fn-proofpoint-trap Functions for IBM Resilient

Release Notes

v1.0.0

- Initial Release

Overview

Resilient integration for Proofpoint TRAP

Proofpoint Threat Response Auto-Pull (TRAP) enables messaging and security administrators to analyze emails and move malicious or unwanted emails to quarantine, after delivery. It follows forwarded mail and distribution lists and creates an auditable activity trail.

The ProofPoint Trap function package provides the following features:

- Poll a Proofpoint TRAP server for incidents and create corresponding incidents in Resilient.
- Get Proofpoint TRAP incident details.

The following new features have also been proposed:

- Get a Proofpoint Trap list member or members.

- Add a member to a Proofpoint Trap list for artifacts of type host, IP address, or URL to a list.
- Update a member of a Proofpoint Trap list.
- Delete a member from of a Proofpoint Trap list.

Requirements

- Resilient platform >= `v30.0.3476`
- An Integration Server running `resilient_circuits>=30.0.0`
  - To set up an Integration Server see: ibm.biz/res-int-server-guide

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Installation

- Download the `fn_proofpoint_trap-x.x.x.zip`.
- Copy the `.zip` to your Integration Server and SSH into it.
- Unzip the package:

```
$ unzip fn_proofpoint_trap-x.x.x.zip
```

- Install the package:

```
$ pip install fn_proofpoint_trap-x.x.x.tar.gz
```

- Import the configurations into your app.config file:

```
$ resilient-circuits config -u -l fn-proofpoint-trap
```

- Import the fn_proofpoint_trap customizations into the Resilient platform:

```
$ resilient-circuits customize -y -l fn-proofpoint-trap
```

- Open the config file, scroll to the bottom and edit your fn_proofpoint_trap configurations:

```
$ nano ~/.resilient/app.config
```

Config	Required	Example	Description
base_url	Yes	https://192.168.1.1/api	*Base URL of Proofpoint TRAP API*
api_key	Yes	abcd1234-a123-123a-123a-123456abcdef	*API Key for Proofpoint TRAP*
polling_interval	Yes	`2`	*Interval to poll TRAP in Minutes*
startup_interval	Yes	`20160`	*Initial Import Look-back Interval in minutes (default: 2 weeks)*
state	Yes	`open`	*State of Incidents to Query*
host_categories	Yes	`attacker,cnc,forensics,url`	*Comma separated list of 'host' categories to check for artifacts. The default is forensics.*

- Save and Close the app.config file.
- [Optional]: Run selftest to test the Integration you configured:

```
$ resilient-circuits selftest -l fn-proofpoint-trap
```

- Run resilient-circuits or restart the Service on Windows/Linux:

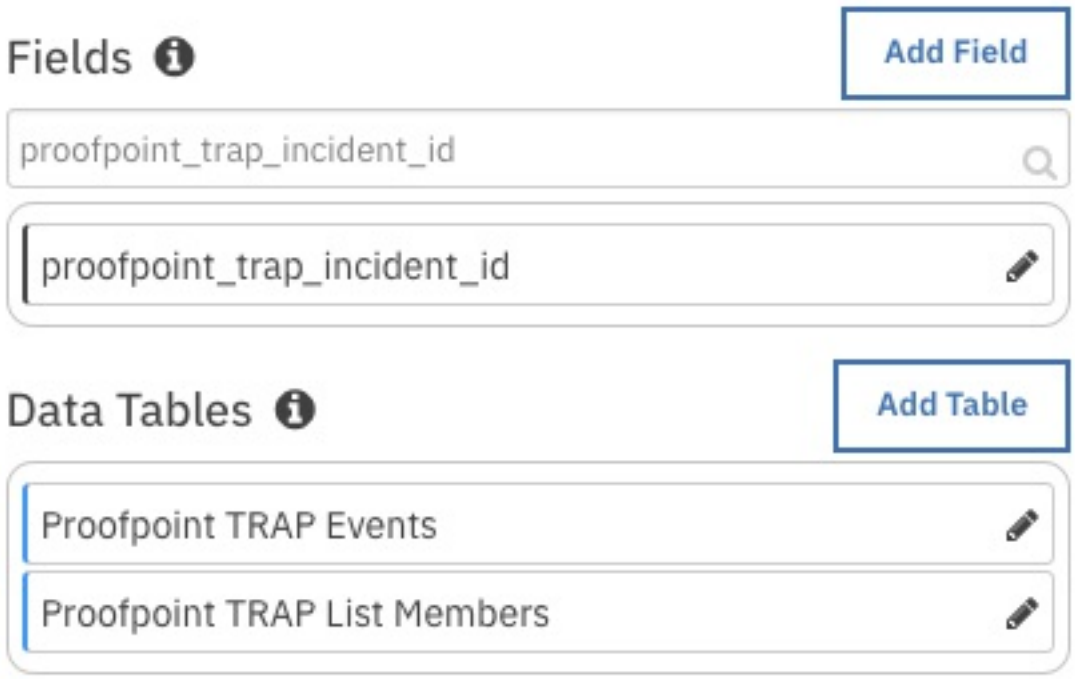
```
$ resilient-circuits run
```

- Run resilient-circuits with extra logging:

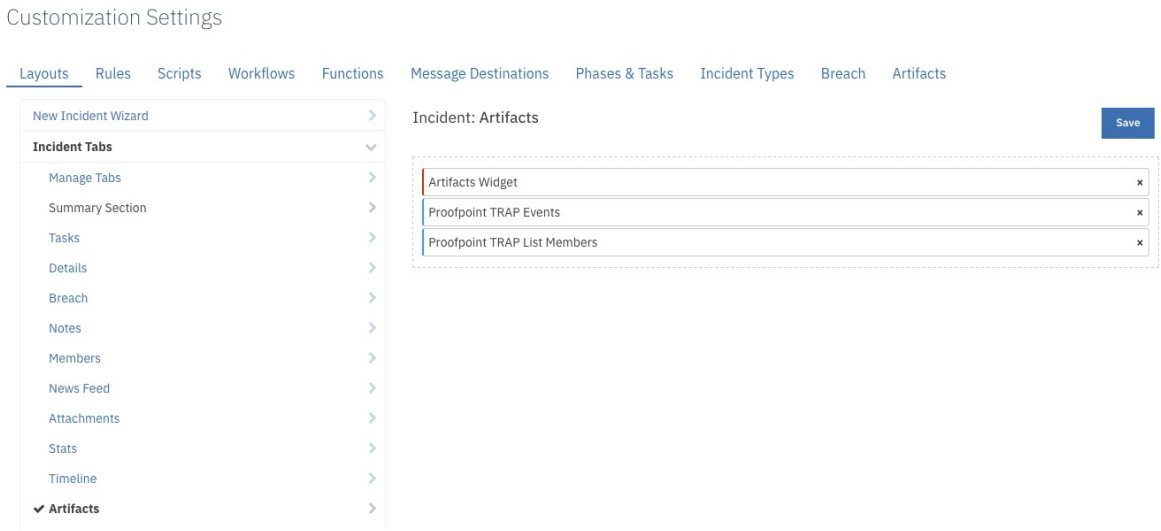
```
$ resilient-circuits run --loglevel=DEBUG
```

Custom Layouts

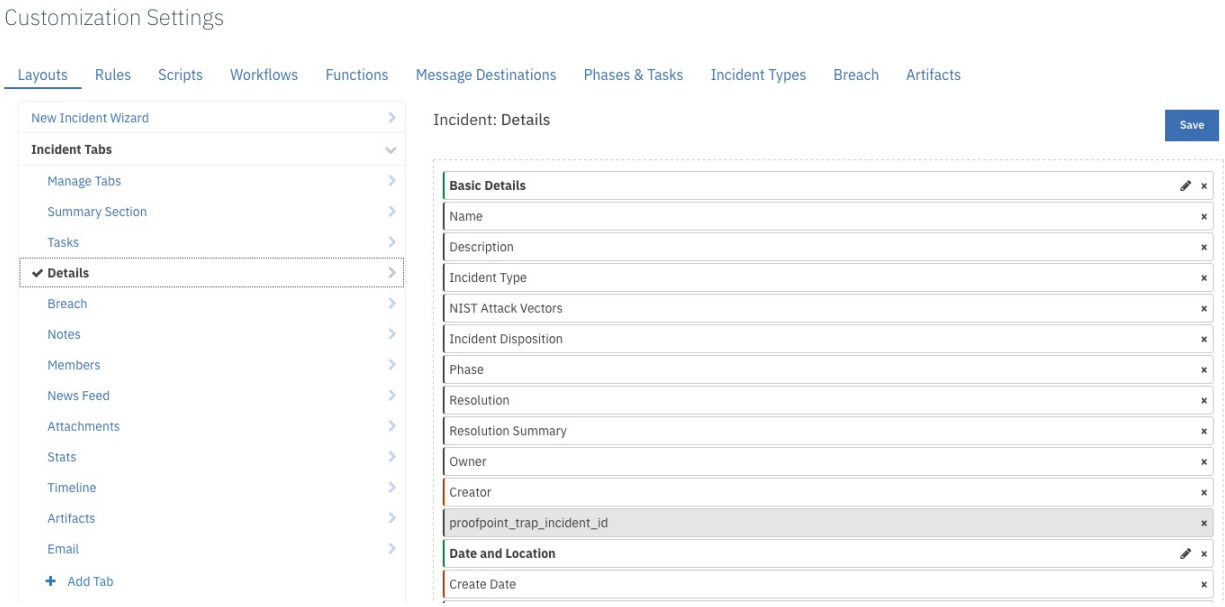
- The package customizations includes the following Data Table and Custom Field:



- Add the data table to the Incident->Artifacts tab and save:



- Add the custom field to the Incident->Details tab and save:



Uninstall

- SSH into your Integration Server.
- Uninstall the package:

```
$ pip uninstall fn-proofpoint-trap
```

- Open the config file, scroll to the [fn_proofpoint_trap] section and remove the section or prefix `#` to comment out the section.
- Save and Close the app.config file.

Troubleshooting

There are several ways to verify the successful operation of a function.

Resilient Action Status

- When viewing an incident, use the Actions menu to view Action Status.
- By default, pending and errors are displayed.
- Modify the filter for actions to also show Completed actions.
- Clicking on an action displays additional information on the progress made or what error occurred.

Resilient Scripting Log

- A separate log file is available to review scripting errors.
- This is useful when issues occur in the pre-processing or post-processing scripts.
- The default location for this log file is: `/var/log/resilient-scripting/resilient-scripting.log`.

Resilient Logs

- By default, Resilient logs are retained at `/usr/share/co3/logs`.
- The `client.log` may contain additional information regarding the execution of functions.

Resilient-Circuits

- The log is controlled in the `.resilient/app.config` file under the section [resilient] and the property `logdir`.
- The default file name is `app.log`.
- Each function will create progress information.
- Failures will show up as errors and may contain python trace statements.

Poller:

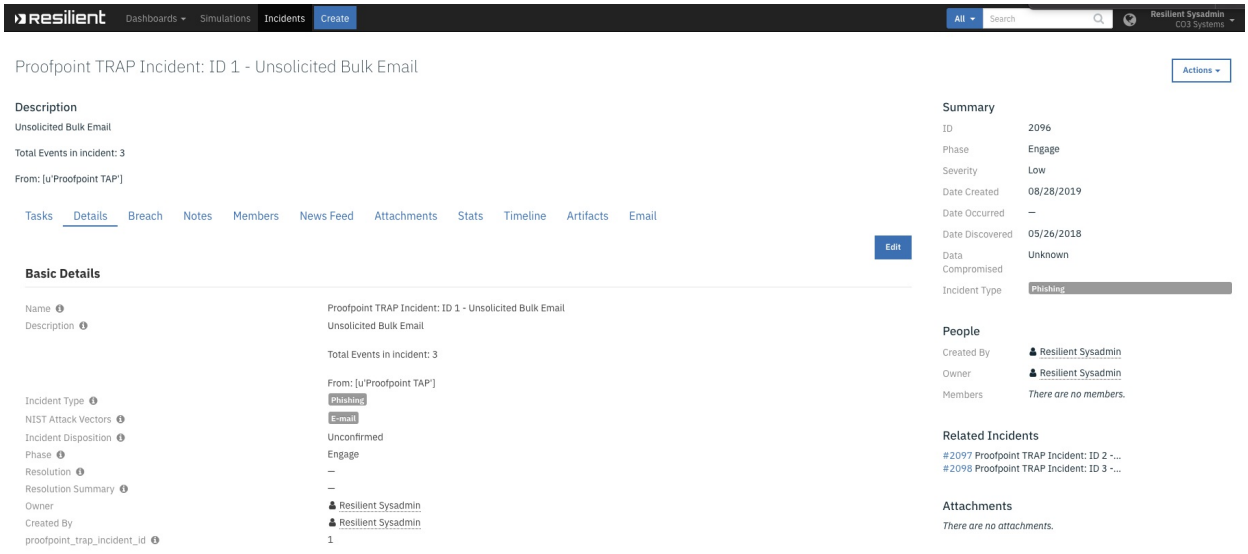
Threaded Poller which runs continuously while the integration is running.

- Polls a Proofpoint Trap server for incidents and create corresponding incidents in

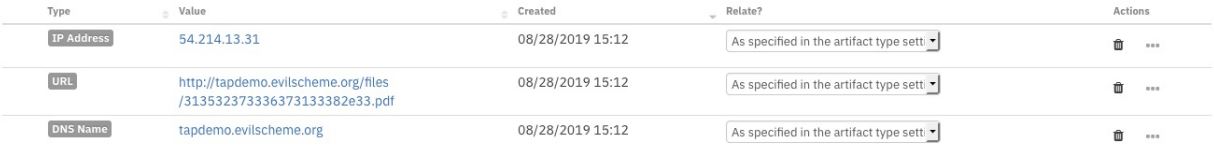
Resilient.

- Adds Proofpoint Trap events to incident data table `Proofpoint TRAP Events` in Resilient.
- Adds artifacts to incidents in Resilient corresponding to hosts arifacts in Proofpoint TRAP incident events. The actual artifacts added are determined by the `host_categories` configuration option.
- Adds note with Proofpoint Trap events details to incident in Resilient.

Example incident created by the poller:



Examples of incident artifacts created by the poller:



Functions:

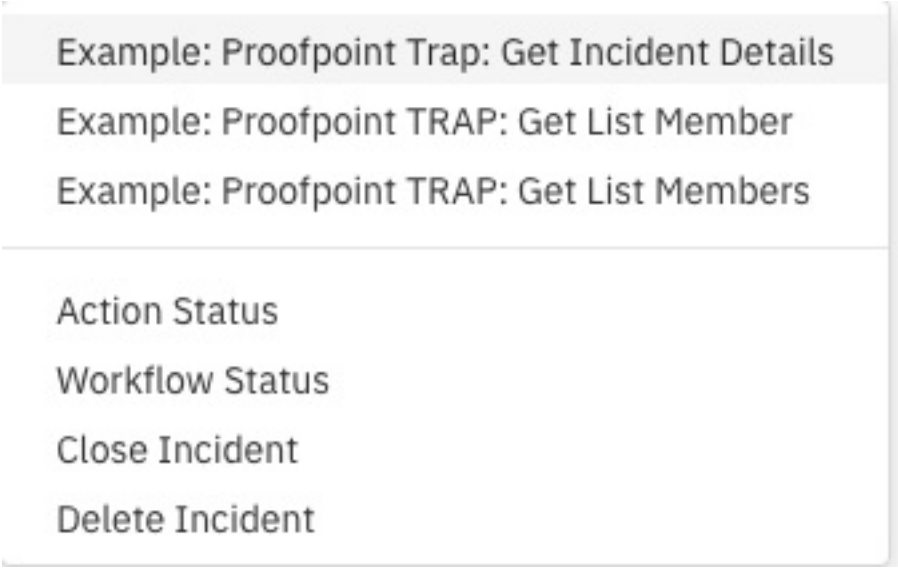
Function - Proofpoint TRAP: Get Incident Details

Fetch Incident Details from Proofpoint Trap

- Adds a note to the Resilient incident with ProofPoint Trap incident details.
- An example workflow which uses this Resilient Function includes `Example: Proofpoint Trap: Get Incident Details`.

The workflow is initiated by the incident rule, `Example: Proofpoint Trap: Get Incident Details`.

1. Open an incident and select `Example: Proofpoint Trap: Get Incident Details` from Actions.



2. Click Actions-> `Example: Proofpoint Trap: Get Incident Details`.

This invokes the `Example: Proofpoint Trap: Get Incident Details` workflow, which calls the `Proofpoint TRAP: Get Incident Details` function.

▶ Inputs:

Config	Type	Required	Example	Description
`trap_incident_id`	`number`	Yes	`1`	Proofpoint TRAP Incident ID

▶ Outputs:

```
results = {
    # TODO: Copy and paste an example of the Function Output within this code block
    # To see view the output of a Function, run resilient-circuits in DEBUG mode an
    # The Function results will be printed in the logs: "resilient-circuits run --l
}
```

▶ Example Pre-Process Script:

```
inputs.trap_incident_id = incident.properties.proofpoint_trap_incident_id
```

▶ Example Post-Process Script:

```
note = "{}".format(unicode(results.data))
incident.addNote(helper.createRichText(note))
```

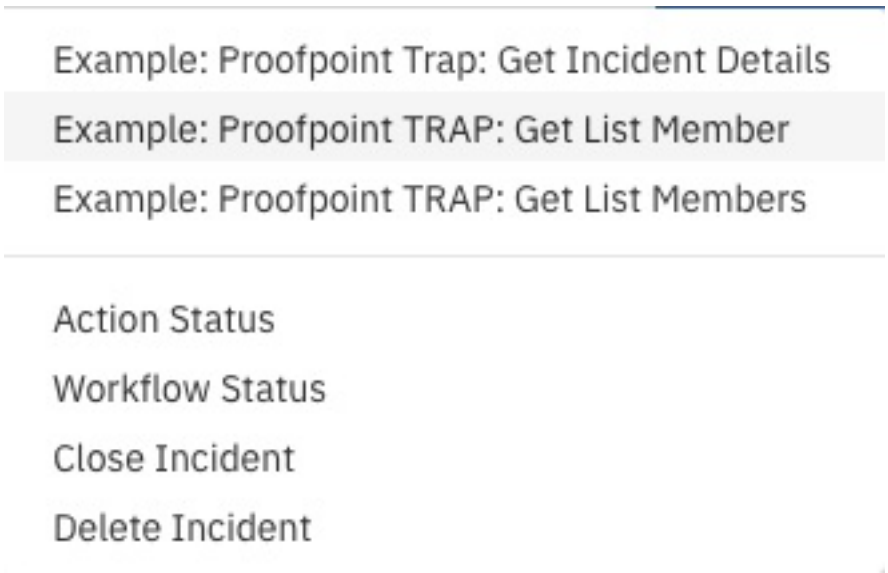
Proofpoint TRAP: Get List Members

Get member or members of a Proofpoint Trap list.

- Adds Proofpoint Trap list members to incident datatable `Proofpoint TRAP List Members` in Resilient.
- Example workflows which use this Resilient Function include `Example: Proofpoint TRAP: Get List Member` and `Example: Proofpoint TRAP: Get List Members`.

The workflow is initiated by the incident rules, `Example: Proofpoint TRAP: Get List Member` or `Example: Proofpoint TRAP: Get List Members`.

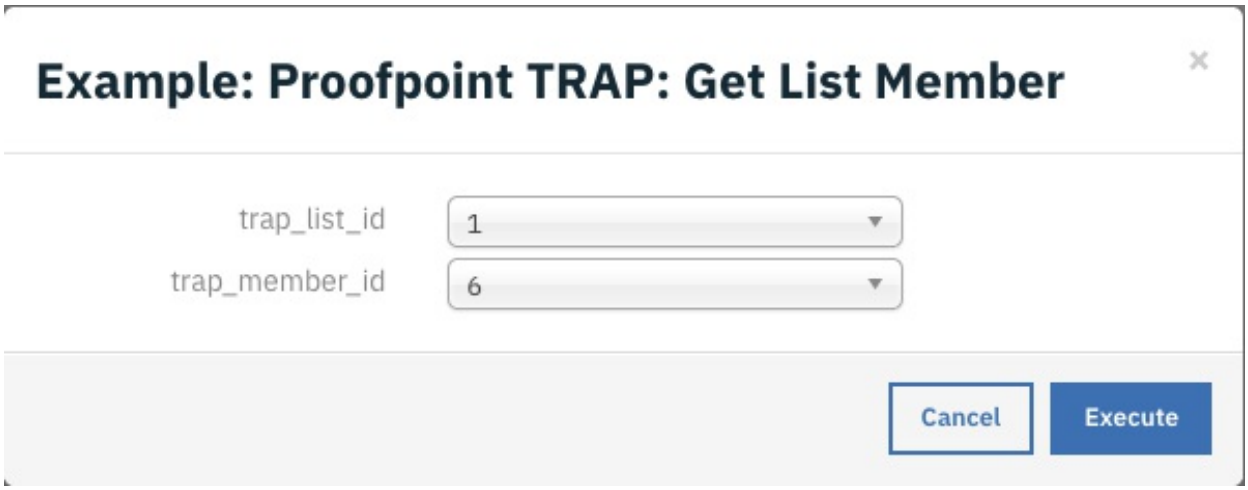
1. Open an incident and select `Example: Proofpoint TRAP: Get List Member` from Actions.



2. Click Actions-> `Example: Proofpoint TRAP: Get List Member.

The user is presented with a drop-down list of user defined inputs. In the example, trap_list_id

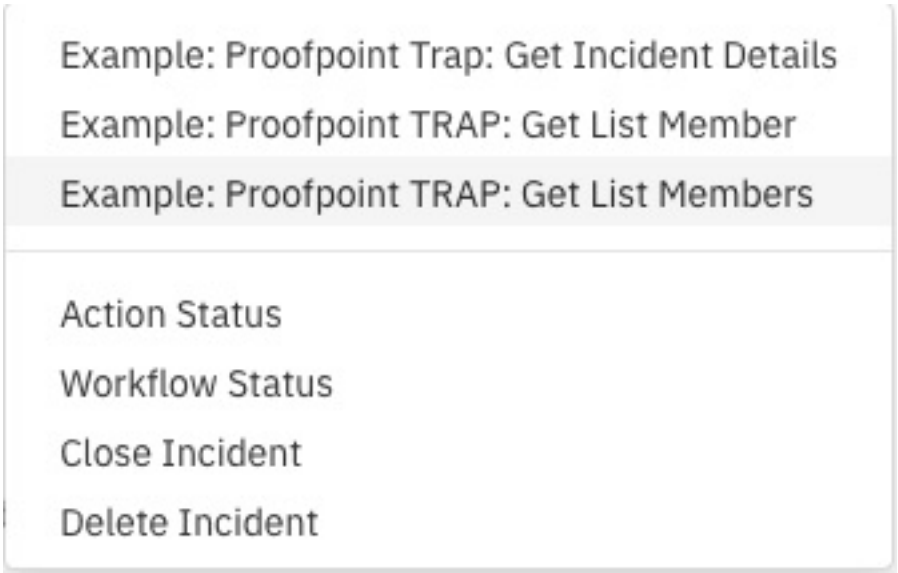
`1` and trap_member_id `6` is selected in the example.



This invokes the `Example: Proofpoint TRAP: Get List Member` workflow, which calls the `Proofpoint TRAP: Get List Members` function.

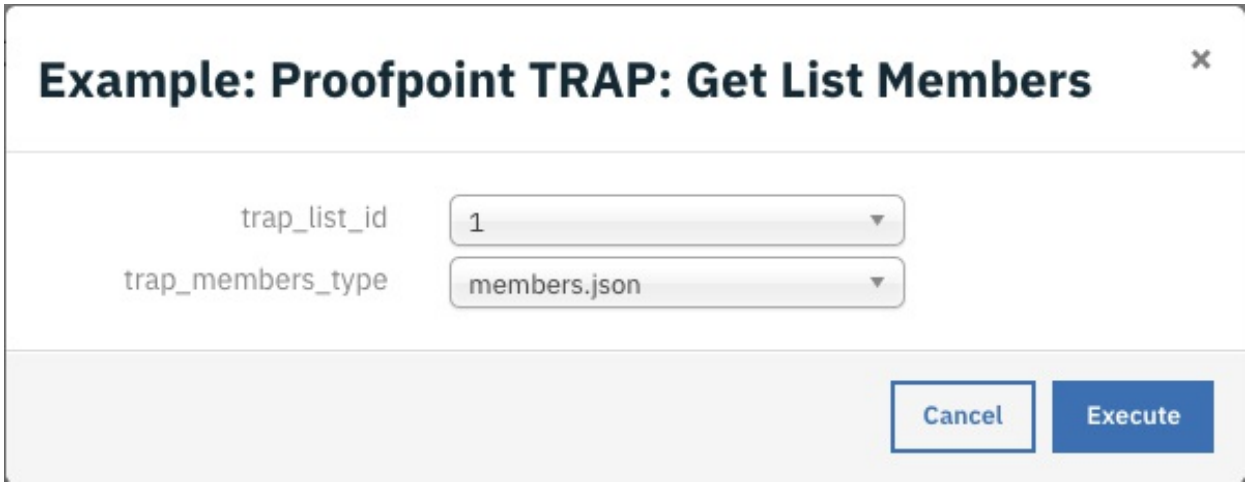
or

1. Open an incident and select `Example: Proofpoint TRAP: Get List Members` from Actions.



2. Click Actions-> `Example: Proofpoint TRAP: Get List Members`.

The user is presented with a drop-down list of user defined inputs. In the example, trap_list_id `1` and trap_member_type `members.json` is selected in the example.



This invokes the `Example: Proofpoint TRAP: Get List Members` workflow, which calls the `Proofpoint TRAP: Get List Members` function.

▶ Inputs:

Config	Type	Required	Example	Description
`trap_list_id`	`number`	`number`	`1`	Proofpoint TRAP List ID
`trap_member_id`	`number`	`text`	`1`	Proofpoint TRAP List member ID.
`trap_members_type`	`number`	`text`	`members.json`	The Proofpoint TRAP information format to get in result for list membership. Default is members.json.

▶ Outputs:

```
results = { 'inputs': {u'trap_list_id': 1, u'trap_members_type': u'members.json'},
          'metrics': {'package': 'fn-proofpoint-trap', 'timestamp': '2019-08-29 14:
                      'host': 'myhost.com', 'version': '1.0', 'execution_time_ms':
          'content': [{u'user_id': None, u'description': u'IP to block', u'deleted'
                       u'enabled': True, u'updated_at': u'2017-01-11T03:47:15Z',
                       u'host': {u'created_at': u'2017-01-11T03:47:15Z', u'updated_
```

```
                                u'host': u'75.76.13.144', u'ttl': 0, u'resolution_
                                },
                     u'response_id': None, u'expiration': u'2018-12-18T19:08:56Z'
                     u'hash_reputation_id': None, u'id': 8, u'reverse_user_id': N
                    },
                    {u'user_id': None, u'description': u'test', u'deleted': False
                     u'enabled': True, u'updated_at': u'2017-01-11T03:43:54Z',
                     u'host': {u'created_at': u'2016-12-29T04:56:13Z', u'updated_
                               u'host': u'string', u'ttl': 0, u'resolution_state'
                              },
                     u'response_id': None, u'expiration': None, u'list_id': 2, u'
                     u'id': 6, u'reverse_user_id': None
                     }],
          'raw': '[{"user_id": null, "description": "IP to block", "deleted": false
                 '"enabled": true, "updated_at": "2017-01-11T03:47:15Z", "host": {"
                 '"updated_at": "2017-01-11T03:47:15Z", "host": "75.76.13.144", "tt
                 '"response_id": null, "expiration": "2018-12-18T19:08:56Z", "list_
                 '"hash_reputation_id": null, "id": 8, "reverse_user_id": null}, {"
                 '"deleted": false, "created_at": "2017-01-11T03:43:54Z", "enabled"
                 '"host": {"created_at": "2016-12-29T04:56:13Z", "updated_at": "201
                 '"ttl": 0, "resolution_state": 4, "id": 6}, "response_id": null, "
                 '"host_id": 6, "hash_reputation_id": null, "id": 6, "reverse_user_
          'reason': None,
          'version': '1.0'
}
```


▶ Example Pre-Process Script:

```
inputs.trap_list_id = rule.properties.trap_list_id
inputs.trap_member_id = rule.properties.trap_member_id
```

▶ Example Post-Process Script:

```
##  ProofPoint Trap - fn_proofpoint_trap_get_list_member ##
#  Globals
# List of fields in datatable fn_proofpoint_trap_get_list_members script
DATA_TBL_FIELDS = ["member_list_id", "member_id", "member_description", "expiration
DATA_TBL_FIELDS_HOST = ["created_at", "host", "resolution_state", "ttl"]
FN_NAME = "fn_proofpoint_trap_get_list_member"
WF_NAME = "Example: Proofpoint TRAP: Get List Member"
MEMBER = results.content
INPUTS = results.inputs
QUERY_EXECUTION_DATE = results["metrics"]["timestamp"]

# Processing


def main():
```

```
        note_text = ''
        if MEMBER is not None:
            note_text = "ProofPoint Trap Integration Integration: Workflow <b>{0}</b>:
                        "<b>{1}</b>".format(WF_NAME, FN_NAME)
            newrow = incident.addRow("trap_list_members")
            newrow.query_execution_date = QUERY_EXECUTION_DATE
            for f in DATA_TBL_FIELDS:
                f_base = '_'.join(f.split('_')[1:])
                if not f_base:
                    f_base = f
                if f == "query_execution_time":
                    continue
                if MEMBER[f_base] is not None:
                      newrow[f] = MEMBER[f_base]

            host = MEMBER["host"]
            if host is not None:
                for d in DATA_TBL_FIELDS_HOST:
                    newrow[d] = host[d]


        else:
            noteText += "ProofPoint Trap Integration: Workflow <b>{0}</b>: There were <
                        "list id <b>{1}</b> for Resilient function <b>{3}</b>".format(W

        incident.addNote(helper.createRichText(note_text))

    if __name__ == "__main__":
        main()
```

Proofpoint TRAP: Add Members to list

Add member or members to list in Proofpoint Trap

* TODO

Proofpoint TRAP: Update list members

Update member or members of list in Proofpoint Trap

* TODO

Proofpoint TRAP: Delete members from list

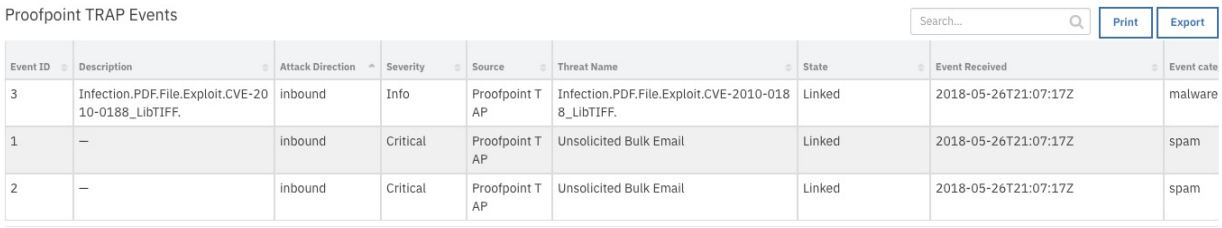
Delete a member or members to list in Proofpoint Trap

* TODO

Data tables:

Data Table - Proofpoint TRAP Events

This data table is populated by the `poller` for each Resilient incident and has an entry for each event detected in the corresponding Proofpoint incident.


Proofpoint TRAP Events

Search... Print Export

Event ID	Description	Attack Direction	Severity	Source	Threat Name	State	Event Received	Event cate
3	Infection.PDF.File.Exploit.CVE-2010-0188_LibTIFF.	inbound	Info	Proofpoint TAP	Infection.PDF.File.Exploit.CVE-2010-0188_LibTIFF.	Linked	2018-05-26T21:07:17Z	malware
1	–	inbound	Critical	Proofpoint TAP	Unsolicited Bulk Email	Linked	2018-05-26T21:07:17Z	spam
2	–	inbound	Critical	Proofpoint TAP	Unsolicited Bulk Email	Linked	2018-05-26T21:07:17Z	spam

API Name:

proofpoint_trap_events

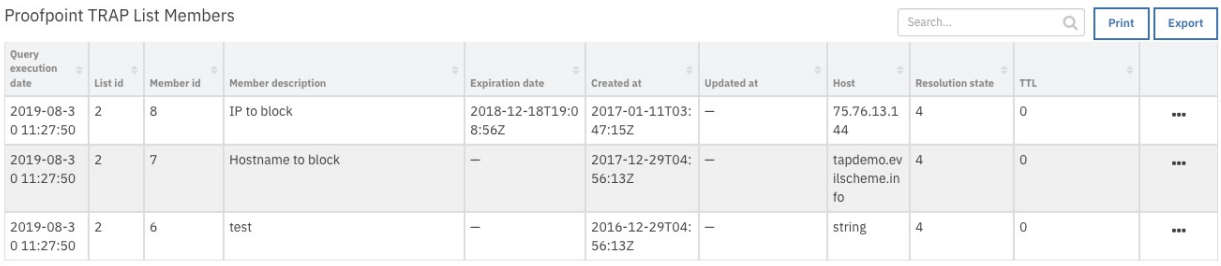
Columns:

Column Name	API Access Name	Type	Tooltip
Attack Direction	`event_attackdirection`	`text`	-
Event category	`event_category`	`text`	-
Description	`event_description`	`text`	-
Event ID	`event_id`	`number`	-
Event Received	`event_received`	`text`	-
Severity	`event_severity`	`text`	-

Source	`event_source`	`text`	-
State	`event_state`	`text`	-
Threat Name	`event_threatname`	`text`	-

Data Table - Proofpoint TRAP List Members

This data table is populated by a workflow using the Function `Proofpoint TRAP: Get List Members`. An entry is created for all members selected in the workflow.


Proofpoint TRAP List Members

Search... Print Export

Query execution date	List id	Member id	Member description	Expiration date	Created at	Updated at	Host	Resolution state	TTL	
2019-08-30 11:27:50	2	8	IP to block	2018-12-18T19:08:56Z	2017-01-11T03:47:15Z	—	75.76.13.144	4	0	•••
2019-08-30 11:27:50	2	7	Hostname to block	—	2017-12-29T04:56:13Z	—	tapdemo.evilscheme.info	4	0	•••
2019-08-30 11:27:50	2	6	test	—	2016-12-29T04:56:13Z	—	string	4	0	•••

API Name:

trap_list_members

Columns:

Column Name	API Access Name	Type	Tooltip
Created at	`created_at`	`text`	-
Expiration date	`expiration`	`text`	-
Host	`host`	`text`	-
Member description	`member_description`	`text`	-
Member id	`member_id`	`number`	-
List id	`member_list_id`	`number`	-
Query execution date	`query_execution_date`	`text`	-
Resolution state	`resolution_state`	`text`	-

TTL	`ttl`	`text`	-
Updated at	`updated_at`	`text`	-

Custom Fields

Label	API Access Name	Type	Prefi
proofpoint_trap_incident_id	`proofpoint_trap_incident_id`	`number`	`propert`

Rules

Rule Name	Object	Workflow Triggered
Example: Proofpoint Trap: Get Incident Details	incident	`wf_proofpoint_trap_get_incident_details`
Example: Proofpoint TRAP: Get List Member	incident	`wf_proofpoint_trap_get_list_member`
Example: Proofpoint TRAP: Get List Members	incident	`wf_proofpoint_trap_get_list_members`