



Bi Techsystems, Inc.

## **CarbonBI – No Data Warehouse Required**

A BI strategy necessitates a data warehouse, right? Not necessarily and, it depends. If what you really need is ad hoc operational reporting, real-time analytics and perhaps some personalized dashboards, you don't necessarily need a data warehouse. CarbonBI from BI Tech Systems provides a low cost, easy to implement alternative which is ideal for the small to medium sized business or departmental function within larger enterprises.

A properly implemented and managed data warehouse delivers tremendous value to an organization in support of business intelligence. If processes and reporting needs are well understood and well defined, if change is not constant and if management is committed to the costs and resources necessary to build and maintain a data warehouse, then it's an excellent choice. However, if this is not the case, CarbonBI offers an alternative approach.

CarbonBI delivers:

- a. A full function BI platform that supports ad-hoc operational reporting, analytics, dashboards and mashboards, at a very low cost.
- b. An ideal environment to support BI needs that are dynamic and where business users would prefer to create their own custom reports and apply their own analytics.
- c. An alternative for organizations that can't cost justify the multi-license deployment (ETL platform and BI platform) and ongoing maintenance for a data warehouse based solution.
- d. An open BI platform that supports any relational database or application and that can integrate data from multiple data sources including a data warehouse or another BI tool.
- e. A variety of reporting types: Excel, real time reporting, operational reports, analytics and dashboards delivered to any device (desktop or a mobile device).
- f. A solution for departments or divisions of a large enterprise that want to perform customizations to reports and dashboards that originate from enterprise BI tools and data warehouses.
- g. Real time reporting, when the latency of a data warehouse does not support the business requirement(s).

It is no secret that the time and resources required to implement and deploy a data warehouse can equate to hundreds of thousands, if not millions of dollars. On-going maintenance just related to personnel costs adds thousands on top. Populating a data warehouse requires data extraction, data transformation and data loading (ETL), not once but on an on-going basis. Then there is the definition and creation of star schemas and the organization of facts and dimensions. Because the relational database is "hardwired" to the warehouse, any changes to the underlying database tables, such as an

update to the application software or custom modification to the tables, must be cascaded through to the warehouse. This creates additional maintenance effort. While BI vendors have made great strides in automating and packaging data warehouse implementations and management, it remains an expensive effort. The investment required needs to be justified by the value delivered.

CarbonBI can be fully implemented in less than a week. It is written based on open standards and can be integrated with any relational database, application or data mart/warehouse. Carbon Admin Central features technology that steps through the process of creating functional or business reporting layers and the Carbon Knowledge Engine generates metadata for reporting, automatically. In fact, the Knowledge Engine constantly learns, building new metadata as users require.

For real time reporting, CarbonBI reports directly off of the relational tables. Changes and customizations to reports are straightforward and can be accomplished by business users with little to no training. If performance is a concern, Carbon Admin Central includes a performance analyzer to help isolate blockages and schedule high traffic tables to be cached.

For analytical reporting, CarbonBI has no prerequisite for a dimensional model and/or the definition of metrics. The effort to build these models and metrics can easily be three to five times the cost of the software license, and also requires the investment in an ETL tool. For most BI solutions on the market today, this is a reality. CarbonBI's analytical engine reads user requirements and builds metrics "on the fly". Since the metrics and measures are system generated, their accuracy is much higher than manually designed formulas. Implementation occurs in days, not months. CarbonBI's approach for analytical reporting represents substantial savings in software license costs, implementation and on-going maintenance.

CarbonBI delivers visualization via innovative Mashboards, versus traditional dashboards, that can be designed, personalized and socialized by business users with zero interaction from the IT team. IT, on the other hand can use the Carbon Knowledge Engine to control mashboard performance, data security and governance, and can decide if the data flowing into Mashboards should be real time or cached.

From one central launch pad, Carbon Report Central, users can create and execute queries, reports, analytics, dashboards and mashboards. There is no requirement for learning multiple tools to perform these actions, as is commonly the case with enterprise business intelligence platforms. In a single flow, a user can create a report, apply time series comparative analysis for example, and visualize it in a dashboard. If the results are not exactly what they want, they can easily edit the report, analytics or the visualization. Again, all in one place, within one user interface.

For data warehouse implementations, change is costly to manage, especially if it involves the source relational data structures. Examples are: if a new table is added to an application; if columns are changed; if there is an upgrade to the application software; or a maintenance release for the source application. All of these require IT planning, testing and rollout. Analysts estimate that about 50% of

data warehouse implementations fail due to a lack of commitment to the necessary resources for on-going maintenance.

Again, the investment should match the expected value it will drive. While a data warehouse offers tremendous potential and, in many cases, is required, it is not the only option available. CarbonBI is an excellent alternative for organizations that have the following characteristics and requirements:

- a. Small to medium sized business with tight budgets and scarce IT resources.
- b. Divisions or departments within a large enterprise that want more control over the modification and customization of corporate reports and dashboards.
- c. Business users tired of waiting for customization requests that are sitting in a backlog with IT.
- d. IT staff that are tired of handling the continuous flow of customization and ad hoc data requests from the business.

Business intelligence does not necessitate a data warehouse. The barriers of cost and complexity can be prohibitive. CarbonBI has been architected from the beginning to provide rich functionality for a fraction of the investment required versus most other offerings in the market. If speed to implement, ease of use, low maintenance effort but rich functionality are important considerations, CarbonBI is an excellent option. CarbonBI is available for on-premise or “in the Cloud” implementations.