IBM Resilient

Incident Response Platform Integrations

Risk Fabric Function Version 1.0.0

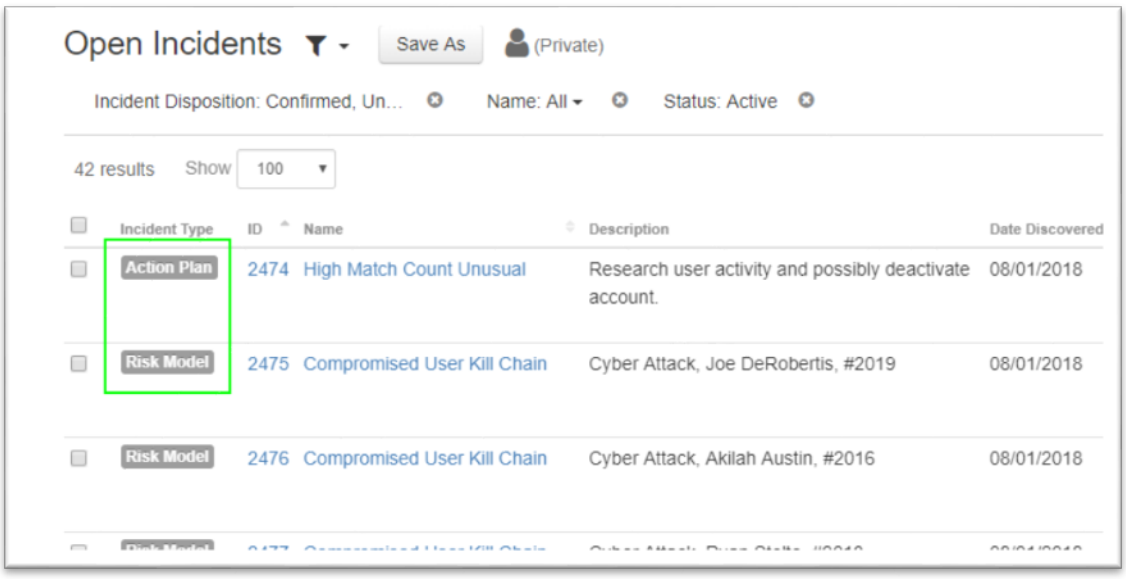
Release Date: December 2018

Resilient Functions simplify development of the integrations by sending data from the Resilient platform to a remote program that performs an activity then returns the results to the function. The results can be acted upon by a script whicj then becomes a decision point in the Resilient workflow.

Overview

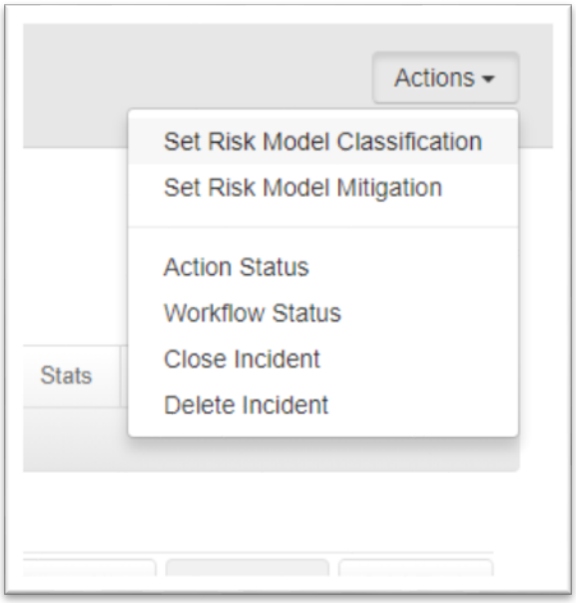
The Risk Fabric integration with the Resilient platform allows for the querying of risk ratings for artifacts such as IP addresses, computer endpoints, and users. Risk models, event scenarios, and action plans can be pulled into Resilient and created as incidents, and then fully mitigated or classified.

Action Plans and Risk Models on Open Incidents Page

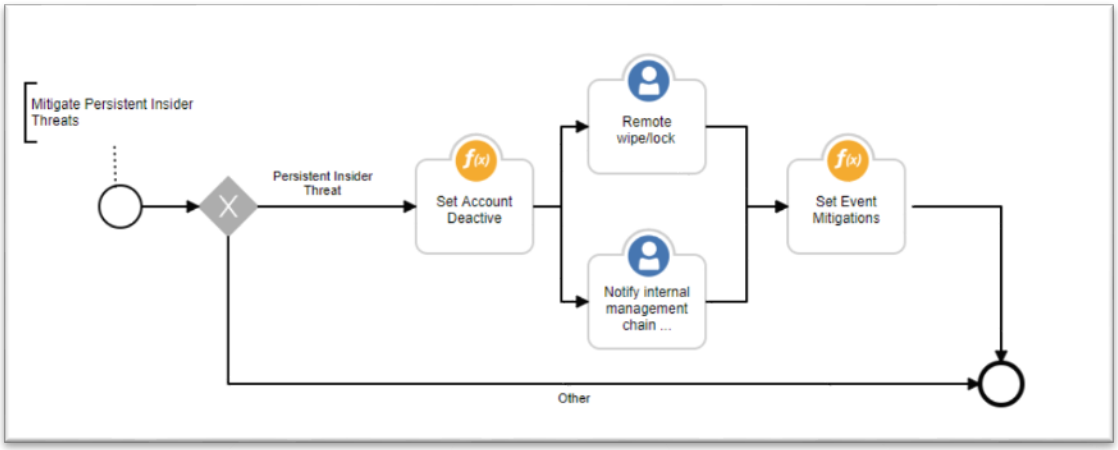


Manually perform classifications and mitigation actions on risk models, event scenarios, and action plans using rules, or automatically using advanced workflows.

Rule-based Classifications and Mitigation Actions



Advanced Workflows for Classifications and Mitigation Actions



Setup

The following lists the system requirements for using Resilient with Risk Fabric:

- Python version 2.7.10 or later, or version 3.6 or later
- Resilient Circuits and Resilient Python libraries version 30.0 or later
- Resilient platform version 30.0 or later
- Risk Fabric version 6.5.1 or later

Perform the following procedure to install and configure the function:

1. Ensure the environment is up to date:
   ```
   sudo pip install --upgrade pip
   sudo pip install --upgrade setuptools
   sudo pip install --upgrade resilient-circuits
   ```
2. Install the required software for the function (if not already installed):
   ```
   sudo pip install fn_risk_fabric-<version>.tar.gz
   ```
3. Add the function to the Resilient platform:
   ```
   resilient-circuits customize
   ```
   You are prompted to answer prompts to import functions, message destinations, and so on.
4. From the account used for Integrations, use the following command to configure the Risk Fabric settings.
   ```
   resilient-circuits config env_option
   ```
   In the preceding command, *env_option* is the environment option. Use `-c` for new environments or `-u` for existing environments.
5. Edit the `.resilient/app.config` file and section `[fn_risk_fabric]` as follows:
   ```
   server=risk_fabric_URL
   username=risk_fabric_api_user
   password=risk_fabric_api_password
   ```
   In the preceding commands, use the Risk Fabric URL, API user name, and API user password.

After completing the configuration steps, enter the `resilient-circuits run` command. The following is an example of the resulting messages indicating the successful connection to the Resilient platform and the loading of the Risk Fabric integration modules.

```
$ resilient-circuits run
2018-04-07 12:38:04,164 INFO [app] Configuration file:
/Users/Integration/.resilient/app.config
2018-04-07 12:38:04,165 INFO [app] Resilient server: <host>
2018-04-07 12:38:04,165 INFO [app] Resilient user: <acct>
2018-04-07 12:38:04,165 INFO [app] Resilient org: <org>
2018-04-07 12:38:04,165 INFO [app] Logging Level: INFO
…
2018-04-07 12:38:05,418 INFO [component_loader] 'fn_risk_
fabric.components.get_host_risk.FunctionComponent' loading
2018-04-07 12:38:05,419 INFO [component_loader] 'fn_risk_
fabric.components.get_ip_risk.FunctionComponent' loading
```

```
2018-04-07 12:38:05,420 INFO [component_loader] 'fn_risk_
fabric.components.get_user_risk.FunctionComponent' loading
2018-04-07 12:38:05,421 INFO [component_loader] 'fn_risk_
fabric.components.get_risk_model_instances.FunctionComponent'
loading
2018-04-07 12:38:05,422 INFO [component_loader] 'fn_risk_
fabric.components.get_risk_model_instance_details.FunctionComponent'
loading
2018-04-07 12:38:05,423 INFO [component_loader] 'fn_risk_
fabric.components.get_action_plans.FunctionComponent' loading
2018-04-07 12:38:05,424 INFO [component_loader] 'fn_risk_
fabric.components.set_event_classifications.FunctionComponent'
loading
2018-04-07 12:38:05,425 INFO [component_loader] 'fn_risk_
fabric.components.set_event_mitigations.FunctionComponent' loading
…
2018-04-07 12:38:05,435 INFO [actions_component] 'fn_risk_
fabric.components.get_host_risk.FunctionComponent' function 'get_
host_risk ' registered to 'risk_fabric_integration_functions'
2018-04-07 12:38:05,436 INFO [actions_component] 'fn_risk_
fabric.components.get_ip_risk.FunctionComponent' function 'get_ip_
risk ' registered to 'risk_fabric_integration_functions'
2018-04-07 12:38:05,437 INFO [actions_component] 'fn_risk_
fabric.components.get_user_risk.FunctionComponent' function 'get_
user_risk ' registered to 'risk_fabric_integration_functions'
2018-04-07 12:38:05,438 INFO [actions_component] 'fn_risk_
fabric.components.get_risk_model_instances.FunctionComponent'
function 'get_risk_model_instances ' registered to 'risk_fabric_
integration_functions'
2018-04-07 12:38:05,439 INFO [actions_component] 'fn_risk_
fabric.components.get_risk_model_instance_details.FunctionComponent'
function 'get_risk_model_instance_details ' registered to 'risk_
fabric_integration_functions'
2018-04-07 12:38:05,440 INFO [actions_component] 'fn_risk_
fabric.components.get_action_plans.FunctionComponent' function 'get_
action_plans ' registered to 'risk_fabric_integration_functions'
```

```
2018-04-07 12:38:05,441 INFO [actions_component] 'fn_risk_
fabric.components.set_event_classifications.FunctionComponent'
function 'set_event_classifications ' registered to 'risk_fabric_
integration_functions'
2018-04-07 12:38:05,442 INFO [actions_component] 'fn_risk_
fabric.components.set_event_mitigations.FunctionComponent' function
'set_event_mitigations ' registered to 'risk_fabric_integration_
functions'
…
2018-04-07 12:38:05,729 INFO [actions_component] Subscribe to
message destination 'risk_fabric_integration_functions'
…
2018-04-07 12:38:05,731 INFO [stomp_component] Subscribe to message
destination actions.<org id>.risk_fabric_integration_functions
…
```

Resilient Platform Configuration

In the Customization Settings section of the Resilient platform, you can verify that the following Risk Fabric specific message destination, functions, workflows and rules are available in the Resilient platform by clicking their respective tabs.

Message Destination

- Risk Fabric Integration Functions – Default Message Destination for the Risk Fabric Integration Functions

Integration Functions

Function	Description	Inputs	Outputs
RF Get Host Risk	Query the Risk Rating Information for a hostname.	rf_hostname: Hostname for a computer endpoint	Risk Score for a computer endpoint
RF Get IP Risk	Query the Risk Rating information for an IP address.	rf_ipaddress: IP Address such as 123.123.123.123	Risk Score for an IP Address
RF Get User Risk	Query the Risk Rating	rf_username: Username for a user account.	Risk Score for a user

Function	Description	Inputs	Outputs
	information for a username		
RF Get Action Plans	Query the set of action plans for an account	None	List of Action Plans, including the rf_actionplanguid for performing other actions like adding comments or updating event classifications and mitigations
RF Get Risk Model Instances	Query the set of Risk Model Instances	rf_limit: For limited how many risk model instances to pull	List of Risk Model Instances, including the rf_ riskmodelinstanceid for performing other actions like classifications and mitigations.
RF Get Risk Model Instance	Get the set of Event Scenarios for a Risk Model Instance	rf_riskmodelinstanceid: ID for the Risk Model Instance being requested	Additional details for a Risk Fabric instance, including Event Scenarios and Entity Collections with their rf_ cardinstanceid and rf_ focusentityid for performing other actions such as classifications and mitigations.
RF Set Classifications	Update Event Classifications	• rf_ riskmodelinstanceid: ID for the Risk Model Instance being classified. • rf_cardinstanceid: ID for the Card Instance being classified. • rf_focusentityid: ID for the Focus Entity being classified. • rf_actionplanguid: ID for the action plan being classified.	None
RF Set Mitigations	Update Mitigation	• rf_ riskmodelinstanceid:	None

Function	Description	Inputs	Outputs
	statues	ID for the Risk Model Instance being classified. • rf_cardinstanceid: ID for the Card Instance being classified. • rf_focusentityid: ID for the Focus Entity being classified. • rf_actionplanguid: ID for the action plan being classified.	

Example Workflows

- RF Example: Get IP Risk
  Example workflow for getting an IP address risk score. Workflow expects an IP address artifact, and updates the artifact description based on the artifact value with a risk score. Used by the example rule with the same name to automatically assign risk scores to IP address artifacts at creation.
- RF Example: Get Host Risk
  Example workflow for getting a host risk score. Workflow expects a system name artifact, and updates the artifact description based on the artifact value with a risk score.
- RF Example: Get User Risk
  Example workflow for getting a user risk score. Workflow expects a user account artifact, and updates the artifact description based on the artifact value with a risk score.
- RF Example: Mitigate Persistent Insider Threats
  Example workflow for classifying and mitigating persistent insider threats. Add other integration functions such as disabling users in LDAP and notifying managers to create a fully-automated mitigation process.

Example Rules

- RF Example: Get IP Risk
  Example rule for automatically updating an IP address artifact description field with the risk score associated with IP address. This rule calls the Get IP Risk Workflow which uses the RF Get IP Risk Integration Function.

Example Scripts

- create_incidents_action_plans.py
  Example script to create Incidents from Risk Fabric action plans. Requires creating and

configuring an Incident Type, such as Action Plan.

- create_incidents_risk_models.py
  Example script to create Incidents from Risk Fabric risk models. Requires creating and configuring an Incident Type, such as Risk Model.

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 status 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 log file 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 creates progress information. Failures appear as errors and may contain Python trace statements.

Support

For additional support, contact support@baydynamics.com.

Include relevant information from the log files to help us resolve your issue.