UIM-ServiceNow integration via the messagegtw probe

(Instructions for pushing UIM events to a ServiceNow Mid Server using the messagegtw probe)

These instructions assume that you have already setup the Mid Server instance in ServiceNow, including the user name and password to be used by the UIM messagegtw probe to pass events into the Mid Server, and you have setup the URL that will be used by the messagegtw.

Additionally, another assumption for these instructions is that the messagegtw probe is deployed to a server/robot under the Primary hub, not on the Primary hub robot itself (in this case, it is deployed on the UMP server).

Setup the Queue for the Message Gateway probe
The following steps are used to create and configure a queue on the Primary hub. This will be the queue used to send events to the message gateway.

1) open IM and navigate to the Primary hub and select the hub probe
2) double click the hub probe to configure it and click on the Queues tab
3) click the New button to create a new queue
4) type in the name of the queue you would like to use, e.g., UIM_ServiceNow
5) select "attach" for the queue type and then select webhook for the subject
6) click OK, then Apply and then Yes for the hub probe to restart so the changes take affect

Setup an Auto-Operator in NAS
The following steps are used to create an auto-operator in the nas probe, on the Primary hub. The auto-operator will move the events that are stored in the queue to the messagegtw:

1) open IM and navigate to the Primary hub and select the nas probe
2) double click the nas probe to configure it
3) select the Profiles tab, then inside the Profiles window, right click and select New
4) in the action type field, select webhook
5) in the "Path to messagegtw Probe" field enter the path to the messagegtw probe
   /*DomainName*/*PrimaryHubName*/*PrimaryHubRobotName*
6) in the Webhook Name field Enter the name of the queue created in the last section
   e.g., UIM_ServiceNow
7) in the Severity level fields, check the boxes for the event severity's that you want to send to ServiceNow
8) in the Message String field enter "*" for all messages
9) in the Action mode field select the action mode you want, e.g., 'On message arrival'
10) click OK
11) type in a Profile Name, e.g., ServiceNow webhook
12) click apply and then OK

Deploy the Message Gateway probe
The following steps are used to deploy the messagegtw probe. This probe is used to forward events from UIM to ServiceNow using Json format.

1) open IM (make sure when you open IM you are logged onto the Primary hub), select the Archive icon
2) locate the messagegtw probe and drag it to the UMP robot and drop it onto the UMP robot;
3) make sure the deployment is successful. If not, troubleshoot and then try again.

Configuring the Message Gateway probe using the Admin Console (must do these steps first)
The following steps are used to configure the messagegtw probe. This probe is used to forward events from UIM to ServiceNow using Json format.

> *Note: The messagegtw must be configured using the Admin Console first or the probe will not be configured correctly, and it will not work.*

1) open Admin Console, select Robots from the menu, then select robot where the messagegtw is installed, then select Probes from the menu
2) click on the 3 dots (…) in front of the messagegtw and then select configure
3) under the WebHooks folder, click on webhook and then click on the 3 dots in the upper right-hand side
4) select clone and enter in the webhook name (i.e.ServiceNow_UIM) and click on submit, then close
5) open the webhook name you just created by clicking on the name (you may have to refresh the screen to see the newly created webhook)
6) in the Endpoints Details section, click New to open the URL configuration and enter in the URL for the ServiceNow Mid server
7) next enter the Auth_Method, (i.e.basic), and the username and the password that was created on the Mid server. The password will be shown as unencrypted. The password will be Encrypted when the Encrypted option is set to true in the next section.
8) in the Headers Details section, make sure Content-Type is highlighted, then click on the Delete menu option to remove this header.
9) in the Payload Mapping section delete the Mapping key called "tags" and "external_user_name"
10) in the WebHook section for the queue name, enter the name of the UIM queue that was setup in the previous section called "Setup the Queue for the Message Gateway probe".
11) also, in the WebHook section, enter <u>true</u> in the attach to queue field.
12) at the top right of the screen click on the Save button to save the configuration then click on OK to refresh the configuration.

Configuring the Message Gateway probe using the Infrastructure Manager (IM)
The following steps are used to configure the Message Gateway probe (messagegtw). This probe is used to forward events from UIM to ServiceNow using Json format.
> *Note: The messagegtw must be configured using the Admin Console first or the probe will not be configured correctly, and it will not work.*

1) open IM, select the robot where the messagegtw probe is installed
2) click on the messagegtw to highlight it, then shift-right click and select Raw Configure
3) select the Setup folder, doubleclick on the "loglevel" key to open, enter 3 for the value field, click OK
4) double click on the data_engine key and type in the path to where the data_engine is located, click OK
   (i.e. */DomainName/PrimaryHubName/PrimaryHubRobotName/*data_engine)
5) expand the Startup folder and click on the "opt" folder.
6) change the java_mem_max and java_mem_init keys to the memory amount you want allocated, click OK
   (i.e. java_mem_max = -Xmx3072m, java_mem_init=-Xms1024m)
7) expand the "listeners" folder, then expand the name of your webhook (i.e. ServiceNow_UIM)
8) expand the "publishers" folder, then click on the "1" folder
9) double click on the key "isEncrypted", enter true for the value, click OK
10) click on config folder, click New Key button, enter key name "http_method" and value "post", click OK
11) expand the config folder and click on the payload folder, remove all existing keys
12) add a key called "records", then enter the string to be used to map UIM data to ServiceNow data, click OK
   (below is an example of the string that was used to push events from UIM to ServiceNow. You must revise this the string so the correct fields from ServiceNow are mapped to the information being pulled from UIM.

[{"source":"CA_UIM","event_class":"${message.udata.subsys}","node":"${message.udata.hostname}","severity":"${message.udata.severity}","message_key":"${message.udata.nimid}","description":"${message.udata.message}","resource":"${ci.description}","type":"${cs.os_description}","metric_name":"${metric.description}","time_of_event":"${message.udata.nimts}","additional_info":{"ci.name":"${ci.name}","type":"${ci.type}"}}]

The above string maps in json format, to the ServiceNow fields;

```
[
        {
         "source":"CA_UIM",
         "event_class":"${message.udata.subsys}",
         "node":"${message.udata.hostname}",
         "severity":"${message.udata.severity}",
         "message_key":"${message.udata.nimid}",
         "description":"${message.udata.message}",
         "resource":"${ci.description}",
         "type":"${cs.os_description}",
         "metric_name":"${metric.description}",
         "time_of_event":"${message.udata.nimts}",
         "additional_info":{
                "ci.name":"${ci.name}",
                "type":"${ci.type}"
                }
        }
]
```

Note that since UIM alarms use EPOC time format, you may find that ServiceNow datatime format is not compatible due to use of human-readable date-time format.

There may be some means of handling this within ServiceNow.

For example, you can run functions on variables and convert the EPOCH to mm/dd/yyyy hh:mm:ss
https://community.servicenow.com/community?id=community_question&sys_id=22a45c2bdbbad7c0e0e80b55ca9619bd