Spamhaus Function for IBM Resilient

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About This Package

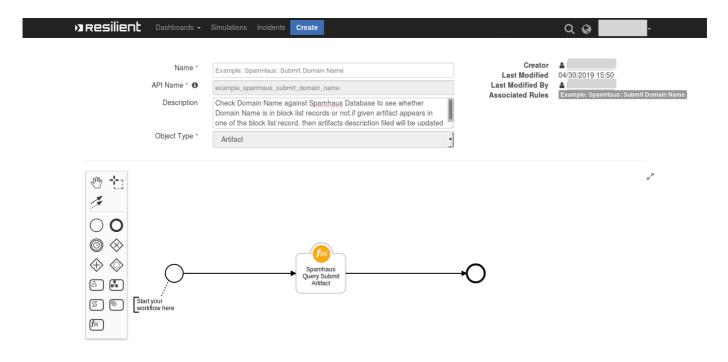
This function checks IP Address & Domain Name type artifacts against the Spamhaus database to determine whether a given artifact is found in a blocklist. If a given artifact appears in one of the block list records, then the artifacts description is updated with additional enrichment information. Provided in this integration package is an example rule configured to be run against the following artifacts in the Resilient platform:

- IP Address Artifacts of Resilient
- · Domain Names Artifacts of Resilient

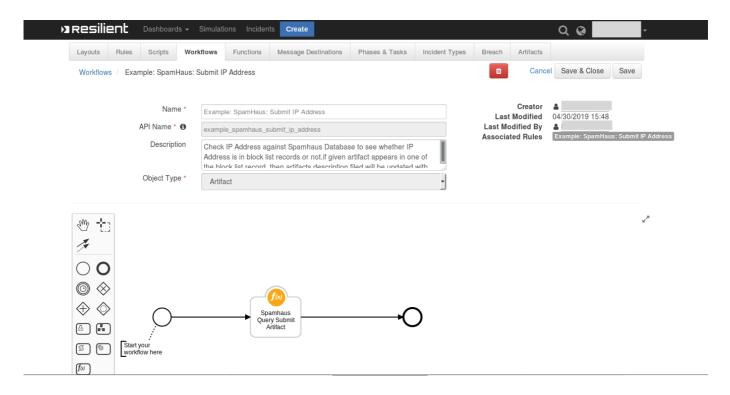
After the successful scan of a given artifact, the artifact's description field is updated with the results.

Spamhaus Function Layout

For Domain Names:



For IP Address:



Spamhaus Inputs:



Spamhaus Pre-Process Script

For Domain Names:



For IP Address:



Spamhaus Post-Process Script

```
Input
                              Pre-Process Script
                                                                                    Output
                                                                                                                    Post-Process Script
Language: Python Theme light - Mode Default - Tab Size 5 - - Font + Font
   1 results_data = results.get('content')
            tmp_text = ""
tmp_desc = artifact.description
    tmp_desults_data.get('is_in_blocklist'):
tmp_text = "<br/>br><br/>br>This artifact checked against Spamhaus and it is in block list.</b>"
                                resp_list = results_data.get('resp')
                                for code in resp_list:
                                                   code = str(code)
                                                 twp_text += "<br/>tmp_text += "<br/>tmp_tex
  11
  12
 13 - else:
                                15 - if tmp_desc:
                                 tmp desc = tmp desc.get('content')
 tmp_desc = ""
complete_tmp_text = tmp_desc+tmp_text
             rich_text = helper.createRichText(complete_tmp_text)
 21 artifact.description = rich_text
```

Installation

You download the function package from the App Exchange to a Resilient integration server, and from there you deploy the functions and components to a Resilient platform. These procedures are provided in the Resilient Integration Server Guide (PDF). The file is called: fn_spamhaus_query-<version>.tar.gz The functions included this package have the following requirements, which are above and beyond those listed in the Resilient Integration Server Guide.

- Resilient Appliance >= v31.0.0
- Integrations Server running resilient circuits >= v30.0.0
- requests >= v2.21.0

After installing the package, Resilient Circuits creates a new section, fn spamhaus query, in the app.config file.

```
[fn_spamhaus_query]
# The API endpoint URL to query Spamhaus Web Query Service
spamhaus_wqs_url = https://apibl.spamhaus.net/lookup/v1/{}/{}
spamhaus_dqs_key =
# Proxy Configuration if any by default will be None
http_proxy=
https_proxy=
```

You need to edit the following settings in that section as follows:

- spamhaus_dqs_key*: Spamhaus API Key.
- http proxy/https proxy* : proxy server address if any

Function Inputs

Input Name	Type	Required	Example	Info
spamhaus_query_string	String	Yes	127.0.0.2/test	IP Address or Domain Name to be checked against Spamhaus database.

Input Name	Туре	Required	Example	Info
spamhause_search_resource	String	Yes	SBL,XBL,PBL,SBL- XBL,ZEN,MSR,AUTHBL,ZRD (domains only),DBL (domains only).	resource-name is a required enumerated field that represents which block list should be queried.

Function Output

The payload from integration will wrap the results of the Spamhaus response in the following JSON structure.

```
results = {
    "inputs": {
        "spamhause_search_resource": "SBL",
        "spamhaus_query_string": "127.0.0.2"
    },
    "metrics": {
        "package": "fn-spamhaus-guery",
       "timestamp": "2019-05-06 15:51:55",
       "package version": "1.0.0",
        "host": "oc3777881733.ibm.com",
        "version": "1.0",
        "execution_time_ms": 970
    },
    "success": true,
    "content": {
       "status": 200,
        "resp": [1002],
        "is in blocklist": true,
        "1002": {
            "URL": "https://www.spamhaus.org/sbl/",
            "explanation": "IP addresses are listed on the SBL because they appear
to Spamhaus to be under the control of, used by, or made available for use by
spammers and abusers in unsolicited bulk email or other types of Internet-based
abuse that threatens networks or users.",
            "dataset": "SBL"
        }
    },
    "raw": "{\"status\": 200, \"resp\": [1002], \"is in blocklist\": true,
\"1002\": {\"URL\": \"https://www.spamhaus.org/sbl/\", \"explanation\": \"IP
addresses are listed on the SBL because they appear to Spamhaus to be under the
control of, used by, or made available for use by spammers and abusers in
unsolicited bulk email or other types of Internet-based abuse that threatens
networks or users.\", \"dataset\": \"SBL\"}}",
    "reason": null,
    "version": "1.0"
}
```

To see the output of of the Function, we recommend running resilient-circuits in DEBUG mode as follows:

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

Pre-Process Script

For Domain Names:

This example sets the Example: SpamHaus: Submit Domain Name inputs to the artifact values. A pre-process script relays the Resilient artifact value data to function inputs similar to this example:

```
inputs.spamhaus_query_string = artifact.value.
inputs.spamhause_search_resource = rule.properties.spamhaus_domain_name_resource
```

For IP Address:

This example sets the Example: SpamHaus: Submit IP Address inputs to the artifact values. A pre-process script relays the Resilient artifact value data to function inputs similar to this example:

```
inputs.spamhaus_query_string = artifact.value
inputs.spamhause_search_resource = rule.properties.spamhaus_ip_resource
```

Post-Process Script

This post-process script is used to update the artifact description field in the Resilient incidents, based on the returned Spamhaus block list status data.

```
# Get the actual data from results
results_data = results.get('content')
tmp_text = ""
tmp_desc = artifact.description
if results data.get('is in blocklist'):
   tmp_text = "<br><br>This artifact checked against Spamhaus and it is in
block list.</b>"
   resp_list = results_data.get('resp')
   for code in resp_list:
     code = str(code)
     tmp_text += "<br><b>code :</b> {}</br>".format(code)
     tmp_text += "<br><b>dataset :</b> {}</</pre>
br>".format(results_data.get(code).get('dataset'))
     tmp_text += "<br><b>explanation :</b> {}</</pre>
br>".format(results_data.get(code).get('explanation'))
     tmp_text += "<br><bURL :</b> </br>{}</</pre>
br>".format(results_data.get(code).get('URL'))
   tmp text = "<br><br><br>This artifact checked against Spamhaus and it is not in
block list.</b></br>"
if tmp_desc:
   tmp_desc = tmp_desc.get('content')
else:
   tmp_desc = ""
complete_tmp_text = tmp_desc+tmp_text
rich_text = helper.createRichText(complete_tmp_text)
artifact.description = rich_text
```

Rules

For Domain Names:

This Spamhaus rule is configured with a condition that it works only on Domain Names artifacts.

Rule Name	Object Type	Workflow Triggered	Activity Fields
Example: SpamHaus:			
Submit	Artifact	example_spamhaus_submit_domain_name	spamhaus_domain_name_resource
Domain			
Name			

For IP Address

This Spamhaus rule is configured with a condition that it works only on IP Address artifacts.

Rule Name	Object Type	Workflow Triggered	Activity Fields
Example:			
SpamHaus: Submit IP Address	Artifact	<pre>example_spamhaus_submit_ip_address</pre>	spamhaus_ip_resource

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