

QLIKVIEW ON MOBILE:BEYOND REPORTING

A QlikView White Paper

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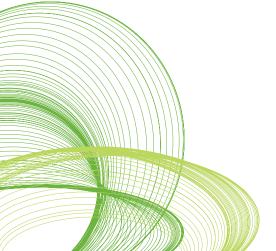
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WHAT IS BUSINESS **DISCOVERY?**

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

QlikView on Mobile Means Business Discovery

This QlikView White Paper addresses the market for mobile BI (business intelligence) and OlikView's unique approach to delivering insight on the go. There is a fundamental difference between providing predefined reports with limited data on mobile devices, and enabling true Business Discovery for mobile workers. This key distinction is articulated, along with supporting information that highlights the value mobile business discovery can offer when leveraged as an integral component to decision making. We will describe the unique capabilities that OlikView provides to enable Business Discovery on mobile devices, and emphasize the importance of the QlikView platform in making this possible.

Business Discovery on the Go

Business Discovery is what's next in Bl. With Business Discovery, users pursue their own path to insight, make discoveries collaboratively, and arrive at a whole new level of decision-making. They make decisions based on multiple sources of insight: data, people, and the environment.

- Business Discovery is the future of Bl. In the 2011 Gartner report, "Magic Quadrant for Business Intelligence Platforms," the analysts clearly delineated between traditional stack vendors and newer "data discovery" technologies, among which QlikView is the leader. This new approach is based on the premise of empowering the ordinary business user to explore and analyze live information, without limits, using simple and intuitive apps. Business users are increasingly choosing data discovery technologies over traditional Bl.2
- · Business Discovery works the way the mind works. Why are business users crazy about Business Discovery? With Business Discovery platforms, they are not limited to predefined paths they must follow, or questions they must formulate ahead of time. Users ask what they need to ask, and explore up, down, and sideways rather than only drilling down in predetermined ways. Business Discovery is the approach that ultimately fulfills the promise of Bl.
- Business people need BI when they're on the move. Business decision makers at all levels in an organization need data at their fingertips, wherever they are. Tablets and other large form factor mobile devices promise to make business data ubiquitous. Unlike traditional BI solutions, which address the need for mobile solutions by delivering static reports and dashboards to mobile devices, mobile Business Discovery platforms provide an intuitive interface and an application infrastructure that is tailor-made for users to explore data and draw associations and insights wherever they happen to be working.

Traditional BI — even on mobile devices — is still traditional BI. There is a
dramatic contrast between Business Discovery and traditional report-based architectures
that offer limited, pre-defined views of information and require lengthy, complex
deployments. Business Discovery, in contrast, offers business users of all skill levels
the ability to get the information they need via self-service, while affording IT the ability
to maintain security and control.

REPORTING ALONE DOESN'T DRIVE VALUE ON MOBILE

The same contrast holds true with BI on mobile devices. The ability for a user to ask any number of questions and explore freely, against a full set of live data, is far more valuable than simply delivering pre-aggregated subsets of information or pre-defined views. With report-based architectures:

- Reports limit reaction. Reporting-based tools for mobile devices rely on extracting a
 small subset of data into a predefined set of views. This approach greatly limits a mobile
 user's ability to immediately react to their current situation. Although a few levels of drilldown or selection may be available, these interactions are pre-defined and don't offer
 users the option to explore the data freely, pursuing their own path to insight.
- Questions must be predicted. With reporting or cube based technology, analyses
 must be designed and developed in advance by business analysts or BI report developers.
 While this approach is sufficient in situations where there is a repeated need for identical
 information to be delivered on a periodic basis, it does not address the unpredictable
 nature of questions that arise in mobile environments. A simple keyword search across
 a complete set of data, which is not possible with reporting based tools, can be a very
 powerful capability on the go.

Mobile users need answers, and they typically can't wait until they are back in the office to ask colleagues or request new reports. Immediate response to new questions can make or break a deal or decision for a mobile worker. With reporting, it is often too late to capture these critical opportunities in the field.

REAL VALUE FOR THE REAL WORLD

The opportunity to generate value in a mobile setting goes far beyond static information delivery. With the right capabilities, business users can unlock significant potential and bring the full power of their information to the time and place where decisions are made.

Consider this scenario:

A pharmaceutical marketing representative walks into her first physician group appointment at a clinic with an iPad in hand. She has done some initial preparation for detailing her company's new drug but isn't exactly sure what direction the meeting will take.

In speaking with the physicians at the clinic, questions arise around several key questions. Who is prescribing this new drug? How well is the drug being accepted in the market? And what can we expect in terms of progress with our patients? The physicians want to

CASE STUDY -**DE HYPOTHEEKSHOP**

A leading mortgage advisor with over 180 independently franchised branches in The Netherlands, servicing more than 15,000 clients annually, with 6% market share.

CHALLENGES

- · Improve visibility into sales and profitability to better manage branches
- More rapidly satisfy compliance questions from regulatory agencies
- Provide a mobile, flexible BI solution to independent franchises

SOLUTION

Deployed QlikView on iPad to franchisees in 180 branches for:

- Branch Performance & Efficiency
- Customer Targeting
- Regulatory Compliance Investigation

RESULTS

30% average increase in customer conversion rates 90% of regulatory compliance inquiries answered in one day 10% reduction in operating costs, 50% reduction in reporting time, and 15% reduction in marketing spend

know the implications of prescribing this new drug, and want insight into physician acceptance in the market, compared to other drugs used more prevalently during the last few years.

Using QlikView on her iPad, the pharmaceutical rep is able to access a complete set of up-to-date sales figures, physician prescribing rates, and performance data from multiple sources. Because the rep has the full power of Business Discovery at her fingertips, she quickly makes a few selections to narrow down to a specific type of doctor in the region that is prescribing the medication instead of older drugs.

Expanding the view to all regions, she notices that several of the more prominent physicians in the country have begun to increase prescriptions for the new drug. This prompts a question from the audience about a specific doctor, and the rep is able to immediately perform a keyword search, revealing that the doctor in question has written several scripts for the drug in the last three months. Last, she is able to drill into several examples and point out that the incidence rate for serious side effects is significantly lower than with older drugs.

In this example, the rep is able to take advantage of Business Discovery capabilities on mobile to search live information and immediately react. If this rep had a traditional reporting system, she would only be able to answer an initial question or two — and only if the report designers thought to include the right information beforehand.

THE POWER IS DRIVEN BY THE PLATFORM

OlikView is the leading Business Discovery platform. It enables users to explore live data, make discoveries, and uncover insights that enable them to solve business problems in new ways. Business users can see hidden trends and make discoveries like with no other BI platform on the market. Three factors, when taken together, make OlikView stand out in the BI software market:

• The QlikView associative experience. 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. With QlikView, users can gain unexpected business insights because OlikView works the way the mind works. They ask and answer questions on their own and in groups and teams, forging new paths to insight and decision. QlikView delivers direct — and indirect — search. It delivers answers as fast as users can think up questions. And it illuminates the power of gray — the value of seeing not just the data that is associated with the user's selections, but the data that is not associated.

- QlikView's core technology. QlikView is known as a pioneer in in-memory Bl. In-memory technology is important for Bl, for performance reasons. But just being in-memory isn't all it takes to deliver a Business Discovery platform. Traditional BI solutions that are based on queries and cubes may run in memory, and that may provide faster user response time. But they are still query- and cube-based, and creating associations in the data requires hand coding. It's what QlikView does with in-memory technology that really makes a difference. The QlikView Business Discovery platform has an inference engine that calculates associations in the data automatically. It calculates aggregations on the fly as needed. And it caches data in memory, compresses data down to 10% of its original size, and optimizes the power of the processor for a super-fast user experience.
- The typical customer adoption path. QlikView penetrates enterprises by solving significant business problems that traditional BI solutions can't address. Typically, it all starts with the personal edition of QlikView, which people can download for free. The new user gets value out of OlikView immediately. A workgroup or team expands its deployment. As more departments adopt OlikView, IT helps support an enterprise deployment. The IT organization's role in an enterprise QlikView deployment is to assemble data, deliver relevant data, enable self-service BI, and ensure security and scalability. IT professionals are no longer tasked with creating data models, building a massive semantic layer, and building reports.

TABLETS ARE THE IDEAL MOBILE DEVICE FOR PRESENTATION

Fueled by the iPad, the rise of tablets as legitimate business devices presents a compelling opportunity to deliver mobile BI capabilities to a more mainstream audience.3 Tablets are ideal for rendering Business Discovery apps in a mobile setting. They're portable, always on, and touch capable, and have large enough displays to offer rich, interactive user experiences.

OlikView on Mobile — A Unified Architecture

Traditional BI architectures typically require new mobile reporting layers on top of already complex stacks. In contrast, QlikView offers a unified architecture for delivering crossplatform Business Discovery on mobile (see Figure 1). QlikView delivers data exploration capabilities in a cross-platform browser client. QlikView Server recognizes mobile browsers and delivers touch-enabled apps to those browsers as needed. There are no additional stack layers, data transfers, report customizations, or duplicate security models required.

QlikView Application QlikView Server **Desktop Browser** QlikView Application Mobile **Tablet Browser** Application Rendering QlikView Application **Mobile Browser**

Figure 1: QlikView has a unified mobile architecture

With QlikView, mobile apps:

- Are no different than desktop apps. A single OlikView application (.qvw file) can be hosted on QlikView Server and delivered across platforms with no additional configuration required.
- Take advantage of server power. True Business Discovery apps are too resource intensive to run standalone on today's mobile devices; the best solution is to utilize devices as the presentation layer for server-based analytics apps.
- Do not require additional stack layers. Mobile app rendering is built into QlikView Server. No additional components are required. QlikView apps are simply published to the server and will "just work" on mobile devices.
- Do not require additional purchase. Because mobile app delivery is just part of OlikView Server, there are no additional purchases required for mobile capabilities. Any QlikView license will just work.

ONE QLIKVIEW, ANY DEVICE

With QlikView, mobile access is no different than access to QlikView Server from any other client. The same apps are delivered with the same functionality on any platform. This allows users to benefit from a consistent experience across desktops, laptops, tablets, or smartphones. The power of the platform is anywhere, allowing for value to be generated anywhere.

RICH, ATTRACTIVE, BROWSER-BASED INTERFACE

QlikView offers rich layouts, compelling visualizations, and a full set of touch interactions through the mobile browser. By taking advantage of HTML5 technology, apps are automatically delivered with touch capabilities such as momentum-based scrolling, selection in charts and graphs, and multi-select. QlikView also supports device features like pinch to zoom, adjusting for screen orientation, and bookmarking QlikView apps for full-screen mode access from the home screen, resulting in a user experience on par with native apps.

SECURE AND MANAGEABLE

OlikView on Mobile leverages OlikView's enterprise-proven server architecture. It gives organizations a combination of control at the center and flexibility at the edges. Because management and security are server capabilities in OlikView, the same access to apps and data entitlements apply regardless of the device used. Developers benefit from a 'build once deploy anywhere' approach that reduces the burden associated with maintaining multiple versions of apps for native clients. And organizations reduce risk by keeping data inside the firewall and maintaining independence from third-party app stores.

Not Just Gorgeous, But Genius

There are many mobile BI tools on the market, and more are on the way. Many of these products are marketed based on one key attribute: they look great. But it's important to consider the real value that can be unlocked through mobile BI for both business groups and IT departments. Helping real people solve real problems requires more than just great looking reports. With QlikView, Business Discovery is engaging, visually appealing, and valuable.



Appendix

LINKS TO RELATED QLIKVIEW TECHNOLOGY WHITE PAPERS

Business Discovery: Powerful, User-Driven BI

http://www.qlikview.com/us/explore/resources/whitepapers/business-discovery-powerfuluser-driven-bi

The Associative Experience: QlikView's Overwhelming Advantage

http://www.qlikview.com/us/explore/resources/whitepapers/the-associative-experience

What Makes QlikView Unique

Link to come

Tech Brief: Mobile Security

Link to come

Tech Brief: Mobile Design Best Practices

Link to come

MOBILE DEMO APPS AND VIDEOS

Introducing OlikView on iPad

http://www.glikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fmobility

QlikView on iPad: Quick Tour

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fmobility-ipad-quick

QlikView on iPad: Full Tour

http://www.glikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fqv-ipad

Mobile Minute: Information Foraging

http://www.glikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-info-forage

Mobile Minute: Making the Most of Being Mobile

http://www.glikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-make-most

Mobile Minute: Catching the Wave

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus%2Fvi deos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-catching-the-wave

Mobile Minute: The Trickle Down Theory

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus %2Fvideos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-trickle-down

Mobile Minute: Don't Leave Home Without It

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus %2Fvideos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-dont-leave-home

Mobile Minute: Beautiful, Lovely Data

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus %2Fvideos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-beautiful-lovely-data

Mobile Minute: Follow the Leaders

http://www.qlikview.com/us/explore/resources/how-to-videos?language=all#%2Fus %2Fvideos%2Fhow-to%2Fmobile-minutes%2Fmobile-minute-follow-the-leaders

End Notes

- 1 OlikTech came out as a Leader in this study. For more information, see the January 27, 2011 Gartner report, "Magic Quadrant for Business Intelligence Platforms."
- ² According to Gartner, data discovery software will be a \$1 billion market in its own right as soon as 2013. See the June, 2011 Gartner report, "Emerging Technology Analysis: Visualization-Based Data Discovery
- ³ "Predicts 2011: New Relationships Will Change BI and Analytics", Gartner Research, November 25th, 2010