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# How to Get the Most from Your Analytics Tools

Whether you're in finance, insurance, retail, or some other highly competitive business, business analytics are a critical component of your management strategy. From insurance companies that need to analyze claim submissions each quarter to banks doing month-end processing to retail companies analyzing product mixes, business analytics are more critical than ever.

However, the vast explosion of data over the past few years means that for many organizations, their analytics tools aren't working as well as they want them to. Anyone (and that's everyone today) with massive amounts of data to analyze quickly is finding it harder and harder to keep up. Queries take too long. Real-time data can't be analyzed in real-time. It's difficult to run ad-hoc queries in a timely manner. Large numbers of concurrent users significantly (and negatively) impact performance. Existing solutions have poor scalability and lack high availability. There are so many issues. And the trend toward public cloud data warehouses complicates matters. Business analytics using public cloud data sources can exacerbate data control and security issues, performance issues, data migration problems, hidden costs, complexity, and more.

What's the solution? While it might be counter-intuitive, for most companies the business analytics problem isn't the business analytics tools themselves, but the back-end data stores—from databases to data lakes to data warehouses. Even large-scale data warehouses, designed for big data, can't always deliver the data in a timely manner.

That's where the new data warehouse approach from Yellowbrick comes in. The Yellowbrick data warehouse provides a solution that's ideal for world-class business analytics. It allows organizations to seamlessly have data in multiple public and private clouds simultaneously while ensuring easy, fast access to data wherever and whenever its needed. The Yellowbrick hybrid cloud data warehouse enables enterprises to use their data to make real-time decisions quickly and efficiently, eliminating slow business analytics performance and empowering business users to drive meaningful insights more quickly. Yellowbrick is offered as a subscription service on any cloud or on-premises in your data center.

**Don't Let Business Analytics Slow Your Business Down**

Business data volume is going nowhere but up. From real-time data to vast amounts of web-generated data to large-scale transaction systems, organizations are gathering more data at a faster rate than in any time in history.

And all this data contains insights that are critical for running the business—from simple transactions to analysis opportunities that can yield important insights for improving operations, identifying new opportunities, or increasing competitiveness. For example, the right data and business analysis can yield insights into how an organization can align it products or services to customers or their buying patterns better.

But capturing those insights requires fast, robust analytics. For example, investment dashboards require sub-second refreshes that include real-time and historical data. Portfolio managers have to manage tens of thousands of financial positions without lag time. Banks must detect and prevent fraud instantly, using real-time and historical data. They also need to manage risk across complex investment vehicles in response to evolving regulations.

That's why responsive data analytics is so critical for staying competitive. The longer it takes for businesses to identify insights from its vast data sources, the more the business will suffer. Data is only valuable when it's put to use, and if it's too cumbersome or slow to be put to use in a timely manner, the business is losing huge opportunities.

**What's the Business Analytics Problem?**

Unfortunately, too many organizations face situations where their analytics capabilities simply aren't keeping up with growing data volumes or the needs of the business. Perhaps it's the inability to get the reports needed in a timely fashion, or the inability to drill down into the data in a meaningful way to identify insights that will keep you ahead of the game, or tools that aren't running as quickly and efficiently as needed because of multiple lines of business trying to concurrently access the data warehouse, or the fact that you have thousands of users accessing data warehouses and trying to do deep dives into data and slowing down the system. If so, you're not alone in finding it hard to get the business insights you need out of your analytics tools.

Let's take a closer look at some of the specific challenges facing organizations trying to get the most from their analytics tools:

- **Lack of high availability.** If you can't access the data you need when you need it, it's not helping you. Data that's spread across multiple sources may have many potential points of hardware or software failure. Large-scale data warehouses or data lakes may not be designed for high availability, or have windows of time when they're not accessible, leaving business analytics off-line or incomplete.

- **Inability to easily access all data.** Fast-moving business questions and analysis can't always wait for perfectly formatted data. Traditional data warehouses are often too slow to run ad-hoc queries against raw fact data and organizations are forced to build data cubes or other curated data sources that lengthen the analytical process. Data lakes, once positioned as an easy, cheap solution for data storage have instead become part of the analytics problem for many organizations, since it turns out they're better at collecting data than processing it. The ability to support mission-critical analytics workloads and multiple concurrent users accessing data lakes is often difficult. Companies need ways to access the value inside existing data lakes without completely upending their data architecture.

- **Poor scalability.** Few organizations can predict exactly what type of scalability needs they will have in the future. Data analytics solutions that worked well when data sources or timeframes were limited may fail when scaled up to meet the needs of more users or the analysis of bigger sets of data. And even when they don't fail, the time required to run analyses may increase significantly.

- **Inability to run mixed real-time workloads.** Real-time analytics enables faster business decisions and is a critical component for fast, agile responses to competitive business situations. Most organizations are now accumulating vast waves of real-time data from multiple sources. Yet existing data warehouse solutions cannot capture real-time data efficiently or in a timely manner. Too often they require data to be bulk-loaded or micro-batched, eliminating the opportunity to analyze real-time event or device data or do timely analysis on mixed workloads that involve concurrent queries on continually changing data or complicated mixes of reads, updates, loads, and queries. Organizations that can't easily integrate real-time data into their data warehouse or keep the data warehouse up to date with business-critical information will be at a competitive disadvantage.

- **Difficulty handling high numbers of concurrent users.** Business analytics is no longer something that just a few select people in the organization do. In fact, most companies have hundreds or thousands of employees that can benefit from accessing and analyzing corporate data. Yet too many organizations have data warehouses or business analytics systems that fail to keep up. They slow down or simply don't support thousands of concurrent users across multiple business units.

In short, the problem with many organizations business analytics processes isn't the analytics themselves, but the responsiveness and agility of the back-end data sources.

### A New Approach To Getting The Most From Business Analytics

Whether you're struggling with reports or month-end close processes that take forever to run or you are tired of waiting for real-time data to be loaded into your data warehouse, getting the most of your business analytics may be easier than you think.

The Yellowbrick data warehouse is an ideal hybrid cloud solution that provides unmatched performance for business analytics needs. Built from the ground up to be easy to manage and to provide unmatched performance with petabytes of data, Yellowbrick can support thousands of concurrent users performing complex ad hoc queries and running sophisticated reports. Its unique hybrid cloud architecture enables organizations to easily manage large, difficult-to-migrate datasets where they reside—on premises or in the cloud.

Yellowbrick is quick to deploy, easy to expand and data-ready out of the box. The solution fundamentally changes the economics of enterprise data warehousing to deliver the lowest acquisition and operating costs, and highest performance for business analytics. It's able to do that because it takes a different approach—one that fits today's need for robust and rapid business analytics better than previous solutions.

Consider these key business benefits of Yellowbrick:

- **Unmatched price/performance.** Unlike public cloud data warehouses that may have hidden costs, 1-3 year commitments, additional licensing costs for tools and more, Yellowbrick offers a simplified subscription-based pricing model with deterministic, predictable pricing. The Yellowbrick Data Warehouse is offered as a subscription service on any cloud or on-premises in your data center.

- **Robust and efficient hybrid cloud capabilities.** Hybrid-cloud solutions save organizations money, since they can protect and extend existing investments in analytics tools and infrastructure. Yellowbrick can operate seamlessly with a myriad of existing public or private clouds and other on-premises tools more effectively and efficiently than other products. Even for the largest enterprises, Yellowbrick's hybrid-cloud capability provides previously unavailable flexibility and cost efficiency.

- **Out-of-the-box-performance.** Yellowbrick is data-ready out of the box. There's no need to set a lot of parameters or make a lot of fine-tuned adjustments with a Yellowbrick solution. Instead it features a "load and go" design that enables it to be production-ready on the same day that it's deployed. It's also able to scale up to petabytes of capacity with near-linear performance and not much additional oversight. At the same time, the solution is optimized for challenging analytic environments, enabling customers to run ad hoc queries, large batch queries, business reports, ETL processes, and ODBC inserts all at the same time.

- **Minimal "care and feeding."** Yellowbrick greatly reduces the amount of operational overhead required to deploy and manage. In addition, customers can easily add performance and capacity by adding compute nodes on the fly, without any downtime. It eliminates the need for DBAs to spend hours tuning, optimizing statistics, or scheduling queries since the database takes care of all that automatically. Ad-hoc workloads on Yellowbrick run faster than heavily tuned, indexed queries on other databases. However, administrators can easily change workload priorities on the fly, easily adjust workloads at any time.

- **Low latency.** Yellowbrick provides an extremely low-latency connection to data, resulting in much faster performance.

- **Common language.** The Yellowbrick data warehouse service uses standard PostgreSQL. It supports all of the rich SQL constructs you expect, including multi-thousand-line queries or running against large fact tables where the questions asked are not always known in advance.

- **Common connectors.** Yellowbrick has standard, common, open connectors for all applications and analytics tools. Not only is it data-model agnostic, but Yellowbrick has off-the-shelf connectors such as ODBC, JDBC, and ADO.NET to integrate seamlessly with existing applications and analytics tools. That means nothing to customize and no expensive back-end integration. Standard BI, reporting, data mining, and ETL tools all run against the system seamlessly.

- **Rapid and seamless data migration.** One of the key problems facing many organizations is moving data into and out of data warehouses, data marts, or data lakes in a fast and efficient manner. Yellowbrick is ideal for heavy analyses that require large amounts of data or fast loads of data sets or data marts. With Yellowbrick, if a line of business wants to analyze certain data sets or data marts they can do it quickly with Yellowbrick. It also provides seamless, real-time data intake of many types of source data, including flat ASCII, compressed data, Hadoop, S3, and more.

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Regardless whether your organization is analyzing customer conversion, real-time securities fraud, regulatory compliance, predictive analytics, risk management or any other type of business analytics, the ability to effectively and efficiently analyze large quantities of data is critical.

With its unique hybrid cloud architecture , **Yellowbrick is ideally suited to help companies successfully address any data analytics challenges.** Yellowbrick's hybrid cloud solution helps businesses build real-time performance into their existing on-premesis or public cloud systems. It can serve as a performance engine or data aggregator for a data lake, unlocking the business value of data locked in existing data stores. Yellowbrick's out-of-the-box performance, minimal operational overhead requirements, low latency, common SQL language, standard connectors, and rapid data migration enables it to better address the new era of big, real-time data analytics better than any other data warehouse solution.