

ThreatQuotient



ThreatQuotient for Zscaler Sandbox Operation

Version 1.0.0

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1 Introduction

1.1 Application Function

The ThreatQuotient for Zscaler Sandbox Operation runs and analyzes files in a virtual environment to detect malicious behaviour. It propagates a hash of malicious files to all Zscaler Enforcement Nodes (ZENs) throughout the cloud, effectively maintaining a real time blacklist so that it can prevent users anywhere in the world from downloading malicious files.

Currently, all malware files can only be submitted manually via the portal <http://filecheck.zscaler.com/>. In order to submit files, you must forward your internet traffic to Zscaler, which is outlined in this document below.

The ThreatQ operation searches Zscaler for the MD5 of files that have already been scanned by the sandbox and brings the results of the malware analysis back into ThreatQ.

1.2 Preface

This guide provides the information necessary to implement the ThreatQuotient for Zscaler Sandbox Operation. This document is not specifically intended as a site reference guide. It is assumed that the implementation engineer has experience installing and commissioning the ThreatQuotient Apps and integrations covered within the document, as well as the experience necessary to troubleshoot at a basic level.

1.3 Audience

This document is intended for use by the following parties:

1. ThreatQ and Security Engineers
2. ThreatQuotient Professional Services Project Team & Engineers

1.4 Scope

This document covers the implementation of the application only.

Table 1: ThreatQuotient Software & App Version Information

Software/App Name	File Name	Version
ThreatQ	Version 4.20.x or greater	
ThreatQuotient for Zscaler Sandbox Operation	1.0.0	

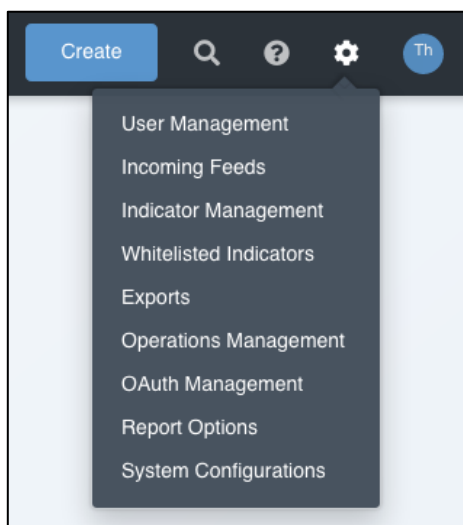
2 ThreatQuotient for Zscaler Sandbox Operation Installation

2.1 Setting up the Integration

Ensure the file `tq_op_zscaler-1.0.0-py3-none-any.whl` is available on the device being used to administer the ThreatQ instance in which the ThreatQuotient for Zscaler Sandbox Operation is being installed/upgraded.

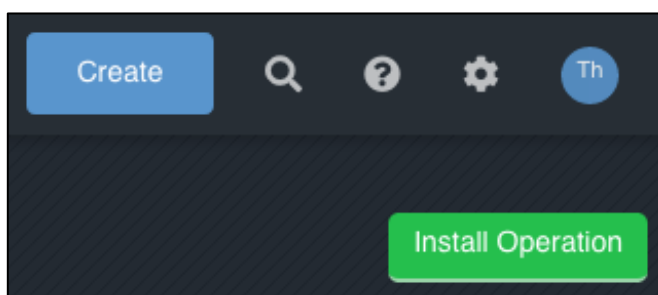
1. Navigate to the **Settings icon > Operations Management**.

Figure 1: Operations Management – Install



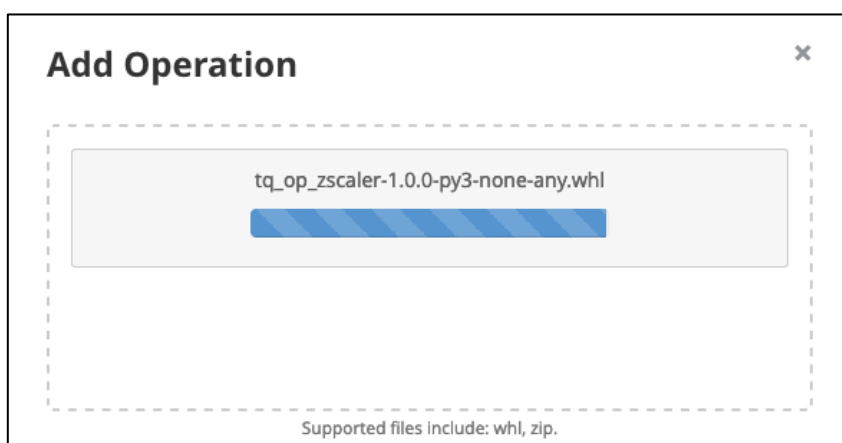
2. Click **Install Operation** in the upper right corner.

Figure 2: Install Operation



3. Drag the `tq_op_zscaler-1.0.0-py3-none-any.whl` to the Add Operation Popup or **Click to Browse** to the required file.

Figure 3: Add Operation

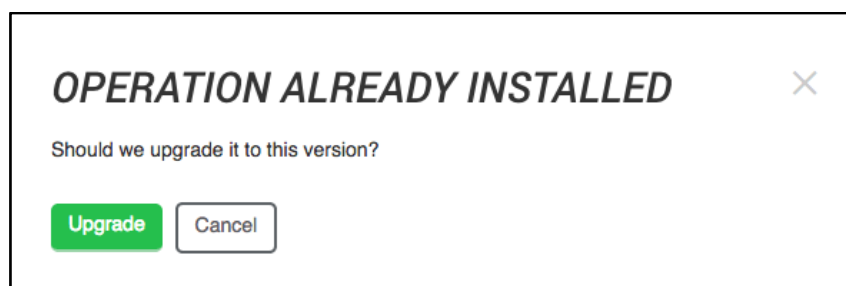


4. Click **Install** or **Upgrade**.



You may be presented with **OPERATION ALREADY INSTALLED** as shown below.

Figure 4: Add Operation



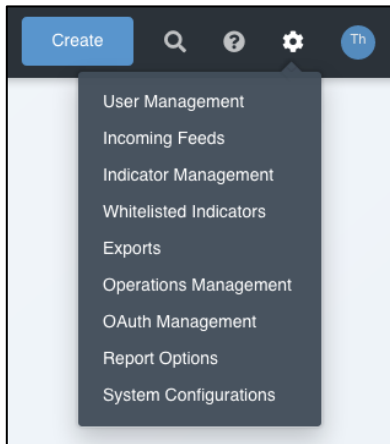
Installation/Upgrade is now complete.

2.2 Configuring the Operation

The following section covers the configuration of the ThreatQuotient for Zscaler Sandbox Operation.

1. Navigate to the **Settings icon > Operations Management**.

Figure 5: Operations Management – Configuration



2. Expand the **Zscaler** Operation Settings configuration.

Figure 6: Operation Configuration

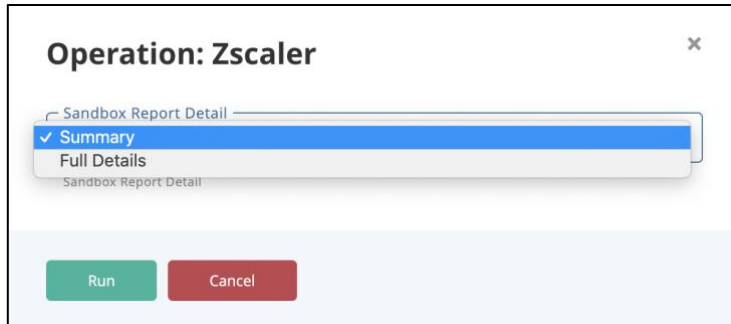
A screenshot of the 'Zscaler' operation configuration page. At the top, it says 'Zscaler' and 'Gets a detailed report for an MD5 hash of a file analyzed by the Zscaler sandbox'. Below this, it lists 'Author: ThreatQ', 'Version: 1.0.0', 'Required ThreatQ Version: 2.1', and 'Works with: Indicator'. There is a toggle switch for 'Bypass system proxy configuration for this operation'. The form contains four input fields: 'Hostname', 'Username', 'Password' (with an eye icon), and 'API Key' (with an eye icon). At the bottom, there is a 'Verify SSL' checkbox and two buttons: 'Save Changes' and 'Delete Operation'.

3. Enter the Hostname/IP address into the **Hostname** field.
4. Enter the Username into the **Username** field.
5. Enter the Password into the **Password** field.
6. Enter your Zscaler API Key into the **API Key** field.
7. Click **Save Changes**.
8. Click the toggle button next to the **Zscaler** name to enable the operation.

2.3 Using the Operation

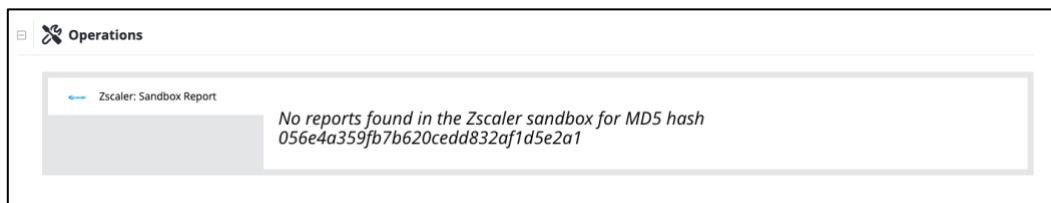
The following section covers the use of the ThreatQuotient for Zscaler Sandbox Operation to query Zscaler for reports of MD5 hashes.

1. Select the MD5 to run the Zscaler operation against. You can choose to pull either a Summary or a Full Details report using a dropdown. Example outputs for both types are below.



2. By clicking the operation, it will submit the MD5 to Zscaler to retrieve reports for that MD5. If none are found, it will display as the example shows below.

Figure 7: Zscaler Operation No Report Example



If a report is found, it will show the output in ThreatQ and present the user with a list of attributes by categories to add to the indicator. In addition, the operation will collect the response from the API as a JSON, upload it to ThreatQ and relate to the MD5 that was queried.



Summary details report

The reports provide information in three categories:

- Summary
- Classification
- File Properties

Operations

Zscaler: Sandbox Report

Search results for MD5 hash b3b13c2fe5710507612106cb11ced3

Classification

ATTRIBUTE NAME	VALUE
Malware Category	MALWARE_BOTNET
Risk Score (max 100)	82
Type	MALICIOUS
Detected Malware	Win32/TrojanDownloader.Banload.TNj trojan

Add Attributes

File Properties

ATTRIBUTE NAME	VALUE
SHA256	c77ab4c60b73c8f8135d54162813ab7c63432058f17ff00754d5d547c22db76
SSDeep	49152:mQU0H5p/RcGu8Le/PES8BfVZ86MfBWPvGZxnBGV3NcKRLFcTOJp:mQU n6LsPQp6vkoiKt
File Type	DLL
SHA1	6f30404f8b30812758acc06455bc95348c86f9f2
File Size	2358272

Add Attributes

Full details report

The full report provides a detailed sandbox analysis organized in the following categories:

- Summary
- Classification
- File Properties
- System Summary
- Networking
- Security Bypass
- Stealth
- Persistence
- Country of Origin
- Spreading
- Spyware
- Exploit

Operations

Zscaler: Sandbox Report

Search results for MD5 hash 86140b27dc6252315f48bda7acf5b180

Security Bypass

ATTRIBUTE NAME

VALUE

Q Start typing...

Q Start typing...

Security bypass signatures

Checks for kernel debuggers

Security bypass signatures

Executes massive amount of sleeps in a loop

Security bypass signatures

Sample sleeps for a long time (installer files shows these property).

Security bypass signatures

Writes a notice file to demand a ransom

Security bypass signatures

Modifies the context of a thread in another process

Add Attributes

File Properties

ATTRIBUTE NAME

VALUE

Q Start typing...

Q Start typing...

SSDeep

6144:eli7V6jSzaaNjVDAygqjHhAj/QK6zhiWYWBn5FcLRP9:sioGua/AY1ajHAt-QBE545FcLf

SHA1

e16a975a391bec89d96f9db9d472cbffe39bebb6

SHA256

3809afa5f66e24e6865a34405abad7aca98d574aeee1321ba95f3668acd79d3f

File Type

EXE

File Size

315392

Add Attributes

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