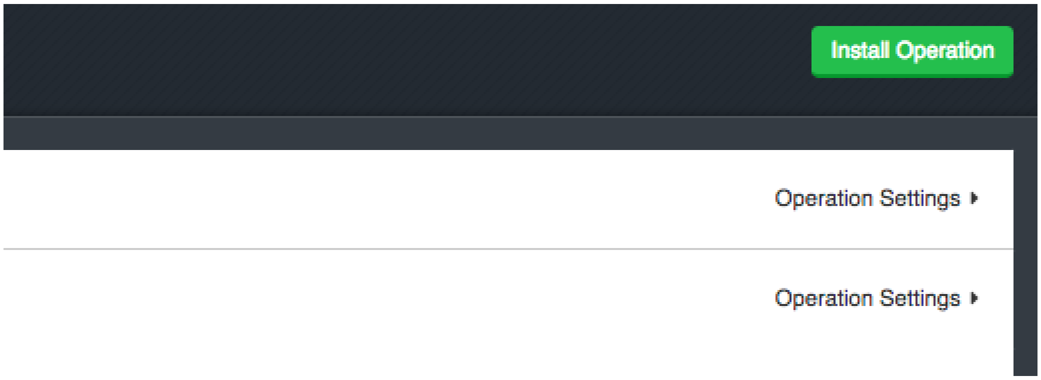
Installation

Upgrading from ThreatQ versions 4.20.0 and prior will automatically upload the domain tools operation 0.0.3 version that previously was installed by default with the platform. More recent versions of the DomainTools operations will need to be manually uninstalled.

Complete the following steps to install the operation:

1. Login to https://download.threatq.com/integrations/.
2. Download the **tq_op_domaintools-X.Y.Z-py3-none-any.whl** file.

3. From the ThreatQ user interface, select the **Settings icon > Operations Management**.
4. Click **Install Operation**.



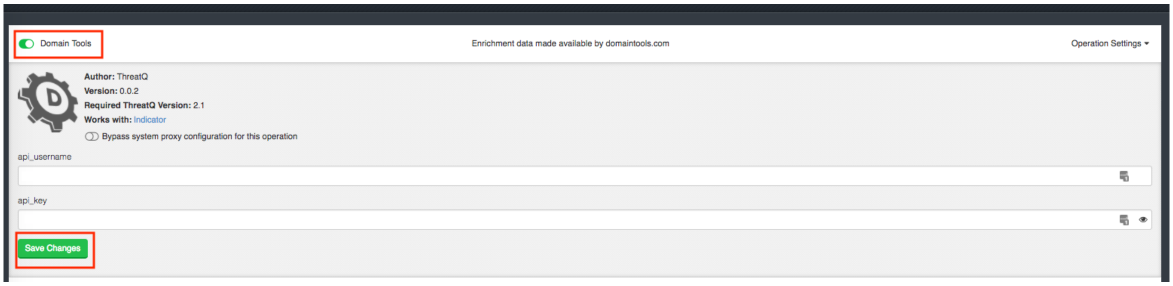
5. In the Add Operation dialog box, complete one of the following actions:
   - Drag and drop the whl file into the dialog box.
   - **Click to browse** to the whl file and select it.
6. Click **Install**.

Configuration

To configure the DomainTools operation:

1. From the ThreatQ user interface, select the **Settings icon > Operations Management**.
2. Expand the **DomainTools** configuration.
3. For api_username, enter the API Username from DomainTools.
4. For api_key, enter the API Key from DomainTools.

5. Click **Save Changes**.



Domain Tools

Enrichment data made available by domaintools.com

Author: ThreatQ
Version: 0.0.2
Required ThreatQ Version: 2.1
Works with: Indicator

○ Bypass system proxy configuration for this operation

api_username

api_key

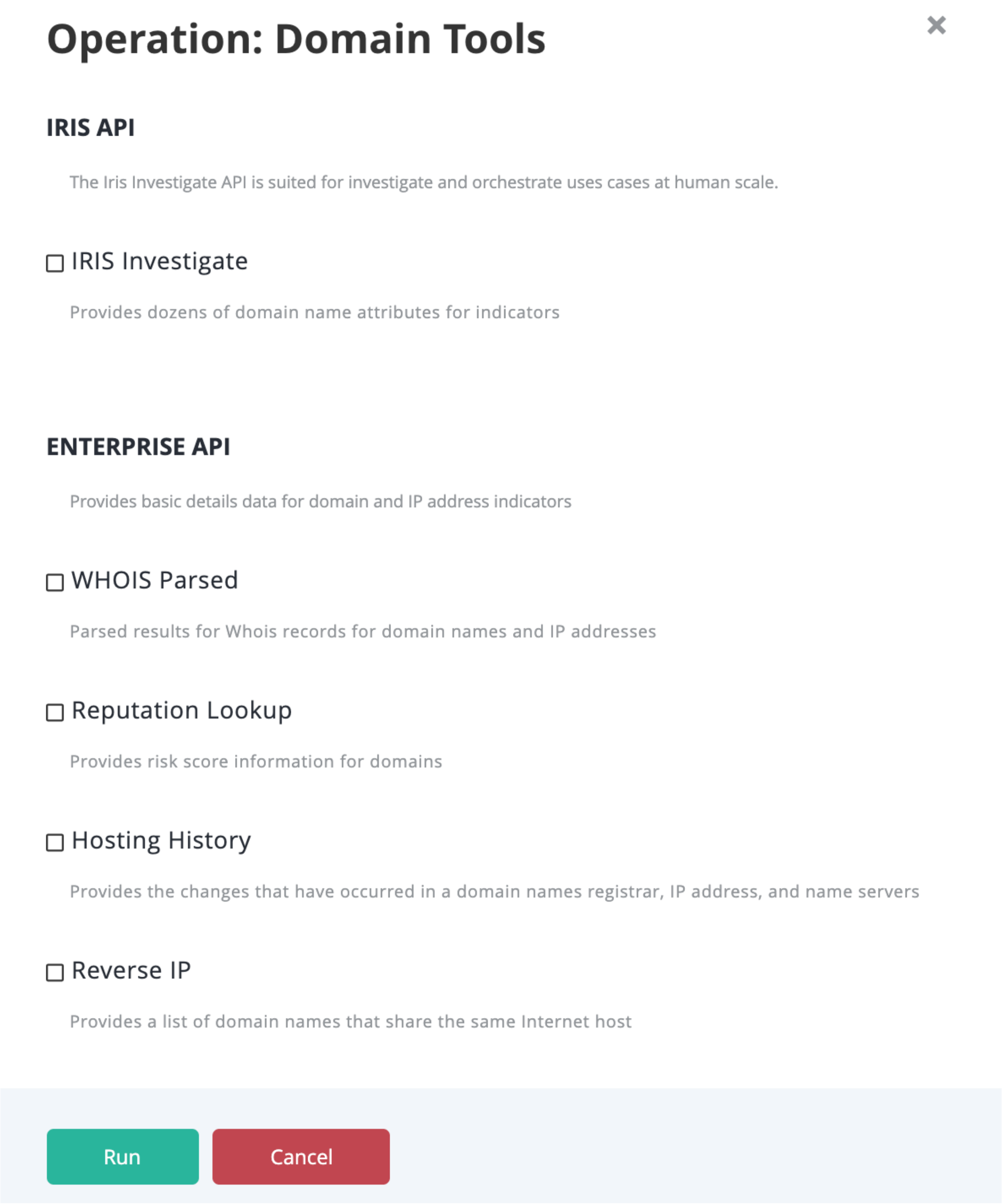
6. Click the toggle next to **Domain Tools** to enable.

Actions

Action	Indicator Types	Description
Enrichment	IP Address and FQDNs	Information for IP addresses and FQDNs, including registrant, name servers, email addresses, and more. The operation has been updated to include the latest endpoints.

Advanced Configuration

The endpoints you can call for enrichment are configurable as displayed below:



Operation: Domain Tools

IRIS API

The Iris Investigate API is suited for investigate and orchestrate uses cases at human scale.

□ IRIS Investigate

Provides dozens of domain name attributes for indicators

ENTERPRISE API

Provides basic details data for domain and IP address indicators

□ WHOIS Parsed

Parsed results for Whois records for domain names and IP addresses

□ Reputation Lookup

Provides risk score information for domains

□ Hosting History

Provides the changes that have occurred in a domain names registrar, IP address, and name servers

□ Reverse IP

Provides a list of domain names that share the same Internet host

WHOIS Parsed

WHOIS Parsed Enriches data with parsed results for Whois records for domain names and IP addresses. The url that is called is https://api.domaintools.com/v1/{}/whois/parsed and the mapping consists in:

Domain Tools	TQ Name	TQ Type	Example
registrant	Registrant	Indicator Attribute	DomainTools, LLC
registrant_email	Registrant Email	Indicator Attribute	
created_date	Created At	Indicator Attribute	
updated_date	Updated At	Indicator Attribute	
statuses	Status	Indicator Attribute	
networks[].range.from.value	IP	Related Indicator	
networks[].range.to.value	IP	Related Indicator	

Domain Tools	TQ Name	TQ Type	Example
networks[].range.cidr[].value	CIDR BLOCK	Related Indicator	
response.parsed_whois.networks[].name	WHOIS Name	Indicator Attribute	
response.parsed_whois.networks[].organization	WHOIS Organization	Indicator Attribute	
response.parsed_whois.routes[].id	CIDR Block	Related Indicator	
response.parsed_whois.routes[].asn[].value	ASN	Attribute	
response.parsed_whois.referral_servers[].value	FQDN	Related Indicator	
source	Source	Indicator Attribute	
country	Country	Indicator Attribute	
contacts	Phone	Indicator Attribute	
status	Status	Indicator Attribute	

Domain Tools	TQ Name	TQ Type	Example
ref	References	Indicator Attribute	
record_source	Record Source	Indicator Attribute	

IRIS Investigate

IRIS Investigate provides dozens of domain name attributes for indicators. Based on the indicator type, the URL called is either https://api.domaintools.com/v1/iris-investigate/?ip={} or https://api.domaintools.com/v1/iris-investigate/?domain={} and the mapping consists of:

Domain Tools	ThreatQ Name	ThreatQ Type	Example
whois_url	WHOIS URL	Indicator Attribute	https://whois.domaintools.com/desitales.com
admin_contact	Admin	Indicator Attribute	
email_domain[]	email domain	Related Indicator	
registrant_contact	All Registrant Data	Attribute	
billing_contact	All Billing Data	Attribute	

Domain Tools	ThreatQ Name	ThreatQ Type	Example
create_date	Created At	Attribute	
expiration_date	Expiration Date	Attribute	
ssl_email	SSL email	Attribute	
ip[]	All address data	Related Indicator	
domain_risk.-component[].name / domain_risk.-component[].risk_score	Domain Risk Name and Score	Attribute	

Reputation Lookup

Reputation Lookup provides risk score information for domains. The endpoint URL is https://api.domaintools.com/v1/reputation/?domain={}&include_reasons=true and the mapping consists of:

Domain Tools	ThreatQ Name	ThreatQ Type	Example
risk_score	Risk Score	Indicator Attribute	21.13

Domain Tools	ThreatQ Name	ThreatQ Type	Example
response.reasons[]	Scoring Reason	Indicator Attribute registrant	

Hosting History

Hosting History provides the changes that have occurred in a domain name's registrar, IP address, and name servers. The endpoint URL is https://api.domaintools.com/v1/{}/hosting-history/ and the mapping consists of:

DomainTools	ThreatQ Name	ThreatQ Type	Example
registrar_history [].registrar	WHOIS Registrar	Indicator Attribute	
registrar_history [].date_updated	Updated At	Indicator Attribute	
nameserver_history[].pre_mns	FQDN	Indicator Value	
nameserver_history[].post_mns	FQDN	Indicator Value	
nameserver_history[].action_in_words	WHOIS Action	Attribute Value	Transfer

DomainTools	ThreatQ Name	ThreatQ Type	Example
nameserver_history[].actiondate	WHOIS Action Date	Attribute Value	
ip_history[].post_ip	Indicator Value	IP Address	
ip_history[].pre_ip	Indicator Value	IP Address	
ip_history[].action_in_words	WHOIS Action	Attribute Value	
ip_history[].actiondate	WHOIS ActionDate	Attribute Value	

Reverse IP

Reverse IP provides a list of domain names that share the same Internet host. If the indicator is an FQDN, the called endpoint will be: https://api.domaintools.com/v1/{fqdn}/reverse-ip/, otherwise https://api.domaintools.com/v1/{}/host-domains/ and the mapping will be the following:

Domain Tools	ThreatQ Name	ThreatQ Type	Example
ip_address	IP Address	Indicator Value	199.30.228.112

If the indicator is an IP, the called endpoint will be: https://api.domaintools.com/v1/{ip}/host-domains/ and the mapping will be the following:

Domain Tools	ThreatQ Name	ThreatQ Type	Example
ip_address	IP Address	Indicator Value	199.30.228.112
domain_names[]	FQDN	Indicator Value	

Known Issues/Limitations

Users encounter an error: "Failed to process request," when executing a reverse ip lookup on an indicator that does not have any data from the Domain Tools API.