



Qlik Sense® Product Presentation

February 2017





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One Simple Belief



*The more that **people** use analytics, the more **value** people get from analytics.*

*Business Intelligence is only **optimized** when you harness the collective **human** intelligence across an organization.*

*This **accelerates** organizations towards their goal of being more **agile**, more **data driven**, to uncover and take advantage of **new possibilities**.*

Three fundamental forces impact the use of BI and Analytics



An explosion of
data and content



An explosion in
computing power



A rise of the
information activist

Uncover new data-driven possibilities

Move from the
business intelligence pond...



...to an endless sea of data
driven possibilities...



connecting all your people, to all your data, and all your ideas.

Qlik Sense®

Qlik Sense® is Qlik's **next-generation application for self-service oriented visual analytics**, offering unique and powerful data visualization, exploration, and collaboration capabilities for all types of users.

Qlik Sense Enterprise supports the full spectrum of BI use cases including self-service visualization and exploration, guided analytics apps and dashboards, custom and embedded analytics, and reporting, **all within a governed framework** that drives enterprise scalability and trust for IT.



Qlik Sense® Enterprise



Self-Service Visualization
and Exploration



Sharing of Knowledge
and Insights



A Platform for the
Entire Enterprise



Associative Model



Centralized Sharing and
Collaboration



Customization and
Extension



Smart Visualizations
and Analytics



Data Storytelling and
Reporting



Data Preparation and
Integration



User-Driven Creation



Anywhere, Anytime
Mobility



Enterprise Governance
and Scalability

Qlik's Associative Model

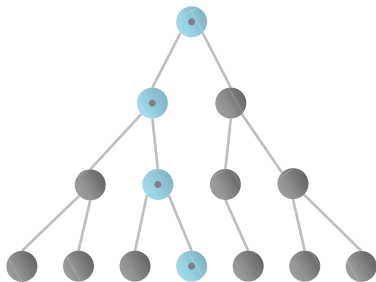
Qlik's associative model empowers everyone to **see the whole story** that lives within their data.

It enables users to probe all the possible associations that exist in their data, across all of their data sources. This means users are not limited by predefined hierarchies or preconceived notions of how data should be related, but can finally understand how it is truly related.



See The Whole Story In Your Data

Query-Based Tools



- Pre-defined joins
- Pre-aggregated hierarchies
- Pre-conceived notions of how data should be related
- Only part of the story

Qlik's Associative Model



VS.

- Dynamic associations
- Explore freely in any direction
- Understand how data is actually related
- The whole story

Qlik Sense®

Unleash your Intuition



Self-Service Visualization
and Exploration

Individuals



Sharing of Knowledge
and Insights

Groups



A Platform for the Entire
Enterprise

Organizations

Self-Service Visualization and Exploration

For individuals of all skill levels

Associative Model



Explore and search freely
to see the whole story

Smart Visualizations and Analytics



Intuitively understand
meaning and gain insight

Self-Service Creation



Easily load data and
create visualizations

Associative Model

Explore and search freely to see the whole story

Probe all possible associations that exist in your data, across all your data sources

Freely explore without boundaries, using interactive selection and keyword search

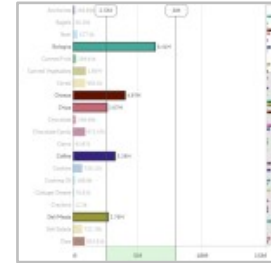
The QIX engine dynamically recalculates analytics and highlights associations at the speed of thought

Associations revealed to the user through simple visual cues – green (selected) / white (associated) / gray (unrelated)

Smart Search exposes the right data, associations, and analytics using simple keywords

Users not limited by predefined hierarchies or preconceived notions of data relationships

Self-service for everyone, not just power users and analysts that can create new visualizations



“With Qlik’s Associative Search capabilities, our customers are now able to intuitively analyze over a terabyte of data with ‘speed of thought’ response, without being confined to a limited data set or a defined path of questions.”

- Data Warehouse Manager

Smart Visualizations and Analytics

Intuitively understand meaning and gain insight

Smart visualizations utilize new, innovative ways to convey meaning in data

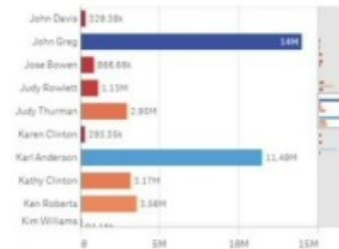
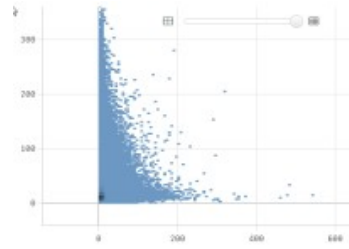
Visualizations dynamically update to changes in context from user interactions anywhere in the app

Visualizations are responsive, automatically adjusting to screen size and mobile touch interfaces

Perform powerful geographic mapping, calculation, and analysis using Qlik GeoAnalytics

Quickly make sense of your data to understand overall shape and pinpoint key insights

Easily interact with visualizations to explore further



"Qlik Sense excels in rapidly visualizing data. It gives our customers an understanding of their data at a glance and an overview of their processes in an engaging, easy-to-use interface."

- Director

Self-Service Creation

Easily load data and create visualizations

Every user can become a business analyst, simply drag and drop to create visualizations

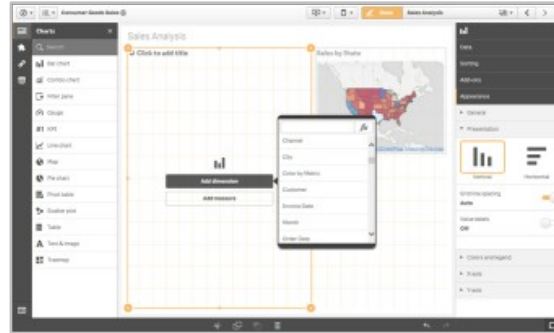
Create without having to wire visualizations together or write SQL queries

Utilize governed, re-usable libraries of data and metrics that conform to business standards

Prepare, associate and load data with Visual Data Preparation

Create, modify, and personalize based on your own skill level

No more waiting for others to build analytics for you



“Qlik Sense transforms the way end-users get value from their data. It enables rapid app design through drag and drop to deliver user-driven analysis and visualization. I think Qlik Sense is a quantum leap forward – data discovery will never be the same again!”

- Deputy CIO

Sharing of Knowledge and Insights

For groups and teams

Centralized Sharing and Collaboration



Find and share valuable content

Data Storytelling and Reporting



Communicate insights and facilitate discussion

Anywhere, Anytime Mobility



Instantly solve problems in any environment

Centralized Sharing and Collaboration

Find and share valuable content

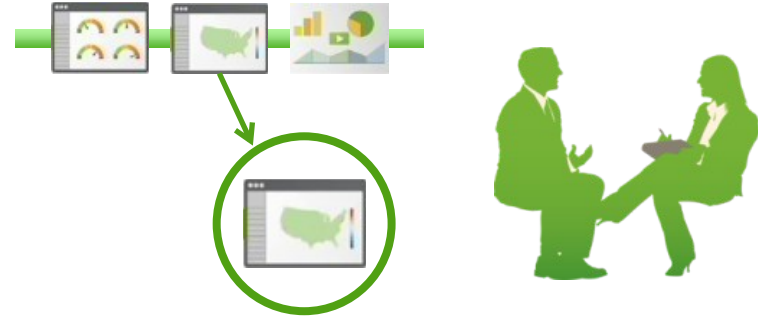
Find and share relevant content through a unified hub

Organized streams of content allow users to access and share analytics based on group or topic area

Access Qlik Sense and QlikView apps, and Qlik NPrinting reports through a unified hub

Take advantage of apps and stories created by teammates

Reduce risk of manually sharing spreadsheets



genzyme
A SANOFI COMPANY

“With Qlik, this was one of those rare instances – I can honestly say – that when we delivered this to the business we exceeded their expectations. They actually got more than they thought they were going to get. They were delighted.”

- VP of IT

Data Storytelling and Reporting

Communicate insights and facilitate discussion

Communicate insights and analyses using rich, interactive data stories

Direct, in-context linking to live analysis to immediately answer follow-up questions

Print and export data, analytics, and stories to .PDF, PowerPoint, and Excel to share insights

Centrally produce and distribute MS Office and pixel perfect reports using Qlik NPrinting

Spread knowledge and insight to large communities of people

Retire legacy BI and reporting systems



Omnicom
MediaGroup

“We chose Qlik Sense for its data storytelling functionality, which will allow us to present data to clients clearly, and to provide relevant commentary which will anticipate their questions.”

- CIO

Anywhere, Anytime Mobility

Instantly solve problems in any environment

Explore, analyze, create, and collaborate, anywhere, anytime, on any device

Responsive design adapts visualizations, data, and functionality to create the best user experience

Gesture based touch user interface ensures intuitive user experience on touch devices

Access all Qlik Sense capabilities on the go to instantly solve problems when they arise

Build once deploy anywhere model eliminates overhead to customize content for mobility



"Having a powerful data discovery tool like Qlik on iPad allows us to greatly improve our customers' experiences and satisfaction. The solution's high functionality, ease of use and interactivity gives accessibility to sales reps any time of day, no matter where they are."

- Director of IT

A Platform for the Entire Enterprise

For your organization

Customization and Extension



Customize, extend, and embed for new use cases

Data Preparation and Integration



Combine and load data from multiple sources

Enterprise Governance and Scalability



Broadly deploy self-service oriented visual analytics

Embedded Analytics, Custom Apps and Extensions

Customize, extend, and embed for new use cases

Rapidly develop custom guided analytics apps and extensions

Easily embed Qlik Sense analytics in operational apps

Qlik Analytics Platform offers open and standard APIs for customization and extension

Leverage developers with standard technology skill sets

An integrated development hub and Visual Studio plugin accelerate API development

Create new applications and visualizations to meet unique business requirements



"We needed rapid application development, a web-based interface and ease of use. Traditional .NET application development was too slow for us. After evaluating several Business Intelligence tools, we found Qlik gave us the capabilities we needed for this project."

- Principal

Data Preparation and Integration

Combine and load data from multiple sources

Cleanse, transform, and unify data from multiple disparate sources

Visual Data Preparation allows non-technical users to drag-and-drop 'bubbles' to combine information

Intelligent data profiling suggests the best associations and handles date/time and geographic data

Powerful ETL scripting for complex data integration challenges

Qlik Connectors provides broad connectivity to file based, on premise, cloud, and web sources

Qlik DataMarket offers an extensive library of third party data as a service

Get a complete without the need for external tools or data repositories



Consolidated over 25 years of customer and product data from multiple sources, including SAP, into Qlik, resulting in newfound visibility for strategic sales, customer service and revenue opportunities.

Enterprise Governance and Scalability

Broadly deploy self-service oriented visual analytics

Ensure governance, security, and scalability through enterprise-class management, architecture, and engine technology

The Qlik management console provides modern, centralized management, monitoring, and control

Governed centralized libraries and flexible rules-based security ensure consistency of data and analytics

An elastic scaling architecture allows robust scaling of deployments

The QIX engine provides unmatched dynamic calculation and performance for high numbers of users and large data volumes

Organizations can offer self-service flexibility broadly, without having to trade-off governance

5000+ QlikView users deployed in under 6 months, 260 million customer agreements (1.4 TB) analyzed.

Swedbank 



Das Auto.

More than 4,000 Qlik users and 100+ production applications in key areas such as procurement, product management and sales.

The QIX Engine

The power to drive the associative model

Data indexed and highly optimized, in-memory

Data integration

- Powerful ability to bring together disparate data sources
- Unifies full set of record-level data without leaving any data behind

Compressed binary index

- Stores data in highly optimized, in-memory compressed binary format
- Maximizes performance and drives the associative model



‘Speed of thought’ calculation after every click

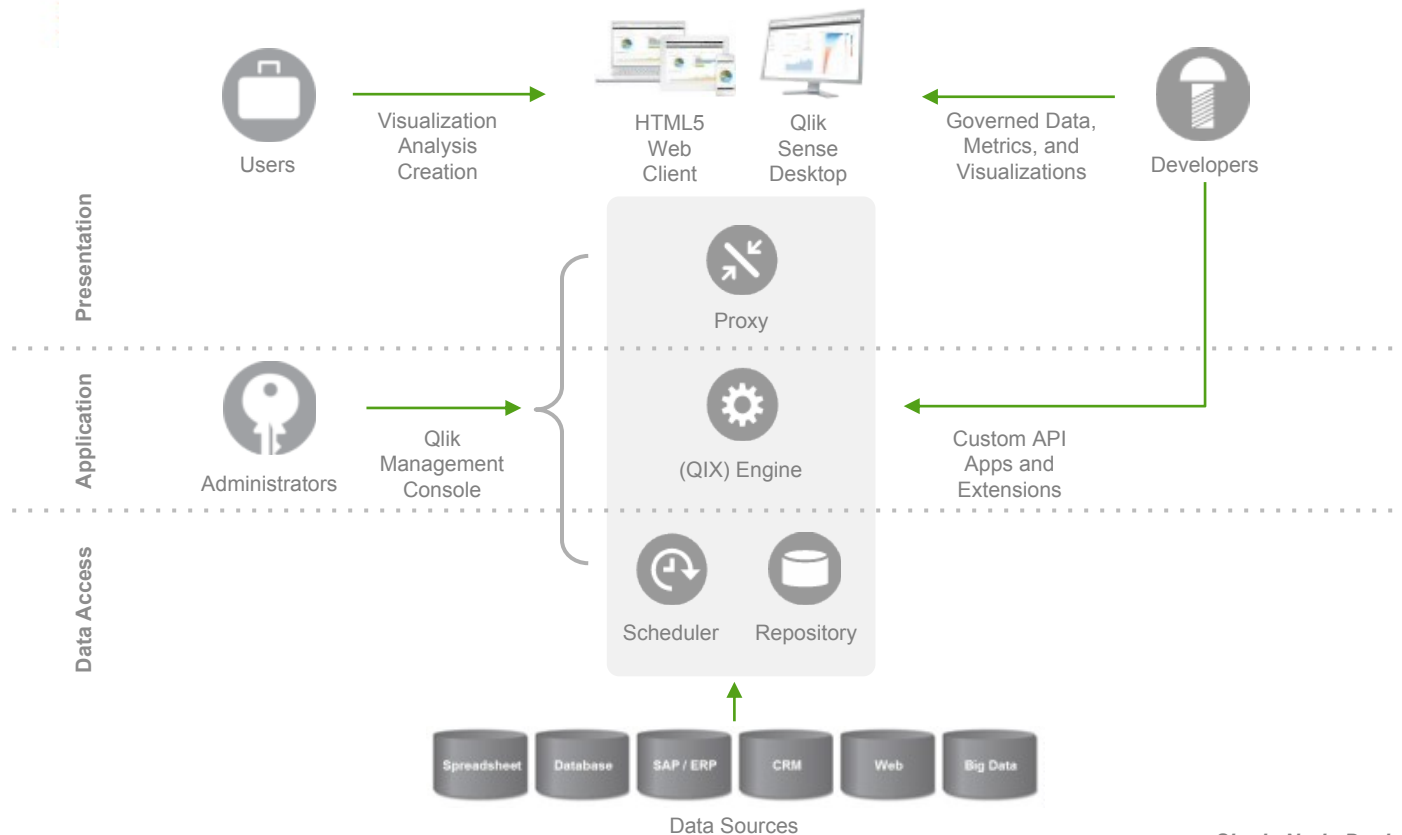
Logical inference

- Determines associations across all related tables, based on new context
- Reveals associations to the user in green/white/gray

Dynamic calculation

- Recalculates all analytics across the app, based on logical inference
- Provides ‘speed-of-thought’ response for high numbers of concurrent users and massive data volumes

Qlik Sense Enterprise – Architecture





Qlik Sense Product Editions

Qlik Sense Desktop

- Locally installed Windows version of Qlik Sense
- Includes all capabilities for visualization, exploration, data preparation, and storytelling
- Local file sharing
- Direct export to Qlik Sense Cloud
- Authenticates against Qlik Cloud or Qlik Sense Enterprise
- Supported in Enterprise environments
- Free download

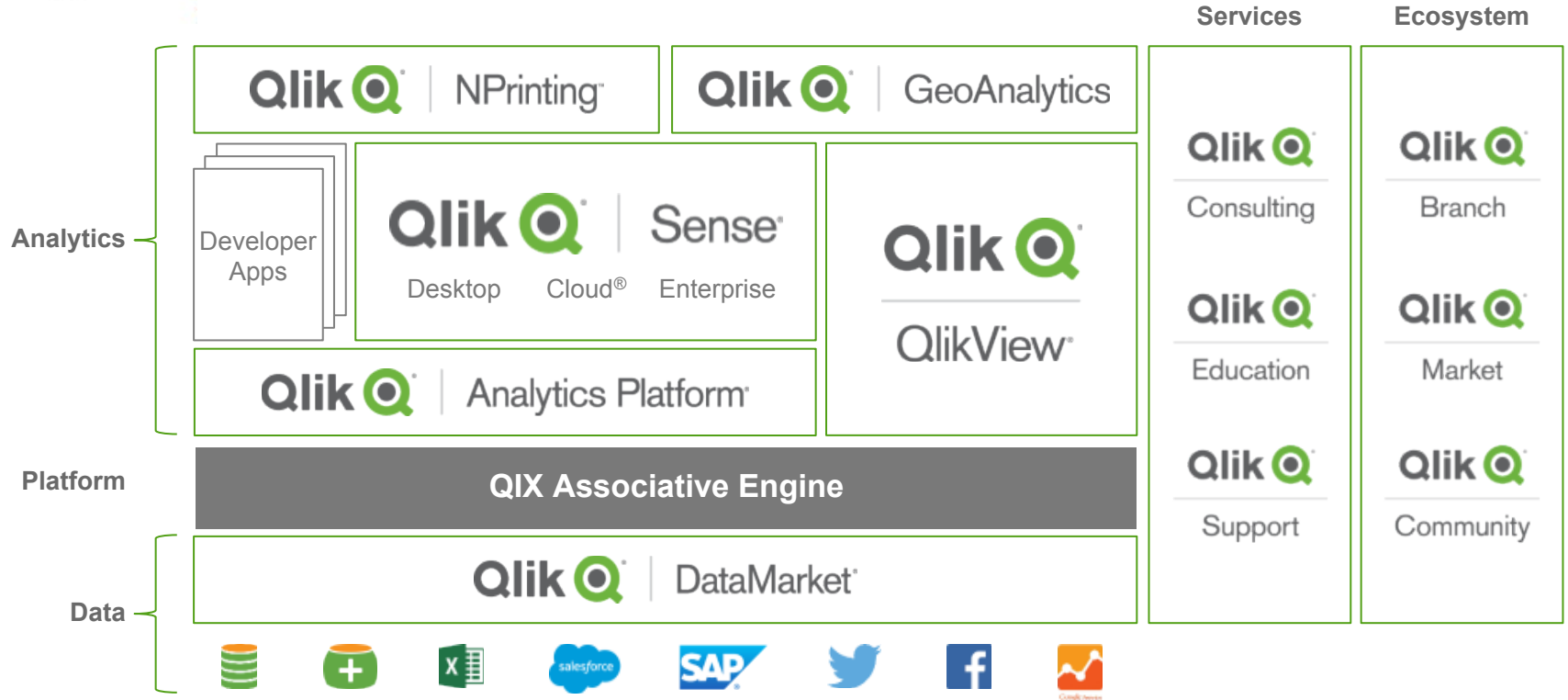
Qlik Sense Cloud

- Creation and sharing of analytics in the cloud
- Sharing of apps created with Qlik Sense Desktop
- Fully interactive search and exploration
- Access on any device
- Plus edition offers unlimited sharing, expanded storage, and more data
- Business edition offers group level governance and automated data reloads

Qlik Sense Enterprise

- Full version of Qlik Sense
- On premise and private cloud deployment
- Visualization, exploration, and creation through unified HTML5 client and Qlik Sense Desktop
- Reporting, collaboration and mobility
- QAP API's for custom development, extension, and embedded analytics
- Data preparation and integration
- Enterprise governance and scalability

Qlik's Modern BI Portfolio



Consistent Recognition from Respected Third Parties

A Leader
Gartner Magic
Quadrant for
Business
Intelligence and
Analytics

Feb 2017
7 years in a row

Gartner

FORRESTER

"A Leader"
The Forrester Wave™:
Agile Business
Intelligence Platforms,
Q3 2015 (*most recent*)

VENTANA RESEARCH
2016 Technology Innovation
AWARDS

BISURVEY16

BARC
A CAP GROUP COMPANY

BI SCORE
Market knowledge and product evaluation at a glance



COMPUTERWORLD
100
PREMIER

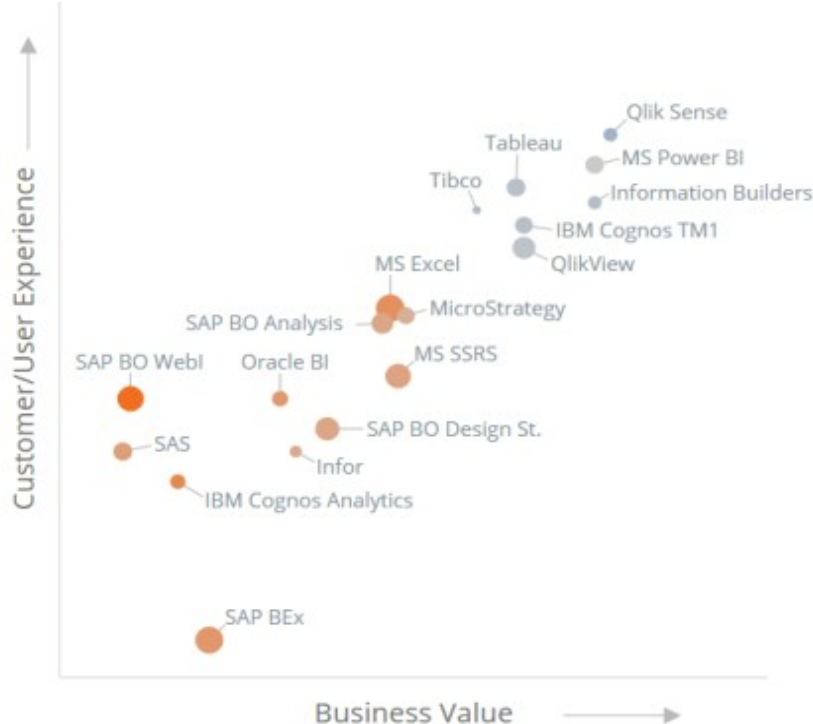


FAST COMPANY
2017 MOST
INNOVATIVE
COMPANIES

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The BARC BI Survey 2016

Qlik Sense Ranked #1



The BARC BI Survey 2016

Qlik Sense Ranked #1



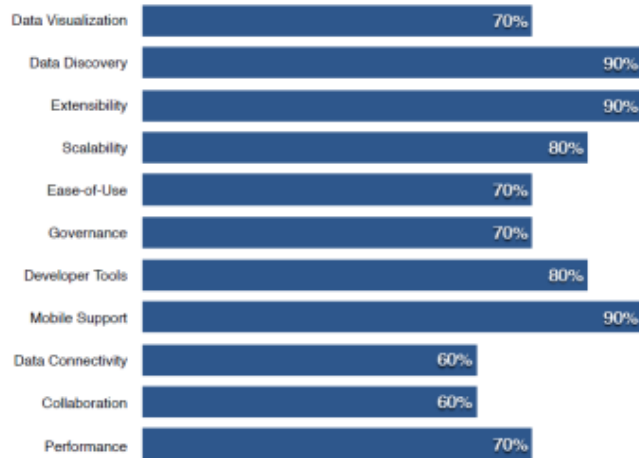
Butler Analytics

Qlik Sense® Is a Tier-One Offering that Outscores Tableau

Qlik Sense Rating Average: 75.5%



Qlik Sense Rating - Tier 1

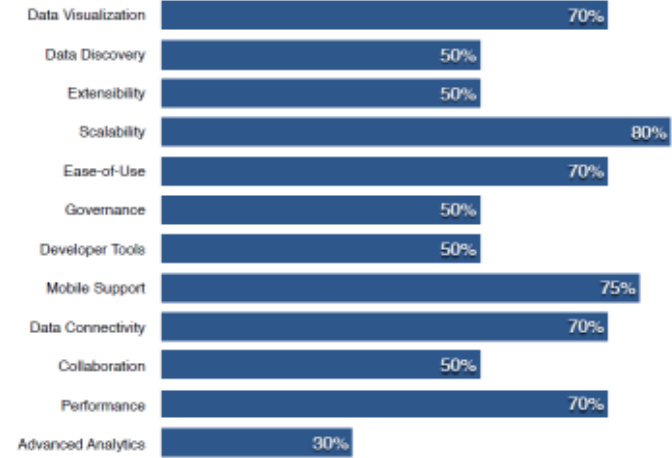


Rating Average for Qlik Sense 75.5%

Tableau Rating Average: 59.6%



Tableau Rating - Tier 2



Rating Average for Tableau 59.6%

Source: Butler Analytics, Qlik Sense and Tableau Positioning, June 2015 (<http://bit.ly/1IusWTQ>)

Get Started Now

Qlik Sense is the next-generation of visual analytics, empowering everyone to see the whole story that lives within their data.

Download Qlik Sense Desktop or try out Qlik Sense Cloud to get started.

qlik.com/download

qlikcloud.com

demo.qlik.com



Thank
You





Appendix *Capabilities for Individuals*

1. Self-Service Visualization and Exploration – Individuals

1. Associative Model

- Intuitively navigate complex information, ask questions, and understand relationships in data

2. Smart Visualizations and Analytics

- Utilize responsive visualizations that offer new, innovative ways to convey meaning in data

3. User Driven Creation

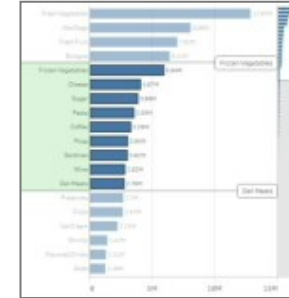
- Drag-and-drop to create visualizations, with your own data or governed, pre-built content from shared libraries



1.1 Associative Model

Intuitively navigate complex information, ask questions, and understand relationships in data

1. Associative Exploration
2. Smart Search
3. Clean and Modern User Experience
4. Advanced Navigation
5. Visual Exploration



1.1.1 Associative Exploration

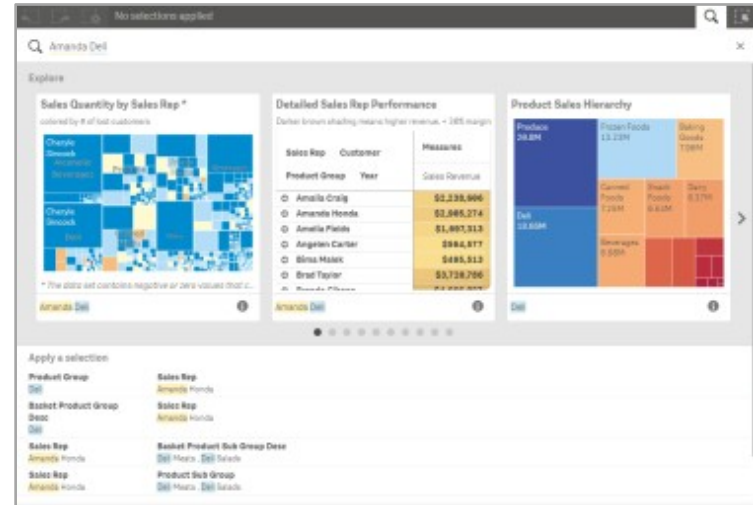
- Intuitively navigate information to ask questions and probe data relationships
- Ask questions and follow-up questions, refining context through interactive selections
- Interact with all charts or visualizations, in any direction
- The QIX engine responds after every click at the speed of thought
 - Dynamically updates all analytics to the current context
 - Highlights associations in green / white / gray



Allows people to see the whole story that lives in their data, not just the partial views provided by query based or hierarchical tools

1.1.2 Smart Search

- Global search across the entire app and all your data using keywords
 - Multiple keyword search for data and associations
 - Visual search for charts and objects
 - Search within filters and fields
- Dimension matches and relationships ranked based on strength of associations
- Charts and graphs returned as visual thumbnails



Allows non-technical users to take full advantage of the power of the QIX engine and platform when they don't know where to look.

1.1.3 Clean, Modern User Experience

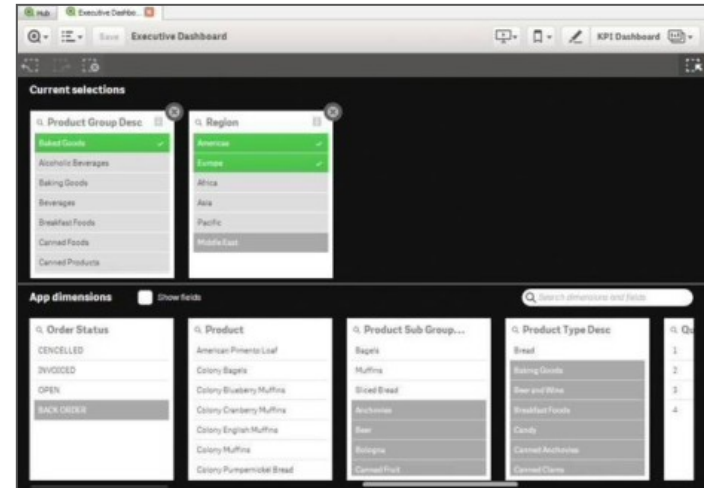
- An elegant and intuitive user interface
 - Streamlined graphics and designs
 - Simplified layout and navigation
 - Natural user interactions
 - Progressive disclosure
 - Orientation techniques
- Streamlined ability to navigate, perform analysis, and gain insight
- Uses cutting edge HTML5 technology available through all modern browsers or desktop app on PC



An intuitive, enjoyable user experience that speeds adoption and increases value from data assets and analytics

1.1.4 Advanced Navigation

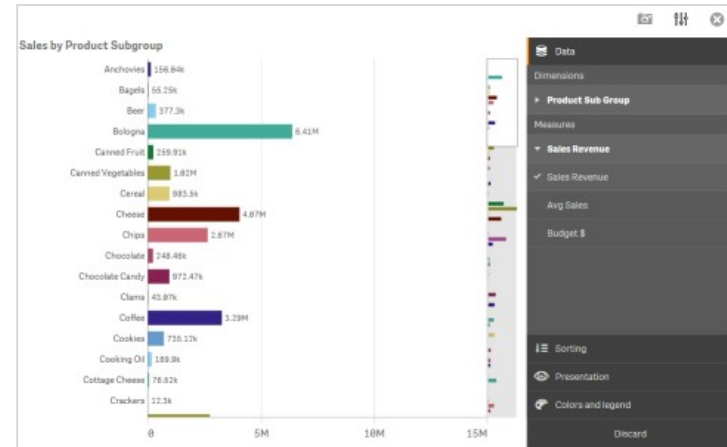
- Orientation and navigation of complex data
 - Global selections pane
 - Responsive table
 - Selection preview
 - Select excluded
- Explore without prebuilt drill paths or aggregates
- Hints and cues to follow 'information scent'
- Identify absences, outliers, and gaps



Provides the most effective ways for people to navigate information to discover the best insights

1.1.5 Visual Exploration

- Allows users to change the properties of visualizations and objects while exploring
- Includes alternate dimensions and measures, sort order, color schemes, and chart presentations
- Users can 'cycle' between alternate dimensions and measures using visual exploration
- New views are retained specific to the user, and users can revert back to default views
- No need for users to have edit privileges or directly edit governed objects



Creates a more powerful user experience for consumers without requiring them to directly edit the underlying content.

1.2 Smart Visualizations and Analytics

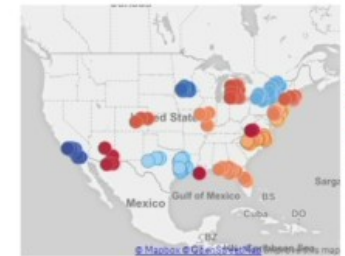
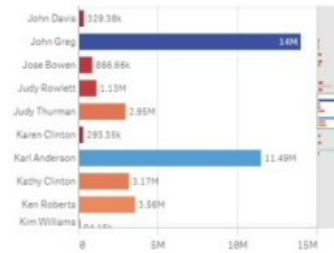
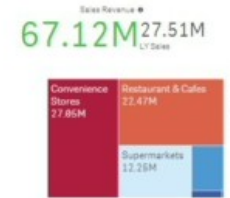
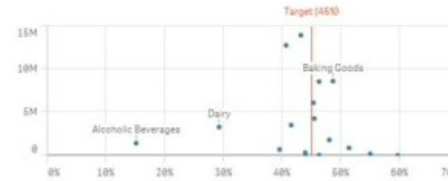
Utilize high quality visualizations and summarizations to reveal meaning in data

1. Rich Charting
2. Visual interactivity
3. Intelligent Summarization
4. Smart Data Compression
5. Time Aware Charting
6. Qlik GeoAnalytics



1.2.1 Rich Charting

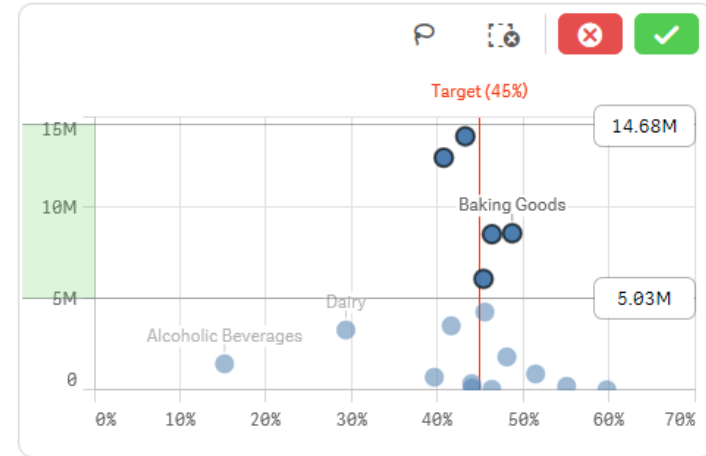
- Varied chart types to best depict any dataset
 - Pie, bar/column, line/area, scatter plot, treemap
 - Gauges
 - Combination charts
- Geographic mapping
 - Choropleths
 - Point layer overlay
- Visualizations extensible via API



Takes advantage of human visual acuity to help people understand summarized data through charts and maps

1.2.2 Visual Interactivity

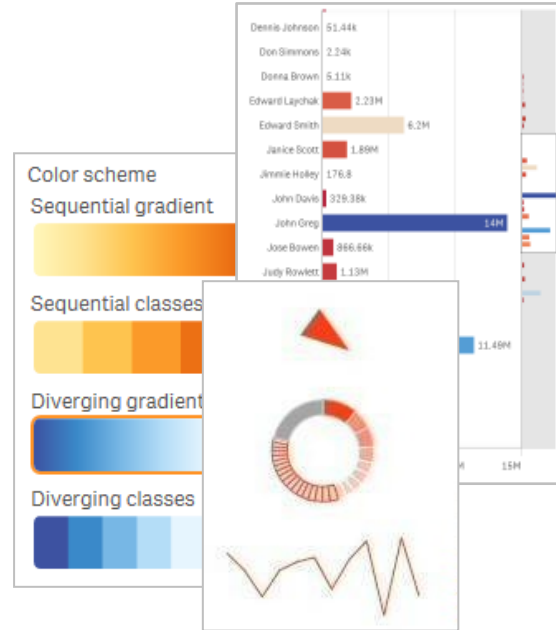
- All visual objects draw on the power of association and are fully interactive
- Intuitive selection paradigms on axes or in data fields
- Communication of context so users is never lost when exploring
- Tooltips in charts explain items and guide user
- Revisualization means users can see data in different ways instantly



Makes visualizations more than just descriptive, giving people the chance to make discoveries through visual exploration combined with powerful navigation

1.2.3 Intelligent Summarization

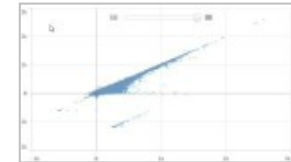
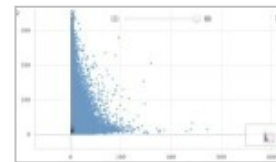
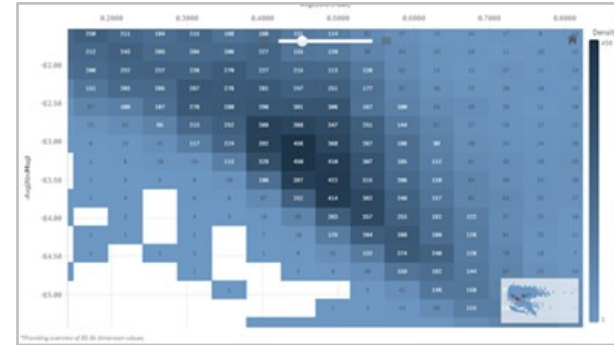
- Smart rescaling for the best possible view based on screen space
- Innovative algorithms to summarize massive data sets and highlight outliers
 - Data set overviews in bar & line chart scroll bars
 - Directional context in scatter plot outlines
- Tooltips in charts expose data and metadata
- Intelligent use of color based on human perception of difference
 - Smart scaling of color span
- Logarithmic scaling



The right visualization for the task, in a way that's going to enhance people's ability to explore data, without the need of a visualization expert

1.2.4 Smart Data Compression

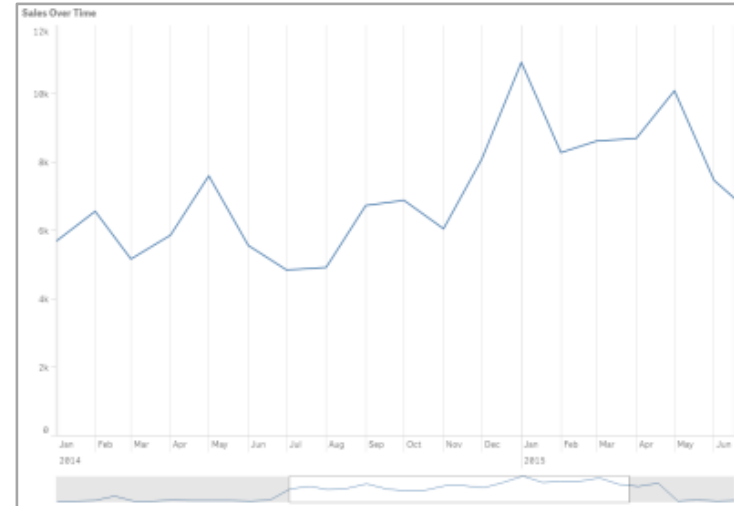
- Allows visualization of billions of data points in scatter plots
- A new, advanced compression algorithm summarizes massive data sets to show the overall shape of data without losing meaning
- Highlights areas of density, hotspots, and patterns in data
- Progressive disclosure of detail as charts are zoomed



Users are offered better insight into massive data sets, revealing key areas of interest and allowing them to ask the next right questions.

1.2.5 Time Aware Charting

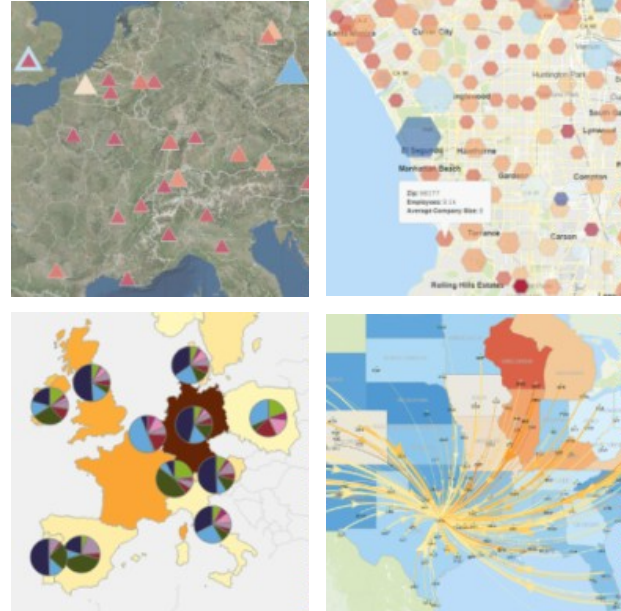
- Intelligent recognition and representation of time series data in charts and graphs
- Automatically displays the entire time period as a continuous dimension
 - Accounts for periods without data
 - Accounts for data points at inconsistent intervals
- Allows user to zoom in on additional detail, with progressive disclosure
- Initial release features line charts, with more chart types to follow



Provides a complete, intuitive picture of time series information, without any gaps or inconsistencies.

1.2.6 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.

1.3 User Driven Creation

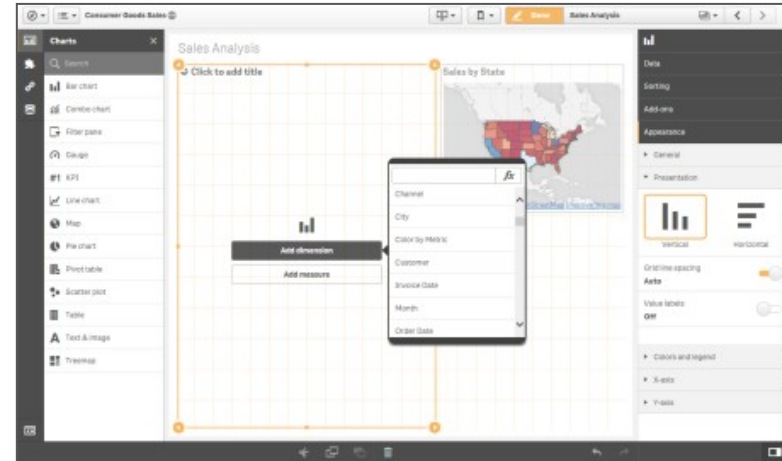
Build new visualizations through self-service with faster time-to-value

1. Drag and Drop Creation
2. Shared Libraries
3. Progressive Creation
4. Variables
5. Drag and Drop Coloring
6. Calendar Measures



1.3.1 Drag and Drop Creation

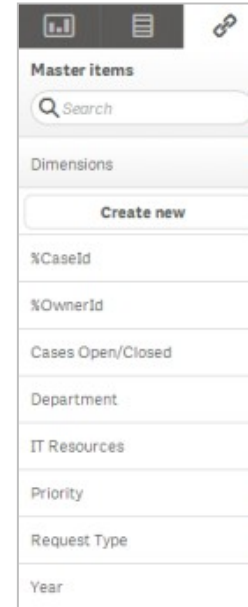
- Ability for any user to create or modify visualizations using drag and drop
 - No need for scripting, complex SQL queries or joins
 - Quick visualization using objects, dimensions, and measures from the library
 - Automatically integrates into The Associative Experience
- Leverages unified HTML5 based client



Anyone can create or adapt analyses in a simple and straightforward way, meaning more views of information as the business needs them

1.3.2 Shared Libraries

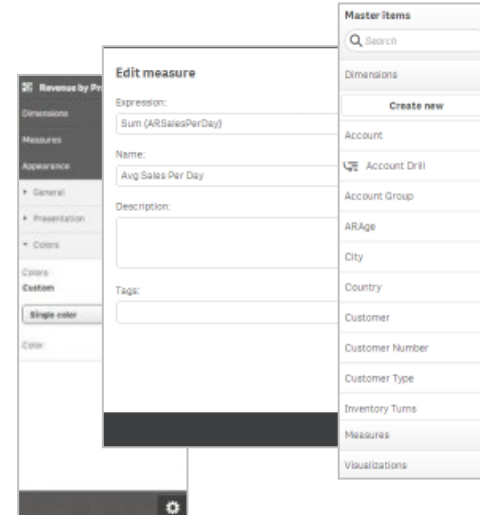
- A shared, centralized repository for object definition within a Qlik Sense app
- Allows people to define and share dimensions, measures, and visualizations for other users of an app
- Objects are easy for users to access and use



Promotes Qlik Sense development speed through re-use, helps ensure consistent use of data and metrics

1.3.3 'Progressive' Creation


- Complexity of development capabilities only revealed as users need or want it
 - Business users can drag predefined visualizations onto a sheet from the library
 - Or, they can use pre-defined dimensions or measures to create new visualizations
 - If they desire and are allowed, they can create measures and dimensions, or adjust properties
- More capabilities are revealed as needed, including loading data into Qlik Sense



Users can do only what they are capable of and comfortable with, maximizing the value of their experience

1.3.4 Variables

- Define and set values for use in analytics throughout an app.
- Utilize a new user interface directly in the Qlik Sense client to create variables.
- Reference variables in expressions across an app, allowing the resulting calculations to change as the variables do.

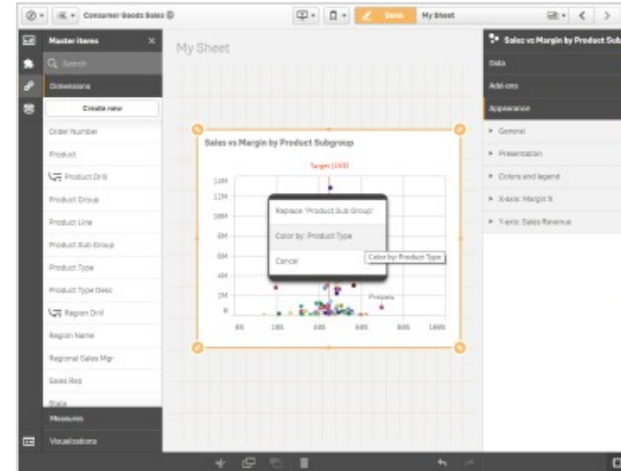
A screenshot of the 'Variables' dialog box in Qlik Sense. The dialog has a title bar 'Variables' and a 'Create new' button in the top right. It contains a table with two columns: 'Name' and 'Definition'. The table lists 15 variables with their respective definitions. At the bottom right, there is a 'Close' button.

Name	Definition
vAdj	730
var_lat_offset	0
var_maptype	=If(IsNull(only(maptype)),fieldvalue('maptype',1),maptype)
var_mnc1	=250*pow(2,(+max(agg(If(max(round(250*pow(2,(zoom_level-1...))
var_mnc2	=250*pow(2,(+max(agg(If(max(round(250*pow(2,(zoom_level-1...))
var_mid_lat	=min(latitude)+(1+var_lat_offset)*((max(latitude)-min(latitude))/2)
var_mid_long	=min(longitude)+(max(longitude)-min(longitude))/2
var_pi180	=pi()/180
var_zoom	=max(agg(If(max(round(250*pow(2,(zoom_level-1)))<(longitud...
vMaxSetScale	=If(Count(distinct {Invoice Number}) < 500, 1, If(Count(distinct {In...
vReloadTime	39441.093055556
vShowArch	0
vShowCube	1
vShowExtensions	1

Allows a broader audience to define values and test what-if scenarios without having to edit the load script and reload data.

1.3.5 Drag-and-Drop Coloring

- Drag-and-drop a dimension or measure onto a chart or graph to color the object by that dimension
- Uses the same drag-and-drop mechanism for both creation and coloring
- An easy way to color by dimensions or measures other than the ones used on the chart



More simple and accessible coloring without having to edit properties or write complex expressions.

1.3.5 Calendar Measures

- New menu option to automatically generate time period fields for measures
- Select a measure and generate period-to-date and other date range aggregations by year, quarter, month, and week
- Creates set analysis expressions automatically for the user

The screenshot shows a dialog box titled "Create calendar measures". On the left, there are four dropdown menus: "Date field" with "OrderDate" selected, "Aggregated field" with "Sales" selected, "Aggregation" with "Sum" selected, and "Time range" with "Yearly" selected. On the right, there is a section titled "Preview of measures" with a toggle switch labeled "Details off". Below this, three measures are listed with green checkmarks: "SUM Sales YTD", "SUM Sales YTD Current Year", and "SUM Sales YTD Last Year". At the bottom right of the dialog is a "Close" button. At the bottom center, there is a button labeled "Save to master items".

Easily perform time period analysis and comparison without the need to construct complex set expressions.

Appendix

Capabilities for Groups



2. Sharing of Knowledge and Insights – Groups

1. Centralized Sharing and Collaboration
 - Find and share relevant analyses through a centralized hub and through the cloud
2. Data Storytelling and Reporting
 - Tell data stories, with direct access to live analysis, and share reports to spread knowledge and insights
3. Anywhere, Anytime Mobility
 - Explore, analyze, create, and collaborate, on any device, anywhere, anytime there is a question



2.1 Centralized Sharing and Collaboration

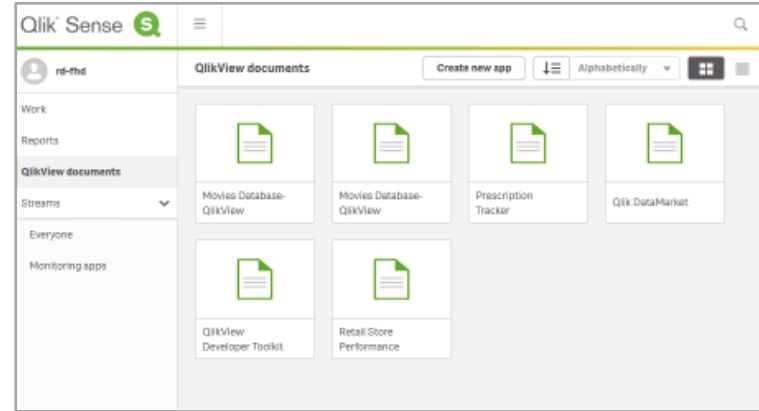
Share analysis across teams to make better group decisions

1. Unified Hub
2. Collaborative Creation
3. Qlik Sense Cloud



2.1.1 Unified Hub

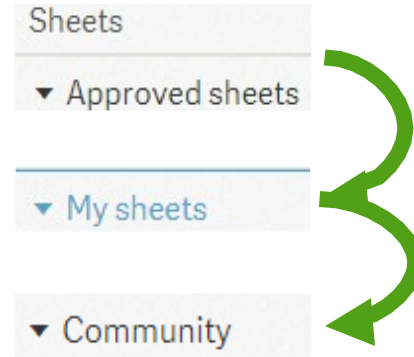
- A central hub with streams for personal and shared content
- Access many types of documents and applications on the Qlik Sense hub, including Qlik Sense apps, QlikView apps, and Qlik NPrinting reports
- Organize content around topic areas or workgroups
- Find content produced by others using tagging and search
- Publish sheets and stories for others to use
- Ensure governance and security of analytics content



A central location for all Qlik content means greater access and improved adoption and sharing of analytics

2.1.2 Collaborative Creation

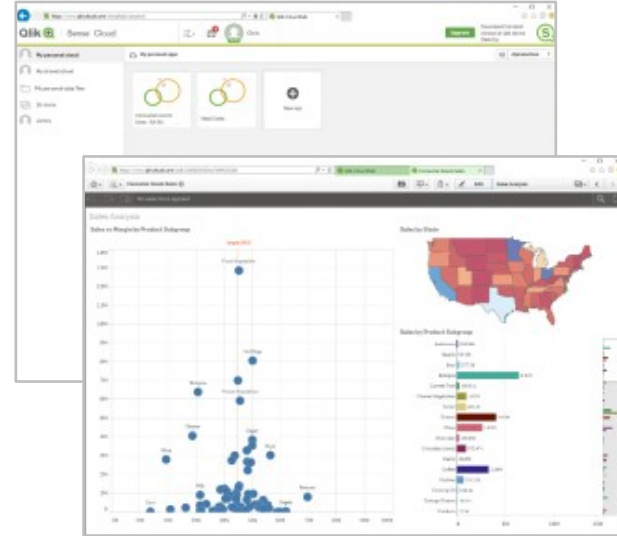
- Work together from a common governed data set
- Try out new ideas quickly without needing to go back to IT
- Full server-side development
- Sharing those that add value with others



Drive innovation by ensuring that everyone builds upon the work of the group.

2.1.3 Qlik Sense Cloud

- Create and share Qlik Sense applications in the cloud
- Invite others to explore your apps and discover insights
- Access from any device including PC, Tablet or phone
- Plus edition offers unlimited sharing, expanded storage, and more data
- Business edition offers group level governance and automated data reloads



Promotes discovery and collaboration without the need to install software on premise.

2.2 Interactive Data Storytelling

Tell data stories, with direct access to live analysis, to communicate insights and different points of view

1. Data Storytelling
2. Printing and Exporting
3. Qlik NPrinting



2.2.1 Data Storytelling

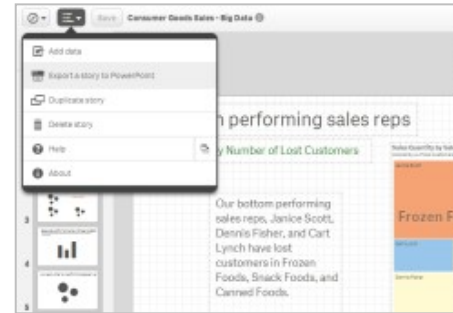
- Create persuasive guided stories with your analysis
 - Capture analytics at a point in time using snapshots
 - Organize snapshots into a guided pathway
 - Apply visual effects to draw attention to the most important values
- Move seamlessly between live analysis and presentation to ensure unforeseen questions don't hinder progress
- Create multiple stories per app for different points of view
- Trusted source data ensures that the conversation stays on topic rather than on data lineage.



Extends Qlik Sense from supporting individual analysis to driving communication of insight and facilitating group decisions

2.2.2 Printing and Exporting

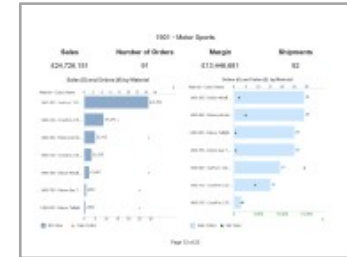
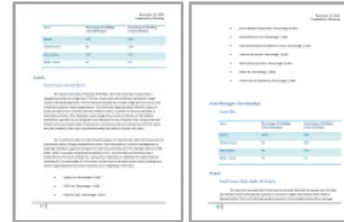
- Printing and exporting capabilities for Qlik Sense
- Print objects and sheets to .PDF and image files
 - Responsive design enables objects to export with optimal level of detail
 - Retains selection state, allowing users to share insights they discover
- Export stories directly to PowerPoint presentations and .PDF
- Export data from charts and graphs to excel
- High-resolution, high quality output



Users can generate insights and share them with people outside the boundaries of the system, spreading more value and driving adoption.

2.2.3 Qlik NPrinting

- Great looking reports, fast
 - Microsoft Office reports
 - Pixel perfect and web reports
 - Multi-developer, web-based client
- The right reports for the right people
 - Managed report distribution
 - User generated reports
 - “Newsstand” subscription portal
- Collaborative analytics for the enterprise
 - Enterprise scalability
 - Enhanced, role-based security
 - Reporting efficiency and value
- Reporting for Qlik Sense and QlikView
- Report delivery directly to the Qlik Sense hub



Spread knowledge and insight from Qlik Sense and retire legacy BI and reporting systems.

2.3 Anywhere, Anytime Mobility

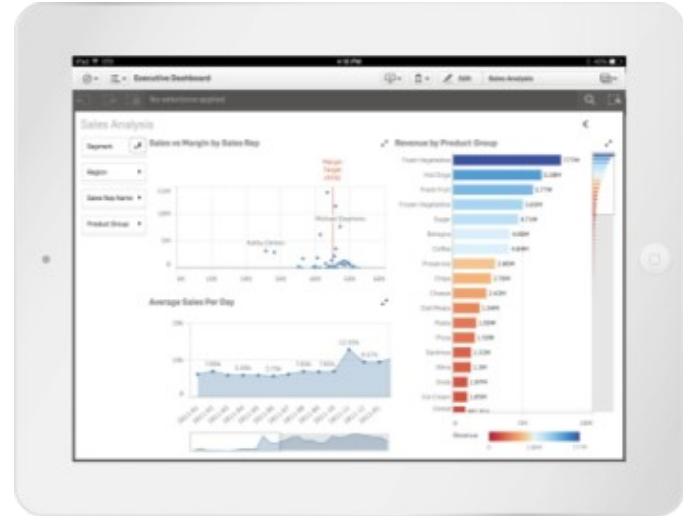
Explore, analyze, create, and collaborate, on any device, anywhere, anytime there is a question

1. Unrestricted Mobile Analysis
2. Creation Anywhere
3. Gesture-based Touch UI
4. Responsive Design
5. Small Devices Mode



2.3.1 Mobile Analysis

- Unrestricted analysis on mobile devices
- Interactive associative exploration and search
- Collaboration capabilities across all device types
- Leverages the power of Qlik Sense server for large data sets
- Supports iOS and Android



Ability to ask and answer any question in any environment drives more effective problem solving on-the-go

2.3.2 Creation Anywhere

- Entirely web-based, server side development environment with drag-and-drop
- Access to full set of development capabilities, libraries, and objects
- Web-based management console for platform administration and monitoring
- Consistent capabilities everywhere



Ability to create new analytics on mobile devices allows for more flexible response to unforeseen situations

2.3.3 Gesture Based Touch UI

- A new gesture based user interface for all areas of Qlik Sense
- Built for touch interaction as well as mouse and keyboard input
- Redesigned selection model for touch
- Supports advanced touch and multitouch gestures such as tap, hold-tap, swipe, and lasso



Improves usability, adoption, and value of Qlik Sense on mobile and touch devices

2.3.4 Responsive Design

- Ability for Qlik Sense apps to automatically resize to fit the screen using a smart grid
- Built-in intelligence to adjust level of detail of information, layout, and functionality for screen size
- People can access the same apps from any device, and easily transition across devices
- Users can build apps without having to worry about sizing them for mobile



Improves user experience and adoption, free users to work in any environment, simplifies creation and maintenance of apps

2.3.5 Small Devices Mode

- A simple, single object consumption mode on small devices
- Enhanced ability to view and interact with visualizations
- Automatically adjusts to this mode based on screen size of device
- Supports iOS, Android, and Windows Phone



Fast answers to questions in any situation mean better response to unpredictable questions



Appendix *Capabilities for Organizations*

3. A Platform for the Entire Enterprise – Organizations

1. Customization and Extension

- Rapidly develop, extend, and embed Qlik Sense functionality through open, standard API's



2. Advanced Data Preparation

- Clean, transform, and unify data from multiple disparate sources for analysis

3. Enterprise Governance and Scalability

- Centrally manage and govern deployments
- Ensure security and scalability of apps and data across the enterprise



3.1 Customization and Extension

Rapidly develop, extend, and embed Qlik Sense functionality through open, standard API's

1. Custom App Development
2. Embedded Analytics
3. Qlik Sense Extensions
4. Advanced Development Environments
5. Widgets



3.1.1 Custom App Development

- Complete set of capabilities for app developers through JavaScript API
- Uses standard web technology like JavaScript, HTML5, and CSS3
- Pre-built charts can be implemented in just a line of code
- Automatic linking between charts, powered by the Associative Experience and QIX Engine
- Mashup capabilities through mashup editor
- Works with D3 and other JavaScript libraries



Faster and easier development of web applications that offer the power of the Qlik Engine

3.1.2 Embedded Analytics

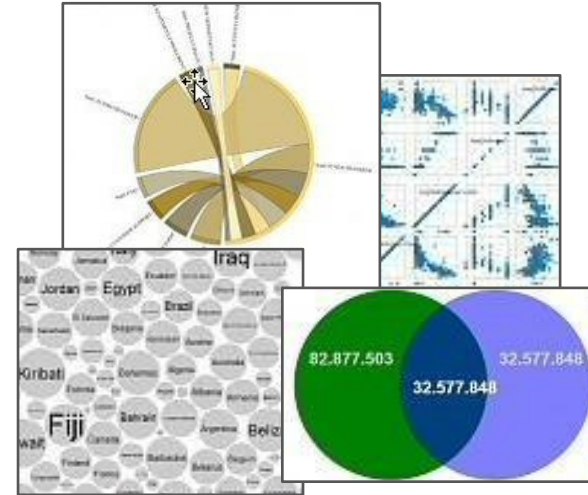
- JavaScript and .NET APIs allows Qlik Sense visualizations and objects to be embedded in web pages and desktop applications
- Embedded objects leverage the QIX engine and have the same functionality as in Qlik Sense
- Mashup Qlik Sense applications with other web services
- Management and governance through the Qlik Sense Management Console or management APIs



Embedded analytics delivers the power of the QIX engine to custom apps developed by customers, partners, and OEM's

3.1.3 Qlik Sense Extensions

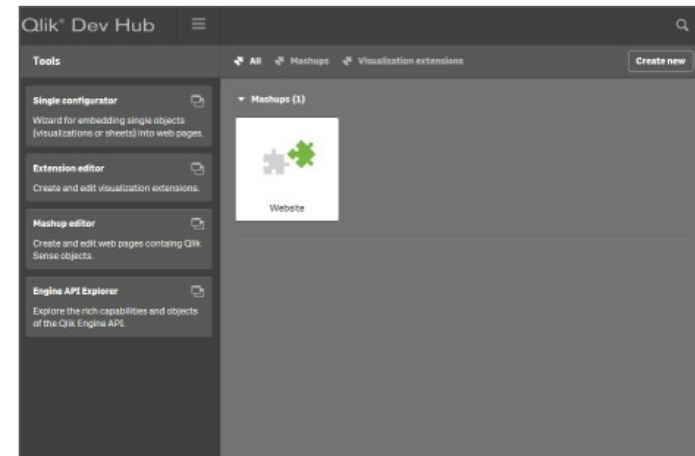
- Build custom visualizations and extension objects in Qlik Sense
- Use standard web-technology (JavaScript)
- Utilize third party toolsets such as D3 visualizations
- Custom visualizations appear in Qlik Sense 'Charts' menu



Add new types of visuals to Qlik Sense to support specialized analysis beyond out-of-the-box capabilities

3.1.4 Advanced Development Environments

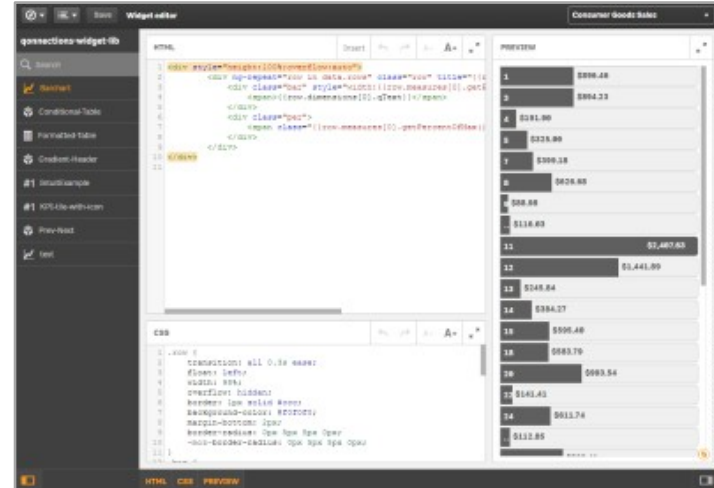
- An integrated developer hub allows users to more quickly build custom solutions using the Qlik Analytics Platform APIs
 - Web mashups using the Mashup API
 - Custom web apps using the Javascript API
 - Extension objects using the Extensions API
 - Fully custom solutions using the Qlik Engine API
- Developers can build and integrate Qlik analytics using a common development environment – Visual Studio



Accelerates the creation of custom apps, embedded analytics, and extensions that leverage the power of the Qlik Analytics Platform.

3.1.5 Widgets

- A mechanism for accelerating the development and reuse of custom user interface objects in Qlik Sense
- Allows developers to create a wide range of new objects quickly
 - Minimal code – only HTML and CSS required
 - Take advantage of pre-existing building blocks
- Provide powerful Qlik Sense functionality
 - Can be organized into libraries and governed / secured
 - Can be made responsive in design
 - Can be printed, exported, and used for storytelling snapshots
- Greatly accelerates and simplifies the development process.

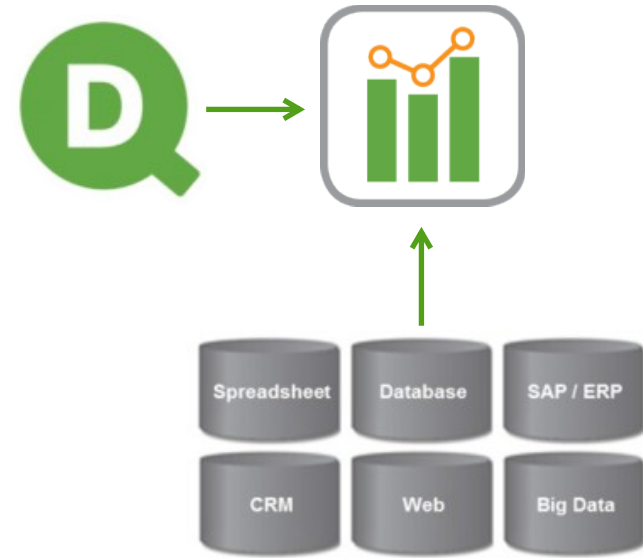


Allows organizations to quickly and easily customize the Qlik Sense user experience to add or customize application functionality.

3.2 Data Preparation and Integration

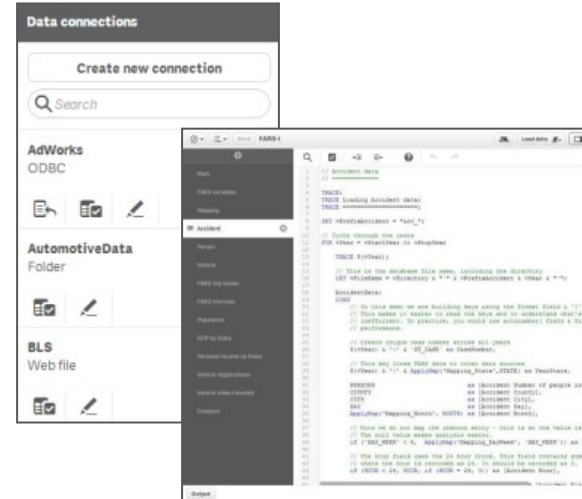
Clean, transform, and unify data from multiple disparate sources for analysis

1. Powerful ETL Scripting
2. Visual Data Preparation
3. Intelligent Data Profiling
4. Data Manager
5. Qlik DataMarket
6. Qlik Connectors
7. Direct Discovery
8. On-Demand App Generation



3.2.1 Powerful ETL Scripting

- Powerful script based data editing and cleansing interface
- Offers powerful data manipulation and transformation to handle complex data integration problems
- Includes advanced editing features
 - Auto keyword complete
 - Keyword highlighting
 - Context sensitive help
 - Debug mode
- Seamlessly combine and load complex, disparate data sources



Powerful scripting allows for complex data integration without the need for a separate ETL tools or data warehouses

3.2.2 Visual Data Preparation

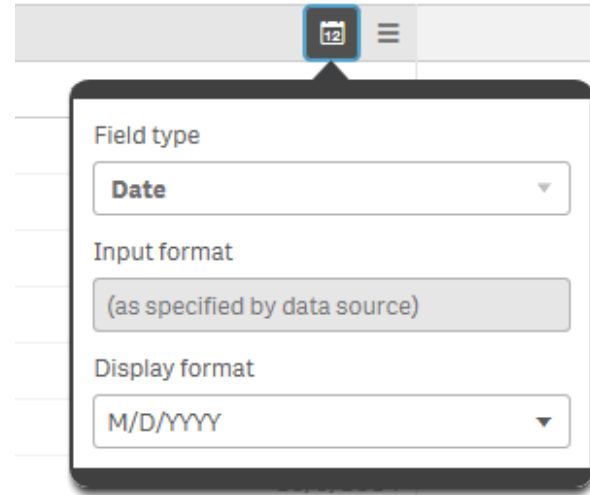
- Allows users to visually prepare and integrate data for analysis
- Includes a new drag-and-drop method for associating tables and data sets
 - Data sets depicted as 'bubbles'
 - Users can connect data sets graphically
 - Profiling to determine the best associations
- Other new profiling capabilities for dates and geographic information
- Graphical interface for derived fields
- No need for expert data modeling skills



Allows more users to combine and analyze more data, leading to more insight.

3.2.3 Intelligent Data Profiling

- A set of advanced data profiling capabilities for easy handling of different data types
 - Auto suggests the best associations across multiple data sources
 - Automatically handles date and time information
 - Includes year, quarter, yearmonth, month, and week
 - Automatically recognizes and prepares geographic information for mapping

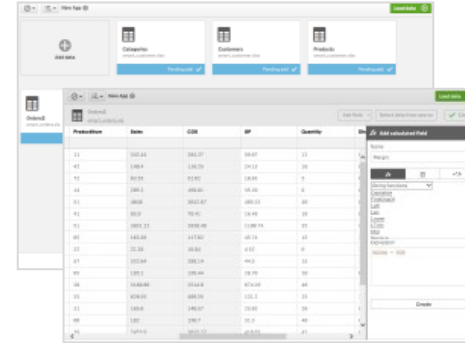


The screenshot shows a user interface for configuring a field. At the top, there is a header bar with a calendar icon and a menu icon. Below this, a modal window is open, displaying the configuration for a 'Date' field. The modal has three sections: 'Field type' with a dropdown menu set to 'Date', 'Input format' with a text box containing '(as specified by data source)', and 'Display format' with a dropdown menu set to 'M/D/YYYY'.

Non technical users can easily combine and load data from multiple sources, and handle complex information simply.

3.2.4 Data Manager

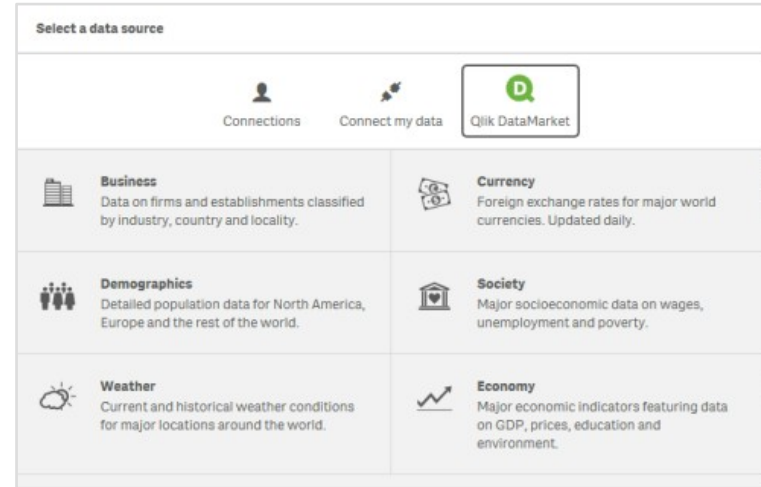
- An improved experience for loading and managing data
- Direct access to inbound data tables for data preview and editing of columns
- A new user interface for calculated fields, with auto-complete
- Flatten and load pivot tables automatically
- Preview and filter data
- Integrated data model viewer for visual views of data relationships



Business users can easily load, transform and enrich their data and create derived fields without the need for complex scripting.

3.2.5 Qlik DataMarket

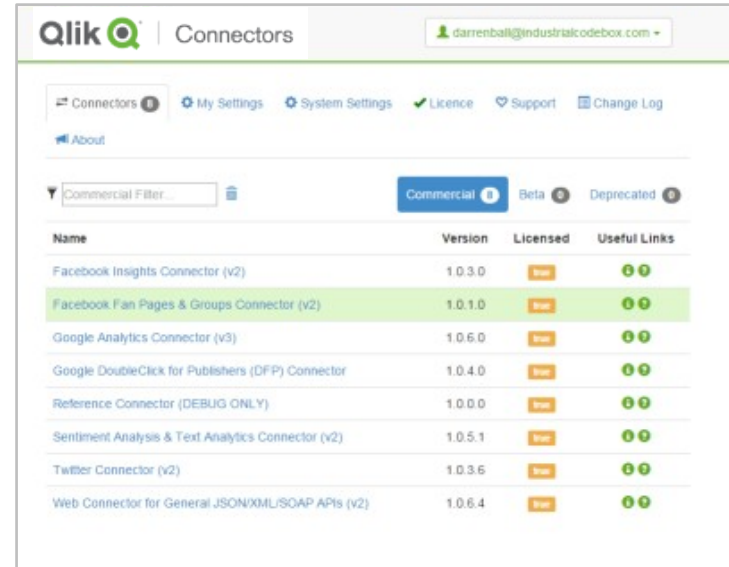
- A new, unique, cloud based data service (DaaS) from Qlik
- Access to a large number of public and syndicated data sets from trusted providers
- Numerous topic areas such as business demographics, currencies, population, economic indicators, financials, weather and more
- Accessible directly within Qlik Sense, through simple UI and support for data merging
- Free and subscription based data



Users can get an 'outside-in' perspective, easily augmenting and cross referencing internal data with external sources.

3.2.6 Qlik Connectors

- Consolidated, repackaged set of all Qlik connectors
- Includes over 20 new web connectors for popular web-based services and apps, such as:
 - Facebook fan pages & groups
 - Google AdWords
 - YouTube Analytics
 - Twitter
 - Microsoft Dynamics CRM
 - MailChimp
 - SugarCRM
- Web-based user interface that auto-generates connection syntax
- Based on Qlik's recent acquisition of Industrial Codebox QVSource



Provides users with a simple, direct way to connect to data from a number of popular data sources.

3.2.7 Direct Discovery

- Provides a live connection to 'Big Data' sources without requiring the data to reside in memory
- Seamlessly combine 'Big Data' with in-memory data in a single data model
- Maintains the associative experience across sources
- Provides visualizations for 'Big Data' sources, including 'drill to details'



Brings Qlik Sense's associative and visualization power to 'Big Data' sources

3.2.8 On-Demand App Generation

- Provides users with a “shopping list” experience to analyze Big Data, by generating new Qlik Sense apps on the fly based on selections
 - A template app summarizes the entire big data environment
 - Users can select subsets of information and generate new analysis apps dynamically
 - Analysis apps offer fully unrestricted search and exploration
- A new app generation API for dynamic creation of analysis apps
- Example objects for creating template apps that trigger APIs
- More built-in functionality in future releases

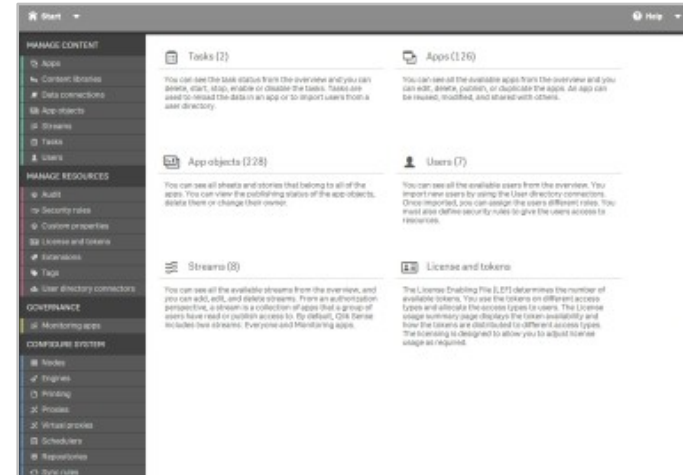


Users can easily define a relevant, usable view of Big Data and then explore it without boundaries or restrictions.

3.3 Enterprise Management and Governance

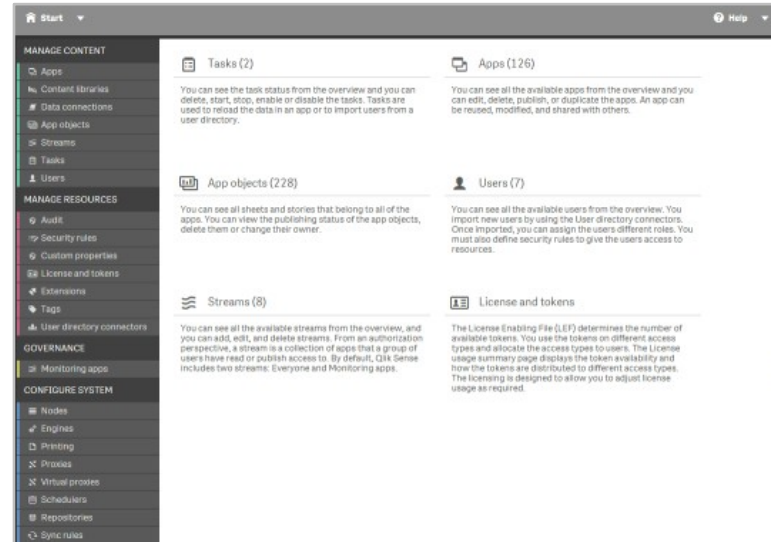
Centrally manage and govern complex deployments of all sizes

1. Qlik Management Console
2. Content and Resource Management
3. Qlik Sense Monitoring
4. Governed, Centralized Libraries
5. Dynamic Data Reduction



3.3.1 Qlik Management Console

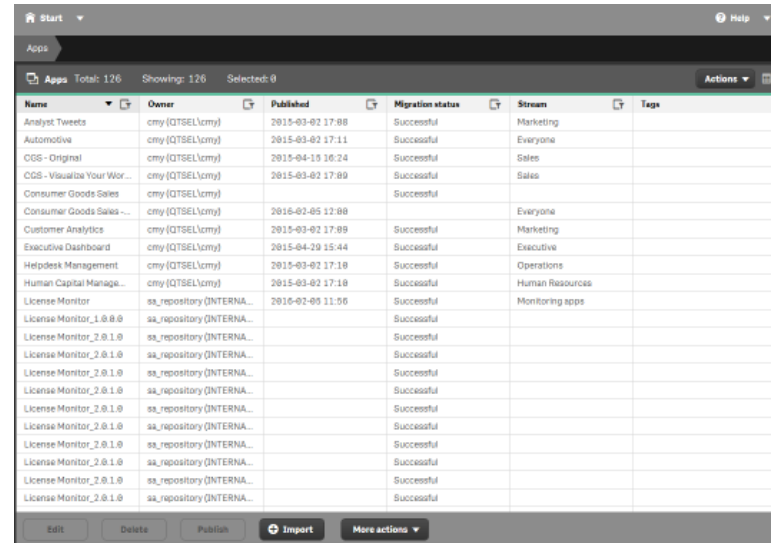
- A central point of management, monitoring and configuration
- For single and multiple node deployments
- Simple, elegant user interface
- Simply click Start for intuitive navigation



A central point of management reduces complexity for IT and ensures consistency and governance

3.3.2 Content and Resource Management

- Search, organize, and manage Qlik Sense content such as apps, sheets, and stories
- Assign, configure, and track resources such as licenses
- Manage and scale your deployment, including engines, nodes, and repositories

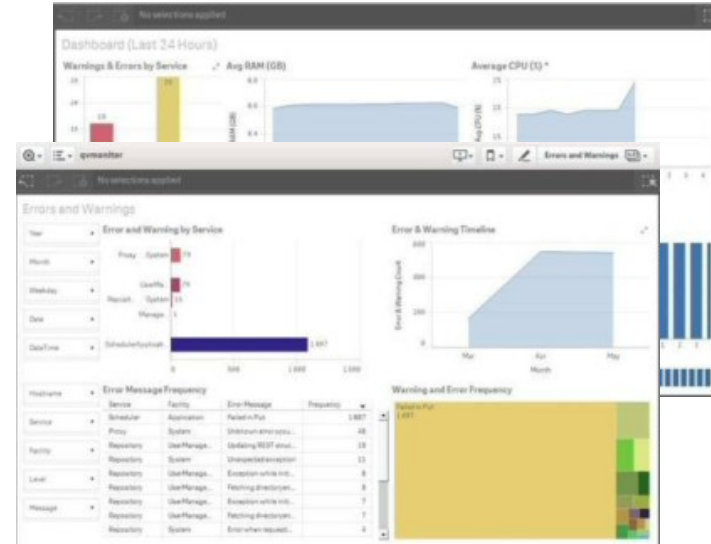


Name	Owner	Published	Migration status	Stream	Tags
Analyst Tweets	cmy (QTS&L/cmy)	2015-03-02 17:08	Successful	Marketing	
Automotive	cmy (QTS&L/cmy)	2015-03-02 17:11	Successful	Everyone	
CGS - Original	cmy (QTS&L/cmy)	2015-04-10 16:24	Successful	Sales	
CGS - Visualize Your Wor...	cmy (QTS&L/cmy)	2015-03-02 17:09	Successful	Sales	
Consumer Goods Sales	cmy (QTS&L/cmy)		Successful		
Consumer Goods Sales ...	cmy (QTS&L/cmy)	2016-02-05 12:08		Everyone	
Customer Analytics	cmy (QTS&L/cmy)	2015-03-02 17:09	Successful	Marketing	
Executive Dashboard	cmy (QTS&L/cmy)	2015-04-29 15:44	Successful	Executive	
Helpdesk Management	cmy (QTS&L/cmy)	2015-03-02 17:10	Successful	Operations	
Human Capital Manage...	cmy (QTS&L/cmy)	2015-03-02 17:10	Successful	Human Resources	
License Monitor	sa_repository (INTERNA...	2016-02-08 11:56	Successful	Monitoring apps	
License Monitor_1.0.0.0	sa_repository (INTERNA...		Successful		
License Monitor_2.0.1.0	sa_repository (INTERNA...		Successful		
License Monitor_2.0.1.0	sa_repository (INTERNA...		Successful		
License Monitor_2.0.1.0	sa_repository (INTERNA...		Successful		
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Respond quickly to requests from the business for new and varied analytics, new resources, and broader capabilities

3.3.3 Qlik Sense Monitoring

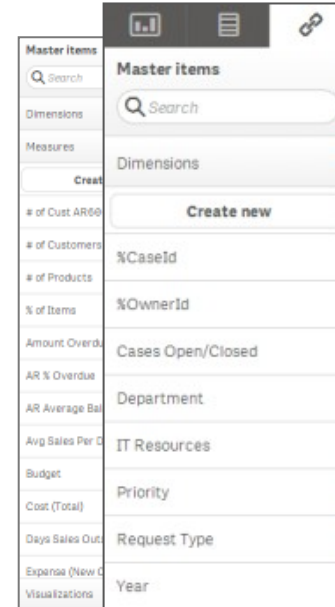
- License Monitor App
 - Usage Summary
 - Usage History
 - Allocation History
 - License Planning
 - Errors & Warnings
- Operations Monitor App
 - 24-hour Summary
 - Performance History
 - Task Reloads
 - Apps & Users
 - Errors & Warnings



Provides a 360 degree view of a Qlik Sense deployment, allowing for improved governance, usage, and value from deployments

3.3.4 Governed, Centralized Libraries

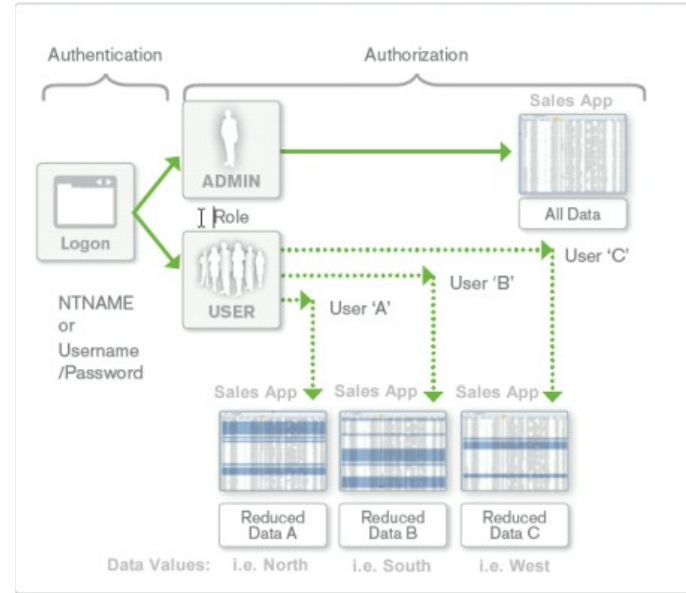
- A centralized library and repository for pre-defined data and objects within an app
- Allows IT or expert users to connect to data sources, define dimensions and measures, and establish pre-built objects
- When building apps, users can access centrally defined data sets based on permissions



Ensures consistency and reuse of data and standards within deployments, simplifies and accelerates Qlik Sense development

3.3.5 Dynamic Data Reduction

- Control visibility of fields and rows based on user, group or role
- Customizable Security Table
- Row Level control
- Field Level control



Customizable, dynamic row and field level security ensures that people only see the data they are entitled to.

3.4 Security, Scalability, and Performance

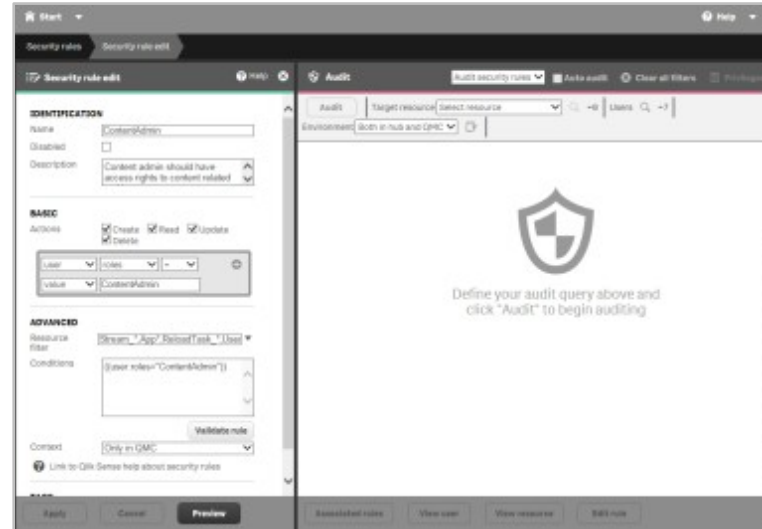
Ensure security of information and resources, and robustly scale deployments

1. Centralized, Rules Based Security
2. Multiple Security Layers
3. Authentication Security
4. QIX Engine
5. Elastic Scaling Architecture
6. Shared Persistence
7. Unified, HTML5 Client
8. Qlik Sense Desktop



3.4.1 Centralized, Rules Based Security

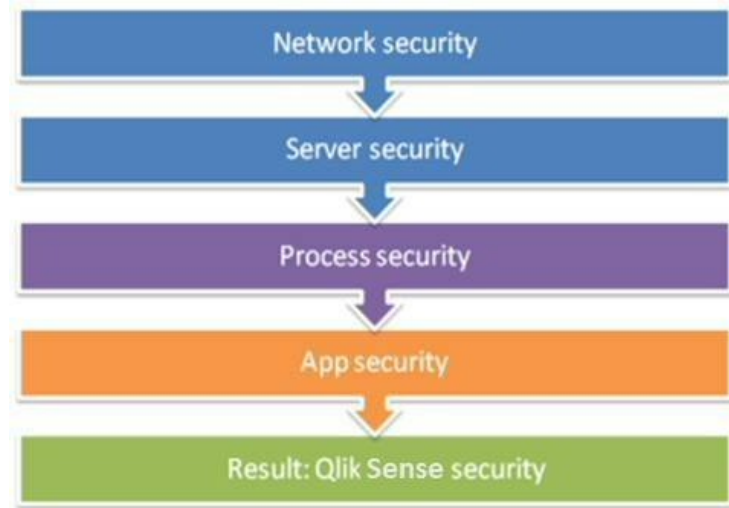
- A centralized, attribute based rules engine for all resource, object, and user security in Qlik Sense
- Uses expressions to evaluate what type of access is granted
- Rules editor via. Qlik Management Console
- Predefined rules, custom rules, and custom properties



Centralized, customized rules ensure that all content is secure across an environment based on organizational requirements

3.4.2 Multiple Security Layers

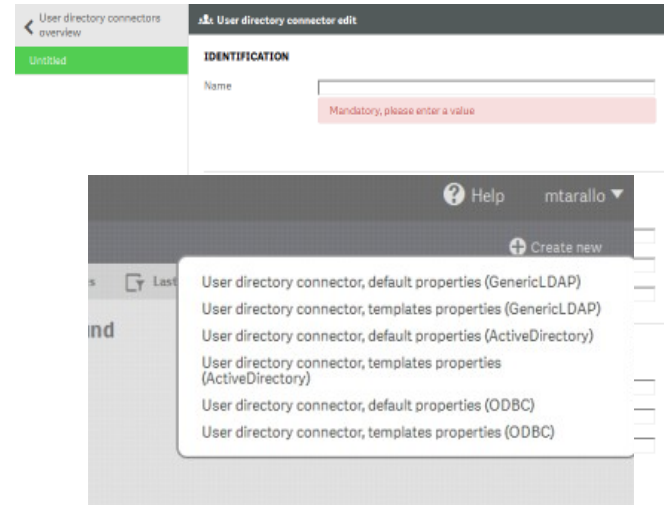
- Qlik Sense utilizes multiple layers of security available through infrastructure, including:
 - Network Security
 - Server Security
 - Process Security
- Qlik Sense then provides authentication, content security, and data reduction
- The result is an integrated end-to-end model



All security layers both within Qlik Sense and through infrastructure work together to provide a flexible and robust model for protection

3.4.3 Authentication Security

- Validates the identity of users logging into the system
- Can utilize a variety of authentication models
- Supports the following types of directory services:
 - Active Directory
 - Local Windows Users
 - LDAP
 - ODBC Connections



Ensures that only valid users have access to Qlik Sense, provides ease of configuration and greater flexibility with different types of systems

3.4.4 QIX Engine

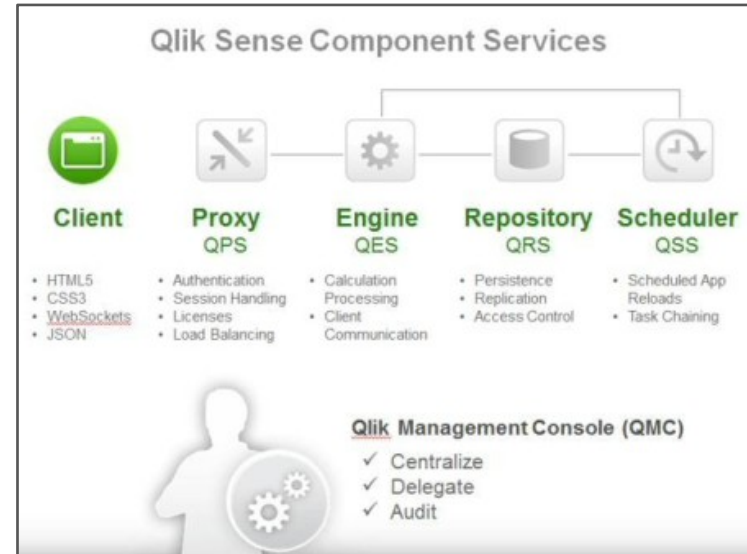
- Compressed binary indexing stores data in highly optimized, in-memory format
- Logical inference determines associations across all tables, based on user selections
- Recalculates all visualizations and reveals associations, with speed-of-thought response, across the entire app, after each click



Unmatched dynamic calculation and association supporting self-service analytics for large numbers of users and high volumes of data

3.4.5 Elastic Scaling Architecture

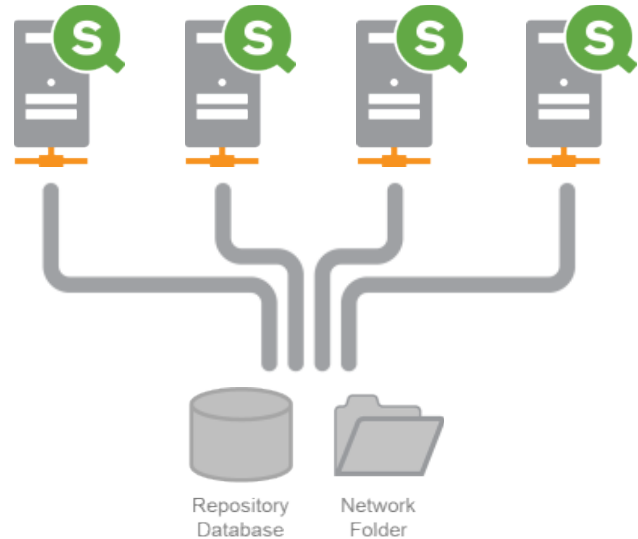
- Singular , modern, web based client architecture
- Services oriented architecture
- Distributed
 - On Premise, Cloud
 - Multiple geographies
 - Scalable
- Centralized Repositories
 - Deployment Management
 - Storage and Configuration
 - Synchronize / Resilient



Increased system resilience, reduced maintenance, and improved overall deployment flexibility

3.4.6 Shared Persistence

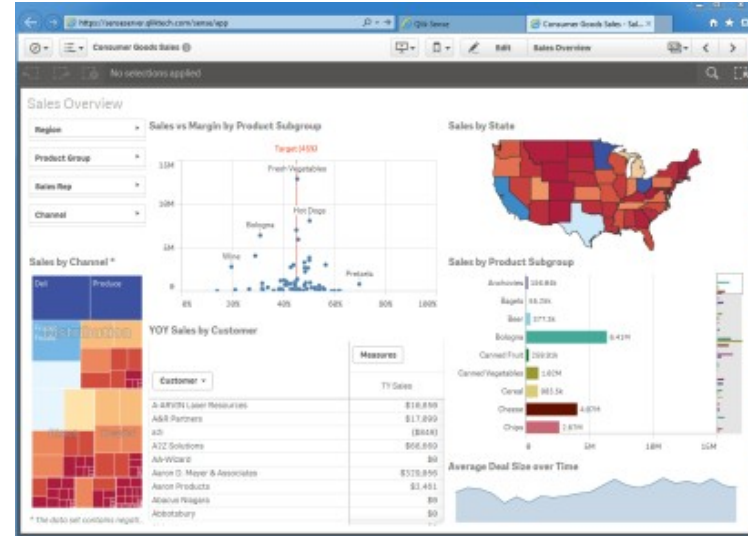
- A new option for deploying multi-node Qlik Sense environments
- Allows Qlik Sense nodes to directly share a single storage location, including repository database and network folder
- Eliminates the need for synchronization across sites



More architecture flexibility for large deployments, with improved stability and performance.

3.4.7 Unified, HTML5 Client

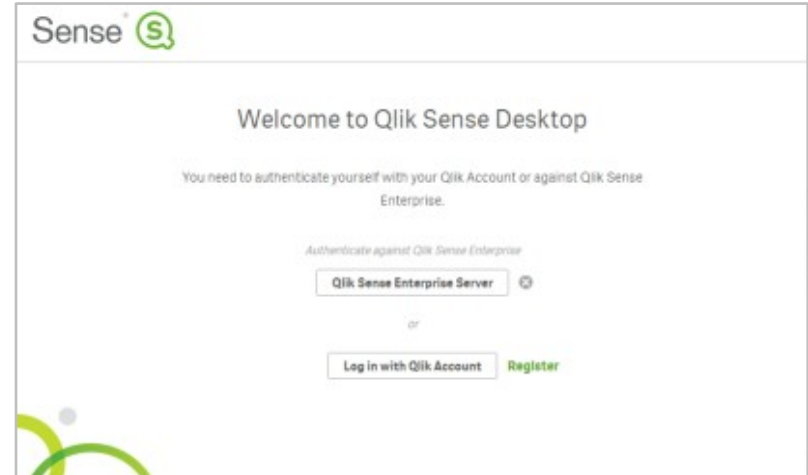
- A single HTML5 client for all creation and consumption capabilities
- Based on modern web technology including HTML5, CSS, and Javascript
- Delivers all Qlik Sense functionality consistently, anywhere
- Access from any compliant browsers, including mobile devices
- Standalone desktop client for PC's leverages the same web technology



Qlik Sense works the same consistent way on all hardware and software – scale simply and effectively through browser access

3.4.8 Qlik Sense Desktop

- The ability for Qlik Sense Desktop to authenticate against a Qlik Sense Enterprise server 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
- Also works with Qlik Sense Cloud



Utilize Qlik Sense Desktop as part of fully supported production environments, for more deployment flexibility.

Thank
You