SAP® BusinessObjects™ Dashboarding
Strategy and Statement of Direction

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INTRODUCTION

Engage with SAP
This Statement of Direction (SOD) is just one step along a continuum in which we work with our customers to define the estimated future our solutions. We've been listening to our customer's expectations and discussing their needs as input to this SOD, and we hope that you use this document to engage with us further. With your participation, SAP can continue to deliver innovative solutions that help develop you insights for better decision making. If you want to join the conversation, join one of our customer groups (for more information click the link below), submit an idea, or simply respond to our blogs:
- Influence Councils (http://www.asug.com/Influence/ASUGInfluence.aspx)
- Idea Place (https://cw.sdn.sap.com/cw/community/ideas)
- SAP Community Network BI Dashboards (http://scn.sap.com/community/bi-dashboards)
- Analytics Blog (http://blogs.sap.com/analytics/)

Background
After acquiring Business Objects in early 2008, SAP published a road map for merging its newly expanded portfolio of solutions and integrating them with SAP® BusinessObjects™ business intelligence (BI) solutions. In designing the road map, SAP emphasized the following principles:
- Delivery of a shared user experience that incorporates the same languages, visualizations, and technology platforms across our applications
- Provision of solutions that support major sources of data, both relational and multidimensional, in sources within SAP software other sources
- Continued work with our partners and key industry experts to define product innovations that bring value to our customers and create best-in-class solutions

CUSTOMER EXPECTATIONS AND BUSINESS CHALLENGES

Since the introduction of our first dashboard solutions, the technological landscape has changed substantially, which has led to new customer expectations and requirements. The changes can be grouped into three broad categories:

- **Mobile**: The rise of tablets and smart phones and their app ecosystems create a demand for continuous connectivity, with the availability of relevant and timely information at a user's fingertips anywhere, anytime. These demands create an expectation of mobile first, where the mobile experience is equal to or better than a conventional desktop experience.
- **Real Time:** Technologies such as complex event processing and in-memory analysis of big data are often used to augment traditional data warehousing and analytical techniques, giving organizations a 360-degree view of the business. These solutions help companies perform deeper analysis with more data in less time, while providing the means to apply the new insight against operational systems through continuous monitoring and automation.
- **Complete:** Separate point solutions for individual use cases have given way to tightly integrated suites of products. Interoperability allows users to use the functionality that they need agilely, bringing along context and data, from a single point of entry.

Within a company, there are many different situations and therefore requirements for the visualization of data, but we can broadly categorize them into professionally authored and self-service situations. These categories are targeted at different user audiences with different needs, expectations, and levels of technical expertise. Accordingly, each audience needs a different experience.

Professionally Authored
Professionally authored dashboards or those built by power users or IT have high mobility expectations because they are frequently the source of the key performance indicators (KPI) for senior management and a trusted version of information used to make real-time decisions on the fly.

Dashboards address the needs of managers and executives who want dashboards built by IT and power users for a number of reasons, including:

- Managers and executives often lack time to analyze raw data themselves and calculate the KPIs that they want to measure
- Dashboards can be broadly published to drive action and decisions
- Users can be confident that the data in IT-built dashboards is trusted and reliable

Self-Service
In this situation, the data is placed in the hands of users who can bring together, navigate, and share data sets and visualizations that they have created themselves:

- An intuitive interface to enable users to explore data without much training and without waiting for IT to build something
- Ability to personalize the view to a specific user for a specific situation and adapt agilely to changing needs
- Ability to explore the associations in data and understand the reasons behind a metric

ESTIMATED FUTURE DIRECTION: PROFESSIONALLY AUTHORED APPS

Version 4.0 of SAP BusinessObjects BI solutions currently offers two solutions for professionally authored dashboards:

- SAP BusinessObjects Dashboards software (formerly Xcelsius® software) for building highly visual, dashboards based on the Adobe Flash Platform and delivered on the Web
- The Web application designer tool of SAP Business Explorer (SAP BEx) tools for applications targeted at the user base of the SAP NetWeaver® Business Warehouse (SAP NetWeaver BW) component

Recent changes in the technology landscape, including improvements in mobile and desktop browsers and the discontinuation of mobile Flash support have pushed the current technology stack for dashboards to its limits.

A new, unified technology stack (code named Zen) is therefore required to enable innovative functionality and simplify the tool landscape. The technologies used in this stack have been selected to support the customer requirements of the future:
- HTML5 for rendering to enable the mobile-first experience and comparable functionality between mobile devices and the desktop
- The semantic layer to support big data and traditional sources
- A common runtime environment across all classes of solutions to support interoperability and integration

It is anticipated the new technology stack will be introduced in a phases across our tools with eventual convergence into a single user interface for SAP NetWeaver BW and customers with other sources of data.

SAP BusinessObjects Dashboards software continues to be a key solution, and we anticipate delivery of a mobile solution. Currently, adoption of the new technology will be optional, and we anticipate continued support of SAP BusinessObjects Dashboards for the foreseeable future. SAP remains committed to protecting existing investments in SAP BusinessObjects Dashboards.

Estimated Timeline

The estimated timeline for the introduction of the new technology stack is as follows:

Phase 1 (About the End of 2012):
- SAP BusinessObjects Dashboards: The release of the most commonly used components for mobile dashboards in HTML5 will allow customers to view existing dashboards on mobile devices.
- Zen: The first release of Zen is envisioned as a renovation of the user experience, both at runtime and design time, creating a modern environment for building innovative functionality. Zen intends to align to our priority on mobile first and is therefore a fully enabled HTML5 rendering system. In this release, we plan for Zen to work with the SAP HANA® platform and SAP NetWeaver BW and to be optimized for big data.
- Common mobile application: Both tools plan on using SAP BusinessObjects Mobile software as their delivery vehicle on mobile devices, providing a unified mobile experience.

Phase 2:
- SAP BusinessObjects Dashboards: We plan to release a fuller set of HTML5 components for mobile dashboards.
- Zen: We intend to expand the number of HTML5-based visualization components to be equivalent with those currently available in Flash. At this point, there will be a common rendering system between Zen and SAP BusinessObjects Dashboards.
- Zen: We propose adding support for plugging in certain third-party components so that the large ecosystem that uses SAP BusinessObjects Dashboards can begin to reach out to new customers.
- Zen: We anticipate continuing to expand the range of charting and other visualization choices for designers and to bring other features into the product, including write-back, annotations, scheduled views, dashboard bursting, and so on.

Phase 3:
- Common semantic layer – Zen: We plan to unify the data-access technologies, allowing the new Zen runtime to access major types of data. At this point, the Zen development environment becomes the design tool for the unified runtime.
- Conversion tools for existing content in SAP BusinessObjects Dashboards and the Web application designer tool of SAP Business Explorer are planned to assist customers who want to move content into the new stack. We expect the conversion to be optional.

ESTIMATED FUTURE DIRECTION: SELF-SERVICE

In the current suite, self-service dashboarding is provided via:
- Exploration views to provide data navigation and interactive visualization
- BI workspaces to create composite dashboards that join many types of BI content
- BI widgets to bring BI content into desktop widget environments

In the future, exploration views (a functionality of SAP BusinessObjects Explorer) will become the preferred technology for building self-service BI applications. Exploration views will provide an easier-to-use environment for creating attractive interactive visualizations on mobile devices and on the Web, building on SAP BusinessObjects Explorer software. Deep integration with the other tools of SAP Business Explorer allows users to take advantage of real-time and big data.

The mobile version of SAP BusinessObjects Explorer plans to consume data and render content on device, leveraging native capabilities of mobile devices, such as GPS and camera. This version aims to give users a variety of options to visualize data and support connected and disconnected states. SAP Business Objects Explorer and exploration views anticipates using SAP BusinessObjects Mobile to leverage a single mobile client application for consuming and interacting with BI content, such as information spaces, dashboards, reports, and exploration views.

The short-term goal for BI work spaces is to continue to position the product for composite workspace and portal building and development. The emphasis is on the reusability of existing BI content and the ability to link contextual content. Over time, we expect to fold the functionality of BI work spaces into the BI launch pad, enabling a single, powerful, and flexible BI portal for all users.

BI widgets will continue to serve the existing niche use case of desktop-based widgets, but we do not envision further enhancements.

RUNTIME CONVERGENCE OF SELF-SERVICE AND PROFESSIONALLY AUTHORED BI APPS

A final element of introducing the new BI apps stack is to bring exploration views onto the same runtime technology stack as the professionally authored applications to simplify deployment and lower the total cost ownership. This approach is foreseen to provide a single mobile experience regardless of how the BI app was created. This convergence is estimated in phase 3, when the data-access technologies are unified in the runtime.

WHAT ALL THIS MEANS FOR USERS OF DIFFERENT SOLUTIONS

Current users of each solution can leverage the following estimated broad guidelines:

- Customers of BI widgets can continue to use their existing widgets as is and should look to exploration views for future projects.

- Customers of BI workspaces should continue to use BI work spaces to join composite views of different content on the Web and look to SAP BusinessObjects Mobile for building similar applications on device.
- Customers of the Web application designer tool of SAP BEx should adopt Zen as their primary tool for creating dashboards and applications, both on the Web and on device.
- Customers of SAP BusinessObjects Dashboards should continue with dashboards and leverage the upcoming HTML5 functionality for on-device dashboards. Customers using SAP BusinessObjects Dashboards on top of SAP NetWeaver BW should strongly consider building their new dashboards in Zen.

CONCLUSION

We've been listening to our customers and thinking about how to address their needs best with more robust, innovative solutions that reflect the changing realities of technology and implementation. Please continue to join the conversation so that we can understand your priorities, business challenges, and goals to design a dashboarding solution that helps you make more informed decisions for stronger business performance.