



Maintaining stability

Risk management for the financial services sector



Maintaining stability in the most demanding sector in the world

In order to survive and flourish in today's harsh economic climate, financial service institutions are seeking new ways to transform their business and improve the bottom line.

The global financial crisis shook the foundations of institutions, both fundamentally and permanently. In order for them to survive and flourish in this harsh economic climate, they need to find solutions, which transform their business and increase margins. While at the same time minimizing their exposure to risk and maintaining compliance.

Financial institutions are currently undertaking transformational challenges:

- **Maintaining stability** and operating efficiencies in an environment of decreasing margins, market volatility and ever increasing regulations
- **Continued growth** and business expansion through the spotting of new opportunities, in an environment of increased competition and stringent budgetary demands

Now more than ever, institutions are looking to do 'more with less' and eliminate unnecessary expenditure, while running existing and new processes as efficiently as possible. In order to maintain stability across the organization, business leaders must analyze and review every aspect of their business while operations and IT departments seek out efficiencies and cost-savings. This can only be achieved through the effective exploration of organizational data and unveiling previously hidden or unseen insights.

Risk management and compliance has been named as one of the top four financial services themes for 2012 in the "IDC Financial Insights 2012 Predictions" report. As such, institutions are no longer viewing risk management as just the responsibility of the Risk department, but rather adopting an enterprise-wide approach to ensure sound risk management practices are incorporated into the decision-making process at every level across the organization.

Traditional BI software products have historically been used to address many of the common risk management analytical requirements. But these offerings typically rely on complex software stacks, comprised of multiple disparate products. Furthermore, traditional BI architecture relies on a report-centric approach which means IT is responsible for delivering reports out to end users. The end result is a risk and compliance reporting environment that is complex and does not allow for the nimble and rapid analytical capabilities required in today's environment.

Business discovery for the financial services sector

It's no surprise that over 2,500 financial services institutions, including all of the top 20 companies based in North America and Europe*, have turned to QlikView – transforming data into insights.

The QlikView Business Discovery platform enables business users to explore and analyze their risk data without limits. It delivers self-service BI that empowers business users by driving innovative decision-making.

QlikView enables users at every level of the organization to find tailored insights, addressing users' individual needs and questions. In essence, QlikView empowers risk and compliance users with the information they require to make informed business decisions.

QlikView empowers business users and decision-makers at every level, providing incredibly fast access to data-driven insight and collaboration.

* Forbes Global 2000 List



Qlik works with financial services institutions to devise, produce and deliver solutions and applications that help firms maintain stability. QlikView provides the ultimate Business Discovery solution to meet various risk management challenges. Some common QlikView application areas for risk management include:



Figure 1: QlikView for risk management capabilities map

QlikView for enterprise risk

Challenge:

Financial institutions generate large volumes of risk data which span multiple geographies, risk classes and lines of businesses. The result is often a fragmented risk data and analysis environment, which makes it difficult to achieve a true enterprise view of risk that can be shared with key executives, shareholders and regulators.

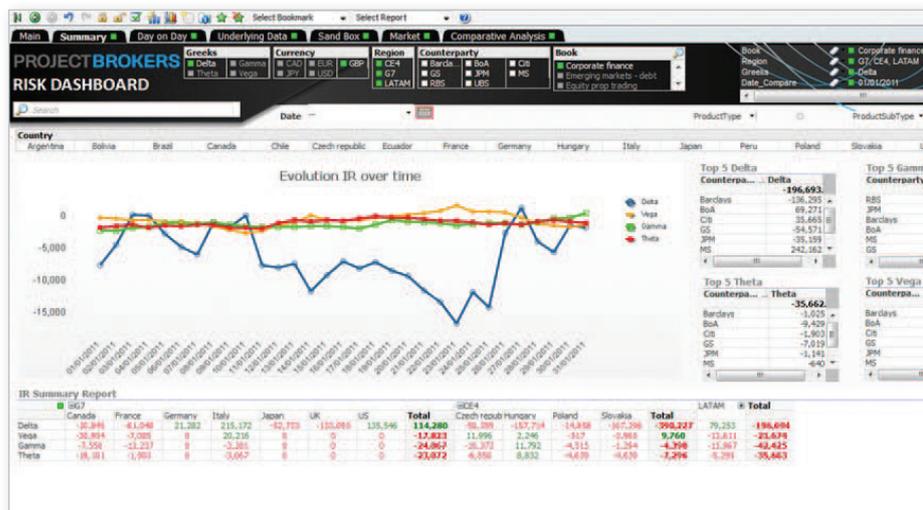
Solution:

QlikView for Enterprise Risk has the ability to track risk weighted assets and provide an overview of the firm's economic and regulatory capital. Business users and decision-makers can follow their own line of inquiry, tracing data back to the source files and mitigating where appropriate. QlikView provides risk and exposure analysis capabilities across Credit, Operational, Market, Liquidity and Regulatory functions, with the capabilities to quickly respond to external requests – all presented in an interactive Enterprise Risk Dashboard.

Benefits:

- Helps towards achieving the institutions' performance targets, delivering shareholder value
- The QlikView solution ensures effective internal reporting and external regulatory compliance

Figure 2: 'Risk container' solution, developed by project brokers, QlikView elite partner



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QlikView for credit risk

Challenge:

Institutions are seeking effective credit risk solutions that can optimize loan approval decisions, reduce the number of defaults and improve credit quality, as well as assist them to manage credit portfolio risk effectively.

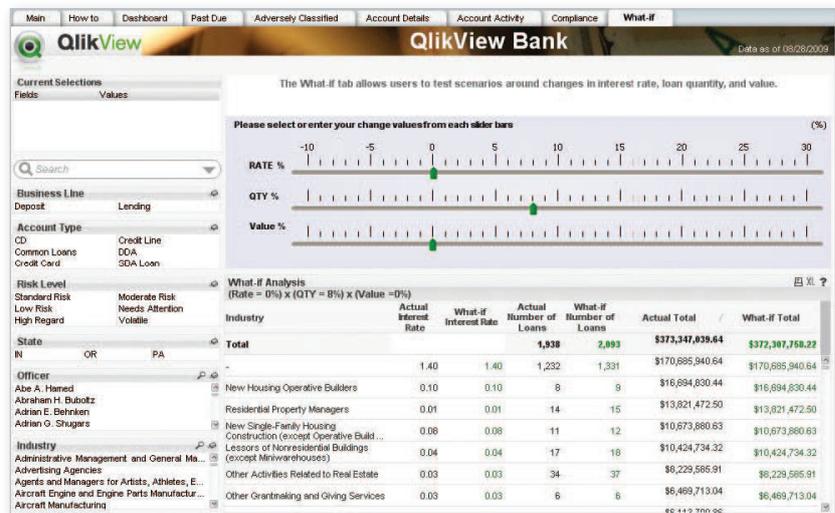
Solution:

QlikView for Credit Risk has been implemented by a number of leading global financial institutions as it allows firms to analyze credit applicant profiles based on peers, effectively track past due loans, forecast defaults and more insightfully manage credit portfolio risk.

Benefits:

- An overall reduction in loan defaults
- Substantial increases in loan profitability
- A proactive approach to credit portfolio management

Figure 3: Credit risk management example showing 'what-if' analysis



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QlikView for operational risk

Challenge:

In addition to credit and market risks, financial institutions must also focus on operational risks related to internal breakdowns in procedures, people and systems or external events. These are often caused by poor decisions which can be improved by better analytics.

Solution:

QlikView for Operational Risk enables organizations to more easily analyze operational data from a large number of sources on an intra-day basis. Users can correlate and benchmark operational risk performance and spot potential risks that otherwise would have been difficult to identify. QlikView also provides the capability track and manage usage of assets and infrastructure effectively.

Benefits:

- Delivers measurable and significant reduction in Operational Risk, and cost and expenditure, through the provision of enterprise insights that drive business optimization
- Improves operational financial control and streamlines the financial reporting process by providing a comprehensive view of overall operational risk performance and profitability

Figure 4: Operational risk example showing insurance claims lifecycle



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QlikView for market risk

Challenge:

In a market where competition, globalization, market volatility and structural change is increasing, financial institutions need to better manage their exposure to fluctuating security prices and market conditions. The challenge is to increase uniformity of market data across the enterprise and create global uniformity of hardware and software risk solutions – making it easier to assess overall market risk.

Solution:

QlikView for Market Risk has been implemented by a number of leading global financial institutions to analyze trade book performance and 'what-if' scenarios, equity performance, interest rates, foreign exchange rates and commodity prices. QlikView can be integrated with third-party risk calculation engines to analyze aspects such as Value at Risk (VaR).

Benefits:

- Delivers drill down and search capabilities which allow Risk Managers to operate at a granular level and provide instant evaluation on the impact of new trades
- Allows the assessment of the magnitude and probability of various risks occurring

Figure 5: Market risk example showing intraday security positions with integration into panopticon (QlikView technology partner)



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QlikView for counterparty risk

Challenge:

Financial institutions rely on a network of counterparties to lend and trade financial instruments but there is an inherent risk that one or more counterparties will not fulfill their contractual obligation. Counterparty exposure must be closely monitored and managed to avoid wrong way risks and eventual defaults.

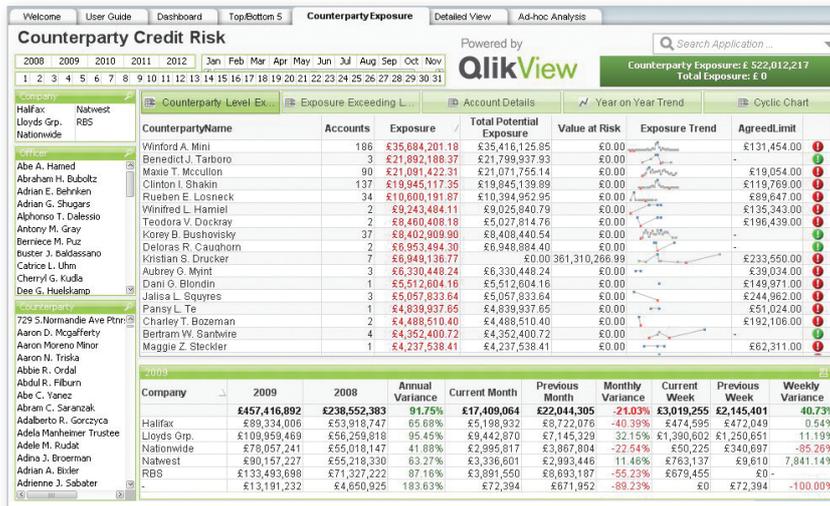
Solution:

QlikView for Counterparty Risk helps decision-makers quickly discover and evaluate concentrations of counterparty risk. Business users can assess the firm's exposure across multiple counterparties and analyze necessary adjustments to counterparty limit settings. QlikView can be integrated with third-party risk calculation engines to assimilate market data and better assess overall Counterparty Risk.

Benefits:

- The overall reduction in counterparty exposures and the avoidance of counterparty defaults
- Delivers a better diversified and more profitable portfolio
- Facilitates faster and easier ad hoc investigation and reporting

Figure 6: Counterparty credit risk example showing exposure By counterparties



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QlikView for liquidity risk

Challenge:

The global financial crisis resulted in large financial losses, increased margins, tightened risk management, and increased volatility. As this happened, traditional liquidity providers became demanders of liquidity, new capital arrived too slowly and prices dropped and rebounded. In order to increase liquidity, institutions require a comprehensive liquidity risk solution that includes easy to use analysis and visualization capabilities.

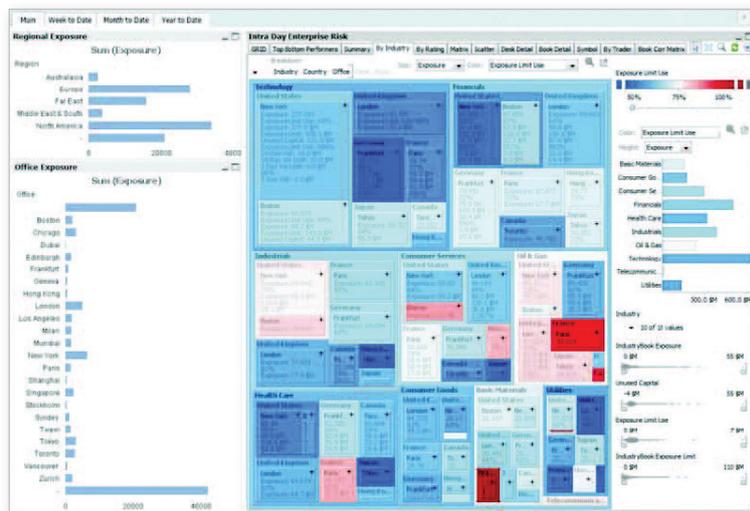
Solution:

QlikView for Liquidity Risk has the capability of providing intra-day liquidity snapshots or trends, together with the ability to analyze idiosyncratic survival periods. The rich functionality also provides analytics on cash flow events or liquid vs. illiquid products, providing senior decision-makers with the insights they require to make informed decisions.

Benefits:

- Improved insight to intra-day assets and liabilities
- Better management of capital
- Enable proactive portfolio management decisions

Figure 7: Liquidity risk example showing intraday liquidity with integration into panopticon (Qlik technology partner)



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QlikView for AML and fraud

Challenge:

Fraud costs the financial services sector and the government billions of dollars each year, a cost that businesses cannot afford in this current economic climate. Financial institutions require the ability to detect and combat fraud while quickly responding to high-risk customers and fraudulent practices.

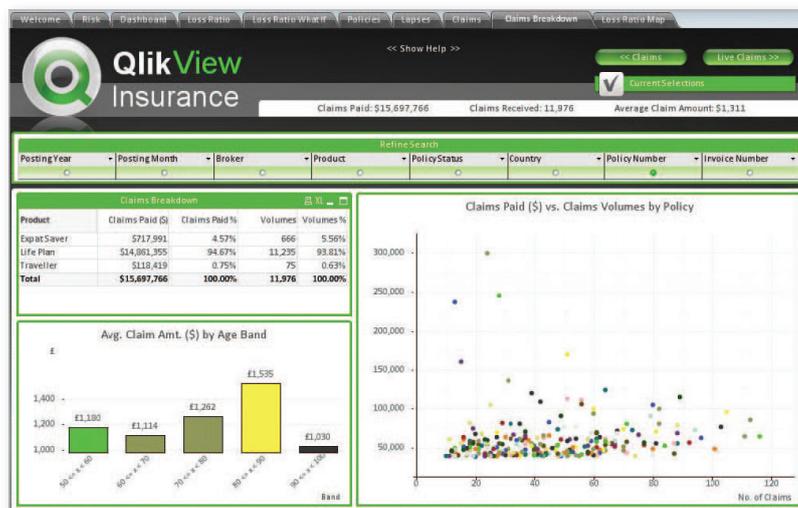
Solution:

QlikView for AML and Fraud facilitates rapid integration of multiple data sources and produces compliance analysis on demand. Leveraging QlikView's associative search functionality, business users can more easily identify and mitigate suspect behavior or potential fraud.

Benefits:

- Reduces regulatory fines and penalties
- Reduces reporting and manual data analysis costs
- Helps to avoid any potential reputational risk

Figure 8: Fraud example showing potential insurance claims fraud



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QlikView for regulatory compliance

Challenge:

Risk and compliance executives face ever-increasing pressure from regulatory bodies, governments and the board to improve the quality and speed of risk reporting, while improving overall transparency and insight related to risk management. In order to achieve this, institutions need to eliminate the internal analytical and data silos that prevent business leaders from gaining an enterprise-wide view of compliance across multiple regulations and core business practices.

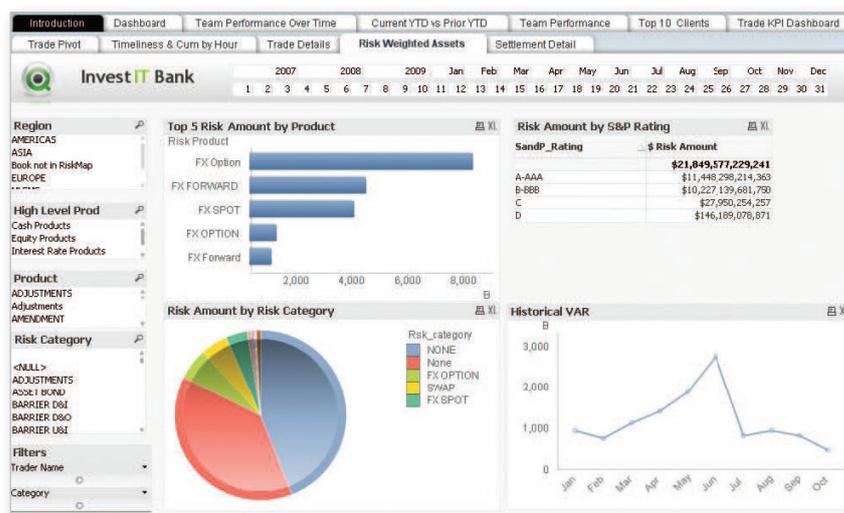
Solution:

QlikView for Regulatory Risk provides the ability to deliver timely, accurate information which helps towards optimizing risk processes and management. QlikView enables business users to share risk insights with decision-makers throughout the organization and more accurately identify and mitigate fraud and operational risk.

Benefits:

- Compliance with evolving regulations, including Basel II+, Solvency II, FDICIA, GLBA, SOX, etc
- Deliver on demand, actionable analytics to ensure risk is understood and remediated quickly

Figure 9: Regulatory compliance example showing aggregated risk profile



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Case study: major credit rating agency

Background:

Our client is a major credit rating agency with a worldwide presence. They generate over \$2B in annual revenue and have more than 3,500 employees.

They are an essential component of the global capital markets, providing credit ratings, research, tools and analysis that contribute to transparent and integrated financial markets.

Challenge:

To allow all analysts to rapidly assess exposures, predict losses, estimate debt ratios, quantify analytics, and publish results to internal and external clients.

Solution:

Deployed QlikView on top of loan-level data in 2TB database for:

- Credit Quality – Fast and flexible analysis of loan and pool level data before inclusion, with existing datasets for rating
- Risk & Exposure – Dimensional analysis to discover trends, analyze spreads, and assess exposures across investment collateral and asset types
- Rapid implementation of a very sophisticated application in less than six months

Benefits:

- Improved credit risk assessment and understanding of exposures that factor into ratings
- Reduced average credit analysis time by weeks
- Improved consistency and accuracy of credit data



“ The richness of the lines of analysis and the flexibility of navigation gave us new capacities for investigation and moved us ahead in security. ”

- Jean-Luc Masselin,
Director of Internal Control, ABN AMRO

Case study: Bank Neuflyze OBC (ABN AMRO)

Background:

One of the top three private banking and wealth management firms in France, with over \$30B in assets under management.

The bank has developed a unique private banking model based on an integrated view of private and business wealth.

Challenge:

To build a centralized, cross-entity operational risk monitoring system for the bank's controllers and executives.

To provide reliable, real-time, tracking of processes across thousands of operational control points.

Solution:

Deployed QlikView to central risk control organization for:

- Global Operational Risk Monitoring and Fraud Investigation
- Centralized, real-time, monitoring across 1,700 checkpoints, over 8,000 instances, and 5M monthly transactions
- Allowed team to compare and combine from different sources and standpoints to better understand activity and pinpoint areas of concern

Benefits:

- Reduced operational risk by allowing investigations to dig down into the transaction level, uncovering underlying drivers
- Eliminated 120 days of manual reporting for a team of 20 controllers

The Business Discovery thought leader

Qlik believes in the power of collaboration, tapping into the collective knowledge and expertise of market professionals in order to deliver pervasive business insights.

Qlik has formed specialist industry communities in New York, London and Mumbai consisting of market professionals who are dedicated to the sharing of industry best practice and collaborating on how to best approach the key issues facing the market.

Our thought leadership is enabled through industry panels and advisory councils made up of leading market industry voices, such as the QlikView Wall Street Customer Advisory Council, which specializes in financial services.

Our customers and partners come together with the aim of sharing and discussing market insights, intelligence and the technological innovations that can assist in providing both financial stability and growth. All key trends and insights are published in the form of white papers and within the online Financial Services Qlik Community – leading the conversation and fueling innovation. Qlik also shares best-in breed approaches & applications through industry benchmarking – allowing new and existing clients to continually learn from industry best practice.

Qlik has a powerful global network of over 1,200 strategic partners consisting of solution providers, OEM partners, business consultants and system integrators. This partner program has been designed to offer our clients world-class software solutions, consultancy and implementation support – ensuring every organization extracts the utmost from their live actionable data, fueling the innovation culture.

Each Qlik partner has been chosen based on their deep sector knowledge and experience and their ability to construct solutions that remove guesswork, assisting you to make faster, smarter decisions. A true partnership tailoring the right solutions for our customers at the precise point of need.

Qlik does not just providing innovative solutions for enterprise, but for the whole of the financial services sector. Nurturing the culture of innovation.

“ With QlikView at the core, we have built a scalable and flexible data architecture with new processes to allow more efficiency in aggregating and reporting insurance program information.”

- CIO, Global Insurance Organization



Qlik is the Business Discovery specialist in the financial services sector

Qlik harnesses the power of collaboration by tapping into the collective knowledge and expertise of financial services market professionals, in order to deliver pervasive business insights.

This, coupled with Qlik's unparalleled knowledge and expertise in business discovery solutions, means institutions are maximizing current BI investments whilst providing the tools to help decision-makers make faster, smarter decisions.

QlikView is at the very heart of the conversation through the online Global Financial Services Qlik Community, comprised of industry leading professionals, solution providers, technology partners, business consultants and system integrators.

This, together with the aggregation of years of development and successful implementation of bespoke solutions and applications, ensures every client benefits from the collective knowledge and expertise. QlikView is tried, tested and proven as the leading enterprise Business Discovery solution.

Qlik remains focused on leading the market through the provision of thought leadership and driving innovative solutions every step of the way. The goal is simple; to assist financial institutions achieve both stability and growth.

Qlik's partnership approach and methodology is based on "Proof of Concept" (which QlikView refer to as "Seeing is Believing"). A collaborative approach designed to demonstrate the power and flexibility of the solution by using your very own data.

QlikView helps financial institutions to achieve true ROI in a fraction of the time it takes traditional software to be deployed.

Seeing is believing.

Providing the competitive advantage

QlikView is the world's first Business Discovery platform, designed to assist organizations in achieving both stability and growth.

Business Discovery platform

Business users want to analyze information — looking for associations and deriving insights — through visually appealing interfaces. QlikView incorporates best-of-breed visualization capabilities including a broad range of charting and display options. The simple and easy to use QlikView interface makes it broadly appealing to business users. A simple click can transform the analysis and open up new analytical paths and ways to visualize data. Based on their security, business users can interact with QlikView Apps and make modifications, additions and/or create new apps without requiring complex training or ramp-up time. If users need a specific visualization component that is not included in core QlikView, web developers can easily and seamlessly integrate custom and third-party components.

Associative experience

The QlikView Business Discovery platform enables users to explore data, make discoveries, and uncover insights that can be used to help them solve business problems in new ways. One of QlikView's primary differentiators is the associative experience it delivers to users. Business users conduct searches and interact with dynamic dashboards and analytics from any device. They follow their own train of thought.

The Associative Experience leverages QlikView's in-memory approach to deliver the familiar experience of a search engine finding critical information and getting faster business answers. Similar to Google's new Instant Search, QlikView's Associative Search provides instant results as you type. Its intuitive interface highlights important relationships between your data. This enables ordinary

“ It would take a year and a million dollars to implement this functionality with traditional BI. ”

- IT Team Lead,
Major Commercial
Lending Organization



What is Business Discovery?

Business Discovery is user driven BI that helps people make decisions based on multiple sources of insight: data, people, and place. Users can create and share knowledge and analysis in teams, groups and across organizations. Business Discovery platforms help people ask and answer streams of questions and follow their own path to insight — on their own and in formal or informal groups. Business Discovery platforms deliver insight everywhere, an app model, mobility, remixability and reassembly, and a social and collaborative experience.

business users to explore data and gain better insights about customers. The inference engine maintains the associations in the data automatically – alleviating the need for developers to do so through rigid hierarchies and hard coded drill paths.

Collaboration

Business decisions are seldom made in isolation, they are collaborative. They are based on social exchanges driven by realtime debate, dialog, and shared insights. QlikView's approach places collaboration at the very heart of Business Discovery, allowing users to share and collaborate on relevant data across individuals, workgroups, and departments. It lets them collectively discover within in-context workspaces, capture notes and conversations, securely share information, and review decision results. QlikView provides users with the freedom to securely and privately collaborate as they choose.

Mobility

Financial institutions understand the power of decision-making while on-the-go. Users can test their hypotheses while they're out 'on location', interacting with their analysis apps where and when they need them. The result? Faster decision making. QlikView for Mobile provides the full QlikView platform, with the full range of functionality, on any device, at any location, thus reducing IT's support burden. QlikView provides the complete Business Discovery experience allowing users to understand what's happening with their business as it happens, instantly and securely.



Enterprise ready

The QlikView Business Discovery platform is highly scalable, supporting large volumes of users and data. It can scale at the rate the business requires, with a rapid implementation process. Once QlikView has solved a significant business problem that traditional BI could not address, other departments soon take notice. It does not take long before the solution evolves into a server-based, enterprise Business Discovery platform, delivering insights and opportunities previously unseen.

IT professionals are no longer tasked with creating data models, building large semantic layers, creating queries or building reports. Instead IT is responsible for retaining control over the data, helping to validate and deliver relevant analytics while enforcing security.

“ QlikView compliments our existing BI investments and we use QlikView for business user data discovery and traditional BI for overnight reporting to end users. ”

- Head of Metrics Analytics, *Top10 Global Investment Bank*



The QlikView Business Discovery platform enables business users to assemble data from multiple sources, explore it, make discoveries, and uncover insights that enable them to solve business problems in new ways. QlikView works the way the mind works. Users conduct searches and interact with dynamic dashboards and analytics from any device. They ask and answer streams of questions on their own and in groups and teams. They forge new paths to insight and decision.



Insight Everywhere

Qlik has offices worldwide with expert, friendly staff ready to help you drive smarter, faster decisions with QlikView.



For contact details please visit:

<http://www.qlik.com/us/company/contact-us>

Global Headquarters

Qlik Technologies, Inc.
150 N. Radnor Chester Road
Suite E220
Radnor, PA 19087
Phone: +1 (888) 828-9768
Fax: +1 (610) 975-5987

qlik.com

