QRadar QROC – Resilient

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Alerte Escalation

Alert are transmitted automatically from QRadar to Resilient using the following configuration:

Escalations

The offense field must be set to: Name, or: Description

The value match expression must be set to: *

The Template To Use must be set to: TBD_Unknown

Incident assignment to correct Incident Type

A set of rules will assign the incident to a correct incident type based on keywords matching on field Description:

▲▼ ≡14	Add System Intrusion to Incident type				
▲▼ ≡15	Add Malware to Incident type				
▲▼ ≡16	Add Phishing to Incident type				
▲▼ ≡17	Add Denial of Service to Incident type				
▲▼≡ 22	Add Local Server Scanner to Incident type				
▲▼ ≡23	Add TBD to Incident type				

Out of the Box playbooks on default Incident Type:

- System Intrusion: CnC, exploit, Intrusion
- Malware: Virus, Malware
- Phishing: Spam, Phishing, Spear
- Denial of Service: Denial of Service, DOS, DDOS

Specific Playbook on Offense type:

- Local Server Scanner: Scan
- (More to come)

If needed; the list of keywords can be change for more matching or a better matching based on customer experience and offense list.

Query from Resilient to QRadar

A set of Queries can be done by the analyst, at will, from actions button when he needs more information.

Queries at the Incident Level

List of Queries available:

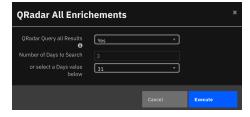


• QRadar All Enrichments

will launch all above queries at once (expect Malware #2 and Email #10) using the following options:

Get all Results (Top 100) or partial response (Default All)

Specify a number of days to search back from current day 1, 7, 15, 31, 92, or your number. Default is 31:



QRadar Malware and Virus Logs for an IP

Description: For a given source IP address, return all the malware logs.

The package *IBM QRadar Cryptomining Content Extension* must be installed to populate the values in ORadar. Please follow the instructions at

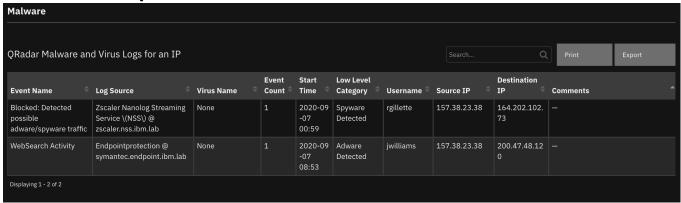
https://exchange.xforce.ibmcloud.com/hub/extension/62fdde6955e3ee6937c819174d5758bb

<u>Query:</u> SELECT QIDNAME(qid) AS "EventName", LOGSOURCENAME(logsourceid) AS "LogSource", "Threat Name", eventCount, DATEFORMAT(starttime, 'YYYY-MM-dd HH:mm') as "StartTime", CATEGORYNAME(category) AS "LowLevelCategory", username, sourceip, destinationip FROM events WHERE sourceip = ({source_ip}) AND CATEGORYNAME(highlevelcategory) = 'Malware' GROUP BY "Threat Name", username, eventCount ORDER BY eventCount DESC LIMIT 100 LAST ({days to search}) DAYS

<u>Note:</u> This query is not launched by the QRadar All Enrichment and required specific Source IP address input addition:



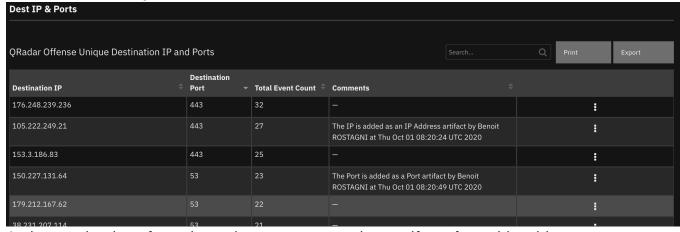
Result is visible in QRadar Table:



QRadar Offense Unique Destination IP and Ports

<u>Description:</u> For a given offense ID, return all the unique combinations of destination IP and destination port and their counts from all the events associated with this offense ID <u>Query:</u> SELECT destinationip, destinationport, SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY destinationip, destinationport ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

Result is visible in QRadar Table:



Action can be done from the action menu to populate artifacts from this table:



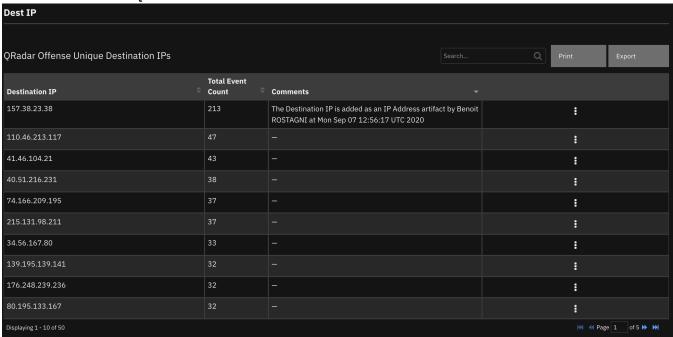
QRadar Offense Unique Destination Ips

<u>Description:</u> For a given offense ID, return all the unique destination IPs and their counts from all the events associated with this offense ID

<u>Query:</u> SELECT destinationip, SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY destinationip ORDER BY totaleventcount DESC LIMIT 100 LAST

({days to search}) DAYS

Result is visible in QRadar Table:



Action can be done from the action menu to populate artifacts from this table:

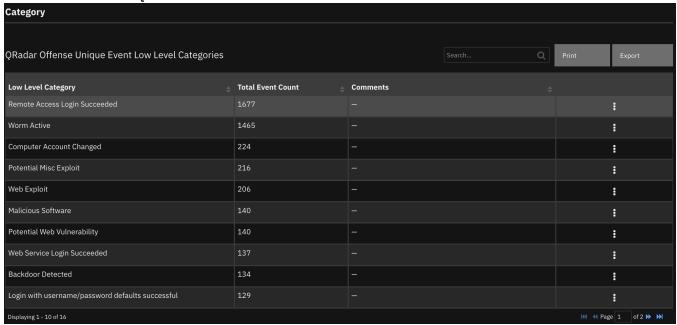


QRadar Offense Unique Event Low Level Categories

<u>Description:</u> For a given offense ID, return all the unique low level categories and their counts from all the events associated with this offense ID

<u>Query:</u> SELECT CATEGORYNAME(category) AS "lowlevelcategory", SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY category ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

Result is visible in QRadar Table:

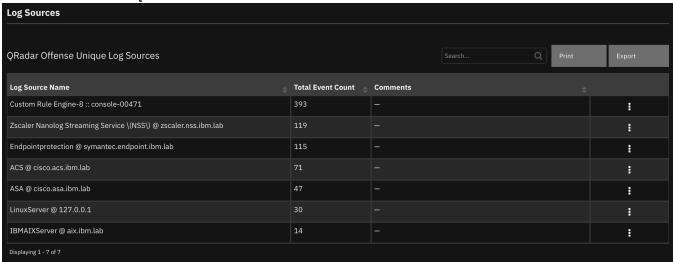


QRadar Offense Unique Log Sources

<u>Description:</u> For a given offense ID, return all the unique log sources and their counts from all the events associated with this offense ID

<u>Query:</u> SELECT LOGSOURCENAME(logsourceid) AS "LogSourceName", SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY logsourceid ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

Result is visible in QRadar Table:

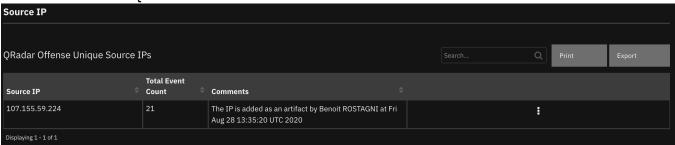


QRadar Offense Unique Source Ips

<u>Description:</u> For a given offense ID, return all the unique source IPs and their counts from all the events associated with this offense ID

<u>Query:</u> SELECT sourceip, SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY sourceip ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

Result is visible in QRadar Table:



Action can be done from the action menu to populate artifacts from this table:



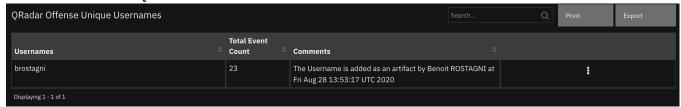
QRadar Offense Unique Usernames

<u>Description:</u> For a given offense ID, return all the unique usernames and their counts from all the events associated with this offense ID

<u>Query:</u> SELECT username, SUM(eventCount) AS "totaleventcount" FROM events WHERE InOffense({id}) GROUP BY username ORDER BY totaleventcount DESC LIMIT 100 LAST ({days

to search)) DAYS

Result is visible in QRadar Table:



Action can be done from the action menu to populate artifacts from this table:

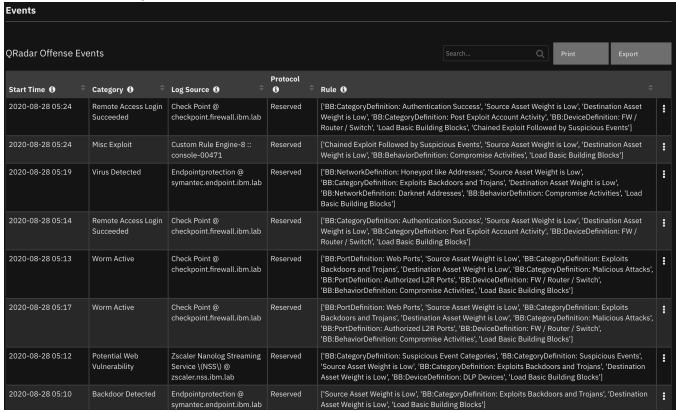


QRadar Offense Events using Offense id

<u>Description:</u> Use the qradar_id field of the incident to search qradar events, and update the data table, gradar_offense_event, with all results.

<u>Query:</u> SELECT DATEFORMAT(starttime, 'YYYY-MM-dd HH:mm') as StartTime, CATEGORYNAME(category), LOGSOURCENAME(logsourceid), PROTOCOLNAME(protocolid), RULENAME(creeventlist)FROM events WHERE INOFFENSE({id}) LIMIT 100 LAST ({days to search}) DAYS

Result is visible in QRadar Table:



QRadar Unique Email Senders From IP

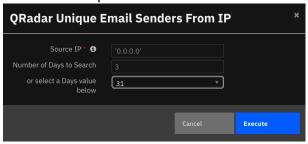
<u>Description:</u> For a given source IP address, return all the unique email senders and their counts

The package IBM QRadar Phishing and Email Content Extension must be installed to populate the values in QRadar. Please follow the instructions at

https://exchange.xforce.ibmcloud.com/hub/extension/d47bae0e01d42970c272dcc773eed 3bf

<u>Query:</u> SELECT Sender, SUM(eventCount) AS "totaleventcount" FROM events WHERE sourceip = '{source_ip}' GROUP BY Sender ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

<u>Note:</u> This query is not launched by the QRadar All Enrichment and required specific Source IP address input addition:



Result is visible in QRadar Table:

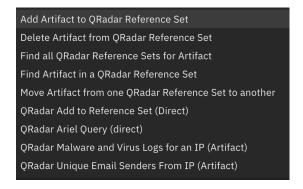


Actions can be done from the action menu to populate artifacts from this table:



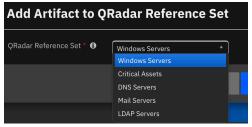
Queries at the Artifact Level

List of Queries available:



• Add Artifact to QRadar Reference Set

<u>Description:</u> offer a list of Reference Set configured in QRadar from the Resilient App to be selected. Will add the artifact in the list.

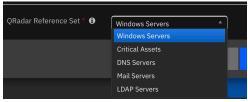


Result is written in a Note:

4 IS for QRadar added a note to the *Incident* 08/28/2020 12:46 IP: 48.227.210.229 added to blocked IPs reference set: Critical Assets

Delete Artifact from QRadar Reference Set

<u>Description:</u> offer a list of Reference Set configured in QRadar from the Resilient App to be selected. Will delete the artifact in the list.

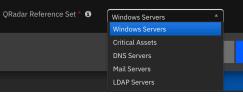


Result is written in a Note:

IS for QRadar added a note to the *Incident* 08/28/2020 12:45
 Failed to remove 48.227.210.229 from Blocked list, message: Sample Blocked IPs does not exist
 IS for QRadar added a note to the *Incident* 08/28/2020 19:14
 Artifact: 106.66.124.200 removed from reference set: Critical Assets by IS for QRadar at Fri Aug 28 17:14:04 UTC 2020

Find Artifact in a QRadar Reference Set

<u>Description:</u> offer a list of Reference Set configured in QRadar from the Resilient App to be selected. Will say if the artifact is in the list.

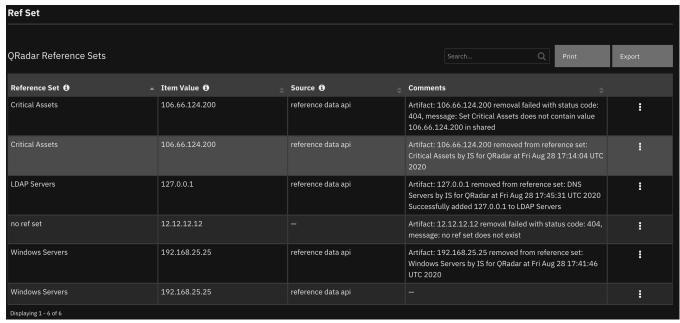


Result is written in a Note:

Q. IS for QRadar added a note to the *Incident* 08/28/2020 12:47
Found IP: 48.227.210.229 in list: Critical Assets.
Q. IS for QRadar added a note to the *Incident* 08/28/2020 12:46
IP:48.227.210.229 not found in list.

Find all QRadar Reference Sets for Artifact

<u>Description:</u> Will list in QRadar Reference Set table all Reference Sets where this artifact exist.



Actions can be done from the action menu to populate artifacts from this table:

Critical Assets	106.66.124.200	reference data api	Artifact: 106.66.124.200 removed from reference set: Critical Assate by 15 for Obadas at Fri Ave 28 47/4 4/04 UTO 2 Delete Artifact from QRadar Reference Set (Table)
LDAR Sorvers	127.0.0.1	reference data ani	Move Artifact from one QRadar Reference Set to another (Table)

Move Artifact from one QRadar Reference Set to another

Note: Currently not enable but should be in the future. (Just the default non configured sample)

QRadar Add to Reference Set (Direct)

Description: Similar to Add Artifact to QRadar Reference Set, but using another order path.

• QRadar Ariel Query (direct)

<u>Description:</u> will launch the preconfigured Queries in Resilient App on QRadar. By default, you will have access to the 3 following Queries:



The result is store in a log text file in attachment to the incident.

We recommend using these queries when a lot of results (hundreds, thousands...) are expected.

QRadar Malware and Virus Logs for an IP (Artifact)

<u>Description:</u> For a given source IP address, return all the malware logs.

The package *IBM QRadar Cryptomining Content Extension* must be installed to populate the values in QRadar. Please follow the instructions at

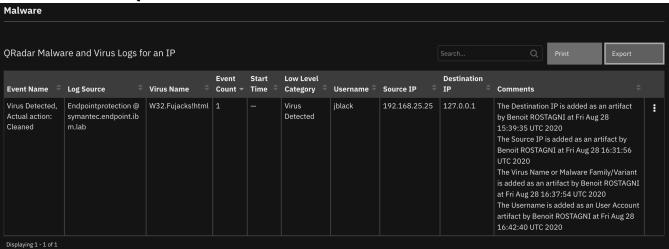
https://exchange.xforce.ibmcloud.com/hub/extension/62fdde6955e3ee6937c819174d5758bb

Query: SELECT QIDNAME(qid) AS "EventName", LOGSOURCENAME(logsourceid) AS "LogSource", "Threat Name", eventCount, DATEFORMAT(starttime, 'YYYY-MM-dd HH:mm') as "StartTime", CATEGORYNAME(category) AS "LowLevelCategory", username, sourceip, destinationip FROM events WHERE sourceip = ({source_ip}) AND CATEGORYNAME(highlevelcategory) = 'Malware' GROUP BY "Threat Name", username, eventCount ORDER BY eventCount DESC LIMIT 100 LAST ({days to search}) DAYS

<u>Note:</u> This query is not launched by the QRadar All Enrichment and required specific Source IP address input addition :



Result is visible in QRadar Table:



Actions can be done from the action menu to populate artifacts from this table:



QRadar Unique Email Senders From IP (Artifact)

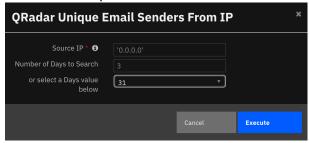
<u>Description:</u> For a given source IP address, return all the unique email senders and their counts

The package IBM QRadar Phishing and Email Content Extension must be installed to populate the values in QRadar. Please follow the instructions at

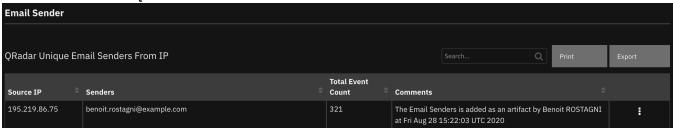
https://exchange.xforce.ibmcloud.com/hub/extension/d47bae0e01d42970c272dcc773eed 3bf

<u>Query:</u> SELECT Sender, SUM(eventCount) AS "totaleventcount" FROM events WHERE sourceip = '{source_ip}' GROUP BY Sender ORDER BY totaleventcount DESC LIMIT 100 LAST ({days to search}) DAYS

<u>Note:</u> This query is not launched by the QRadar All Enrichment and required specific Source IP address input addition :



Result is visible in QRadar Table:



Action can be done from the action menu to populate artifacts from this table:



Process Playbooks

Local L2L SSH Server Scanner

Rule Name: Local L2L SSH Server Scanner Offense Name: Local SSH Scanner Detected

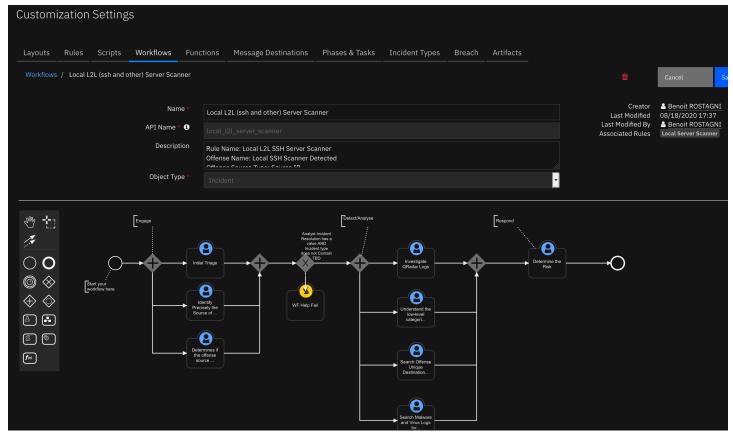
Offense Source Type: Source IP

<u>Description:</u> this rule triggers when a single local machine communicates to more than X different local machines in a short period of time on destination port 22, indicating a potential host scan. Typically, the source machine in question is a vulnerability scanner of some sort, or it could be a legitimate malicious scanner.

Workflow:

- Analyst performs a DNS lookup on the offense source (which is the source IP, i.e. the machine in question). The machine name usually provides information to the user on what it is (server, user, database, appliance, etc.).
- Analyst determines if the offense source is a server or a user machine. This is accomplished in several
 ways; either by the hostname from the DNS lookup where the customer has a naming convention that
 easily identifies this, or by looking up networking information on the subnet of the IP from an external
 source, or by common analyst knowledge that the subnet the IP belongs to is either a server subnet or
 a user subnet.
- Analyst clicks on "X events" in QRadar to bring up a window that shows all the QRadar logs associated with this offense to begin his investigation.
- Analyst runs another search, see query Offense Unique Event Low Level Categories, to understand the low-level categories of the events. Maybe all the events are categorized as Firewall Deny, meaning all the traffic was blocked - that's insight for the analyst.
- Analyst runs another search, see query Offense Unique Destination IPs, to understand the unique destination IPs and their counts. Was the offense source mostly talking to a specific set of destination IPs? Ones in a particular subnet? Analyst can also do a DNS lookup for the top 3 or so destination IPs to determine what/who they are, in additional to potentially looking up external network information on the description of the subnet of those IPs. The analyst can use this information to understand the traffic pattern and whether such source IP should or should not be doing an SSH scan on those destination IPs. Maybe the source was a user machine and the destinations are indeed servers. And based on the previous information gathered about the event categories, was the traffic blocked or not. If it was a user machine, why was his machine doing a scan?
- (Optional) Look up any endpoint protection / antivirus logs associated with this source IP to find out if maybe it has malware that has not been cleaned. This could either be a QRadar search (see query Malware and Virus Logs for an IP that query needs further tuning because it will list all malware related events for the IP but not necessarily ones that are critical e.g. malware that wasn't cleaned), or this could be an external lookup on the actual EDR platform (Crowdstrike/Symantec/etc.).
- If in the end this offense is determined to be a false positive (i.e. the offense source is expected to exhibit such behavior), the QRadar rule is modified to exclude the IP. By default, this QRadar rule does not have a built-in reference-set mechanism to exclude the IP, so the analyst either modifies the logic of the rule to include an exclusion directly for this IP address, or the analyst creates a reference set and excludes this reference set in this rule, to plan for any additional future exclusions as well.

Workflow Implementation:



Please follow ordered task instructions.

Local L2L {type} Server Scanner

This process Playbook as has been currently set as the same as Local L2L SSH Server Scanner above.

Malware

This process playbook is the Best Practice playbook from NIST, SANS and US-CERT. Please follow ordered task instructions.

Phishing

This process playbook is the Best Practice playbook from NIST, SANS and US-CERT. Please follow ordered task instructions.

Denial of Service

This process playbook is the Best Practice playbook from NIST, SANS and US-CERT. Please follow ordered task instructions.

Intrusion detection

This process playbook is the Best Practice playbook from NIST, SANS and US-CERT. Please follow ordered task instructions.

Error when importing the res file

If you have an error when importing the res file, please do:

- Delete the rules created by QRadar
 - o Add to QRadar Reference Set
 - o QRadar Ariel Query
 - $_{\circ}$ Move Artifact from one QRadar Reference Set to another
- Install my QRadar res file package
- Verify and configure again the Resilient App on QRadar to update the 2 rules fields (list of Ariel query, list of ref sets) overwritten by the res file.