

## Projectline Services, Inc.

### What is BI?

Business Intelligence, or BI for short, seems to be the corporate buzzword-du-jour. Many professionals use dynamic BI tools in the course of their work and understand the power of meaningful, actionable, data-driven reports and dashboards.

If you ask 10 people to define business intelligence, you may end up with 10 very different answers. IT professionals often talk about data warehouses, networking, hardware, and software, while business people often speak of the front end of business intelligence: dashboards, key performance indicators (KPIs), and real-time information. While there's a lot that needs to happen to maintain, manage, and extract warehoused data, business people understand that it's the application of this data that generates real value and drives intelligence.

*BI is all about delivering actionable information when a decision needs to be made.* The concept of BI has been around since the beginning of commerce. To make better business decisions, management has always needed insight into what works, what doesn't, and where opportunities lie. The first management information systems were expensive and organizations viewed all but the most critical enterprise reports as a luxury. Reliability was a significant issue as well—data had to be captured, reported, and summarized manually, meaning the BI was delayed, limited, and possibly inaccurate.

BI really came into the mainstream of the business process in the mid-1970s with the advent of Management Information Systems (MIS). The evolution of computing power began to make business data reporting available on a more regular, more automated basis. But while management could access business data quickly, the data came in the form of reams of paper reports. The distillation and summarization of this overwhelming amount of data required time-consuming manual processes. Although recent developments have seen more powerful tools for reporting and disseminating BI, it all goes back to the same concept: providing management with the information they need to run and grow their business.

### Who Needs BI?

Any management team responsible for driving measurable results needs BI. Business unit-level managers need BI to drive swift, tactical decisions and provide help with planning. Mid-level directors need BI to track the performance of several business units toward goals. And upper-level managers need BI to take the pulse of their business, spot trends, and drive effective decision making. In this day of "information overload," companies of all sizes need to make sense of massive amounts of data.

### The Key Word is "Actionable"

In the past, BI was solely in the domain of the IT professional—BI efforts focused on data architecture to enable basic data analysis and data mining to enable continuous feedback on information that could help drive the business. The challenge in developing reliable, extensible BI has moved out of the data warehouse and beyond the enterprise solution—data is everywhere, it's valuable, it's being created and collected by the nanosecond, and it's accessible throughout the organization—but too few are taking the last, most important step of developing actionable plans around the real drivers of their business.

Today's challenge goes beyond understanding commoditized tools and software used to store and extract data. Developing valuable BI is not about data capture, cubes, or queries—it's about people and business acumen. It's about architecting solutions that provide actionable insight, flexibility, growth, and return on investment (ROI). A technical skill set is needed to administer databases, write queries, generate reports, and perform statistical analyses. But few people have the business management skills and strategic vision necessary to determine what results are *actionable*.

The gap between the technical side and the business side has created some real problems. Some business managers can't effectively drive the technical effort. Other managers can drive the technical effort, but they don't have time. The technical people can drive analyses, but without the strategic vision, it's difficult to find actionable results. Truly valuable BI efforts will be led by innovators with a unique combination of technical and business experience.



### Two Forms of BI

BI can take several forms and be used for many different purposes. But these can be broken down into two major categories:

Process Tracking: This is perhaps the “traditional” type of BI. It involves a set of KPIs that are tracked on a regular basis (usually daily or weekly) to assess the state of a certain process in a manner that is consumable and contextually relevant. The KPIs can be at a high level (like overall sales per month) or very granular (like the number of software trials downloaded yesterday by people in France). Business information is gathered, audited, summarized, reported, and disseminated to management at regular intervals or in real time.

Tactical Decision Support: There's no set process here—tactical decision support generally takes the form of one-off reports, KPIs, and analytics. This type of BI leads to increasing insights when making decisions to advance the business. Tactical decision support offers a strategic reaction to an opportunity or threat. Examples would be: data driven feedback to help decide whether a company should develop a new product line or enter into a new geographic area.

### Defining the BI Skill Set

Several steps need to be considered when developing a BI solution:

Defining the End Result: Stephen Covey, in his book *The 7 Habits of Highly Effective People*, defines the Second Habit as “Begin with the End in Mind.”<sup>1</sup> All BI projects should begin with a full definition of the expected end result. From here, a game plan can be put together.

<sup>1</sup> Covey, Stephen R. W. *The 7 Habits of Highly Effective People*. Free Press, 1989.  
[www.franklincovey.com](http://www.franklincovey.com) and [www.stephencovey.com](http://www.stephencovey.com)

Defining KPIs: Key performance indicators are those critical data points that need to be collected, tracked, summarized, and reported. It's important that the correct KPIs be defined up front; otherwise, management may look in the wrong direction. For example, tracking responses to advertising can be important, but it could lead to bad decisions if ROI for the advertising efforts is not also tracked and reported. There's an agility issue here, too—any BI solution needs to be agile so that KPIs can be added or modified as needs arise.

Defining data sources: Possible sources of data must be analyzed to determine availability of the data needed to produce the end result. This often requires a technical skill set, particularly if the data resides in many places and in disparate formats.

Gap Analysis/Plan: Often in the “defining data sources” step, gaps are found—information that is needed may not be readily available. Planning should take place, again often at a technical level, to determine how to fill in these gaps. Work should continue on developing a BI solution that is as close to the desired end result as possible, but a parallel effort of filling in the gaps will ensure that the BI solution can be enhanced over time.

Tracking: This is the nuts-and-bolts part of the BI solution. This step involves collecting the necessary data, often on a regular basis, and accumulating this data for trending. The data can be accumulated using several tools, from Microsoft® Office Excel® spreadsheet software to Microsoft SQL Server® data management software, depending on volume and need.

Auditing: Any BI effort is useless if the data is flawed. This often-overlooked step is critical to providing an accurate BI solution. Cross-checks against multiple data sources, and checks for variance within tolerance, are a couple of the techniques often used. In addition, if data collection is automated, auditing steps need to be in place to catch any changes made to the upstream data sources.

Focused Analysis: Simply collecting and reporting data doesn't provide actionable management information. It may be that customers with green eyes perform better than those with blue eyes, but this probably won't help drive the business. Neither does highlighting false trends that are within statistical margins of error. BI needs to focus on actionable data that management can use to drive the business.

Presenting and Disseminating: The results of the BI need to be summarized and presented in a way that is easily interpreted, makes the important results stand out, is easily obtainable, and allows for further analysis. Mobile devices enable managers to access information from wherever they are, so the BI needs to follow them. Effectively leveraging technologies such as Microsoft Office SharePoint® Server can provide an excellent solution.

### **Applying the BI Skill Set**

The application of the BI Skill Set is at the center of Projectline's Business Intelligence practice. We help companies capitalize on the convergence of forces that proliferates data and the resulting, underlying insight. We believe our skill set to be rare, unique, and a function of our vast experience—attributable to our *people*, not the *tools* they use.

## The BI Skill Set in Action

We've used BI to help management make sound business decisions across horizontal and vertical campaigns. Here are just a few examples of how we've helped others:

Customer Loyalty Program: Upper management of a major retailer needed a comprehensive, weekly snapshot of their new customer loyalty program. We worked with management to scope the necessary reporting and identify the KPIs to monitor. We identified the necessary data feeds (from a third-party vendor), identified data audit needs, and put together a procedure to summarize the data and assemble a full report showing program performance by week. The report has breakouts by sales channel and product groups. This report is refreshed every week and disseminated to all members of the Executive Steering Committee. Major changes and enhancements to the loyalty program have been driven off this BI report.

Software Downloads: A major software company needed a way to set and track a product's software download goals for each of their global subsidiaries. Two data sources were identified, but neither had sufficient information, and the data couldn't be directly combined. Using rules-based modeling techniques, we developed a flexible system that uses data from one source to allocate data from the other source to each subsidiary. This resulted in a weekly procedure that they now use to drive their business.

One-Off Market Analysis: A major retailer considered a significant capital project to open new stores in a new market. Using their existing sales data and modeling techniques, we were able to predict what these new locations could expect in sales volume. Further analysis, down to ROI based on sales per square foot, showed that the new stores should not be opened. The executive committee agreed.

## About Projectline

Projectline enhances an organization's business intelligence capabilities through custom front-end and operational BI.

Our experienced consultants apply their knowledge using the BI Skill Set to leverage existing systems and warehoused data to create dashboards, scorecards, analytics, visualization tools, and KPIs that provide ongoing, reliable, actionable insight into the health and growth of marketing and sales processes.

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