

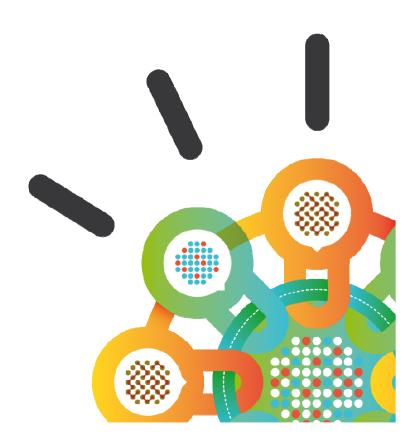
Security Intelligence.

Think Integrated.

IBM Security QRadar SIEM v7.2.2

New Feature Overview

April, 2014



BIG and exiting QRadar Release

- § New appliances, capabilities and features to handle even more data more
 quickly!
 - Higher EPS, more disk, additional powerful and cost effective expansion options
 - Customers NEED this now and it is unique
- « New APIs!
 - Now have open APIs to QRadar flow and event data
 - SOC integration, improved visualization enablement, value add enablement for business partners, and much more
- § Faster!
 - More tuning, optimizations and options to make QRadar searches faster
- Translated
 - Fantastic new translation and globalization capabilities
 - Users can now pick their language!
- § Exciting new approach to user documentation



Opening up QRadar data and analytics

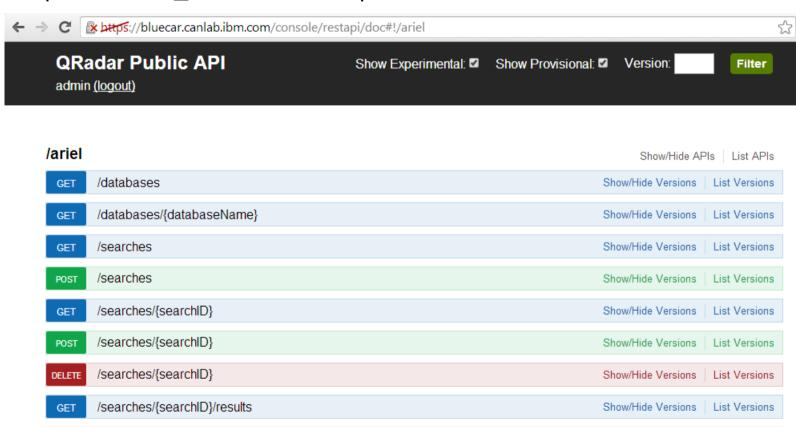
New APIs - Events and Flows

- Solution of the State of the
 - Integrate third-party reporting solutions using our API to report on Events / Flows
 - Create custom dashboards / visualizations on Events and Flows
 - Allows for operations on QRadar's data, that is not currently supported in the UI
 - e.g. Historical Correlation (think scripting)
 - Selective data backup Query and preserve only the data you want to keep
 - Advanced Use cases Easily implement use cases that are not currently feasible in the UI. E.g.: Custom application that Maps Nat IP to Internal IP and presents a view on its relationships.
 - Query and feed valuable data to other Big Data solutions for long term machine data analysis or data warehouse.





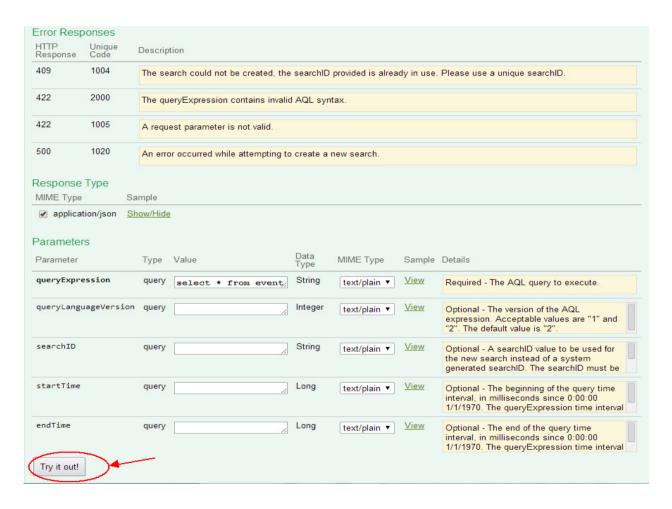
- The Ariel API documentation page can be viewed from URL:
- https://QRadar_IP/console/restapi/doc







Along with definition, try your queries!







Give your search result a nice name – and re-query it

Parameters						
Parameter	Type	Value	Data Type	MIME Type	Schema	Details
queryExpression	query	select * from events w	String	text/plain ▼	<u>View</u>	Required - The AQL query to execute.
queryLanguageVersion	query		Integer	text/plain ▼	<u>View</u>	Optional - The version of the AQL expression. Acceptable values are "1" and "2". The default value is "2".
searchID	query	mybadguys	String	text/plain ▼	<u>View</u>	Optional - A searchID value to be used for the new search instead of a system generated searchID. The searchID must be unique and is only used for SELECT
startTime	dilen/		Long	/.: =	View	







Utilize full power for AQL

Ariel Query Language (AQL)

The Ariel Query Language, or AQL, is a structured query language for Ariel databases. It uses a familiar SQL-like syntax to express queries that retrieve data and perform other operations.

The use of an SQL-like language makes it easy to begin creating AQL queries if you are already familiar with SQL. The structure of an Ariel database, however, is internally very different from a relational database, so there are areas in which AQL deviates from familiar SQL forms in order to provide more precise control over the Ariel server's capabilities. The important differences in database structure are discussed in the concepts section below.

This document briefly introduces Ariel databases and some of the concepts that are unique to them, and then provides a detailed reference describing the elements of AQL and how to compose them.

Contents

- . Changes from previous AQL versions
- Ariel database concepts
 - Databases
 - o Interval data
 - Searches
 - o Properties
 - Aggregation
 - Views
- AQL reference
 Lexical conventions
 - DESCRIBE
 - SELECT
 - MATERIALIZE
 - RUN
 - DROP

Changes from previous AQL versions

The AQL language was originally designed for the Ariel command line client tool. The tool provides many powerful capabilities, but it has not previously been formally supported and so the expression language has remained incomplete or unrefined in some areas. This document describes a revised expression language that adds a number of important capabilities and changes a number of existing expression elements to make them more complete or consistent. The new language has all of the same capabilities as the older version, and most simple queries are identical. However, the new language does not yet provide complete backwards compatibility.

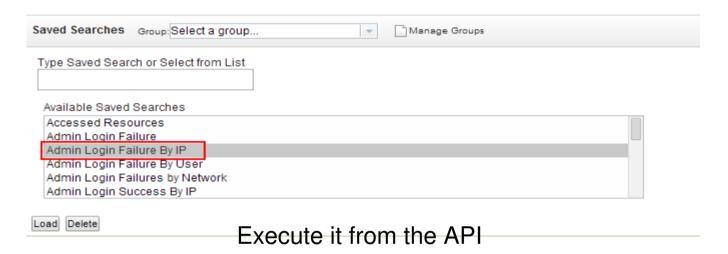
If you are familiar with the older AQL syntax, you may be interested just in a description of the changes introduced by the newer version. Differences are described in context with the rest of the documentation, but are highlighted in this way:

NEW -- This is a new feature introduced with this version.





Need to run a saved search defined in the UI?









Can handle very large queries

```
Request URL
 https://bluecar.canlab.ibm.com/api/ariel/searches?queryExpression=RUN+query+%22Admin+Login+Failure+By+IP%22+between+'5+minutes+ago'+and+
Request Headers
 Version: 0.1
 SEC: 04c09ca4-b703-41ee-bd8a-fa7c450b24f8
 Accept: application/json
 Allow-Experimental: true
 Allow-Provisional: true
Response Code
 201
Response Body
  "searchID": "c4d6c406-e475-4658-8ab0-bd52abc64c7e"
"progress": 0,
"status": "WAIT",
    "saveResults": false,
   "processedRecordCount": 0,
    "queryExecutionTime": 0,
    "recordCount": 0
Response Headers
 Pragma: no-cache
 Date: Wed, 02 Apr 2014 01:55:41 GMT
 X-Frame-Options: SAMEORIGIN
 Content-Type: application/json
 Location: https://bluecar.canlab.ibm.com/console/restapi/ariel/searches/c4d6c406-e475-4658-8ab0-bd52abc64c7e
 Cache-Control: no-cache, no-store, must-revalidate
 Connection: Keep-Alive
 Keep-Alive: timeout=15, max=99
 Content-Length: 164
 Expires: 0
```



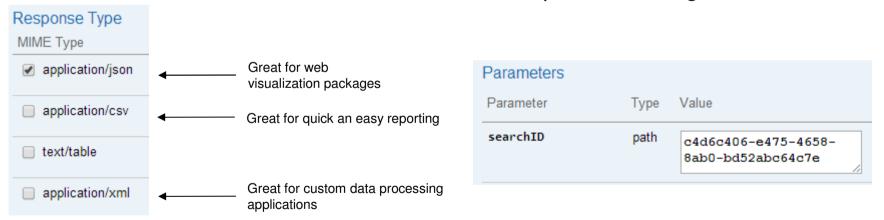


How to get results of the query? Use the following API endpoint



Select the format of results desired

Pass the search ID as the parameter to get results







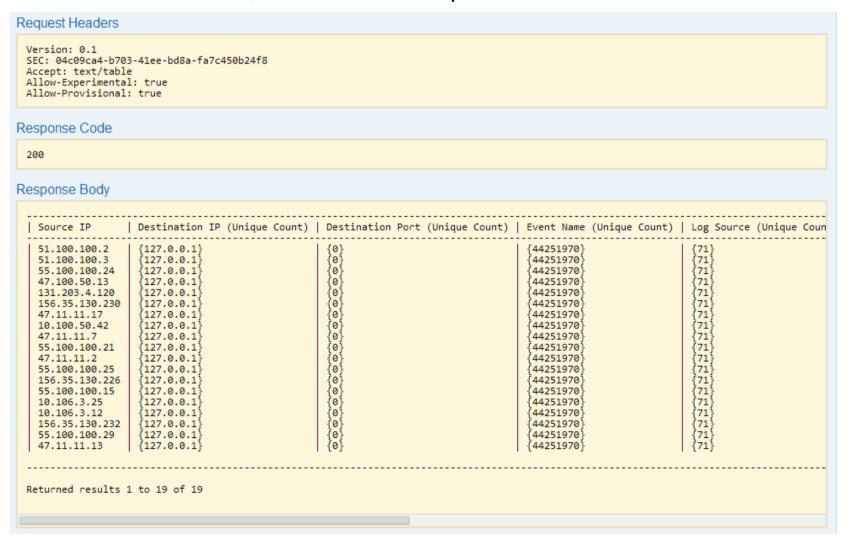
Search results returned, in JSON example

```
Response Code
  200
Response Body
  {
    "events": [
            "Source IP": "51.100.100.2",
            "Destination IP (Unique Count)": "{127.0.0.1}",
            "Destination Port (Unique Count)": "{0}",
           "Event Name (Unique Count)": "{44251970}",
"Log Source (Unique Count)": "{71}",
"Low Level Category (Unique Count)": "{3015}",
"Protocol (Unique Count)": "{255}",
"Username (Unique Count)": "{java.lang.String|root}",
            "Magnitude (Maximum)": "3.0",
            "Event Count (Sum)": "210.0",
            "Count": "19.0"
            "Source IP": "51.100.100.3",
           "Destination IP (Unique Count)": "{127.0.0.1}",
"Destination Port (Unique Count)": "{0}",
"Event Name (Unique Count)": "{44251970}",
"Log Source (Unique Count)": "{71}",
            "Low Level Category (Unique Count)": "{3015}",
            "Protocol (Unique Count)": "{255}",
"Username (Unique Count)": "{java.lang.String|root}",
"Magnitude (Maximum)": "3.0",
            "Event Count (Sum)": "245.0",
            "Count": "19.0"
            "Source IP": "55.100.100.24",
            "Destination IP (Unique Count)": "{127.0.0.1}",
```





· Search results returned, in table/text example





Build your own visualization on top!

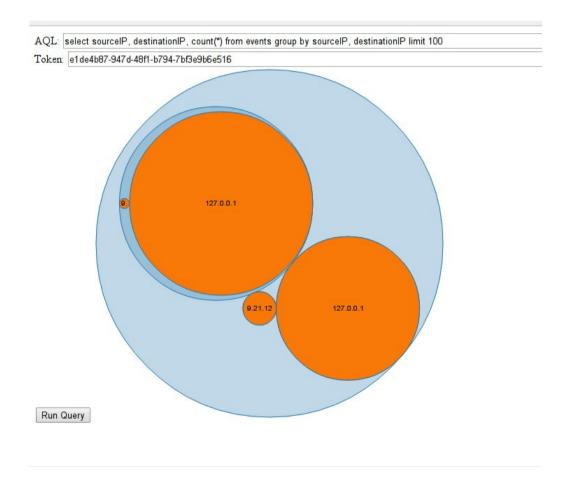
A Step towards driving community developed content.







Example visualization



- § Simple example of a visualization
- \$ < 100 lines of java script
- Huge range of visualization options



API Summary

- § Opens up endless possibilities extracting the value out of QRadar
- § Visualization and reporting options
- § 3rd party and business partner value add applications
- § And much more...

§ Only the start!



Limitless data and searching

The QRadar Data Node



The Problem

- Customer need to collect, store and analyse more and more data
 - Long term trend analysis
 - Incident diagnosis
- . They want to be able to analyse this data quickly!
- Activities such as correlation, searching and storage must compete for available system resource, limiting possible performance improvements
- Limited scaling capabilities, requiring additional EP/FP instances in order to scale storage and search performance
- Off board storage solutions such as SANs can help but only address one aspect of the actual problem, scaling storage without concern for query performance

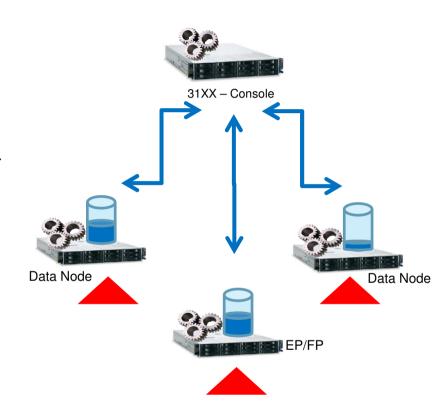






The Solution – The Data Node

- Data node address the entire problem, scaling data storage out while simultaneously adding the processing capabilities to handle queries on data.
- Each Data Node instance that is added to a deployment bring the full processing power of an appliance that can be utilized during data storage and retrieval operations.
- The Data Nodes do not participate in activities such as correlation so they can focus their efforts on the retrieval of data and the work associated with queries such as aggregation.
- Scale any new or existing deployment to meet even the most demanding client needs; years of data, hundreds of users, all searchable in seconds







Performance Projections

The addition of Data Node can have a dramatic impact on search performance in a number of situations.

Disk bound searches

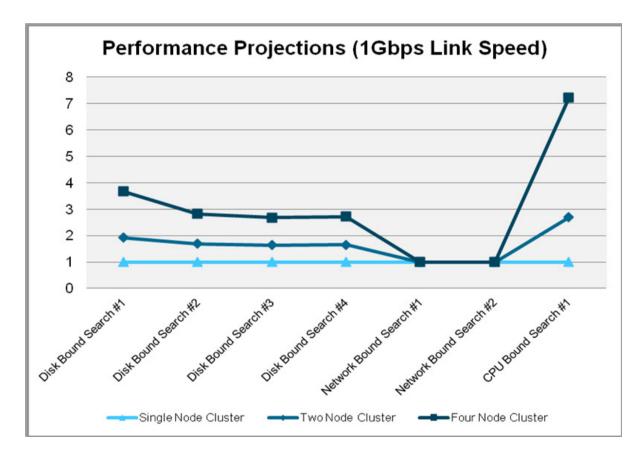
All data with a source IP of 192.168.0.1 over the last 7 days

Network bound searches

 All data from the last 7 days

CPU bound searches

 All data from the last 4 hours, aggregated by SourceIP



Performance Projections

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Disk bound searches

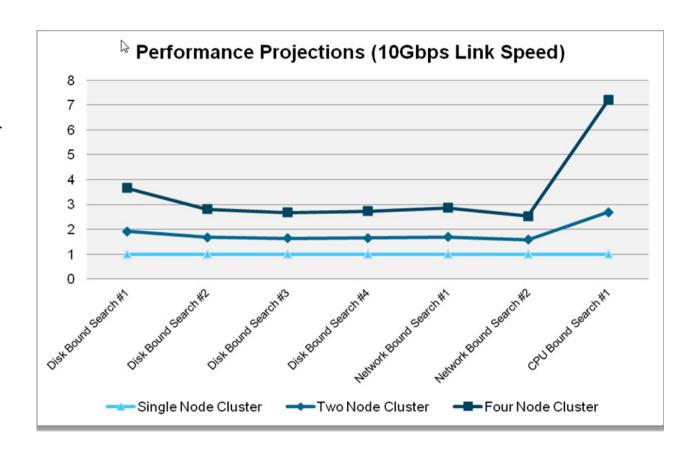
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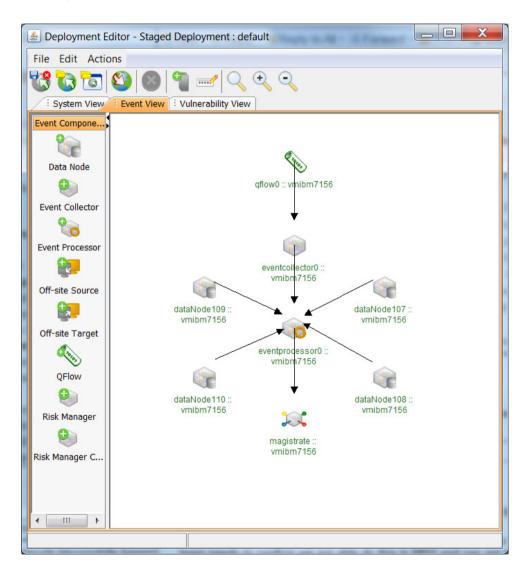
Data Node – A Brief Introduction

- Offered in all three standard QRadar form factors; Software, Virtual or Software Pack bundled with either xx05 or xx28 Core Appliance
- . Can mix and match software, virtual and hardware in a deployment
- Requires NO additional EPS or FPM licensing
- Can be used as companion to the following QRadar components:
 - 16XX Event Processor
 - . 17XX Flow Processor
 - . 18XX Event/Flow Processor
 - . 31XX Console/All-In-One
 - 2100 All-In-One



Data Node – Configuration and Deployment

- Activate Data Node using standard QRadar activation key process
- Simple point-and-click configuration in Deployment Editor to attach Data Node instances to the appropriate host
- "Deploy" operation sends all new Data Node instances into service

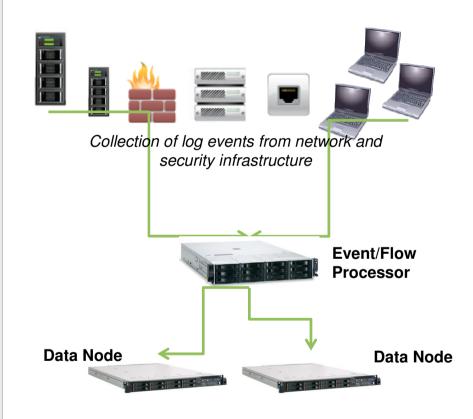




SIEM Data Node 1400 Appliance

Positioning

- Plug and play storage that can be used to meet the most demanding data retention requirements.
- S Characteristics and Capacity
 - Receives events and flows from associated QRadar components for storage
 - Actively participates in query operations, proving additional processing power and thus increased query performance
 - Requires no additional EPS/FPM licensing
 - Requires associated QRadar component such as 31XX, 2100, 16XX, 17XX or 8XX
 - Storage
 - 40TB with xx28
 - 6 TB with xx05
 - Up to 100TB user supplied
- Upgradability
 - Additional Data Nodes can be added as needed





Summary

- § A fantastically powerful and unique offering
- § Enables almost limitless data storage
- § Simple addition of incremental storage
 - Avoids complexity, cost, and potential performance issues of SAN
 - Does not require any complex disk or file reconfiguration
 - No changes required log source collection configuration
- § Ability to add process power cost effectively to improve performance
- Addresses the performance and data storage requirements and concerns of many customers



Making QRadar even faster

Search Performance Improvements



Search Performance Enhancements

- § Search performance tuning (Ariel, Linux kernel), significantly increasing search performance and concurrency
 - Up to 3 times faster searches using indexed criteria (including Quick Filter)
 - Web proxy searching e.g. 'www.cnn.*'
 - Specific IP activity e.g. 'sourceip = 10.33.41.5'
 - Up to 40% faster non index searches compared to 7.2.1
- § Improvement in addition to those introduced in 7.2.1 and the Data Node





Why do we migrate QRadar Appliance hardware to xSeries M4?

§ M3 approaching end of sales

- QRadar currently uses two xSeries M3 platforms: x3550 (for 2100 and QFlow) and x3630 (for xx05 and xx24). Both platforms have their extended End of Sales planned for June 30, 2014.
- . All SWG xSeries based appliances have been moving to M4.

Meeting customer demands and addressing competition

The current appliances are approaching their hardware capacity limits to handle the increasing workload, especially for large enterprise deployment.

We are under pressure from competition to increase capacity that can be delivered from one single appliance (e.g., more than 5000 EPS from AIO), instead of just scaling out (buying more event/flow processors).

Supporting future software capabilities

 Future software features planned in QRadar's roadmap such as Big Data, extended delivery mechanisms (multi-tenancy, SaaS, MSSP), forensics, and incorporating more SI data by integration with other IBM solutions all demand more hardware resources.

§ Improving the configuration

- The M3 platforms currently used have limited network interfaces, making QRadar lack the ability to support 10G fiber network and fiber channel storage out of the box.
- . Event Collector 1501 needs to be rebased on a cheaper platform to be more cost effective.





Overview of Appliance model and hardware changes

§ Model number changes

- Current QRadar model numbers remain the same, except that xx24 is replaced with xx28 due to significant hardware upgrade.
- To distinguish from M3 based appliances, all M4 based appliances are named with "G2".

Two xSeries M4 hardware platforms

- x3550 M4 is used for 2100, QFlow Collector 1201/1202/1301/1310, and Event Collector 1501.
- x3650 M4 BD is used for xx05 and xx28.

Enhanced hardware resources

Faster processors and more cache

More memory (32GB for 2100, 64GB for xx05, 128GB for xx28, 16GB for QFlow)

More disk storage for QRadar data (40TB for xx28)

Improved network interfaces

- 3 or 4 1Gbps network interfaces
- 1 two port 10Gbps network adaptor (for 10Gbps fiber networks) included in all models
- 1 two port Emulex FC HBA card (for Remote SAN support) included in xx28
- 1 4 x 1Gbps Napatech capture adaptor included in QFlow Collector 1202 and 1301.
- 1 2 x10Gbps Napatech capture card (Gen 2) included in QFlow Collector 1310.





Globalization - Overview

QRadar will be available in the following languages

French, German, Italian, Spanish, Brazilian (Portuguese), Russian, Traditional Chinese, Simplified Chinese, Korean and Japanese

This translation effort has been a significant investment involving translators and QA resources in 10 different countries and has resulted in over 160,000 words being translated covering most aspects of the QRadar SIEM Platform including:

Dashboards

Log and Flow Activity Panels

Search Screens Throughout

Reporting

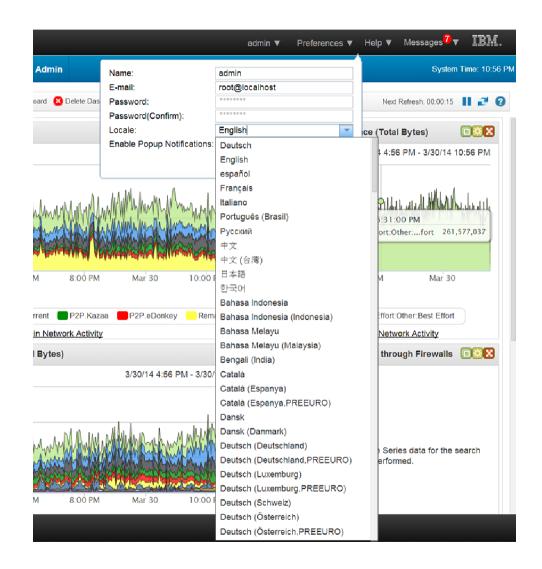
Administration

Documentation



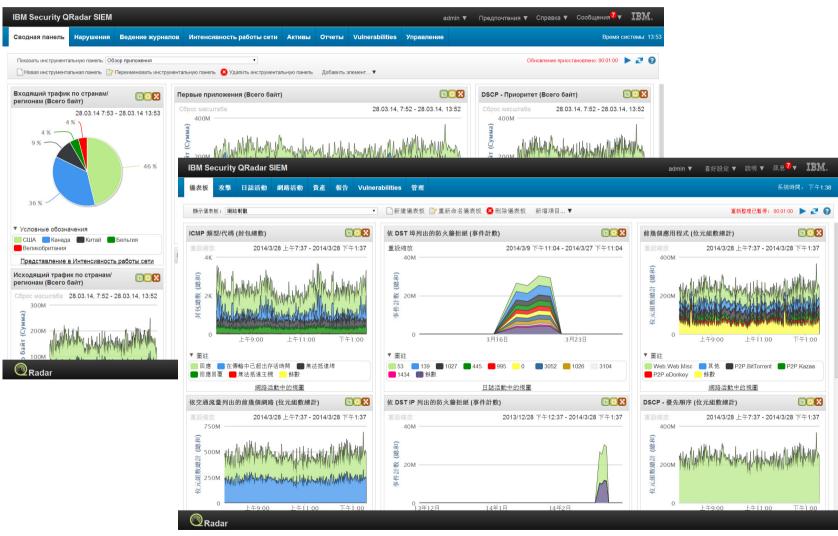
Globalization – Language/Locale Selection

Users simply pick their language and refresh!





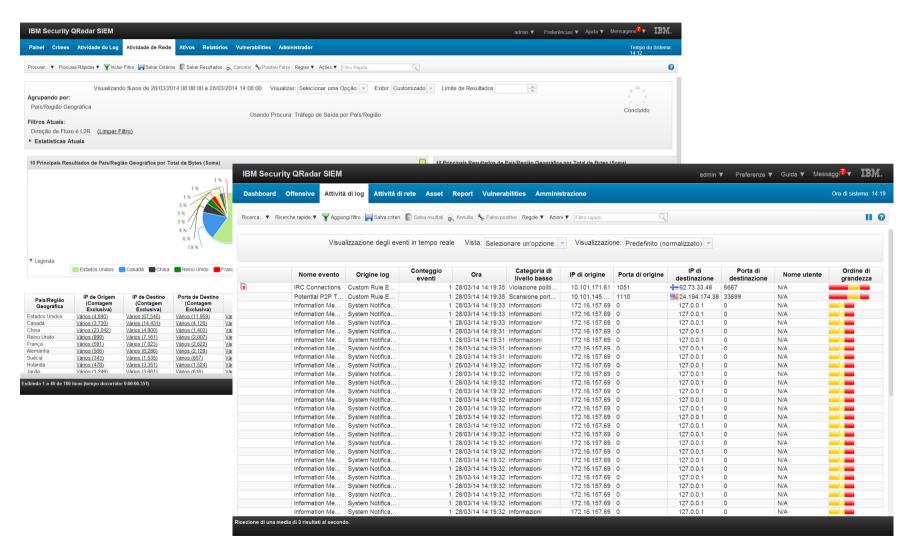
Globalization - Dashboards







Globalization – Log and Flow Activity





Globalization – Exceptions

Although the majority of QRadar has been translated there are a few exceptions that should be mentioned. A few of the more visible exceptions are as follows:

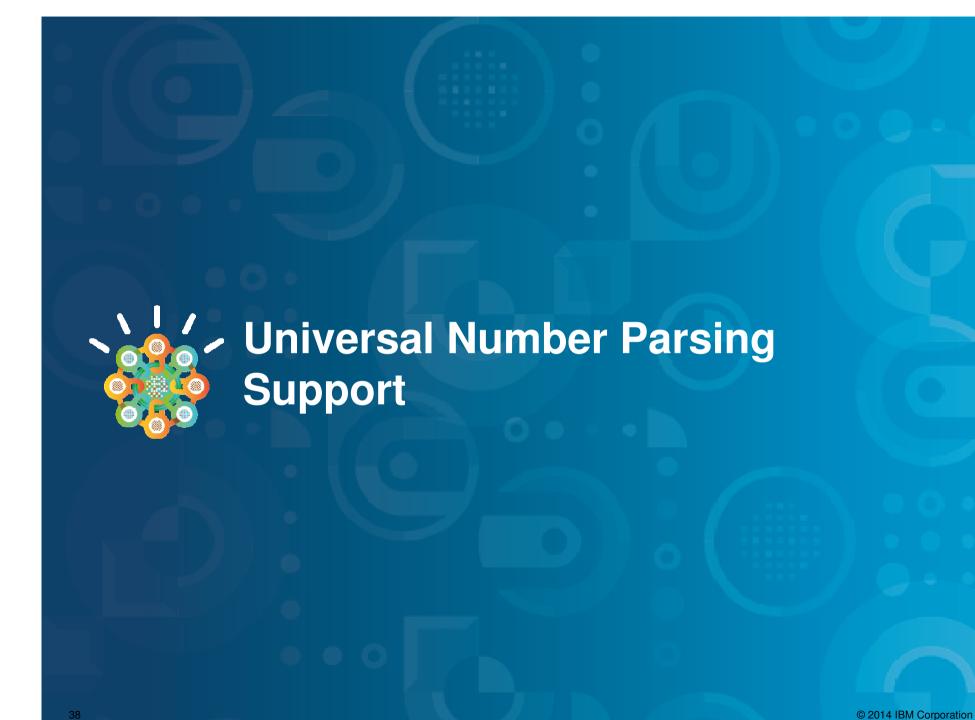
- Custom Rules Engine
- QID Map
- QRadar Vulnerability Manager
- QRadar Risk Manager
- QRadar Incident Forensics
- Asset Details (e.g. Vulnerability Names, Product Names etc.)
- REST API Interfaces
- Numerous Administration Screens



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Universal Number Parsing Support

Customers with globally distributed deployments, or deployments in countries with different number formatting standards has to process payloads with numbers formatted for that specific locale.

Example: 1234567.89 is valid in the following formats:

US: 1,234,567.89 Spain: 1.234.567,89

Switzerland: 1'234'567.89





Completing our appliance portfolio

1828 – Combined Event and Flow Processor Appliance

SIEM Combined Event/Flow Processor 1828 Appliance

§ Positioning

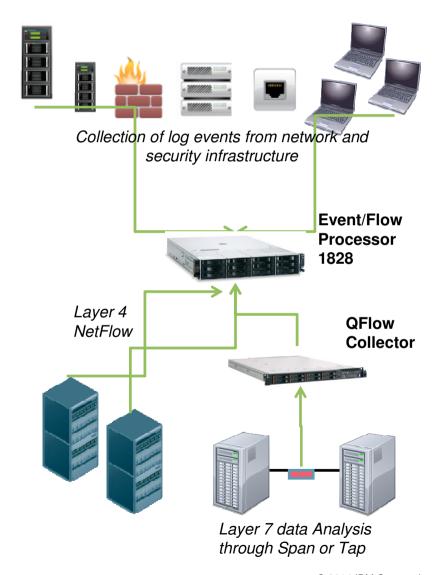
 High capacity and scalable log and flow collection for distributed deployment in a large enterprise

S Characteristics and Capacity

- Collect logs from network devices, security devices, operating systems and applications
- Receives flows from external flow sources
 (e.g. NetFlow) or QFlow Collectors for layer 7
 network activity monitoring
- 1000 EPS, 25K Flows/minute
- Requires Console 31XX
- 40 TB of storage

Upgradability

- EPS upgradable to 15K
- Flows upgradable to 300K
- **SECOND REPORT NAME OF THE PARTY OF THE PART**





The next generation of product documentation

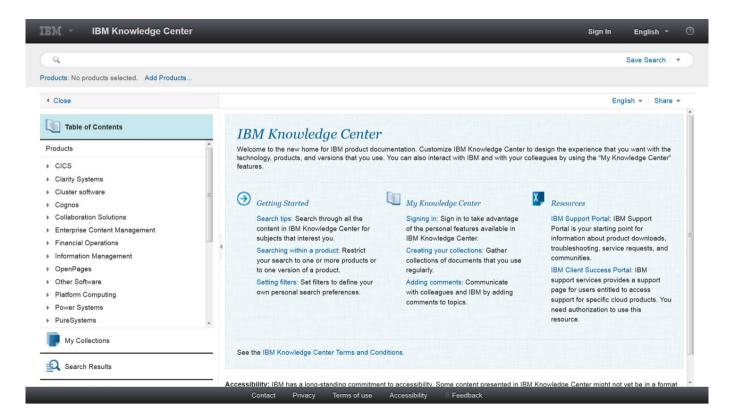
IBM Knowledge Center





IBM Knowledge Center – Overview

Huge amount of information and documentation available on QRadar New knowledge centre gives the streamlined and powerful access An IBM-wide view of technical information for multiple offerings in a single location on the web (http://www-01.ibm.com/support/knowledgecenter/).





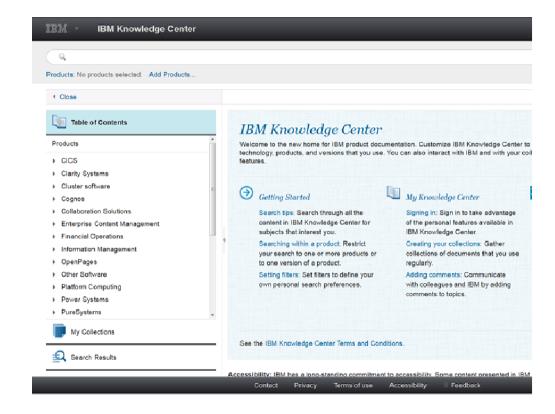


IBM Knowledge Center – Easy to find topics

Search across all technical information to get information quickly from a single, simple search.

Search the content from a subset of products, or even a single product

Remembers where you are and if you open a topic, the table of contents automatically changes to show you the context.





IBM Knowledge Center - Customize the documentation

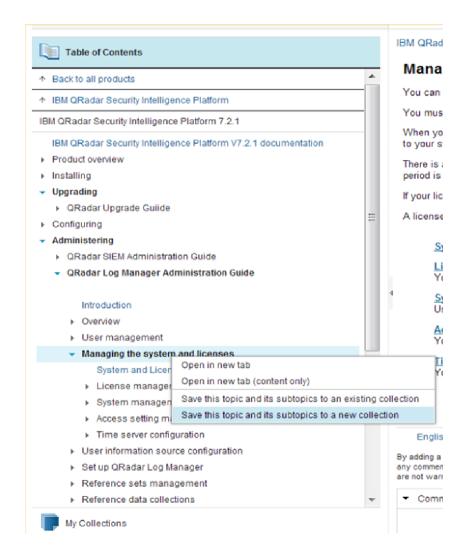
Customers want direct involvement in customizing the documentation so that they see only the information that they need.

Can create collections of selected information.

Publish collections in PDF format and share with others.

Future updates to product information in your collection are automatically reflected in your existing collections.

Less information to read/scan



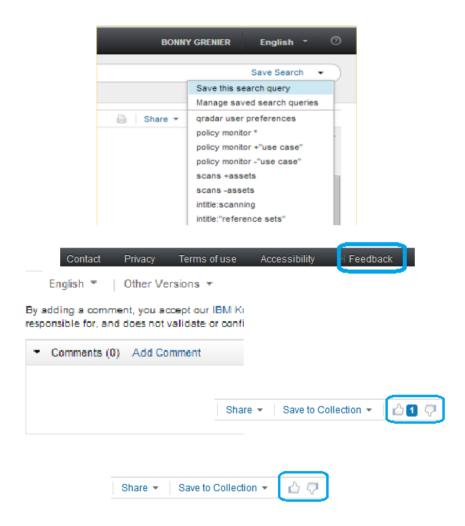


IBM Knowledge Center – Share information with others

Save search results to share with others or to save for future use.

Provide topic-level feedback by providing public comments or submitting private feedback.

Rate a topic by clicking the thumbs-up or thumbs-down icons on the top right of the IBM Knowledge Center window.





Summary

A really big important release

Demonstrates IBMs commitment to our strategy, product and our customers

The Data Node

How big and fast do you want to go?

APIs

What do you want to do with our data and analytics?

Globalisation

Your own language

New M4s

HUGE disk, more CPU, more speed, more network options

Knowledge centre

Easier to find information

Not only a fantastic feature set but....

.... provides the basis for even more ground breaking capabilities later this year...



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