Threat Analysis with Uptycs

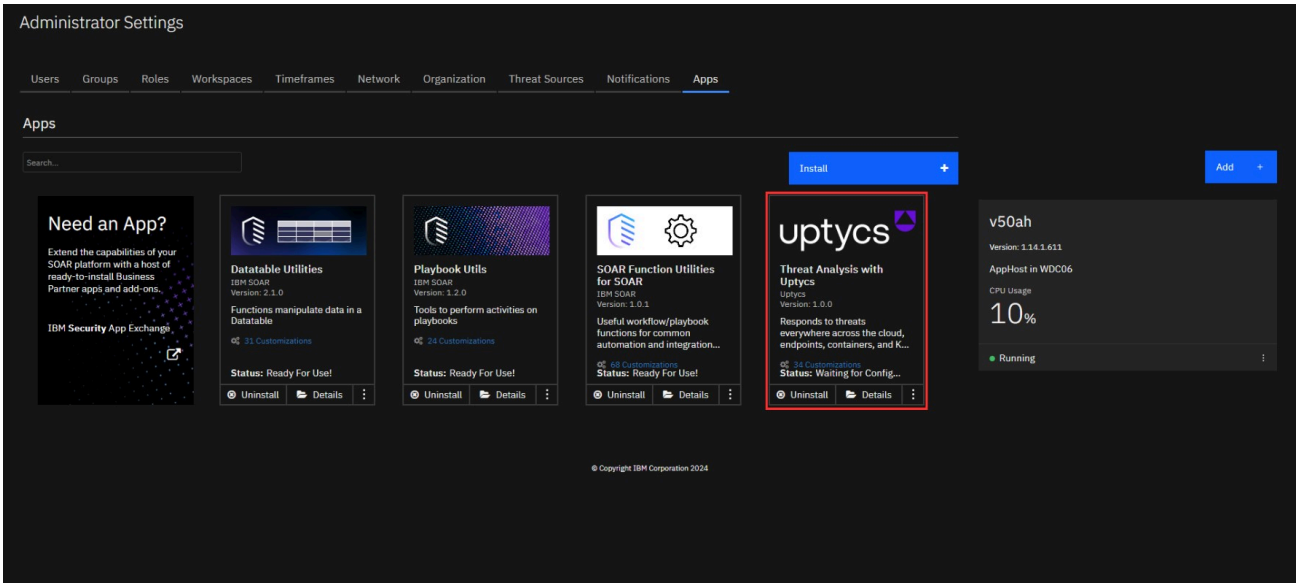
Table of Contents

Release Notes

Version	Date	Notes
1.0.0	03/2024	Initial Release

Overview

Responds to threats everywhere across the cloud, endpoints, containers, and K8s systems



It is a robust extension that seamlessly integrates with the Uptycs platform to retrieve real-time alerts data and analyze potential security threats.

```
This integration empowers security teams to proactively monitor, analyze, and respond to security
incidents within their organization's IT infrastructure, ensuring timely detection and mitigation of
threats.
```

Key Features

- Retrieve Uptycs data into the IBM QRADAR SOAR
- Threat Analysis on Uptycs Data (both alerts and detections)
- Automating the threat analysis process with uptycs alerts and detections

Requirements

This app supports the IBM Security QRadar SOAR Platform and the IBM Security QRadar SOAR for IBM Cloud Pak for Security.

SOAR platform

The SOAR platform supports two app deployment mechanisms, App Host and integration server.

If deploying to a SOAR platform with an App Host, the requirements are:

- SOAR platform >= `50.0.9097`.
- The app is in a container-based format (available from the AppExchange as a `zip` file).

If deploying to a SOAR platform with an integration server, the requirements are:

SOAR platform >= `50.0.9097`.

The app is in the older integration format (available from the AppExchange as a `zip` file which contains a `tar.gz` file).

Integration server is running `resilient-circuits>=51.0.1.0.0`.

If using an API key account, make sure the account provides the following minimum permissions:

Name	Permissions
Org Data	Read
Function	Read

The following SOAR platform guides provide additional information:

- *App Host Deployment Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings.
- *Integration Server Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings.
- *System Administrator Guide*: provides the procedure to install, configure and deploy apps.

The above guides are available on the IBM Documentation website at ibm.biz/soar-docs. On this web page, select your SOAR platform version. On the follow-on page, you can find the *Edge Gateway Deployment Guide*, *App Host Deployment Guide*, or *Integration Server Guide* by expanding **Apps** in the Table of Contents pane. The System Administrator Guide is available by expanding **System Administrator**.

Cloud Pak for Security

If you are deploying to IBM Cloud Pak for Security, the requirements are:

- IBM Cloud Pak for Security >= `1.10.15`.
- Cloud Pak is configured with an Edge Gateway.
- The app is in a container-based format (available from the AppExchange as a `zip` file).

The following Cloud Pak guides provide additional information:

- *App Host Deployment Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings. From the Table of Contents, select Case Management and Orchestration & Automation > **Orchestration and Automation Apps**.

- *System Administrator Guide*: provides information to install, configure, and deploy apps. From the IBM Cloud Pak for Security IBM Documentation table of contents, select Case Management and Orchestration & Automation > **System administrator**.

These guides are available on the IBM Documentation website at ibm.biz/cp4s-docs. From this web page, select your IBM Cloud Pak for Security version. From the version-specific IBM Documentation page, select Case Management and Orchestration & Automation.

Proxy Server

The app **does not** support a proxy server.

Python Environment

Python 3.11 or later versions are supported. Additional package dependencies may exist for each of these packages:

- resilient-circuits>=51.0.1.0.0
- requests>=2.31.0

Installation

Install

- To install or uninstall an App or Integration on the *SOAR platform*, see the documentation at ibm.biz/soar-docs.
- To install or uninstall an App on *IBM Cloud Pak for Security*, see the documentation at ibm.biz/cp4s-docs and follow the instructions above to navigate to Orchestration and Automation.

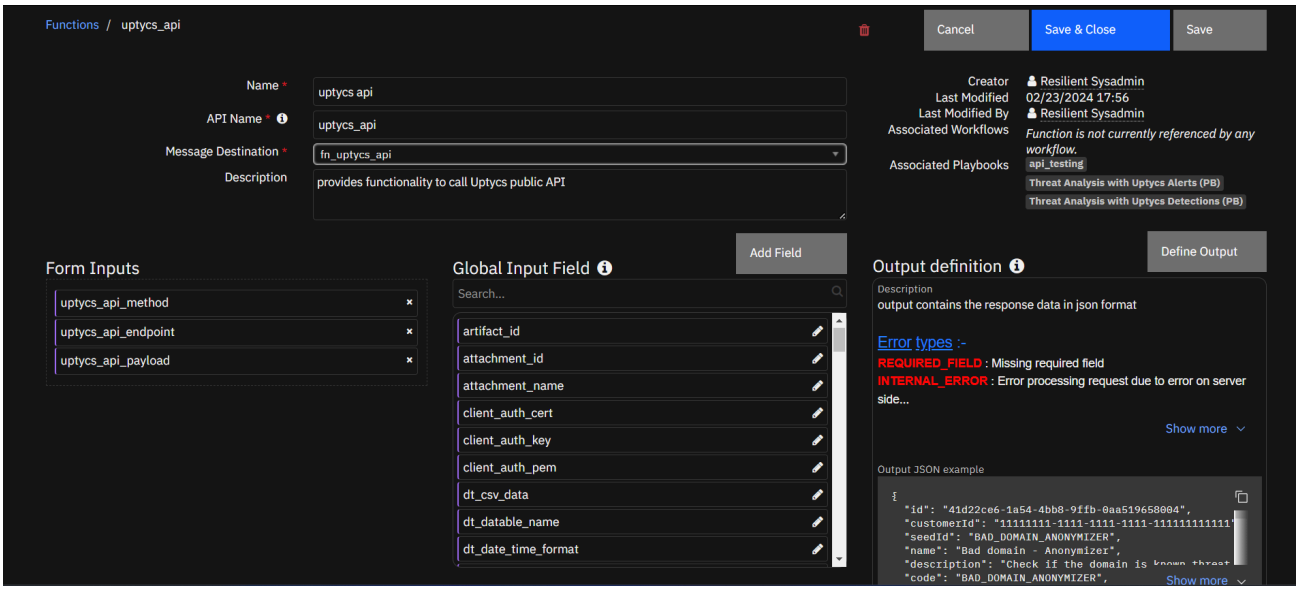
App Configuration

The following table provides the settings you need to configure the app. These settings are made in the app.config file. See the documentation discussed in the Requirements section for the procedure.

Config	Required	Example	Description
uptycs_api_key	Yes	`<key_value_of_uptycs_api_keys>`	key value of Uptycs API keys
uptycs_api_secret	Yes	`<secret_value_of_uptycs_api_keys>`	secret value of Uptycs API Keys
uptycs_customer_id	Yes	`<uptycs_customer_id>`	Your Uptycs Customer ID
uptycs_domain	Yes	`<domain_name_of_uptycs_stack>`	Domain of your Uptycs Stack
uptycs_domain_suffix	Yes	`<domain_suffix_of_uptycs_stack>`	Domain Suffix of your Uptycs Stack

Function - uptycs api

provides functionality to call Uptycs public API



▶ Inputs:

Name	Type	Required	Example	Tooltip
uptycs_api_endpoint	text	Yes	-	API Endpoint to be called
uptycs_api_method	text	Yes	-	Request method for an API
uptycs_api_payload	text	Yes	-	Payload for the API call.

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.


```
results = {
  "items": [
    {
      "alertConfig": {},
      "alertNotifyCount": null,
      "alertNotifyInterval": null,
      "alertRuleExceptions": [],
      "alertRuleQueries": [],
      "alertTags": [
        "ANONYMIZER",
        "DOMAIN",
        "THREAT-INTEL",
        "UPTYCS"
      ],
      "code": "BAD_DOMAIN_ANONYMIZER",
      "createdAt": "2023-05-15T20:53:06.519Z",
      "createdBy": "00000000-0000-0000-0000-000000000000",
      "custom": false,
      "customerId": "11111111-1111-1111-1111-111111111111",
      "description": "Check if the domain is known threat and is categorized as Anonymizer",
      "destinations": [],
      "enabled": true,
      "grouping": "Threat Intel",
      "groupingL2": "Threat Intel",
      "groupingL3": "Threat Intel",
      "groupingL4": null,
      "id": "41d22ce6-1a54-4bb8-9ffb-0aa519658004",
      "isInternal": false,
      "links": [
        {
```

```
          "href": "/api/customers/11111111-1111-1111-1111-111111111111/alertRules/41d22ce6-1a54-4bb8-
9ffb-0aa519658004",
          "rel": "self",
          "title": "Alert rule"
        },
        {
          "href": "/api/customers/11111111-1111-1111-1111-111111111111/alertRules",
          "rel": "parent",
          "title": "Alert rules"
        }
      ],
      "lock": false,
      "name": "Bad domain - Anonymizer",
      "potentialImpact": null,
      "remediationSteps": null,
      "rule": "Auto create alert rule for Bad domain - Anonymizer",
      "scriptConfig": null,
      "seedId": "BAD_DOMAIN_ANONYMIZER",
      "sqlConfig": null,
      "throttled": false,
      "timeSuppressionDuration": null,
      "timeSuppressionStart": null,
      "type": "builder",
      "updatedAt": "2023-05-15T20:53:06.522Z",
      "updatedBy": "00000000-0000-0000-0000-000000000000"
    }
  ],
  "limit": 1,
  "links": [
    {
      "href": "/api/customers/11111111-1111-1111-1111-111111111111/alertRules",
      "rel": "self"
    },
    {
      "href": "/api/customers/11111111-1111-1111-1111-111111111111",
      "rel": "parent"
    },
    {
      "href": "/public/api/customers/11111111-1111-1111-1111-111111111111/alertRules?
limit=1\u0026offset=1",
      "rel": "next",
      "title": "Next page"
    }
  ],
  "offset": 0
}
```


▶ Example Function Input Script:

```
import json

# unique id of the detection
detectionID = incident.properties.uptycs_detection_id


# API endpoint
endpoint = f"/detections/{detectionID}"


inputs.uptycs_api_method = 'GET'
inputs.uptycs_api_endpoint = endpoint
inputs.uptycs_api_payload = json.dumps({})
```

▶ Example Function Post Process Script:

```
"""
Set Detection data to playbook property named "json_data" to get the corresponding Rich Text HTML Code
"""

jsonData = {
   "heading": "Uptycs Detection Data",
   "content": playbook.functions.results.detectiondata.content
}


playbook.addProperty('json_data', jsonData)
```

Script - JSON TO HTML (RICH TEXT)

Converts provided JSON Data to Rich Text and adds it as a note to the corresponding Incident

Object: incident

▶ Script Text:

```
"""
Set the Json Data that you would like to convert to rich text in a playbook property called "json_data"
using playbook.addProperty('json_data', JSON_DATA)

JSON_DATA should have two keys, heading and content.

ex: JSON_DATA = {
   "heading" : "Uptycs Alert Data",
   "content" : {},   =======> json object
}

It converts the provided json to rich text and adds that as a note to the corresponding incident.

Go to Notes Tab to observe the corresponding Rich Text View of the JSON DATA.

"""




""" Don't Modify below lines of code """

def json_to_rich_text(data, initial_padding, padding=10):

    html = ""

    if isinstance(data, dict):
        for key, value in data.items():
            if isinstance(value, dict):
                html += "<strong style='padding-left:{0}px; color: #3366cc;'>{1}</strong>:<br><strong
style='padding-left:{0}px; color: #1adf17;'>{{</strong><br>{2}<strong style='padding-left:{0}px; color:
#1adf17;'>}}</strong>,<br>".format(
                        initial_padding, key,json_to_rich_text(value, initial_padding + padding,
padding)
                        )
            elif isinstance(value, list):
                if len(value) == 0:
                    html += "<strong style='padding-left:{0}px; color: #993333;'>{1}</strong>: [ ]<span
style='color: #1adf17;'>,</span> <br>".format(initial_padding, key)
                else:
                    html += "<strong style='padding-left:{0}px; color: #3366cc;'>{1}</strong>:<br>
<strong style='padding-left:{0}px; color: #1adf17;'>[</strong><br>{2}<strong style='padding-left:{0}px;
color: #1adf17;'>]</strong>,<br>".format(
                            initial_padding, key, json_to_rich_text(value, initial_padding + padding,
padding)
```

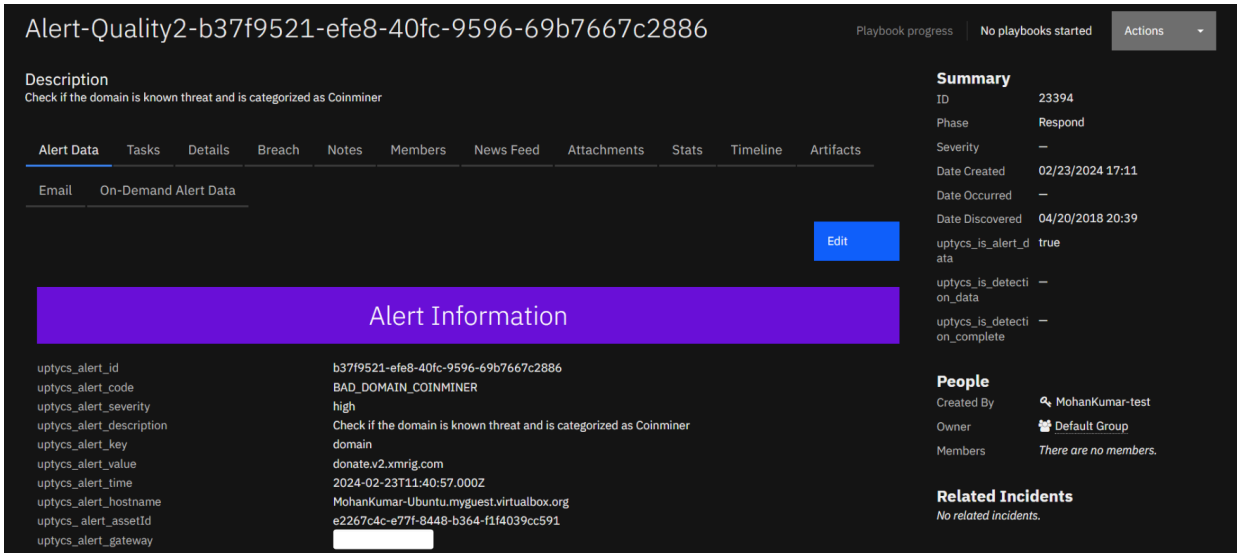
```
                            )
            else:
                html += "<strong style='padding-left:{0}px; color: #993333;'>{1}</strong>: {2}".format(
                        initial_padding, key,
                        json_to_rich_text(value, 5, padding)
                        )
    elif isinstance(data, list):
        for item in data:
            if isinstance(item, dict):
                html += "<br><strong style='padding-left:{0}px; color: #1adf17;'>{{</strong><br>{1}
<strong style='padding-left:{0}px; color: #1adf17;'>}}</strong><br>".format(
                        initial_padding,
                        json_to_rich_text(item, initial_padding, padding)
                        )
            elif isinstance(item, list):
                html += "<br><strong style='padding-left:{0}px; color: #1adf17;'>[</strong><br>{1}
<strong style='padding-left:{0}px; color: #1adf17;'>]</strong><br>".format(
                        initial_padding,
                        json_to_rich_text(item, initial_padding, padding)
                        )
            else:
                html += json_to_rich_text(item, initial_padding, padding)
    else:
        html += "<span style='padding-left:{0}px;'>{1}</span><span style='color: #1adf17;'>,</span>
<br>".format(initial_padding, data)
    return html


inputObject = playbook.properties.json_data

heading = inputObject.heading
jsonData = inputObject.content

htmlData = json_to_rich_text(jsonData, 20, 41)

header = f"<H1 style='margin: 20px 0; color:#FF3312; text-align: center;'>{heading}</H1>"

htmlData = header + htmlData

incident.addNote(helper.createRichText(htmlData))
```

Playbooks

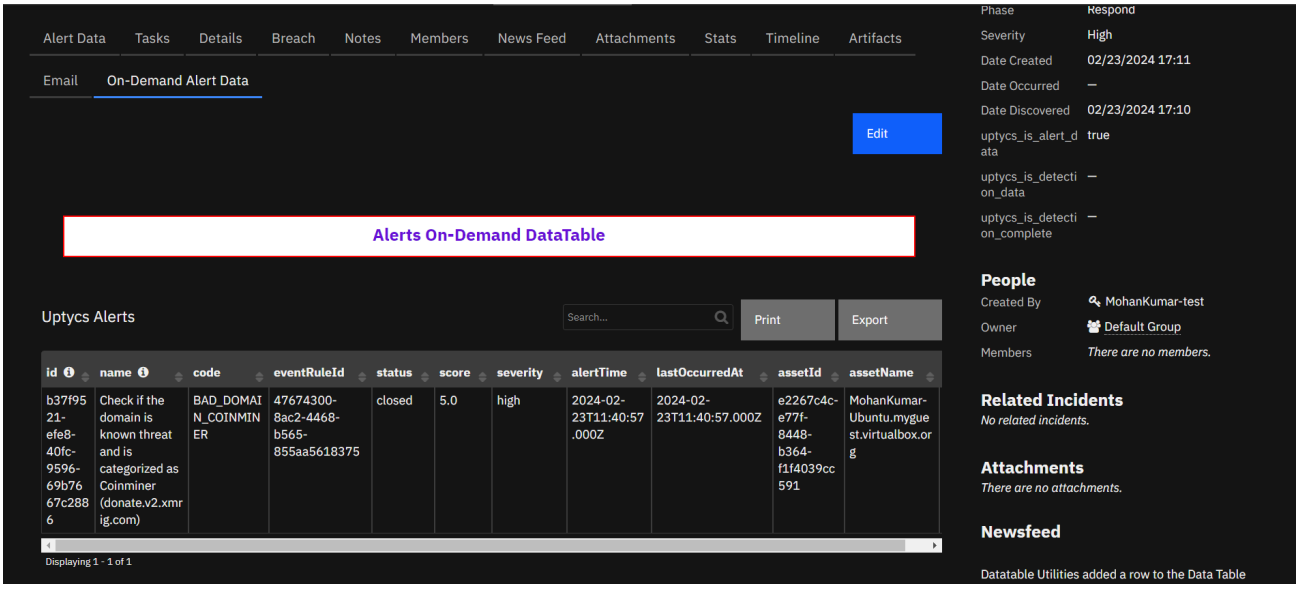
Playbook Name	Description	Activation Type	Object	Status	Condition
Threat Analysis with Uptycs Alerts (PB)	sample playbook for collecting alert data from Uptycs into the IBM QRADAR SOAR	Manual	incident	enabled	-
Threat Analysis with Uptycs Detections (PB)	sample playbook to retrieve detection data and analyse on the data	Manual	incident	enabled	-

Custom Layouts

- Import the Data Tables and Custom Fields like the screenshot below:



Data Table - Uptycs Alerts



API Name:

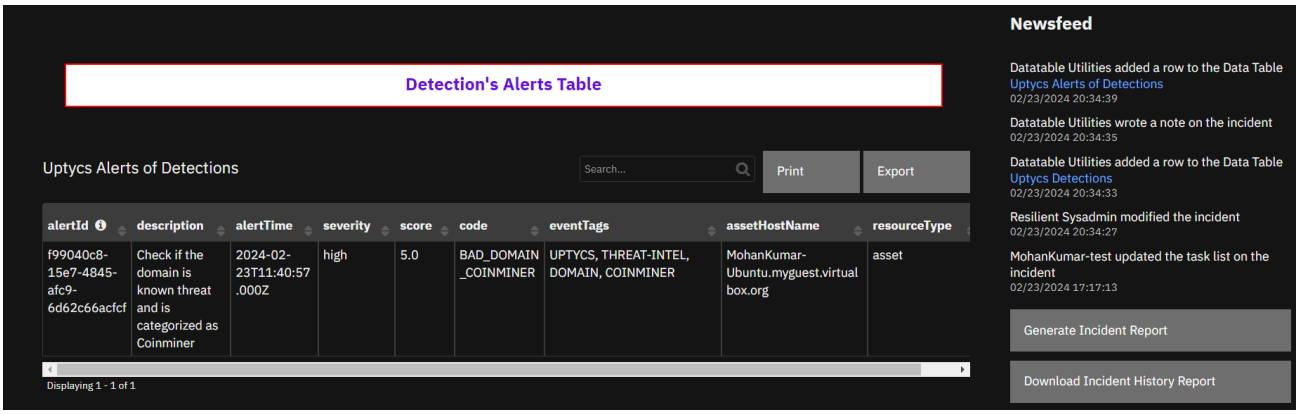
uptycs_alerts_db

Columns:

Column Name	API Access Name	Type	Tooltip
alertTime	db_uptycs_alerts_alerttime	text	-
assetId	db_uptycs_alerts_assetid	text	-
assetName	db_uptycs_alerts_assetname	text	-
code	db_uptycs_alerts_code	text	-
eventRuleId	db_uptycs_alerts_eventruleid	text	-
id	db_uptycs_alerts_id	text	unique id of the alert
lastOccurredAt	db_uptycs_alerts_lastoccurredat	text	-
name	db_uptycs_alerts_name	text	name of the alert
score	db_uptycs_alerts_score	text	-

Column Name	API Access Name	Type	Tooltip
severity	db_uptycs_alerts_severity	text	-
status	db_uptycs_alerts_status	text	-

Data Table - Uptycs Alerts of Detections



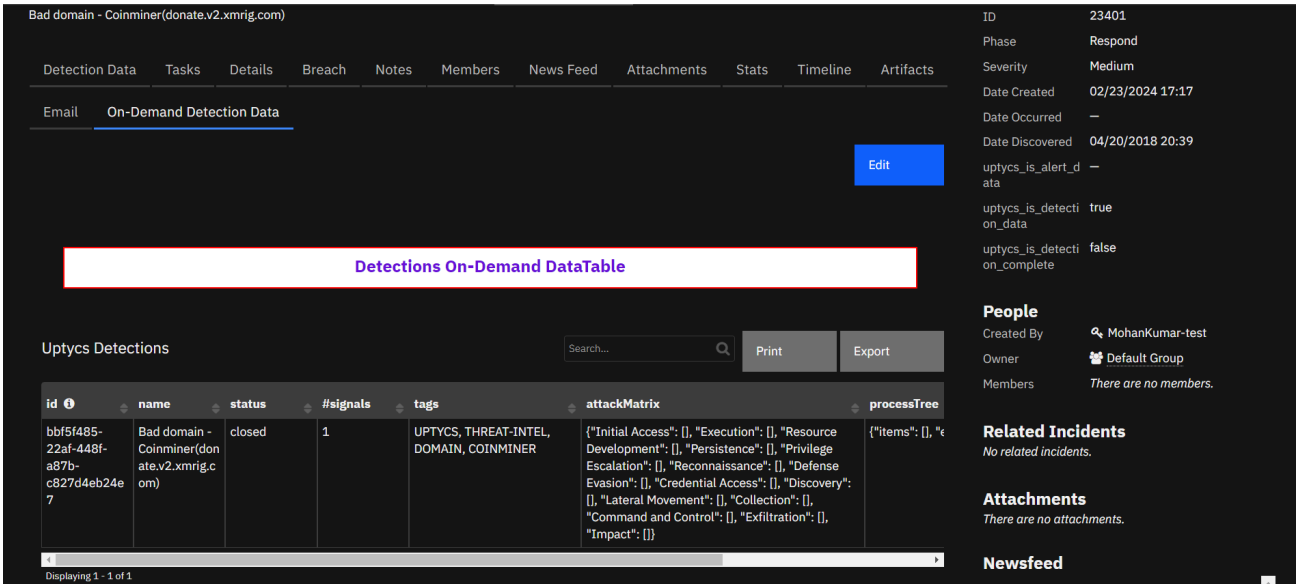
API Name:

uptycs_alerts_of_detections_db

Columns:

Column Name	API Access Name	Type	Tooltip
alertId	uptycs_alerts_of_detections_alertid	text	unique id of the alert that is part of detection
alertTime	uptycs_alerts_of_detections_alerttime	text	-
assetHostName	uptycs_alerts_of_detections_assethostname	text	-
code	uptycs_alerts_of_detections_code	text	-
description	uptycs_alerts_of_detections_description	text	-
eventTags	uptycs_alerts_of_detections_eventtags	text	-
resourceType	uptycs_alerts_of_detections_resourcetype	text	-
score	uptycs_alerts_of_detections_score	text	-
severity	uptycs_alerts_of_detections_severity	text	-

Data Table - Uptycs Detections



API Name:

uptycs_detections_db

Columns:

Column Name	API Access Name	Type	Tooltip
#signals	db_uptycs_detections_signals	text	-
attackMatrix	db_uptycs_detections_attackmatrix	text	-
id	db_uptycs_detections_id	text	Unique id of the detection
name	db_uptycs_detections_name	text	-
processTree	db_uptycs_detections_processtree	text	-
status	db_uptycs_detections_status	text	-
tags	db_uptycs_detections_tags	text	-

Custom Fields

Label	API Access Name	Type	Prefix	Placeholder	Tool
uptycs_ alert_assetId	uptycs_alert_assetid	text	properties	-	-
uptycs_alert_code	uptycs_alert_code	text	properties	-	-
uptycs_alert_description	uptycs_alert_description	text	properties	-	-
uptycs_alert_gateway	uptycs_alert_gateway	text	properties	-	-
uptycs_alert_hostname	uptycs_alert_hostname	text	properties	-	-
uptycs_alert_id	uptycs_alert_id	text	properties	-	-
uptycs_alert_key	uptycs_alert_key	text	properties	-	-
uptycs_alert_rulename	uptycs_alert_rulename	text	properties	-	-
uptycs_alert_severity	uptycs_alert_severity	text	properties	-	-
uptycs_alert_time	uptycs_alert_time	text	properties	-	-

Label	API Access Name	Type	Prefix	Placeholder	Tool
uptycs_alert_url	uptycs_alert_url	text	properties	-	-
uptycs_alert_value	uptycs_alert_value	text	properties	-	-
uptycs_detection_alerts	uptycs_detection_alerts	text	properties	-	-
uptycs_detection_assetHostName	uptycs_detection_assethostname	text	properties	-	-
uptycs_detection_attackMatrix	uptycs_detection_attackmatrix	text	properties	-	-
uptycs_detection_events	uptycs_detection_events	text	properties	-	-
uptycs_detection_id	uptycs_detection_id	text	properties	-	-
uptycs_detection_isContainer	uptycs_detection_iscontainer	text	properties	-	-
uptycs_detection_name	uptycs_detection_name	text	properties	-	-
uptycs_detection_score	uptycs_detection_score	text	properties	-	-
uptycs_detection_url	uptycs_detection_url	text	properties	-	-
uptycs_is_alert_data	uptycs_is_alert_data	text	properties	-	true alert othe false
uptycs_is_detection_complete	uptycs_is_detection_complete	text	properties	-	-
uptycs_is_detection_data	uptycs_is_detection_data	text	properties	-	true dete data othe false

Troubleshooting & Support

Refer to the documentation listed in the Requirements section for troubleshooting information.

For Support

Please Contact Uptycs Support via support@uptycs.com