

THE EXPONENTIAL RISE OF THE DASHBOARD

THE EXPLOSIVE GROWTH AND PERVASIVE IMPACT OF DYNAMIC DASHBOARDS

DYNAMIC DASHBOARDS HAVE CHANGED THE WAY WE CONSUME DATA

In the late 1970s, static dashboards – more popularly known as Executive Information Systems – condensed different business metrics and reports into a single window to be displayed on a screen or on paper. Although conceptually ahead of their time, static dashboards were mortally anchored by a number of flaws and limitations. Built on poor foundations, the static nature of these dashboards denied users the capability to interact and explore outwards from the dashboard or, for that matter, even within the dashboard. Static dashboards provided a myopic view of the business and, as such, failed executives and organizations in providing a valuable decision making tool.

MicroStrategy Dynamic Dashboards addressed these shortcomings and bridged the chasm between static dashboards and the ever-growing needs of users. Combining state-of-the-art data visualization and interactivity with MicroStrategy's industrial-strength business intelligence platform, this new method of information consumption redefined how organizations deliver business insights to their employees, customers, and business partners. With their attractive, easy-to-comprehend visual

The Evolution of the Dashboard

Static Dashboards

Thin static dashboards deliver limited functionality

Dynamic Dashboards

Combining the most popular reports and graphs

Delivering state-of-the-art data visualizations and interactivity

Extending the reach of dashboards into and beyond the entire data warehouse and Web

Delivering more business insight to more users to meet insatiable user demand

DashboardApps

Next generation dashboards

display, highly scalable foundation, and embedded interactivity, Dynamic Dashboards combine different views of enterprise data, with each view acting as an analytical lens to return rich business insight. Extremely easy-to-use, Dynamic Dashboards have further expanded the influence of BI to new information users within organizations, enabling a higher number of people to make well-informed and better business decisions.

A NEW BREED OF BI SOLVES AN EXISTING INFORMATION DELIVERY ISSUE

Large Groups of Workers Have Unmet Information Needs

While information workers have increased their usage of dashboards over the years, the overall growth in dashboard consumption is still suboptimal. Historically, reports and dashboards have been built and used by managers, analysts, and information workers, but many groups of people within an organization's workforce still have their business information needs unmet. This workforce constitutes groups of people performing similar operational job functions, such as sales personnel, customer service reps, line workers, and store managers.

Operational Reports are Static and Overwhelming

These BI users usually have limited access to computer systems and do not have time to 'hunt' for data. Often served with hundreds of pages of operational reports, they are expected to read through an overwhelming pile of data to identify and make sense of the information that is relevant to them. Although operational reports can be richly informative, they are static and overwhelming. Users have no easy way to compare and analyze information across pages or across reports. As expected, these dense operational reports are often unread and underutilized, and many questions remain unanswered.



MICROSTRATEGY DELIVERS BEST-IN-CLASS DASHBOARD TECHNOLOGY

MicroStrategy has been a pioneer in addressing the obstacles that have prevented operational users from accessing the information they need to do their jobs. MicroStrategy Dynamic Dashboards provide a winning combination of technological breakthroughs and a best-in-class enterprise BI platform, while never compromising the user's requirements.

Dynamic Dashboards offer innovations and features that have changed how business information is consumed:

| Pixel Perfect | Desktop publishing quality |
|------------------------------|---|
| Highly Interactive | Easy-to-use selectors to sift enormous amounts of data |
| Analysis Enabled | Full OLAP investigation of entire data warehouse |
| DHTML and Flash | Online or offline usage |
| Advanced Data Visualizations | Either out-of-the-box or create your own |
| Enterprise Scale | Built on the MicroStrategy platform |
| Easy to Build | What-You-See-Is-What-You-Get smart design assistants, no programming required |
| Easy to Maintain | Built with reusable BI objects |

A NEW BREED OF DASHBOARDS: DASHBOARDAPPS

MicroStrategy has enhanced its Dynamic Dashboard technology to increase the amount of data that can be viewed within the dashboard and increase the speed and scale of dashboard distribution applications. Dashboard Applications, more popularly referred to as DashboardApps, offer a new way for operational workers to consume information that does not require any special training or business intelligence experience.

MicroStrategy DashboardApps are an extension of Dynamic Dashboards that deliver the ease-of-use and ease-of-development necessary for rapid deployment to thousands of users. DashboardApps contain everything each user needs in one single location. These self-contained, pre-packaged applications are visually compelling, information-rich, and provide highly interactive displays that can be applied to thousands of pages of operational data, enabling thousands of users to access it both at the summary and operational level.

Each DashboardApp can be personalized for the recipient, replacing static operational reports with simple yet dynamic answers to hundreds of business questions.

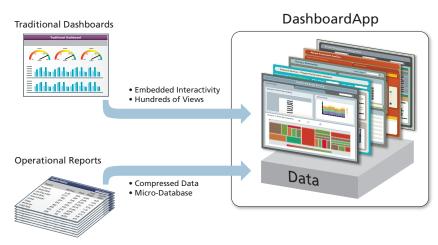


Figure 1. DashboardApps combine the best characteristics of operational reports and dashboards

Most often, the DashboardApps are automatically updated with the latest business information and delivered via e-mail before each work day begins. DashboardApps can be delivered on any schedule whether daily, weekly, monthly, or upon the occurrence of a certain business event, and can be embedded and sent as a dynamic link in an e-mail, or sent to a file location, Web portal, or MicroStrategy Web History List.

<u>DashboardApps Deliver Business Intelligence across the Organization</u>

DashboardApps combine the detailed insight hidden in operational reports with the high interactivity and easy-to-consume analysis that traditional dashboards provide. This unique marriage is specially designed for today's operational decision makers, combining five key features to meet these new information needs:

| All the Data | Ability to access data from disparate sources which is compressed and consolidated into a single data package – a one-stop solution for all information needs of the consumer |
|--------------------------------|---|
| All the Views | DashboardApps provide innumerable views of the data giving users a 360° view of their business information |
| Personalized Information | Personalized data slices created as per the user's information requirements and job responsibilities, to present only the information the user needs |
| Speed-of-Thought Comprehension | Advanced visualizations and graphical displays present information in highly consumable formats, while never compromising the rich analysis that users require |
| Analytical Workflows | Analytical workflows built right into the application to satisfy logical flows to answer queries and empower consumers to make effective decisions more rapidly |

High-Volume Information Distribution Systems

MicroStrategy caters to the demands of this operational workforce with its best-in-class business intelligence engine and numerous recent technological breakthroughs.

MicroStrategy's DashboardApp Generator performs the process of collecting data from multiple sources, compressing and personalizing it into data packages, and then assembling the personalized DashboardApps before distributing them individually to hundreds or thousands of recipients.

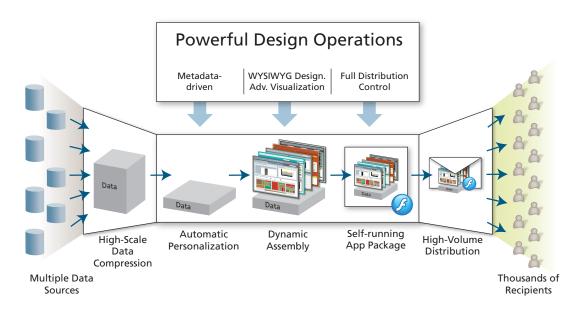


Figure 2. MicroStrategy DashboardApps Generator

MicroStrategy

MicroStrategy's BI platform performs all of the basic functions required to produce and deliver DashboardApps including:

- Multiple data source access
- High-scale data compression
- Automatic personalization
- Dynamic assembly of self-running packages
- High volume distribution to 1000s of recipients

MicroStrategy DashboardApp technology is built on best-in-class application design fundamentals:

| Metadata-Driven Assembly | DashboardApps are easily assembled from business building blocks that are easy to maintain and easy to update as the business changes |
|-------------------------------------|---|
| What-You-See-Is-What-You-Get Design | Designers rapidly design DashboardApps using drag-and-drop technology with no programming required |
| Full Operational Control | Administrators manage distribution from one central console to schedule distributions and confirm receipt of all DashboardApps |

CONCLUSION

DashboardApps provide the ideal solution to satisfy the unmet information needs of most decision makers. A radically new distribution model, DashboardApps organize all the necessary information in the most consumable way to encourage immediate decision making that will impact the entire organization. Operational workers can now depend on this dashboard model to perform their daily tasks in the most efficient, effective, and optimal manner possible.

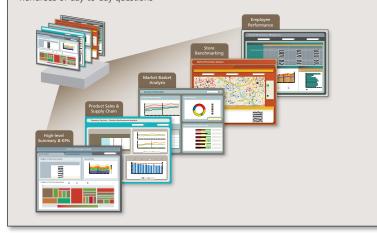
DashboardApps at Work: A Retail Manager's DashboardApp

Thousands of retail managers make hundreds of crucial decisions every day to maximize the profit and minimize the cost associated with running each store operation.

A DashboardApp for store managers typically contains:

- A high-level summary
- Product sales and supply chain information
- Market basket analysis
- Store benchmarking
- Employee information

DashboardApps include all of the information needed by a store manager to answer hundreds of day-to-day questions



Using DashboardApps, organizations make greater use of their business data, increase the return on data and BI investments, and foster data-driven insight and better decision making across the entire organization. Furthermore, with DashboardApps, organizations truly empower every business user to make more informed decisions by providing timely, relevant, and accurate answers to their business questions.

In summary, DashboardApps:

- 1. Require no prior BI literacy
- 2. Package all information needed for a day's/ week's worth of decisions
- 3. Enable instant understanding of business situations and trends
- 4. Turn lines of data into easily consumable information
- 5. Contain 100s of answers that support decision making
- 6. Provide a one-stop-shop for a user's business information needs
- 7. Combine summary and detailed data analysis
- 8. Deliver information immediately via e-mail to each person