

What's New At Qlik

November 2018

Name

Job Title

Qlik  LEAD WITH DATA™



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What's New at Qlik: 2017-2018



Qlik Sense®

Nov 2018



**QlikView®
12.3**

Nov 2017



**Platform and
Developers**

Sep 2018



**Enterprise
Reporting**

Nov 2018



**Data and
Connectivity**

Sep 2018

Augmented Intelligence
& machine learning

Enhanced visualization &
analysis

Advanced authoring

Multi-cloud architecture
and services

Advanced analytics
integration

Web client
enhancements

New foundation libraries

Management and
performance
improvements

**Introducing:
Qlik Core®**

New APIs and
capabilities

New open source
contributions

Third-party certifications

Qlik Sense on-demand
reporting

New reporting features

Pivot table and
extension support

Management and
performance
improvements

Podium Data

**Introducing: Qlik
Associative Big Data
Index**

New connectors for
cloud and enterprise

Enhanced SAP and
Oracle connectivity

Release Highlights: February 2018



Qlik Sense Enterprise

Custom Themes

Qlik Sense Mobile for iPhone

New Associations Workflow Panel
(in Data Prep)

ODAG Enhancements

Other Improvements



Qlik Connectors

Oracle Connector Performance
Enhancements

SAP Connector Update

SSO for MS SQL Server



Qlik DataMarket

New Healthcare Packages

Detailed US Demographic Package



Qlik NPrinting

Non-Windows Authentication

Release Highlights: April 2018



Qlik Sense Enterprise

Accelerated Self-Service

New Mapping Object

New Layout, Accessibility, and
Publishing Options

Enhanced EMM Support in Qlik
Sense Mobile

Qlik Sense Desktop Offline Trials



Qlik Sense Cloud

Accelerated Self-Service

New Mapping Object

UI and Navigation Enhancements

Download Charts as Images

Expanded Connectivity



Qlik DataMarket

New Healthcare Packages



Qlik NPrinting

SAML Authentication

Improved stability and monitoring

Release Highlights: June 2018



Qlik Sense Enterprise

Insight Advisor

Accelerated Self-Service
Enhancements

Accessibility and Compliance

Advanced Authoring

Visualization Improvements

Multi-Cloud Architecture and
Cloud Services



Qlik Sense Cloud

Insight Advisor

Accelerated Self-Service
Enhancements

Accessibility and Compliance

Advanced Authoring

Visualization Improvements



Qlik NPrinting

Pivot Table Support

Kerberos Authentication Support

Monthly / yearly scheduling

Template editing during report
preview



Qlik Connectors

New Beta Connectors

Updated SAP Connector Package
with extended functionality

Connector authentication and
encryption update

Web connector enhancements
and API updates

Release Highlights: September 2018



Qlik Sense

Advanced Authoring
Improvements

Mapping Enhancements

Management, Governance
and Security Improvements

Full support for Airwatch EMM



Qlik NPrinting

New administration and security
features

Expanded report formats



Podium Data

A complete enterprise data
management solution

Source, catalog, profile, prepare, &
publish enterprise data



Qlik Core

Build data driven apps, leverage
containerized Qlik Engine and API

Developers can exploit their data in
highly-scalable, cloud-ready
solutions



Qlik Connectors

New Microsoft Azure and Jira
Connectors

Enhanced security



Qlik Associative Big Data Index

Index big data while leaving the data
where it resides

Unrestricted associative exploration

Release Highlights: November 2018



Qlik Sense

Cognitive Machine Learning

Insight Advisor – Light Authoring

Comparative Analysis

Advanced Authoring Improvements

Dashboard Extensions Bundle

Chart Sharing (multi-cloud)

Visualization and Mapping Enhancements

Admin, Multi-Cloud, and Accessibility Improvements



QlikView

Skia graphics library

ICU library

Engine and reload performance logging

Support for IPv6 and .NET 4.7.2



Qlik NPrinting

On-demand reporting for Qlik Sense

Authentication and management improvements

What's New in Qlik Sense: As of Nov 2018

**Cognitive Engine /
Machine Learning**



**Insight
Advisor**



**Accelerated
Self-Service**



**Advanced
Authoring**



**Comparative
Analysis**



**Visualization
Enhancements**



**Data Prep
Improvements**



**Advanced Analytics
Integration**



**Qlik Sense Mobile
(offline)**



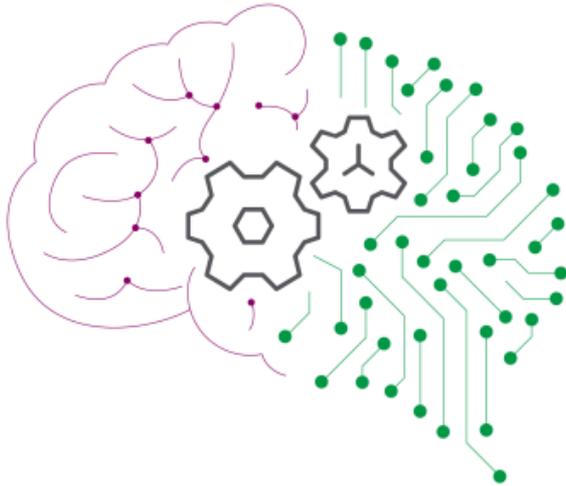
**Multi-Cloud
Deployment**



And many additional improvements in areas such as analytics, accessibility, and management

The Qlik Cognitive Engine

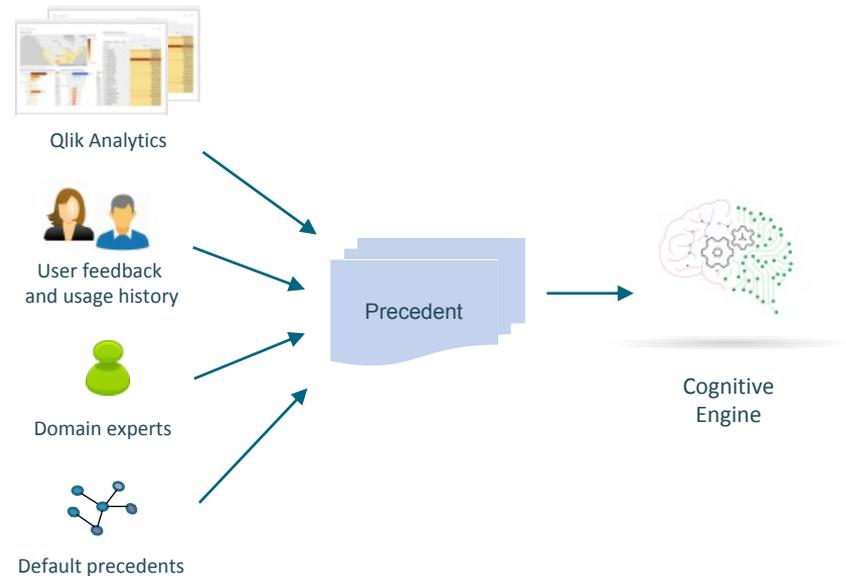
Augmenting user intuition with machine intelligence



- A new AI engine in Qlik Sense
- Supports insight suggestions and automation across the product
- Leverages the Qlik Associative Engine for context awareness
- Now with machine learning for improved recommendations over time

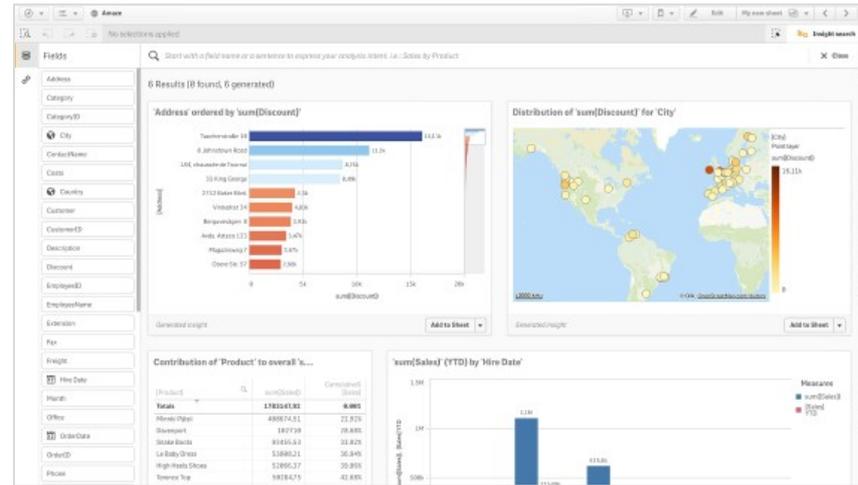
Precedent-Based Machine Learning

- Multi-source learning system adapts to improve accuracy and relevance over time
- Learning from multiple sources
 - User behavior and feedback
 - Qlik analytics and artifacts
 - Business definitions in governed libraries
- Planned additional sources
 - Industry specific and domain relevant knowledge
 - Social and organizational networks patterns and preferences
- Sophisticated default precedents



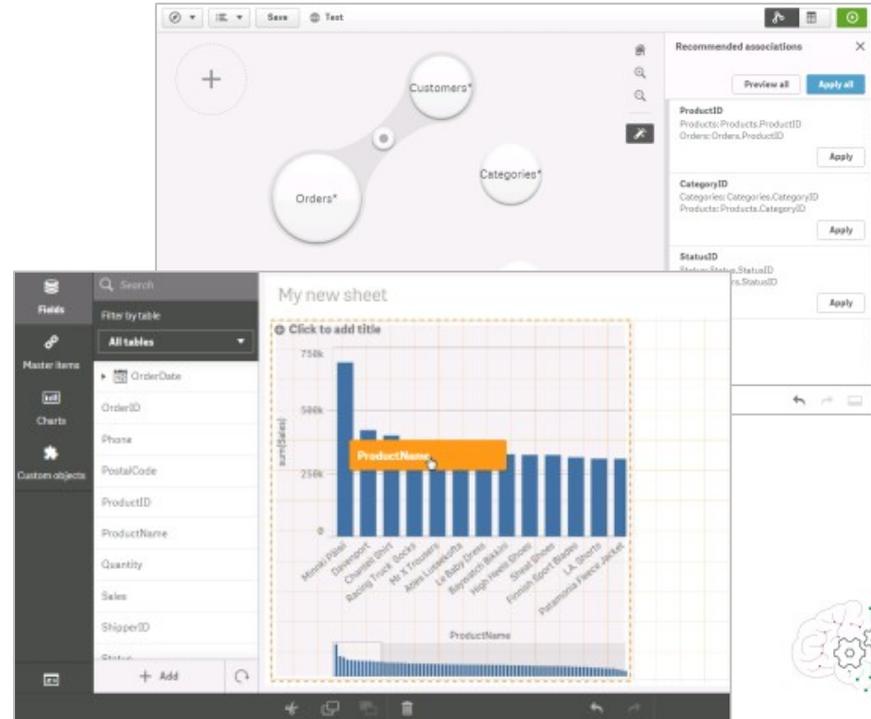
Insight Advisor

- Auto-generates and suggests the best insights for users to explore further
- Performs advanced analysis to generate and recommend insights
 - Based on the overall data set
 - Based on dimensions
 - Based on search criteria
- Auto-generates visualizations and analytics
- Allows users to add auto-generated insights directly to sheets
- *New machine learning capabilities for more relevant suggestions over time*
- *New light authoring allows users to change suggested visualizations and analytics for greater flexibility*
- Driven by the Qlik Cognitive engine



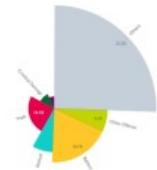
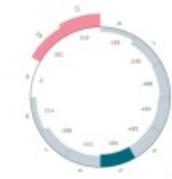
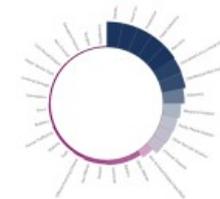
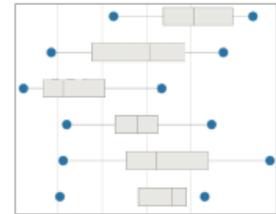
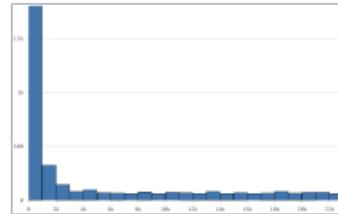
Accelerated Self-Service

- New set of capabilities to speed users from data to insight
 - Smart data preparation with improved association recommendations
 - Automated chart generation based on the data
 - Alternative chart suggestions for users to consider
 - Improvements to workflows and properties panels
- Speeds creation of initial visualizations, drives expanded self-service
- Driven by the Qlik Cognitive engine



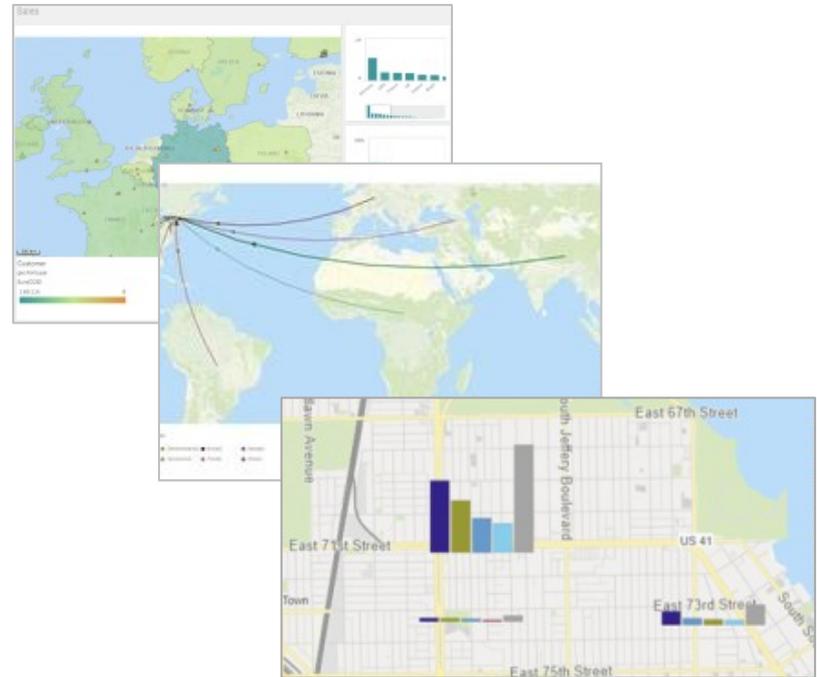
Visualization Enhancements

- Several new chart types in Qlik Sense, including:
 - Histogram
 - Box Plot
 - Distribution Plot
 - Waterfall Chart
- New map object taking advantage of Qlik GeoAnalytics technology
- *New improvements to pie chart, allowing a second measure for displaying values in the outer radius – a.k.a. a Rose Chart*
- Additional visualization improvements



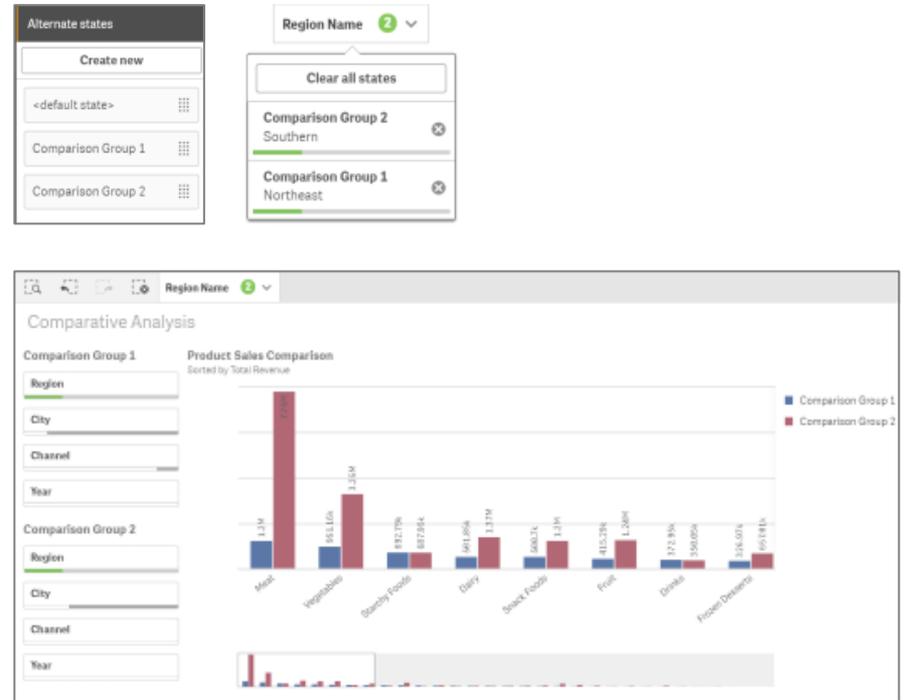
Multi-Layer Mapping

- Based on GeoAnalytics technology
- Multiple layers, including line and density layers with layer control, zoom levels, and draw order
- Shapes for point symbols, including squares, triangles, pentagons
- Dynamic name lookup (location service), for countries, divisions, cities, postal codes etc.
- *New chart layer for displaying information (pie or bar charts) on top of maps*
- More background maps with English or local names
- More projections, including Mercator & Adaptive
- New configuration options – explicit location, color, size
- Circle select with distance measure
- Labels and drill-down support
- Support for large data volumes



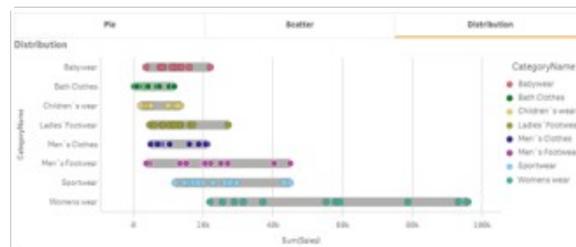
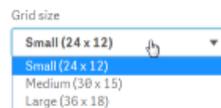
Comparative Analysis

- Allows users to easily compare multiple groups of values to quickly spot similarities, differences, overlaps, and outliers
- Associative exploration enables interactive, user-driven comparison
 - Make interactive selections to define subsets of data for each group
 - Directly compare groups across multiple visualizations or together in a single chart
- Application creators enable user-driven comparative analysis
 - Define alternate states in master libraries
 - Create visualizations and objects based on alternate states
- Unlock new use cases for organizations to gain insights into relative performance



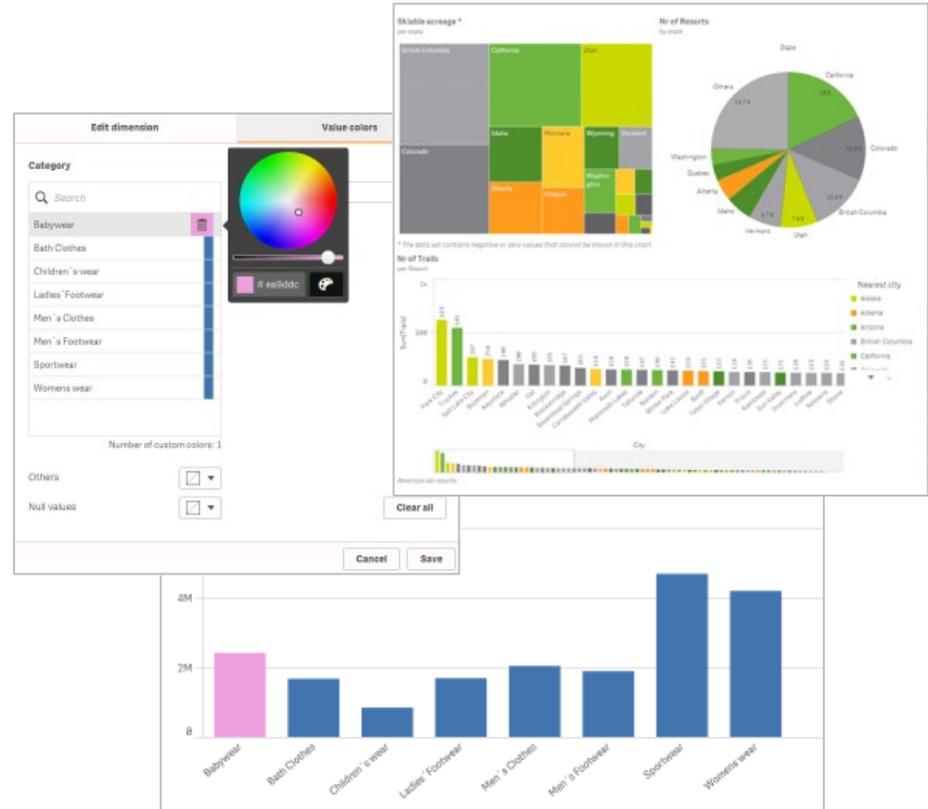
Advanced Authoring

- A variety of new capabilities for building more sophisticated analytics apps, including:
 - Scrollable sheets
 - Resizable grid
 - Default bookmarks
 - Custom sheet sizes
 - *Single selection in filter boxes*
 - *Expression editor improvements*
 - Dynamic labeling
 - Direct editing of master items
 - Users controlled messages
 - Self-service publishing
- *New dashboard extension bundle*
 - Includes a date range picker, navigation button, show / hide container, tabbed container, and variable input box.
 - Tested and supported by Qlik



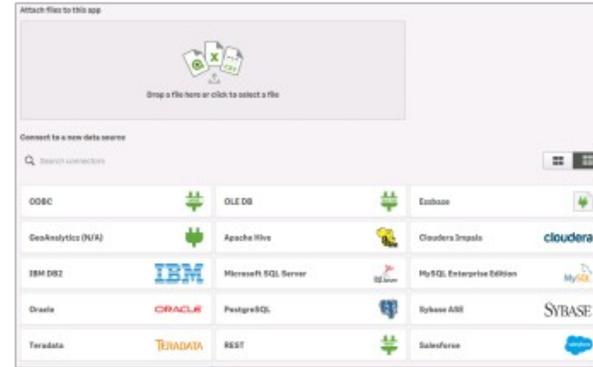
Themes and Coloring

- More easily choose colors for visualizations, measures, dimensions, and KPI objects
 - A new color palette selector for objects, with recently used colors
 - Multiple color thresholds for KPI objects
 - Color by measure in more chart types
- Apply consistent coloring for dimensions and measures in global libraries
 - Allows for colors to be set for particular values of a master dimension
- Create custom themes to style apps
 - Specify color pallets, fonts, font sizes, and font weights
 - Global or per object type basis
- Improvements to color-by features in various chart types and the master library



Data Preparation Enhancements

- Smart Data Profiling – Histograms and other statistics that describe the data being loaded
- Visual Transformation – A variety of script-free transformations, derived fields, table concatenation, and data binning
- Scripted Data Sets – The ability to include a scripted data set as a table in the visual data prep process
- Continuous Data Prep – Sequential transformations on tables and fields
- New User Interface – An improved data space with graphical menu options for a variety of data sources
- Data Lineage – Access information on the transformations which resulted in a given field
- Manual Data Entry – Manually enter data into a table in the data prep interface, for use in analysis
- Smart Data Load Filter – Load a suggested subset of data during the preview process



Advanced Analytics Integration

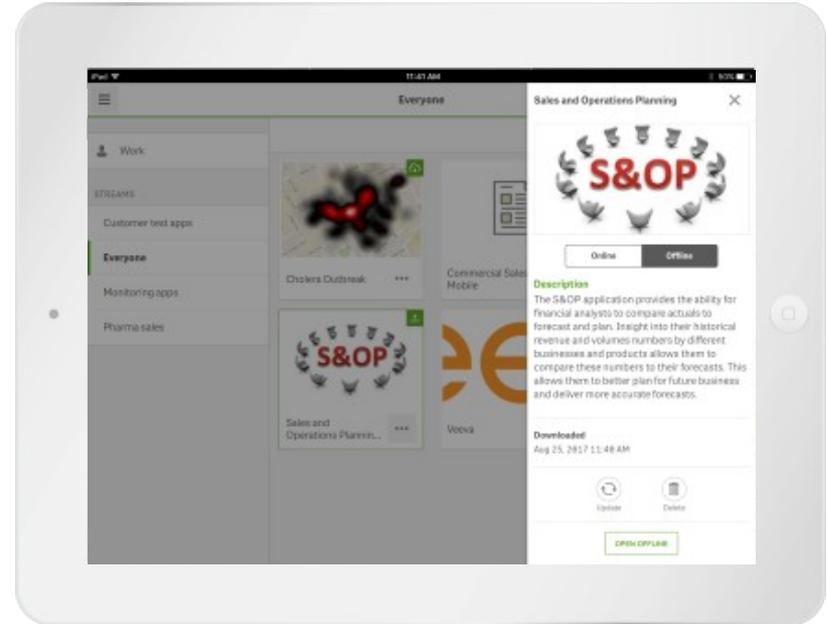
- Direct integration with 3rd party advanced analytics engines
- Allows data to be directly exchanged between the Qlik engine and external tools during analysis
 - Leverages Qlik's Associative engine to pass relevant data based on user context
- Full integration with expressions and Qlik Sense libraries
- Connectors can be built *for any external engines*
- Open source Analytic Connections are available in GitHub for R and Python (<https://github.com/qlik-oss>)
- Federate the power of advanced analytics calculations to Qlik Sense and QlikView users



Etc..

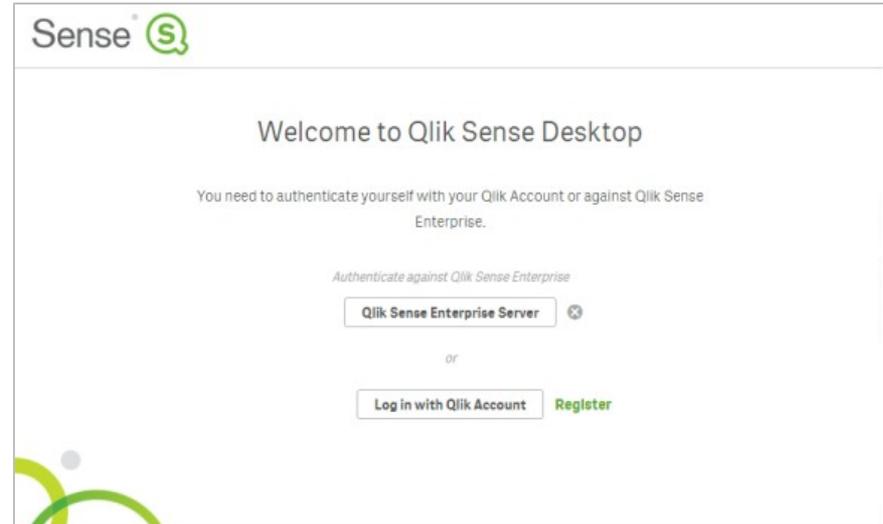
Qlik Sense Mobile

- A new Qlik Sense native app for iOS that allows both online and offline use
- Features the Qlik engine running locally on the device, allowing for unrestricted associative exploration and search when offline
- Deployment and configuration through popular EMM/MDM platforms, with support for Airwatch per-app VPN
- Delivers native Qlik Sense features for mobility, including responsive design and gesture-based touch interaction
- Self-service app reduction allows users to take subsets of data offline
- Support for iPhone and iPad
- Available on Apple App Store



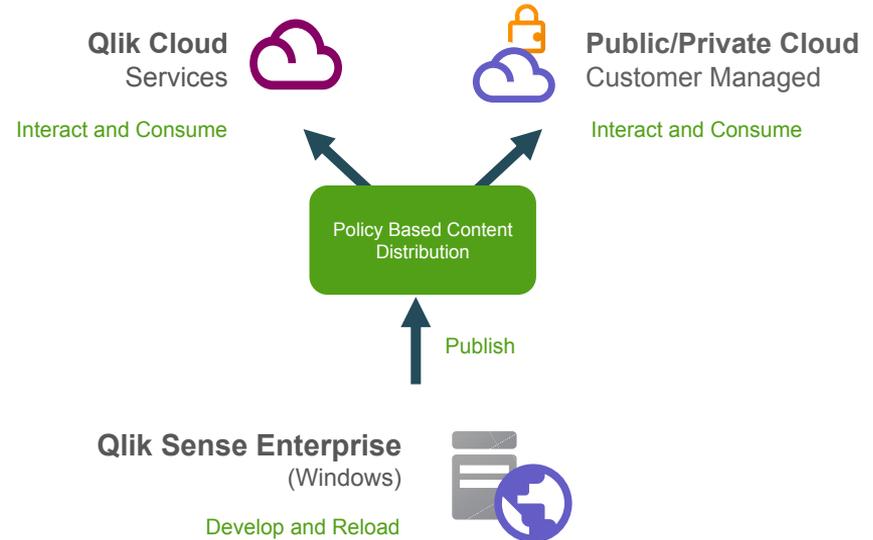
Supported Desktop Client

- The ability for Qlik Sense Desktop to authenticate against a Qlik Sense Enterprise or cloud environment
- Allows desktop client to be used in deployments by users administered on the server
- Full support by Qlik for Qlik Sense Desktop in production use
- Desktop offline trials now available for customers testing the product
- Utilize Qlik Sense Desktop as part of fully supported production environments, for more deployment flexibility



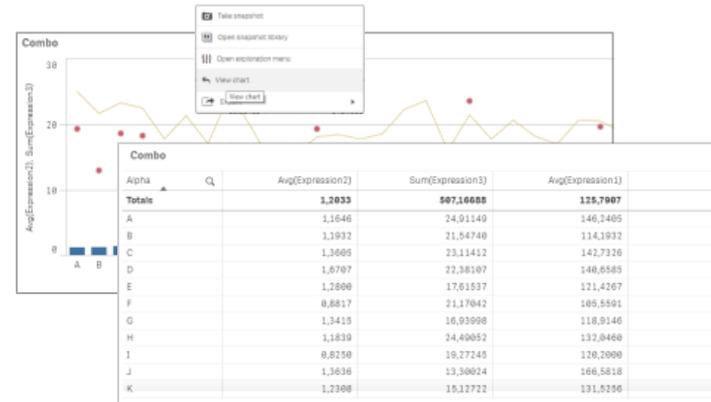
Multi-Cloud (Phase 1)

- A new, highly scalable Linux / container based architecture for Qlik Sense Enterprise
- Publish apps from Windows on-premise to Linux public or private cloud for consumption
- Cloud hub for content organization and collaboration
 - New sharable chart links with original selection state applied
- Policy-based distribution
- Single license across deployment
- Single login / identity for all environments



Accessibility Improvements

- A new set of improvements aimed at accessibility compliance
 - US federal standards (Section 508)
 - WCAG 2.0
 - Additional standards
- Keyboard based navigation
 - Select sheets and objects
 - Selections in tables
 - Navigate forward and back
 - Navigate the hub
 - *Make selections in list boxes*
- Screen reader tags
 - Allows user to get audible readouts of analytics
 - Utilizes JAWS screen reader technology
- Chart-to-table flipping
- New accessibility features in online help
- Key board navigation and screen reader capabilities for list box access

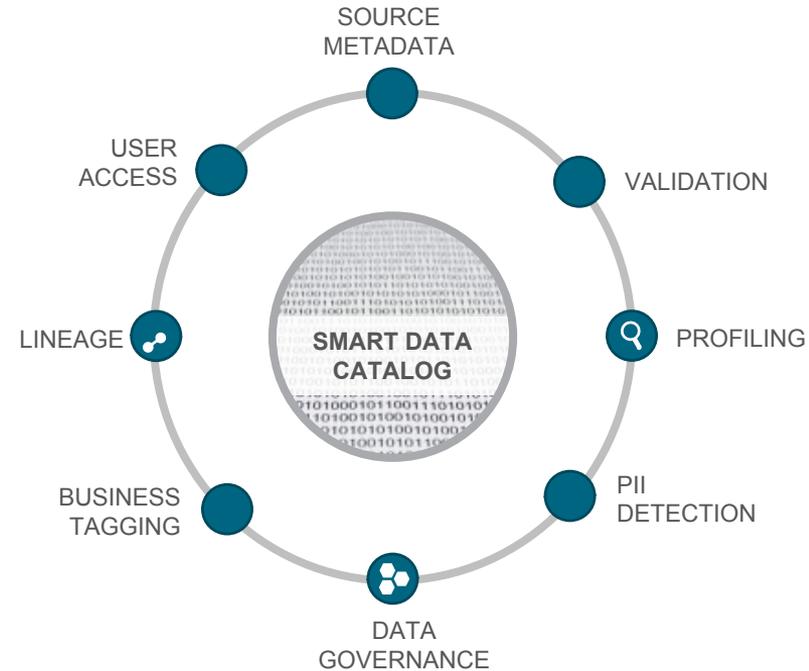


Additional Items

- On-demand app generation is now an 'out of the box' feature in Qlik Sense, and supports anonymous users.
- Search history is now included in Qlik Sense, allowing users to easily move between previous results.
- BlackBerry Secure Browser is now supported using the HTML5 client.
- With shared persistence, the new Qlik Logging Service allows administrators to configure logs to be centralized to help find issues and analyze usage.
- There is now an option to handle single or double quotes in expressions differently, as per older versions of the Qlik engine, if so desired.

Qlik Data Catalyst

- One Simplified View of All Your Data
 - Automatically on-boards and provides a single go-to-source to find, understand, and use any enterprise data source
- Actionable Data, On Demand
 - A consolidated, analytics-aware and actionable view on all of your data within one self-service interface
- Enterprise-Ready Data Management
 - A robust set of enterprise-scale governance capabilities, making it easier and faster to ensure that all data is completely protected and secured



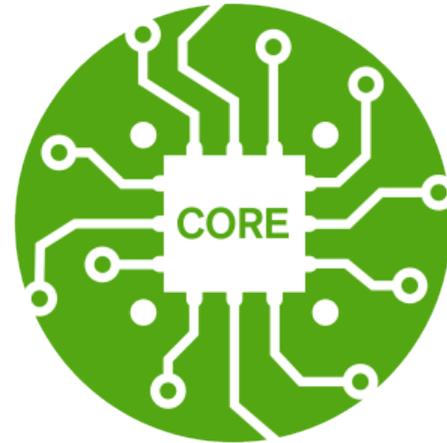
Qlik Associative Big Data Index

- Analyze without limits
 - Qlik's unique Associative technology for massive data volumes
 - Automatically manages relationships as users explore and interact
- Leave the data where it is
 - High performance, non-SQL commands accelerate response time
 - Eliminates need for intermediary data repositories
 - Enable multiple apps to access a single data set and index
- Scalable and governed
 - Grows with data volume and activity
 - Distributed, scalable indexing and processing



Qlik Core™

- New developer product for building and embedding data driven applications leveraging the Qlik Associative Engine
- Developers can exploit their data in highly-scalable, cloud-ready solutions
- Use for analytics use cases including non-dashboard related
- Tutorials, samples, and Qlik contributed content
- Ready for deployment on a Linux/container backbone



QlikView

- QlikView 12.x features
 - Second generation Qlik engine
 - Unbalanced server clusters
 - Improved scalability for QlikView Server, AccessPoint, and Publisher
 - Management and performance improvements
- QlikView Nov 2017 (12.2)
 - Advanced analytics integration
 - Web client enhancements
 - Management and performance improvements
- QlikView Nov 2018 (12.3)
 - Skia graphics library
 - ICU library
 - Engine and reload performance logging
 - Support for IPv6 and .NET 4.7.2



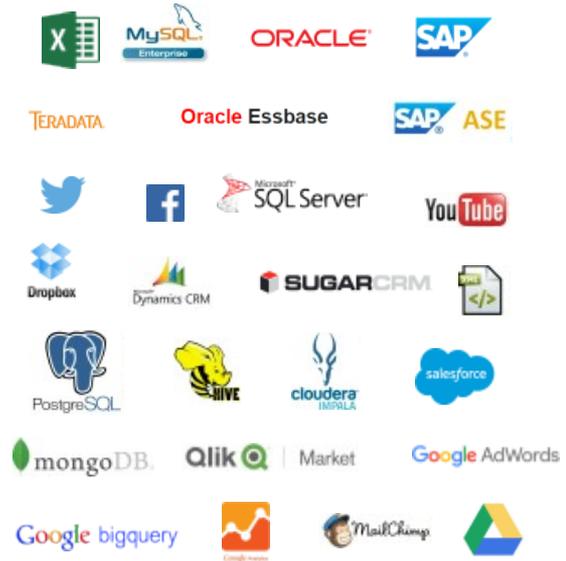
Qlik Analytics Platform

- New APIs
 - Hierarchical Data API
 - Updates to the visualization API for new types of visualizations
 - Two new app import / export APIs
- API Insight – Provides details regarding all changes to APIs, on Qlik Branch
- Extension Certifications – A new program to certify third party extensions for Qlik Sense



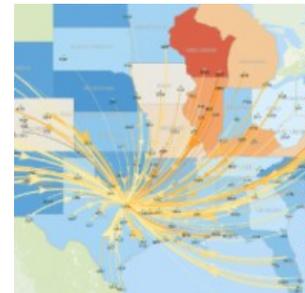
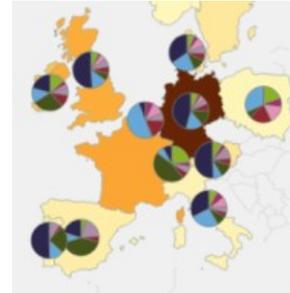
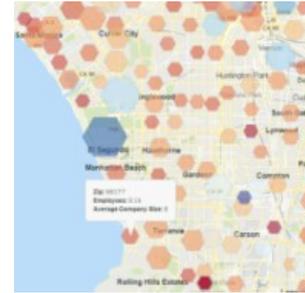
Connectivity and Data

- New connectors for sources such as Bit.ly, Box, Slack, Google Search Console, and OneDrive, included in Qlik Web Connectors
- SAP connector update with improvements for InfoProvider, Infocubes, and support for BAPI
- Updated authentication and encryption (OpenSSL)
- A number of new connectors for Qlik Sense Cloud, including a generic REST connector, Facebook, Twitter, Microsoft Dynamics CRM, Google Analytics, and YouTube analytics
- New Dropbox and Redshift connectors for Enterprise and Cloud
- Performance and functionality improvements for Oracle connector
- New Qlik DataMarket features include four new Healthcare topical data packages, a detailed demographic data package, and a new catalog app



Qlik GeoAnalytics®

- Advanced mapping and geospatial analysis for Qlik Sense and QlikView
- Perform complex geographic calculations that combine location and non-location data
- Automatic lookup of countries and zip codes for easy mapping
- Additional geocoding service offered
- Better understand patterns and relationships between geographic and non-geographic data to optimize strategy





qlik.com/AI