CASE STUDY
Real-Time Business Data Visualization Tool
Developing custom tools to acquire and visualize real-time business data.

Architecting your future.

The Summary

Our client is the worldwide leader in software, services and solutions. This Fortune 100 global technology company has made an important and fundamental business transformation. Moving away from the traditional boxed product model and mentality, this company shifted to an Online Services and Devices focus. This transition to Online Cloud based services amplified the need for real-time insight into the customer experience in order to keep a finger on the customer pulse as well as take action in the moment to manage and improve the online customer experience and maintain high credibility as an industry leading Cloud provider.

Blueprint Consulting Services was chartered with the task of deriving and presenting timely business insights from dozens of disparate data sources spread across multiple divisions and organizations. Blueprint identified the need for a robust solution to streamline and translate the immense amount of data into straight forward, real-time business insight that would trigger action from specific roles within the company and continually monitor and alert on the state of the customer experience for dozens of online services.

> *The Blueprint approach is to focus on data driven design…Our solutions evolve and grow with the business"*
>
> *Andy Macourek*
> *Chief Technologist*
> *Blueprint Consulting Services*

The Problem

Customer facing roles such as Support and the Field needed to locate, access, and consume multiple data points in order to derive information related to customer sentiment and impact including Service health, Support cases and Social media sentiment. The absence of correlated views and real-time notifications on this data posed a challenge to proactively communicating and managing the customer experience. To address this concern, Blueprint was engaged to architect and build a platform that surfaces correlated insight in real-time across the company's online assets and provides targeted communication and alerting to a broad range of roles across the company.

The Challenges

- **How do we improve data accessibility, reliability, and availability?** Our client's customer support, and product performance data lives in across various departments and systems. Blueprint was tasked with identifying and aggregating comprehensive, real-time offering-level data points into an accessible, highly-available dashboard.
- **How can we facilitate actionable insights from all multiple sources of client data?** To accomplish our client's mission of excellence, consumers of performance information must rely on timely and actionable insights for their offerings. Blueprint transformed aggregated data points into a holistic workload-level view that arms users with instant insights on three critical information sets: customer support data, product performance data, and social media data giving a complete view to the customer experience.
- **How can we present users with role-relevant information?** The aggregated information includes details for more than 70 workloads and it will continue to grow as new workloads are onboarded. Blueprint was tasked with implementing a comprehensive degree of presentation, customization, and drilldown to streamline the needs of several personas across multiple client organizations while empowering individual users in these roles with an intuitive design and navigation workflow.
- **How can we increase awareness of workload health changes relevant to their role?** Using a traditional dashboard, users would typically be forced to pull the information needed for their workload and they would be tethered to a device access any changes. Blueprint redesigned our client's solution with a push experience where users are instantly notified of changes applicable to the products and services relevant to their role.

> *"Blueprint does not just produce top flight software solutions for our clients, we transform how our clients do business. We are in the business of architecting futures."*
>
> *Ryan Neal*
> *President*
> *Blueprint Consulting Services*

CASE STUDY
Real-Time Business Data Visualization Tool
Developing custom tools to acquire and visualize real-time business data.

Architecting your future.

The Blueprint Solution

- **Design and Build an Analytics Platform:** Leveraging expertise in hosted web applications and Business Intelligence, Blueprint would create an analytics engine that not only aggregates disparate data points but also drives quick tactical and strategic decisions based on valued data metrics and centralized threshold management.
- **Offer a Personalized User Experience:** Blueprint built substantial customization capabilities that allow users to surface role/interest-relevant information. By personalizing each user's experience with the tool, only relevant information was driven to users facilitating efficient and effective decision making.
- **Include Notification Capabilities:** Blueprint implemented a granular notification system to complement the highly customizable user experience of the platform with smart alerts that keep users informed of changes and status updates of their workloads.
- **Provide Device-Independent Access:** Blueprint extended their solution to the mobile space by replicating the web solution to mobile platforms. Since Blueprint's solution facilitates user preferences server-side, users can easily switch between desktop, tablet, or phone without ever losing their customization settings.

"A company's ability to raise and take action on business insight in the moment is critical to compete in today's online world…."

Kyle Wagner
VP Operations
Blueprint Consulting Services

The Impact

- **Exponential Adoption:** With its user-centric design, Blueprint's solution was met with exponential adoption across over twenty client business groups initially. It has rapidly consolidated multiple monitoring tools in each group and has become one of the predominate alert and notification systems for our client's customer-facing organizations.
- **Critical LOB (Line of Business) Application Status:** Due to its popularity, proven value, and rapid adoption, Blueprint has become a critical provider of in our customer's customer support ecosystem and has cemented its status as a critical provider of LOB applications.
- **Business Continuity & Reliability:** Blueprint approached this development with a mature model of accessibility, reliability, and high availability. By centralizing backend infrastructure, the data existing in our client's data centers is equipped with enterprise-level Business Continuity and Disaster Recovery (BCDR) capability to reduce downtime and eliminate the risk of service unavailability.

The Project

Our client focuses on representing the best interests of its customers and partners. To accomplish its mission, our client must rely on real-time, actionable insights about the health of its product offerings, as well as information regarding customer sentiment. With the sheer volume and diversity of its offerings, our client faced increasing obstacles in accessing and streamlining disparate data points in a timely manner. This became particularly problematic with our client's expansion to the cloud and the resulting added layer of service health information. Blueprint facilitated the realization that the absence of centralized, actionable insights could delay timely customer response and proactive customer service, which would eventually incur the risk of compromising our customer's reputation.

Blueprint was approached with the initial goal of leveraging disparate customer support data points into a web dashboard accessible to various field and support roles. Blueprint refined this requirement into a much more sophisticated product to provide a cross service listening platform that provides actionable insights on customer support, product performance, and social media data related to over 70 on-premises and cloud offerings.

"Part of the value that we bring is the experience and perspective to look long term, see where technology is taking the industry, and determine how to position our clients for advantage."

Ryan Neal
President
Blueprint Consulting Services

Complemented by award-winning design, mobile presence, device-independent accessibility, highly customizable user experience, and granular notifications, our tool was met with immediate adoption by more than 17,000 customer users in less than 2 years after launching. It radically transformed our client's customer support ecosystem as it gained widespread recognition as the go-to resource for product/service health

insights. Various business groups including product development and marketing groups have found it easy to monitor product launches and customer sentiment via our tool.

The Details

The Blueprint team approached this project, not just to provide a first-class reporting dashboard but also to support users in leveraging the insights in a way that caters to their individual tasks, needs, and interests.

"Blueprint does not just produce top flight software solutions for our clients, we transform how our clients do business. We are in the business of architecting futures," says Ryan Neal, President of Blueprint Consulting Services. "Part of the value that we bring is the experience and perspective to look long term, see where technology is taking the industry, and determine how to position our clients for advantage."

Applying expertise and foresight, Blueprint refined this tool into a mature product slated to achieve continued recognition and increase adoption to record numbers. Some of the winning traits that won our tool its star status are:

- Intuitive design and persona-centric user experience
- Extensive customization and granular notifications
- Cross-device presence and device-independent accessibility

The Value Proposition: A Flexible, Intuitive Approach to Data

The primary goals for our design methodology is to build a platform that is flexible enough to respond to the changing health of our client's offerings, deep enough to allow for analysis, yet intuitive enough to support decision makers to respond effectively based on instant insights. Our development team achieved these goals through a combination of a flexible foundation, and decision-focused presentation of data.

The foundational tenants of Blueprint's data analytics architecture are flexibility, speed of acquisition, and speed of retrieval. Tool flexibility is critical, as a customer will always desire a new way of viewing or aggregating data, and the tool must respond. An effective solution is one that can adapt quickly to emerging needs with minimal effort. At its core, a Blueprint analytics solution lets the data shape the presentation. "The Blueprint approach is to focus on data-driven design," states Andy Macourek, Principal Technologist for Blueprint. "We heavily leverage metadata to describe the underlying data structure and business rules. Our solutions should evolve and grow with the business by adjusting the metadata, not revisiting the code."

Our tool can adjust data presentation in real-time by utilizing metadata to describe business concepts as well as centralized threshold management to indicate health change. Speed of data acquisition is another integral part of our development architecture. Historical data is reserved for insightful reports and trending analysis used in threshold calculation. "A company's ability to raise and take action on business insight in the moment is critical to compete in today's online world. Blueprint's approach is all about getting the right insight to the right people at the right time" relates Kyle Wagner, Blueprint's VP of Operations.

Speed of retrieval from the data set is also an advantage of the Blueprint development methodology. Decision-makers have little patience for report refreshes, and connection speeds vary. Our tools leverage extensive pre-aggregation of data, pre-generation of report visuals, and web and database standards. This approach results in minimal data storage, extremely low bandwidth use, and quick end user performance on any internet browsing device. The speed and flexibility of a Blueprint BI architecture ensures operational insight adapts to the customer and is available anywhere, at any time, on any internet browsing device.

The Blueprint approach is to focus on data driven design…Our solutions evolve and grow with the business"

*Andy Macourek
Chief Technologist
Blueprint Consulting Services*

CASE STUDY
Real-Time Business Data Visualization Tool
Developing custom tools to acquire and visualize real-time business data.

Architecting your future.

The Presentation Layer

Blueprint approached the challenge of visual presentation of the data by focusing on clarity *with* depth. Based on thorough persona studies, it became clear that our tool must reconcile disparate needs of varied users within several persona categories. Blueprint believes that depth of data should never overwhelm those trying to make a decision. Thus, at their surface, all dashboards should focused on clarity and decision-making. In this case, we used metro-style live tiles that show product/service health based on pre-defined thresholds and ongoing changes in data. However, more detailed data is made available when the user clicks a tile to drill down further at the workload level. It is in this way that our development methodology hierarchically links clarity of presentation and ease of decision making with depth of information, which results in a tool shaped by the data and tailored to the varied needs of each type of user.

Extensive Customization and Granular Notifications

A tenant of Blueprint's development methodology is iterative improvement. During development, Blueprint encouraged and aggressively sought user feedback through multiple forums and formats. As feedback came in, it became evident that users needed instant insights relevant to their needs and roles. Blueprint turned this feedback into two valuable features:

- *A Personalized User Page:* a customizable dashboard that only surfaces the information set by users in their preferences.
- *A Personalized Customer Page:* a designated section designed to target impact on particular customers.

Not only are users able to set their preferences for these features, but they can also set up notifications based on these preferences.

Blueprint understood and underlined from the very beginning the importance of informed users in proactive customer support and sales roles, and added a smart alerts feature in the very early stages of development. Users can set up notifications in order to receive email or SMS alerts about changes in product offerings, and, more recently, customer impact. Alerts also include customizable filters for geographical area, particular workloads, support incident severity, and status updates frequency. Smart alerts are a user favorite as they free up users to focus on their daily tasks and only react to incidents that impact their customers.

Impact

Our tool has quickly become indispensable to user daily operations. It has drastically improved support responsiveness to customers, clarity and consistency of information, and allocation of support resources. Additionally, users benefit from a cross-device presence that makes it easy to toggle between devices with no impact on their mobility. Switching between devices has no impact on the user experience as user preferences are stored server-side. With the rapid adoption of our tool throughout multiple organizations within our client, development efforts have focused on infrastructure maturation increasing applicability to initially unintended users and groups. After quickly acquiring the critical application status, our tool improved reliability, high-availability (99.9% as per its official SLA), and scale to accommodate a rapidly growing user base. It has become the primary data reporting tool in over twenty business groups within our client and has had a significant impact on client responsiveness and customer satisfaction.

To find a solution that's right for your organization, and review other success stories, please see the Blueprint Consulting Services website (www.bpcs.com).