GoodData

Business Intelligence: Build Vs. Buy

Your guide to weighing the requirements of each

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Introduction

Your data is the strategic insight that powers the future success of your business. The challenge lies in defining and extracting critical key performance indicators to leverage your data effectively. This is where a powerful and scalable business intelligence (BI) solution comes into play. Whether you are initiating a new BI implementation project or revamping your current strategy, one of the most crucial decisions you'll face is determining whether to build your BI platform from the ground up or to opt for a BI platform as a service (BIaaS). This paper aims to assist you in evaluating the steps and requirements, whether you choose to build your BI solution from scratch or opt for a BI platform as a service. Within this paper, we address three key areas: implementation, maintenance, and BI evolution. Additionally, we provide an overview of the time, budget, and headcount required for both options.

Building a Business Intelligence Platform

Introduction to Building

Building a business intelligence platform from scratch or using an on-premise BI solution involves several technical and business requirements that everyone should be aware of before making an investment. First, let's outline the factors to consider when building a BI platform.

Technical

Getting Started

Your IT team will initially need to purchase and configure all the required components for your BI stack. This includes both hardware and software, such as databases, ETL tools, analytics engines, and the reporting/visualization layer. Typically, it takes anywhere from three weeks to three months to set up fully, and once it's set up, ongoing maintenance will be necessary. This process won't involve just your IT team; it will require a joint effort from database administrators, system administrators, ETL administrators, and data analysts to ensure a proper setup.

Maintaining Hardware and Software

The various elements in your BI stack will need to be maintained on an ongoing basis. Your IT team will need to deide between on-premise or cloud hardware. Once implemented this will require ongoing maintenance. Likewise, the software solutions in your chosen BI stack will need to be updated, patched, and maintained regularly by your IT team. As a rule of thumb, hardware should be updated every three years, which needs to be factored into your lifecycle maintence cost.

The cost to build BI.

To build a proper open source BI infrastructure costs around $1.5 million - this includes all hardware, software, and staffing.

—Gartner: BI Platforms User Survey

Disaster Recovery

Plan for the worst and celebrate the best. It is critical to define and test your BI disaster recovery strategy regularly to ensure you can meet your disaster recovery time objectives in the event of a security threat or system failure wreaking havoc on your BI system. Similarly, it is important to ensure that the baseline security standards are always met to prevent such security disasters. Each office location should have a separate disaster recovery plan in the event one is needed.

Scaling

Scaling your BI solution will require the purchase and installation of additional servers. The architecture of your platform will need periodic upgrades as your solution scales beyond its current limits. These growth-related challenges can slow down implementation and may result in service downtime.

Extract, Transform, Load

This is a critical piece of any BI infrastructure and generally requires a standalone ETL tool. Examples of such tools include SnapLogic, Informatica Cloud, and Boomi, to name a few. This represents an additional cost in the management process that should be factored into your BI implementation.

Business Needs

If you plan to resell or integrate analytics into your product or service line, you will also need to consider the following business requirements:

Quick Scaling

Effective scaling of your BI platform is critical in the sales cycle to prevent a customer backlog, especially when your sales team's velocity increases. Platform scaling issues shouldn't become the bottleneck slowing down customer acquisition.

Prototyping

A prototype analytics dashboard serves as a means to prove the feasibility of a concept and offers a sneak peek to potential customers. These can be leveraged as a tool to win over early-adopting customers. However, if you build your own BI stack, it can take months to configure your infrastructure and create your initial prototype.

Time to Market

Generally, one of the most important questions teams have when constructing a BI platform is: "How long will this build take?" The average time to market for a custom BI solution is 180 days. Rushing this process often leads to larger issues down the line.

Ongoing Enhancements

The last piece of the process to consider is the continued enhancement of your offering. Your solution needs to constantly evolve to deliver greater value over time and stay competitive in the market. Your product management and engineering teams must work together on this to create successful enhancements that meet market demands. Your customers expect to see new features, dashboards, and reporting capabilities rolling out over time.

Buying a Business Intelligence Platform

Introduction to Buying

Buying Business Intelligence as a Service eliminates the need for your team to manage a majority of the infrastructure requirements. Below we will outline things to consider if buying Business Intelligence as a Service.

Technical

Extract, Transform, Load

The main technical requirement that will not change, regardless of whether you buy or build a business intelligence platform, is the need for an ETL tool. However, by purchasing an end-to-end BI solution, your internal team is no longer responsible for maintaining and managing ETL.

Requirements Rendered Obsolete

By purchasing a BI platform, a considerable number of responsibilities and technical requirements are no longer managed by your team. Technical hurdles present in the building process are offloaded to the BI vendor. These responsibilities include managing and maintaining hardware and software, disaster recovery planning, and scaling of the platform itself.

Business Needs

Once again, if you plan to resell or integrate analytics into your product or service you will also need to consider the following business requirements:

Bundled Value

Unlike the disparity with the technical requirements, the business needs of BI remain similar when buying vs. building. The benefit of purchasing BI is that the vendor helps manage these business requirements. By purchasing a BI platform, you can speed up your time to market. For example, an average GoodData customer has a solution in market within 90 days, which is half the time of a self-built solution. Likewise, GoodData customers can have prototypes completed in as little as two weeks.

The near future of BI.

Cloud BI solutions are on the rise. In fact, 38% of companies are planning a BI SaaS project before the end of 2013.

—Forrester: Big Data Meets Cloud

Costs

When considering costs, the three main cost areas are: implementation, maintenance, and evolution, and meeting customer needs.

Total Costs As Experienced By BI Solution Providers

Data aggregated by Gartner*

Costs	Jaspersoft [Build]	Birst [Build]	Pentaho [Build]	Tableau [Build]	Industry Average	GoodData [Buy]
Total License	$100,000	$200,000	$75,000	$175,000	$300,000	$175,000
Total Implement ation	$50,000	$250,000	$150,000	$25,000	$200,000	$75,000
IT Admin	$350,000	$300,000	$525,000	$700,000	$700,000	$200,000
Business Admin	$300,000	$250,000	$500,000	$1,250,000	$650,000	$250,000
Total	$900,000	$1,000,000	$1,250,000	$2,150,000	$1,850,000	$700,000

Approximation from Gartner study bar chart of Cost Per User*

Head Count Resources	Jaspersoft [Build]	Birst [Build]	Pentaho [Build]	Tableau [Build]	Industry Average	GoodData [Buy]
IT Admin	3.8	3.15	4.3	8.75	9.7	2
Business Admin	3.2	2.6	4.1	15.6	9.0	2.5
Total	7.0	5.75	8.4	24.35	18.7	4.5

In Summary

When picking a strategy for your BI platform, the key question to ask is whether or not this is your core business focus. Wouldn't you rather focus your time, engineering resources, and money on your core offering? Depending on your needs, timeline, and available IT resources, building your own business intelligence platform may be feasible, but keep in mind that once you start down this road, there is no guarantee your BI implementation will be successful. According to Gartner, more than 70% of companies fail to successfully complete building their BI initiatives. The value of buying a BI solution like GoodData is that it comes with a team of BI experts who guarantee a successful implementation, including education and training to ensure rapid adoption. If the costs and requirements to build a BI solution do not fit within your goals, leverage GoodData's PoweredBy program for powerful, integrated analytics that will rapidly address your customers' BI needs with minimal IT investment.

**Gartner: Sallam, Rita L. "BI Platforms User Survey, 2011: Customers Rate Their BI Platform Functionality." 31 Mar. 2011*

Gartner: Sallam, Rita L. "Survey Analysis: Customers Rate Their BI Platform Ongoing Developement and Administration Costs." 28 Sept. 2012