Cloud Event Management:

Netcool/Impact Integration

Speaker:

Mihaela Gheorghe

EMEA NSA L2 Senior Software Engineer

IBM Cloud Lab

Agenda

- **CEM – Netcool/Impact integration requirements and configuration**

  - **Prerequisites**

  - **OMNIbus configuration**

  - **CEM Gateway installation and configuration**

  - **Configure Netcool/Impact to run the trigger service**

  - **IBM Secure Gateway client installation and configuration**

  - **Configure a connection from CEM to the Netcool/Impact server**

  - **Map runbooks to Netcool/Impact events**

- **DEMO CEM – Netcool/Impact – WebGUI integration**

- **Q&A**

CEM – Netcool/Impact requirements

For trial subscription to CEM: https://www.ibm.com/cloud/event-management

1. Omnibus 8.1

2. Gateway for Cloud Event Management (nco-g-cem)

Download details: https://www.ibm.com/support/pages/node/563481
Part number: **CC4PJEN**

○ Netcool/OMNIbus 8 Plus Gateway for Cloud Event Management (nco-g-cem 3_0) Multi-Platform English (CC4PJEN) - View details
Size	12MB
Date posted	13 Dec 2019

3. Netcool/Impact 7.1 – recommended at least Fix Pack 18

4. IBM Secure Gateway

In CEM -> go to Administration -> Runbooks ->
Connections -> Event Trigger (Omnibus/Impact):

1. If this is your first connection being setup, download and install a gateway client. Download gateway client

How would you like to connect this new gateway?

IBM Installer   Docker   IBM DataPower

① Click the download link below for your operating system   ② Locate the documentation for the installation in the IBM Cloud docs or the README.md file provided   ③ Install the downloaded client
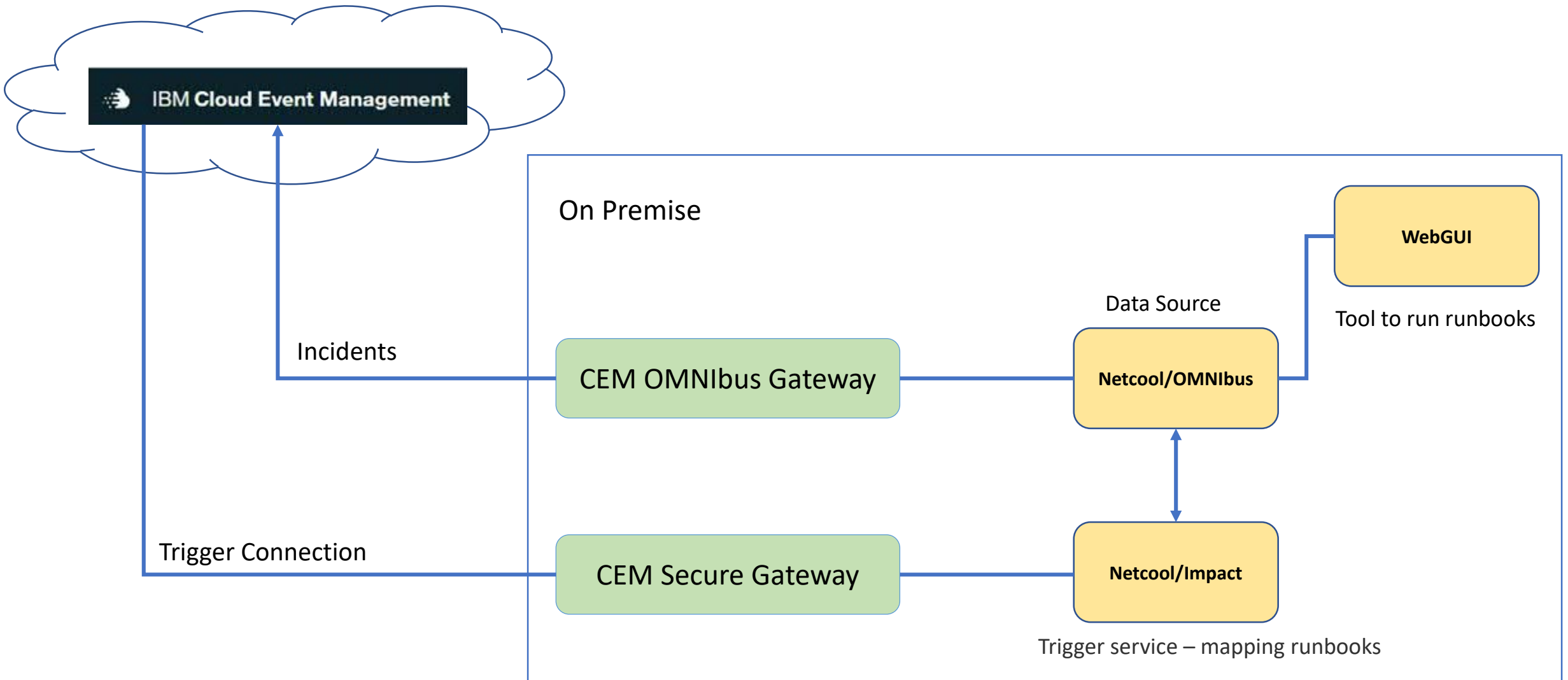
Gateway ID
ysLS8uV09XE_prod_ng

Security Token
eyJhbGciOiJIUzI1NiIsInR5cCl6IkpXVCJ9.eyJjb25n

Software Installers

Windows			18.27 MB
Mac OSX			96 MB
RHEL			22.25 MB
Ubuntu Z-Linux			13.95 MB
Ubuntu PPC			13.81 MB
Ubuntu			14.53 MB
AIX			25.61 MB

CEM – OMNIbus - Netcool/Impact

IBM Cloud Event Management

On Premise

WebGUI

Tool to run runbooks

Data Source

Incidents

CEM OMNIbus Gateway

Netcool/OMNIbus

Trigger Connection

CEM Secure Gateway

Netcool/Impact

Trigger service – mapping runbooks

CEM – Install CEM gateway

The repository location that needs to be added within IBMIM to proceed with the installation:

/<extracted_path_to_gate>/repository.config

```
=====> IBM Installation Manager> Preferences> Repositories

Repositories:
    1. [X] /tmpcemgate/repository.config
```

Either by installing in GUI or console mode, select the Netcool/Omnibus Gateway nco-g-cem to be installed and follow the wizard details to proceed with the installation:

```
=====> IBM Installation Manager> Install> Select

Netcool/OMNIbus Gateway nco-g-cem 1.3.0.0

Options:
    1. Choose version 1.3.0.0 for installation.
    2. Show all available versions of the package.
```

CEM – Create omnibus integration definition

Step 1: In CEM access the "Administration" section and click on the "Work with Integrations" option:
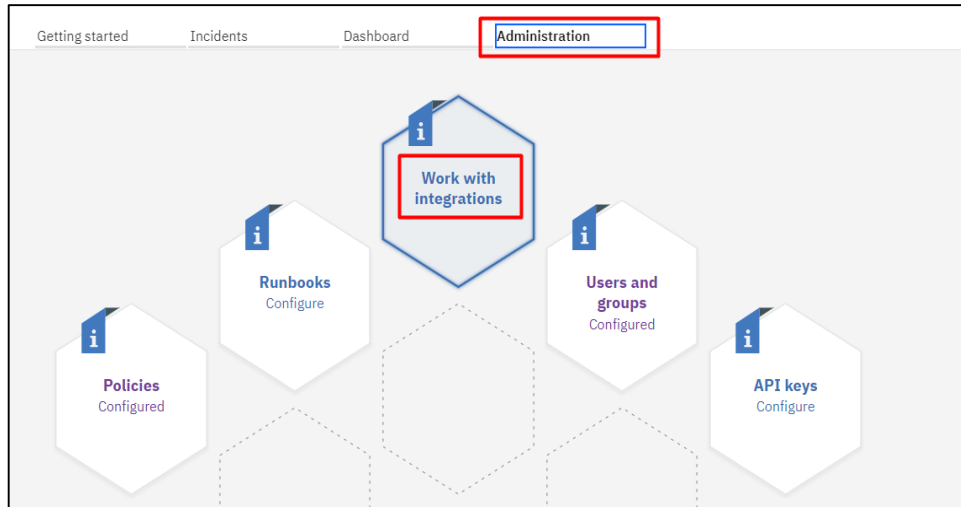
Step 2: Click New integration.
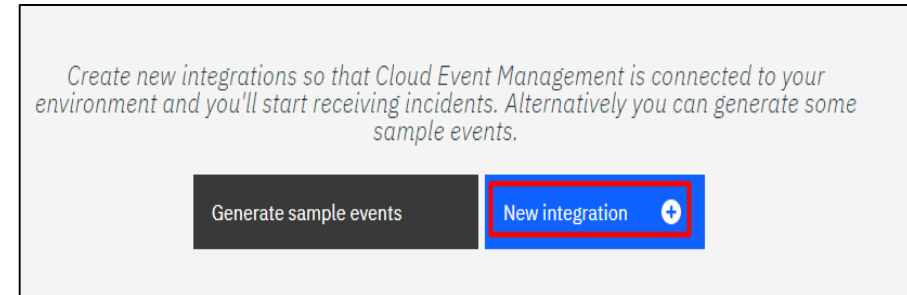
Step 3: Go to the Netcool/OMNIbus tile and click Configure
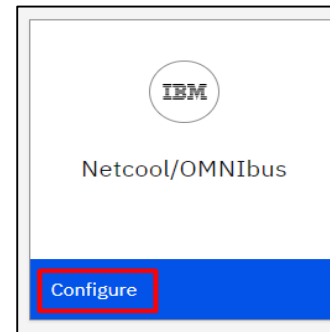
CEM – Create omnibus integration definition

Step 4: Enter a name for the integration and click Copy to add the generated webhook URL to clipboard.

Step 5: Ensure that you save the generated webhook to make it available later in the configuration process. This is required for the gateway configuration.

Step 6: Click Save.

CEM – Configure Omnibus for the integration

- Insert the required columns for CEM into the ObjectServer alerts.status table.

Run the following SQL command:

$OMNIHOME/bin/nco_sql -server <server_name> -user <user_name> -password <password> < $OMNIHOME/gates/cem/cem.sql

```
[root@prawned1 tmpcemgate]# cd /opt/IBM/tivoli/netcool/omnibus/gates/cem/
[root@prawned1 cem]# ls
cem.map              cem.rdrwtr.tblrep.def           cem.rdrwtr.tblrep.tivoli_eif.def  cem.sql   G_CEM.props
cem.notification.js  cem.rdrwtr.tblrep.mttrapd.def   cem_rollback.sql                  default   nco_g_cem.env
```

/opt/IBM/tivoli/netcool/omnibus/bin/nco_sql -server CEM -user root < /opt/IBM/tivoli/netcool/omnibus/gates/cem/cem.sql

```
[root@prawned1 cem]# /opt/IBM/tivoli/netcool/omnibus/bin/nco_sql -server CEM -user root < /opt/IBM/tivoli/netcool/omnibus/gates/cem/cem.sql
Password:
(0 rows affected)
(0 rows affected)
(0 rows affected)
(0 rows affected)
```

CEM – Configure CEM gateway

- Configuration properties file: $OMNIHOME/gates/cem/G_CEM.props can be obtained from:

  cp /opt/IBM/tivoli/netcool/omnibus/gates/cem/G_CEM.props

- Edit CEM gateway props file (G_CEM.props):

  1) Enable the gateway to read alerts from your ObjectServer by updating the Gate.RdrWtr.Server property.

  Gate.RdrWtr.Server   : 'CEM'

  2) Assign the webhook URL that you generated in CEM to the Gate.CEM.WebhookURL property:

  Gate.CEM.WebhookURL   : 'https://normalizer.us-south.cloudeventmanagement.cloud.ibm.com/webhook/noi/505154582/60b35985-53cf-4fcc-bd09-4fbed8c3d308/QRVSWbeGoBb6hLU3FPDQsPo-Gknml0lAmm9f5mGqW4w'

  3) Make sure **Gate.CEM.KeyStoreFile** points to correct path.

  Gate.CEM.KeyStoreFile   : '${NCHOME}/platform/linux2x86/jre64_1.7.0/jre/lib/security/cacerts'

- Start the CEM gateway

  $OMNIHOME/bin/nco_g_cem

CEM – Check incidents in CEM dashboard

To check the incoming alerts received from omnibus in CEM, just access the "Incidents" menu.

CEM – Configure Impact to run the trigger service

Import the database schema and Runbook Automation project

- Run the following command under the same user account that you used to install Netcool/Impact:

$IMPACT_HOME/install/cfg_addons/rba/install_rba.sh <derby_password>

```
[root@prawned1 tmpimpactfix]# cd /opt/IBM/tivoli/impact/install/cfg_addons/rba/
[root@prawned1 rba]# ls -altr
total 36
-rwxr--r-- 1 root root 26606 Jun 12  2019 install_rba.xml
-rwxr--r-- 1 root root  4050 Jun 12  2019 install_rba.sh
-rwxr--r-- 1 root root  2882 Jun 12  2019 import_cert.sh
drwxr--r-- 3 root root    17 Apr 10 01:12 ..
drwxr--r-- 2 root root    73 Apr 10 02:25 .
```

For derby connection, the default username is impact and the default password is derbypass.

./install_rba.sh derbypass

CEM – Configure Impact to run the trigger service

Update the ObjectServer

- IBM Runbook Automation requires additional fields in the alerts.status events table.

Copy the following file from the Impact server to the ObjectServer machine if they are installed separately:

$IMPACT_HOME/add-ons/rba/db/rba_objectserver_fields_update.sql

- Then run the following command:

$OMNIHOME/bin/nco_sql -username <username> -password <password> < rba_objectserver_fields_update.sql

Example:

/opt/IBM/tivoli/netcool/omnibus/bin/nco_sql -server CEM -user root < /opt/IBM/tivoli/impact/add-ons/rba/db/rba_objectserver_fields_update.sql

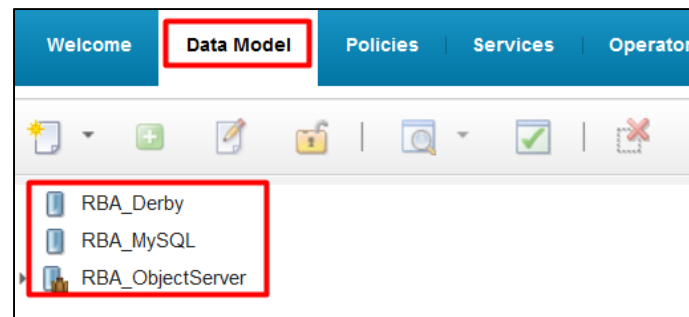# CEM – Configure Impact to run the trigger service

Configure and test RBA_ObjectServer data source connection

Step 1: Log in to Netcool/Impact and switch to the **RunbookAutomation** project from the drop-down menu in the top right corner.
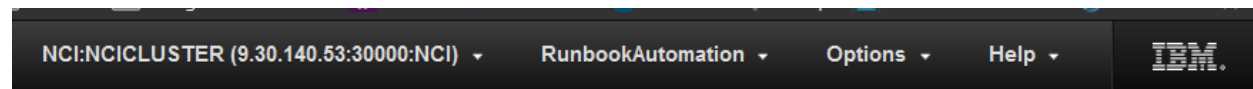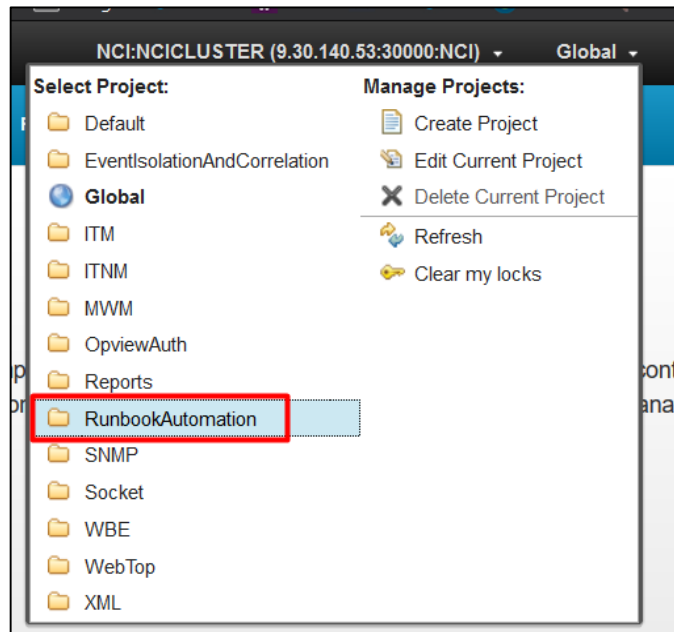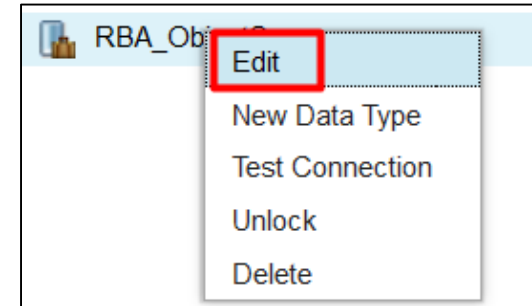

Step 2: Click the **Data Model** tab

CEM – Configure Impact to run the trigger service

Configure and test RBA_ObjectServer data source connection

Step 3: Right-click **RBA_ObjectServer datasource** and click **Edit**.

Step 4: Enter the access information for your OMNIbus ObjectServer.
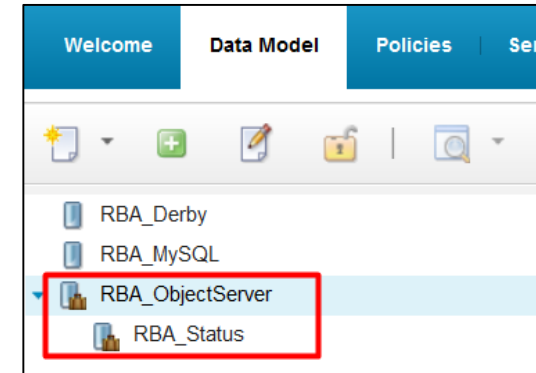
Test the connection and save the changes

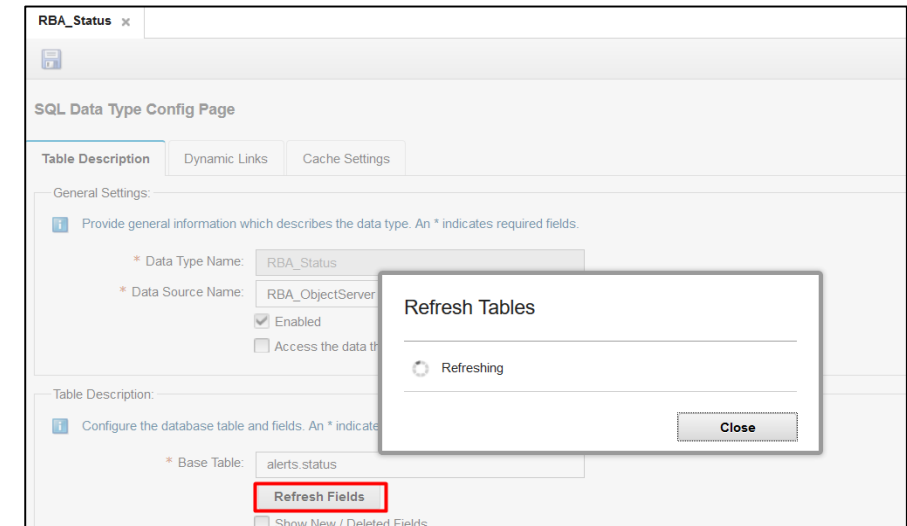# CEM – Configure Impact to run the trigger service

Configure and test RBA_ObjectServer data source connection

Step 5: Expand the **RBA_ObjectServer** data source in the tree view. Then right-click **RBA_Status** data type and click **Edit**.

Step 6: In the **Table Description** area, click **Refresh Fields** for the **alerts.status** base table.

CEM – Configure Impact to run the trigger service

Configure and test RBA_ObjectServer data source connection

Ensure that the table row for the **Serial** item has a value of **Yes** in the **Key Field** column. If the value displayed is **No**, double-click this table entry to enter edit mode, and select the check box that appears in edit mode.

	ID	Field Name	Format	Display Name	Description	Key Field
☐	Identifier	Identifier	LONG_STRING	Identifier	Identifier	No
☐	Serial	Serial	INTEGER	Serial	Serial	Yes
☐	Node	Node	LONG_STRING	Node	Node	No

Delete Selection   New   Edit   Move Up   Move Down

Ensure that **Identifier** is selected in the drop-down box for the **Display Name Field**.

Display Name Field: Identifier

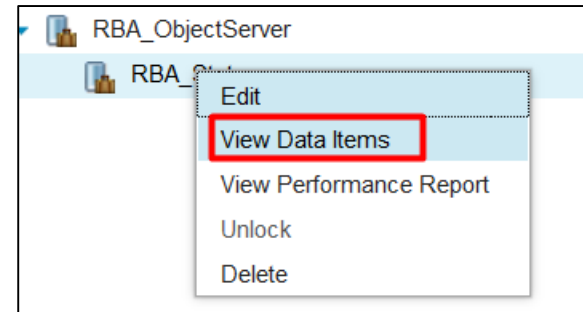☐ Automatically Remove Deleted Fields

Save the changes and close the editor.

CEM – Configure Impact to run the trigger service

Configure and test RBA_ObjectServer data source connection

Step 7: Right-click **RBA_Status** data type and click **View Data Items**.

Step 8: Verify that some events from Netcool/OMNIbus are listed.
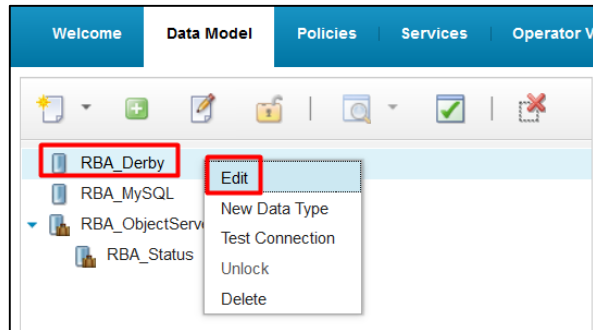
Close the **Data Items: RBA_Status** view.

CEM – Configure Impact to run the trigger service

Configure and test RBA_Derby data source connection

▪ Click the Data Model tab and right-click RBA_Derby datasource and click Edit.

Test the connection to ensure you can communicate successfully with your Derby database.

If you cannot communicate with the Derby database, ensure that the username, password, host, and port are correctly setup in the datasource.
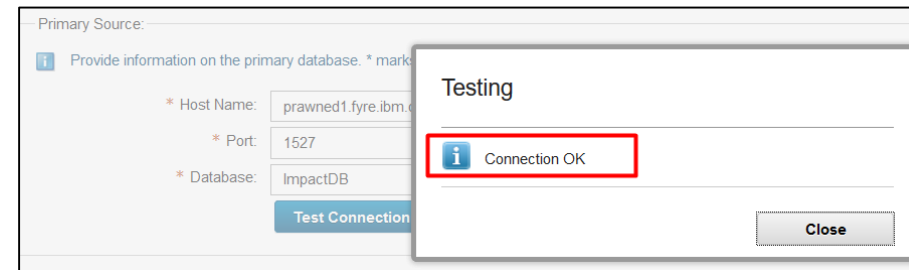
CEM – Configure Impact to run the trigger service

Import Runbook certificate into the Impact Server

▪ On Linux systems, enter the following command to receive the correct certificate:

echo -n | openssl s_client -servername <RBA_ACCESS_HOST> -connect <RBA_ACCESS_HOST>:<RBA_ACCESS_PORT> | sed -ne '/-BEGIN CERTIFICATE-/,/-END CERTIFICATE-/p' > file.cert

For CEM trial subscription run:

echo -n | openssl s_client -servername console.us-south.cloudeventmanagement.cloud.ibm.com -connect console.us-south.cloudeventmanagement.cloud.ibm.com:443 | sed -ne '/-BEGIN CERTIFICATE-/,/-END CERTIFICATE-/p' > file.cert

```
[root@prawned1 rbacert]#
[root@prawned1 rbacert]# echo -n | openssl s_client -servername console.us-south.cloudeventmanagement.cloud.ibm.com -connect console.us-south.cloudeventmanagement.cloud.ibm.com
:443 | sed -ne '/-BEGIN CERTIFICATE-/,/-END CERTIFICATE-/p' > file.cert
depth=2 C = US, O = DigiCert Inc, OU = www.digicert.com, CN = DigiCert Global Root CA
verify return:1
depth=1 C = US, O = DigiCert Inc, CN = DigiCert SHA2 Secure Server CA
verify return:1
depth=0 C = US, ST = New York, L = Armonk, O = International Business Machines Corporation, OU = IBM Cloud, CN = *.us-south.cloudeventmanagement.cloud.ibm.com
verify return:1
DONE
```

CEM – Configure Impact to run the trigger service

Import Runbook certificate into the Impact Server

- Use the following command to import the certificate:

$IMPACT_HOME/install/cfg_addons/rba/import_cert.sh <KEY_STORE_PASSWORD> <CERTIFICATE_FILE_FULL_PATH>

where <KEY_STORE_PASSWORD> is your Netcool/Impact admin password.

Example:

/opt/IBM/tivoli/impact/install/cfg_addons/rba/import_cert.sh netcool /rbacert/file.cert

```
[root@prawned1 rbacert]# /opt/IBM/tivoli/impact/install/cfg_addons/rba/import_cert.sh netcool /rbacert/file.cert
Buildfile: /opt/IBM/tivoli/impact/install/cfg_addons/rba/install_rba.xml

load-properties:
    [echo] Server name=NCI
    [echo] GUI Server name=ImpactUI
    [echo] Derby primary host=prawned1.fyre.ibm.com
    [echo] Derby primary port=1527
    [echo] Derby db=ImpactDB
    [echo] Derby user=impact

check-certificate:
```

CEM – Configure Impact to run the trigger service

Configure user access rights to RBA for impact user

- For existing user such as impactadmin:

cd $IMPACT_HOME/install/security

./mapRoles.sh -add -user <username> -roles impactRBAUser

```
[root@prawned1 rbacert]# /opt/IBM/tivoli/impact/install/security/mapRoles.sh -list -all

Roles:
        ConsoleUser
        ReadAdmin
        WriteAdmin
        impactAdminUser
        impactFullAccessUser
        impactMWMAdminUser
        impactMWMUser
        impactOSLCDataProviderUser
        impactOpViewUser
        impactRBAUser
        impactRestConfigurationRole
        impactSelectedOpViewUser
        impactUIDataProviderUser
        impactWebServiceUser
```

Example:

/opt/IBM/tivoli/impact/install/security/mapRoles.sh -add -user impactadmin -roles impactRBAUser
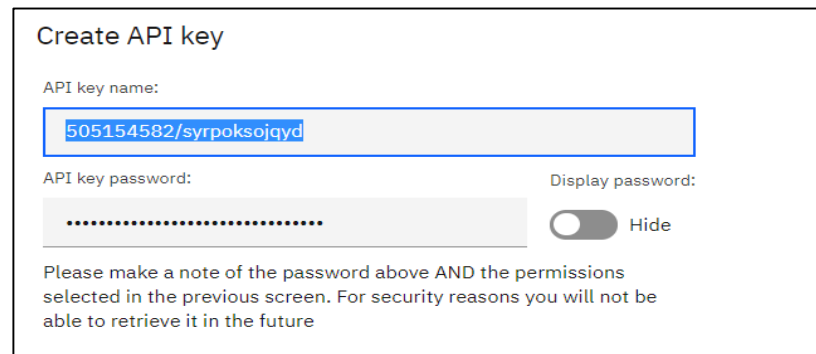
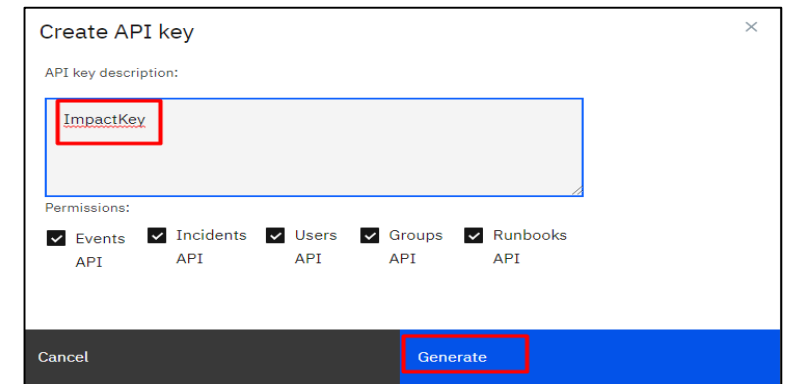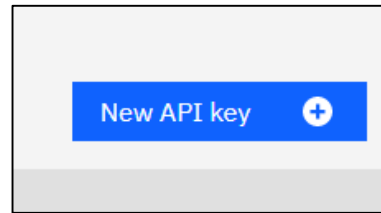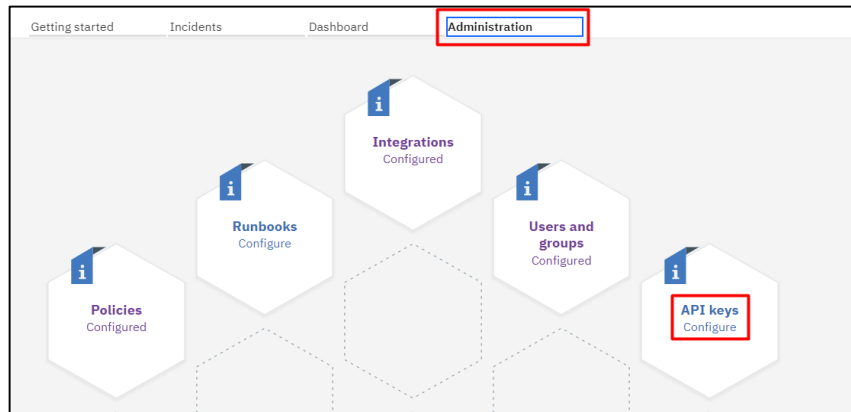# CEM – Configure Impact to run the trigger service

Update the Netcool/Impact configuration within derby database

- Edit the default values of the Netcool/Impact derby database to configure launch-in-context support and integration with IBM Runbook Automation.

- Netcool/Impact configuration for fully automated runbooks is stored in the Netcool/Impact derby database in the rbaconfig.defaults table with the exception of the RBAAPIKeyPassword.

Values that need to be updated:

RBAHost="
RBAManualExecHost="
RBAAPIKeyName="
RBAAPIKeyPassword=" – this will be done at the end, within a separate file not in the derby db.
RBASubscription="
MaxNumTrialsToUpdateRBAStatus='600'

CEM – Configure Impact to run the trigger service

Update the Netcool/Impact configuration within derby database

For the RBAAPIKeyName and RBAAPIKeyPassword properties you need to generate from CEM an API key as follows:

Connect to CEM -> Administration -> API keys -> Click on create new API key -> Enter a description and click Generate:

CEM – Configure Impact to run the trigger service

Update the Netcool/Impact configuration within derby database

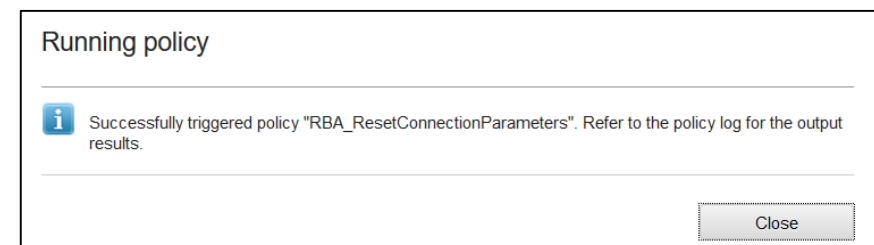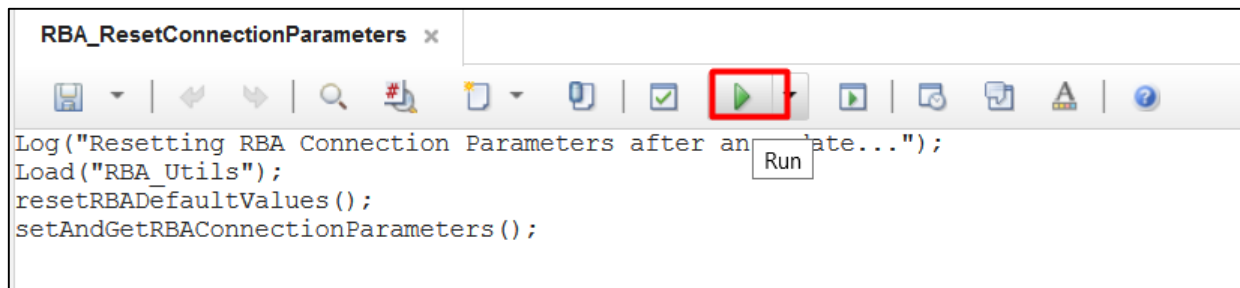Copy over the key name and password as you'll be using them to update impact derby db. The RBAAPIKeyName property will be the API key that is generated:

RBAAPIKeyName='505154582/syrpoksojqyd'

The API key password needs first to be encrypted.

Example of CEM API key password: dgIjVgp9yLrA7IG1Q1ma7R9ILpnJkac9

Run nci_crypt in Impact against the generated password and use it for RBAAPIKeyPassword:

/opt/IBM/tivoli/impact/bin/nci_crypt dgIjVgp9yLrA7IG1Q1ma7R9ILpnJkac9
{aes}AE48A0E29AAC2CC764EA4B3F8E0F2412B8A30A5AC0D166488C91495DA540A4CAAB71B733777E53C520819D0FE22CB460

Create API key

API key name:

505154582/syrpoksojqyd

API key password: Display password:

••••••••••••••••••••   Hide

Please make a note of the password above AND the permissions selected in the previous screen. For security reasons you will not be able to retrieve it in the future

```
[root@prawned1 rbacert]# /opt/IBM/tivoli/impact/bin/nci_crypt dgIjVgp9yLrA7IG1Q1ma7R9ILpnJkac9
{aes}AE48A0E29AAC2CC764EA4B3F8E0F2412B8A30A5AC0D166488C91495DA540A4CAAB71B733777E53C520819D0FE22CB460
```

CEM – Configure Impact to run the trigger service

Update the Netcool/Impact configuration within derby database

- Connect to Impact Derby database by running:

/opt/IBM/tivoli/impact/bin/nci_db connect
ij> connect 'jdbc:derby://prawned1.fyre.ibm.com:1527/ImpactDB;user=impact;password=derbypass;';

- Run each of the update command from above with the correct values:

update rbaconfig.defaults set FieldValue ='505154582/syrpoksojqyd' WHERE FieldName='RBAAPIKeyName';

update rbaconfig.defaults set FieldValue = 'console.us-south.cloudeventmanagement.cloud.ibm.com' WHERE FieldName='RBAHost';

update rbaconfig.defaults set FieldValue = 'console.us-south.cloudeventmanagement.cloud.ibm.com' WHERE FieldName='RBAManualExecHost';

update rbaconfig.defaults set FieldValue = '600' WHERE FieldName='MaxNumTrialsToUpdateRBAStatus';

update rbaconfig.defaults set FieldValue = '505154582' WHERE FieldName='RBASubscription';

CEM – Configure Impact to run the trigger service

Update the Netcool/Impact configuration within derby database

- Create the following file:

$IMPACT_HOME/etc/RBAAPIKeyPassword.txt

and copy the encrypted value for the API Key password generated and encrypted into this file.

```
[root@prawned1 etc]#
[root@prawned1 etc]# cat RBAAPIKeyPassword.txt
{aes}AE48A0E29AAC2CC764EA4B3F8E0F2412B8A30A5AC0D166488C91495DA540A4CAAB71B733777E53C520819D0FE22CB460
[root@prawned1 etc]#
```

- Connect to Impact console again and run the RBA_ResetConnectionParameters policy

RBA_ResetConnectionParameters

```
Log("Resetting RBA Connection Parameters after an  ate...");
Load("RBA_Utils");
resetRBADefaultValues();
setAndGetRBAConnectionParameters();
```

Run

Running policy

ℹ Successfully triggered policy "RBA_ResetConnectionParameters". Refer to the policy log for the output results.

Close

CEM – IBM Secure Gateway client

Download and Install IBM Secure Gateway

- In CEM -> go to Administration -> Runbooks -> Connections -> Event Trigger (Omnibus/Impact):
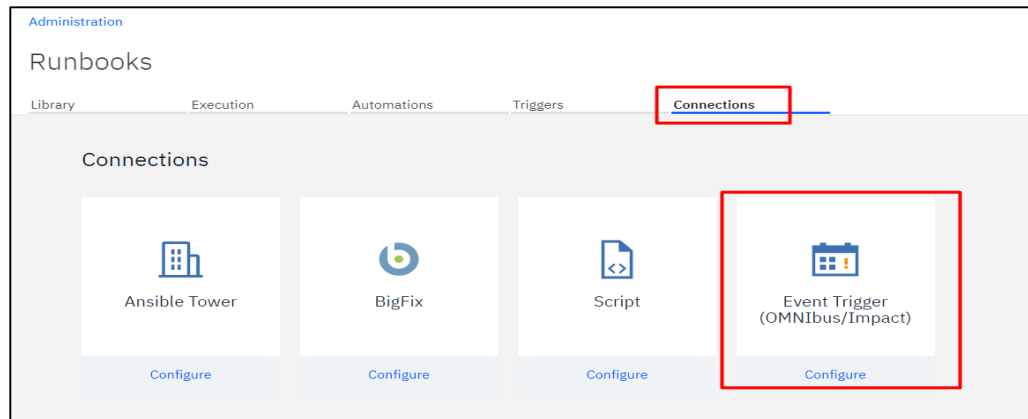
- At the bottom of the page you have the link to download the gateway:

1. If this is your first connection being setup, download and install a gateway client. Download gateway client

- Click on the RBA Gateway.
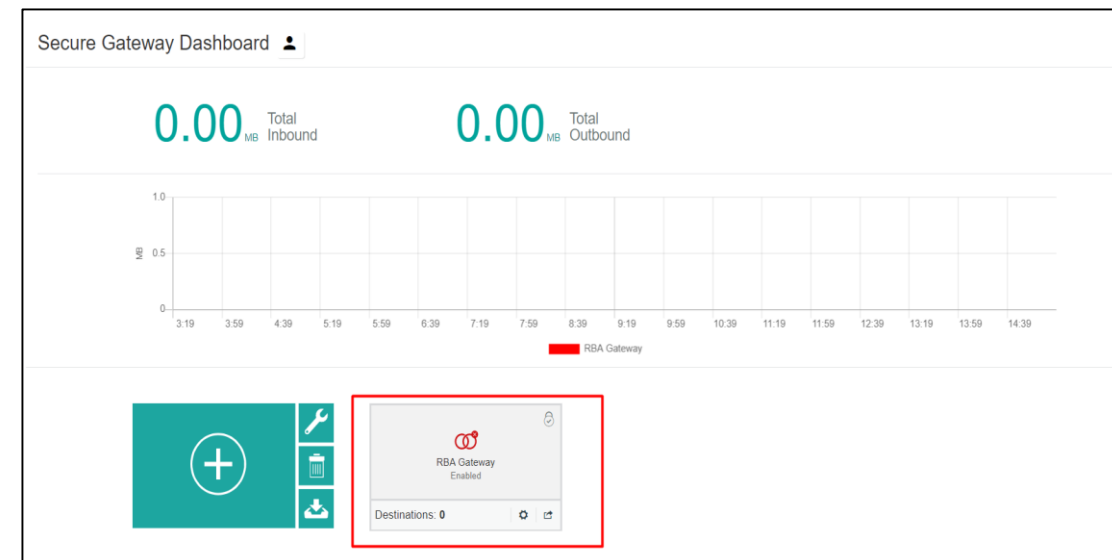
CEM – IBM Secure Gateway client

Download and Install IBM Secure Gateway

Switch to the Clients tab and click Connect Client.

Download the gateway for the OS you've used to setup omnibus/impact:

CEM – IBM Secure Gateway client

IBM
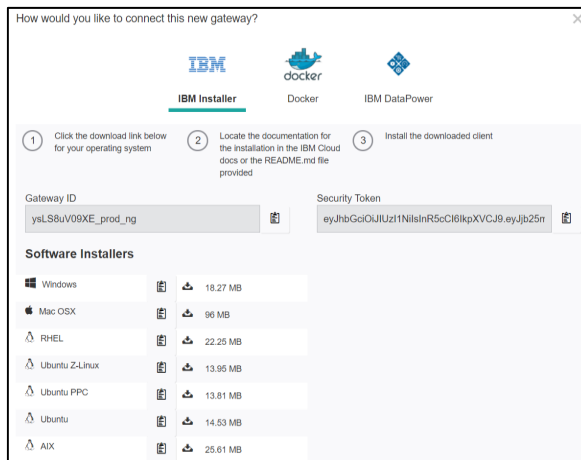
Download and Install IBM Secure Gateway

- Copy over the Gateway ID details and security token details:

Gateway ID	Security Token
ysLS8uV09XE_prod_ng	eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJjb25m

```
[root@prawned1 rbacert]# cd /securegate/
[root@prawned1 securegate]# ls
ibm-securegateway-client-1.8.5fp1+client_x86_64.rpm
```

- To install it run the following command on RHEL, for other OS check:
https://cloud.ibm.com/docs/services/SecureGateway?topic=securegateway-client-install#installing-the-client

rpm -ivhf ibm-securegateway-client-1.8.5fp1+client_x86_64.rpm

- You will be prompted to provide the gateway id and security token.

```
Updating / installing...
   1:ibm-securegateway-client-1.8.5fp1################################ [100%]
[postinst] ====================================================
[postinst] Started on: Friday - April 10, 2020 - 05:07:01.455873207
[postinst] Running for userid: root with uid: 0
[postinst] The operation for this install is: 1
[postinst] ====================================================
[postinst] INFO: Performing 1 operation
[postinst] INFO: Checking if /var/empty is in filesystem
[postinst] INFO: Checking if mail folder for /var/mail/securegateway is in filesystem
[postinst] INFO: Creating mail folder for /var/mail/securegateway
[postinst] INFO: Checking if /var/log/securegateway is in filesystem
[postinst] WARNING: /var/log/securegateway is NOT in filesystem, creating it
[postinst] INFO: Stop and restart the client during this installation: Yes
Enter the gateway IDs, separated by spaces: ysLS8uV09XE_prod_ng
```

Open the whitelist of the secure gateway client and add the Netcool/Impact URL

▪ To start the gateway secure client run the following command:

cd /opt/ibm/securegateway/client
node lib/secgwclient.js <gateway ID> -t <security token>

Example:

node lib/secgwclient.js ysLS8uV09XE_prod_ng -t
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJjb25maWd1cmF0aW9uX2lkIjoieXNMUzh1VjA5WEVfcHJvZF9uZyIsInJlZ2lvbiI6InVzLXNvdXXRoIiwiaWF0IjoxNTg2NTEwOTc3LCJleHAiOjE1OTQyODY5Nzd9.__3gZL7hc80LvG2cCDPZAKuHHozPfRqfL_QC0ffxzkw

▪ Run the following command to allow Impact connections:

acl allow [<hostname>]:[<port>]

Example:

acl allow prawned1.fyre.ibm.com:16311

CEM – Configure a connection to Impact server

- In CEM -> go to Administration -> Runbooks -> Connections -> Event Trigger (Omnibus/Impact):

- For the IBM Netcool/Impact REST service URL, enter the host name and port, or the IP address and port, of your local Netcool/Impact GUI server installation, followed by **ibm/custom/RBARestUIServlet**.

Example: **https://prawned1.fyre.ibm.com:16311/ibm/custom/RBARestUIServlet**

For the user and password, add the username to whom you've granted RBA role and its password.

CEM – Map runbooks to Impact events

- CEM -> Administration -> Runbook -> Triggers tab -> Click on "new trigger":
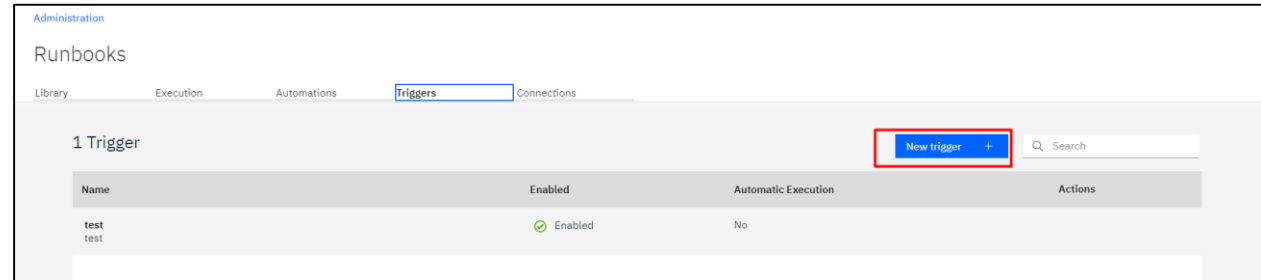
- Provide a name and click on "Add Filter":

CEM – Map runbooks to Impact events

- Check for some values for one of your field of your events from omnibus.

Example:
"Node" field with "DEMO test 2020" as description:

Data Type Name: RBA_Status						Number of Objects: 77
Filter Retrieved Data Items: DEMO test 2020						Showing 3 of 25 items
Select	View Links	Edit	Identifier	Serial	Node	NodeAlias
☐	🔍	✏	DemoTest1	2646	DEMO test 2020	
☐	🔍	✏	DemoTest2	2649	DEMO test 2020	
☐	🔍	✏	DemoTest3	2650	DEMO test 2020	

CEM – Map runbooks to Impact events

- Add your selection as a condition to your filter for creating the CEM trigger:

CEM – Map runbooks to Impact events

CEM – Map runbooks to Impact events

- Select a runbook that you want to run when the event matches the condition:

CEM – Map runbooks to Impact events

- Configure the parameters for the runbook.

- Make sure you have the trigger enabled and save it.

CEM – Map runbooks to Impact events

- The events were properly updated in Impact and they now have runbook details associated as seen under Impact -> RBA_Status data type list of events:

Data Type Name: RBA_Status				Number of Objects: 77
Filter Retrieved Data Items: HOSTNAME=DEMO test				Showing 2 of 25 items
okID	RunbookParameters	RunbookURL	RunbookStatus	RunbookParametersB64
6f-5394a4cc5da8	HOSTNAME=DEMO test 2020&__CONTEXT__=TestDemo2020	https://console.us-south.cloudeventmanagement.cloud.ibm.com:443/api/v1/rba/runbooks/83e590fc-4402-4a57-af6f-5394a4cc5da8	Runbook set for manual execution	RBAB64=SE9TVE5BTUU9REVNTyB0ZXN0IDIwMjAmX19DT05URVhUX189VGVzdERlbW8yMDIw
6f-5394a4cc5da8	HOSTNAME=DEMO test 2020&__CONTEXT__=TestDemo2020	https://console.us-south.cloudeventmanagement.cloud.ibm.com:443/api/v1/rba/runbooks/83e590fc-4402-4a57-af6f-5394a4cc5da8	Runbook set for manual execution	RBAB64=SE9TVE5BTUU9REVNTyB0ZXN0IDIwMjAmX19DT05URVhUX189VGVzdERlbW8yMDIw

CEM – Enable the launch-in-context menu in WebGUI

- Log on to Netcool/OMNIbus Web GUI as an administrator. Select Administration > Event Management Tools > Tool Configuration.

- Click the Create Tool icon to create a new tool.
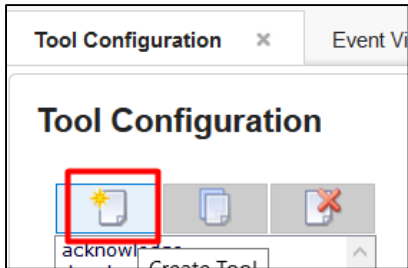
- Set the Name field to LaunchRunbook and from the Type drop-down field, select Script.

CEM – Enable the launch-in-context menu in WebGUI

- Replace the following script with the CEM_HOST_NAME and subscription id:

```
var runbookId = '{$selected_rows.RunbookID}';
var runbookParams = '{$selected_rows.RunbookParametersB64}';
runbookParams = encodeURIComponent(runbookParams);
if (runbookId == " || runbookId == ' ' || runbookId == ',' || runbookId == '0' || runbookId == 0) {
 alert("This event is not linked to a runbook");}else {
  var url =
'https://CEM_HOST_NAME/runbooks/library/execute/'+runbookId+'?subscriptionId=<YOUR_SUBSCRIPTION_ID>&bulk_params='+runbo
okParams+'&ISC.NEWINSTANCE=false';
 var wnd = window.open(url, '_blank');}
```
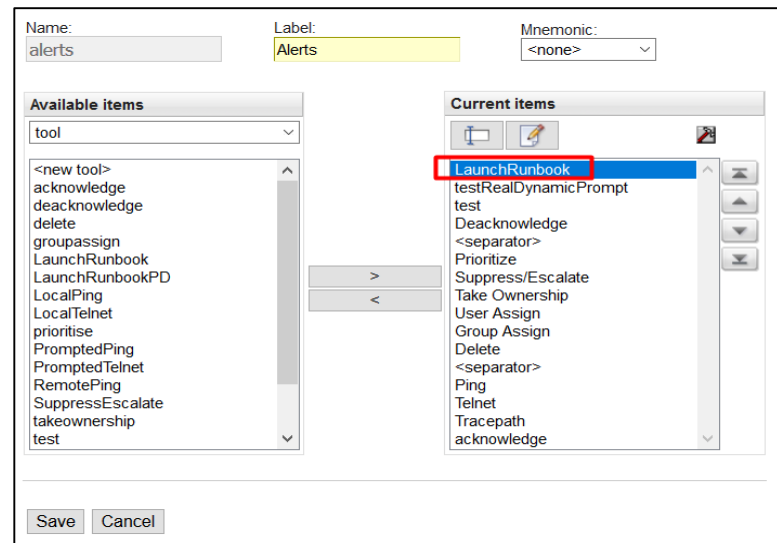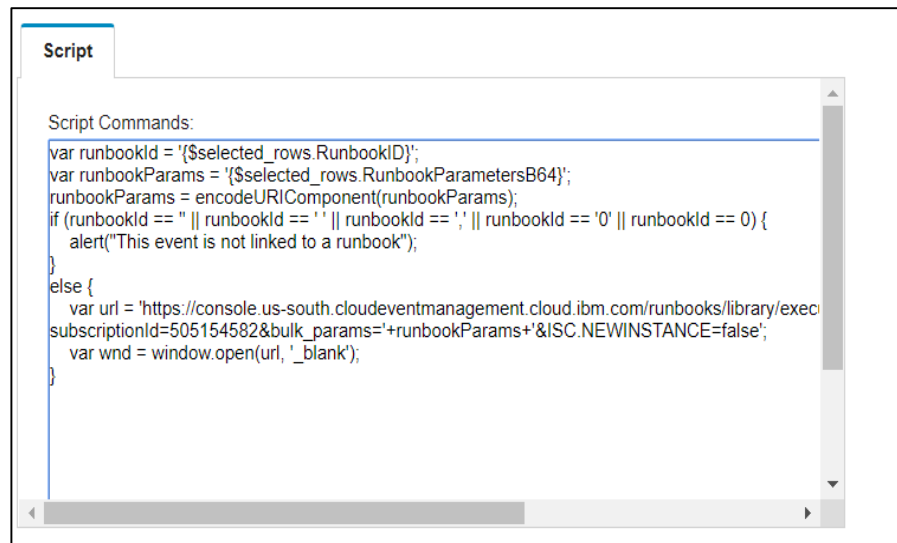
CEM – Test the integration WebGUI-Impact-CEM

- From DASH/WebGUI go to Event Viewer and right click on one alarm that matches the specified condition and select the tool created earlier.

CEM – Test the integration WebGUI-Impact-CEM

DEMO

IBM

Thank You!

CEM – References

For trial subscription to CEM: https://www.ibm.com/cloud/event-management

CEM Gateway: https://www.ibm.com/support/pages/node/563481

CEM Documentation: https://www.ibm.com/support/knowledgecenter/SSURRN/com.ibm.cem.doc/em_overview.html

Runbook Automation: https://www.ibm.com/support/knowledgecenter/SSZQDR/com.ibm.rba.doc/CT_installTrigger.html

Secure gateway: https://cloud.ibm.com/docs/services/SecureGateway?topic=securegateway-acl

CEM – Email integration: https://www.ibm.com/support/pages/ibm-cloud-event-management-email-integration-step-step-example

CEM – Omnibus/Impact integration: https://www.ibm.com/support/pages/node/6205890