

Miami University Business Intelligence Shaping Miami's Decisions for the Future

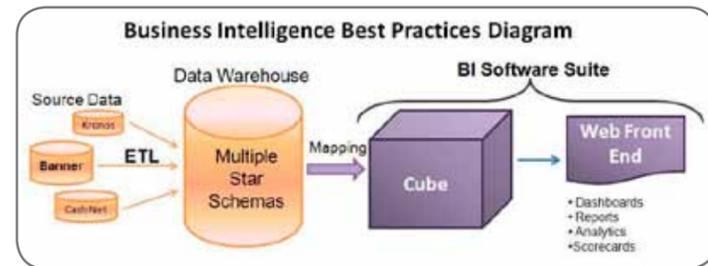
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Business Intelligence Initiative

Miami's Business Intelligence (BI) Initiative provides information to Miami users, using BI best practices, for easier and faster strategic decision making, allowing for knowledge based decisions from one source of truth. The first element of the BI Initiative developed by the Decision Support Services Team focuses on the Historical Enrollment Analysis data mart and cube.

What are BI best practices?

The appropriate data structure for each specific area of focus (i.e. enrollment, budget, financial aid or advancement) along with BI software will provide complete capabilities for data analysis and discovery.



Correct Data Structure

- Kimball star schema design
- 20+ years of being the proven data warehousing standard
- Inner joins only
- Allows for quickest performance and easiest access to data in the star
- Conformed Dimensions
- Allows for reuse of dimensions for ease of development over time

Extract, Transform, Load (ETL)

- The process used to load data from source system to data warehouse
- Allows for corrected data by cleansing process from source before entering data warehouse
- Reusable processes
- The process is designed to run the same way every time
- The processes are modular and may be used to load other stars

BI Tool Software

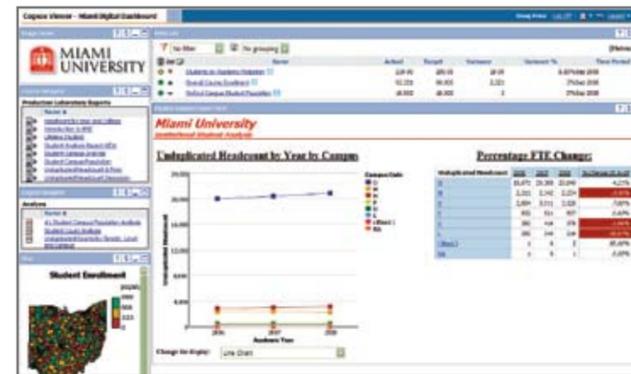
- Participants in Proof of Capability are major BI software vendors
- Cognos and Microsoft Performance Point
- Purposely designed to run against star schema
- Can create cubes for better analysis
- Provides multiple ways to view data

How Business Intelligence (BI) Benefits Miami

The achieved value to Miami University includes the ability to quickly and accurately answer questions with data found in the Historical Enrollment Analysis data mart. Decision Support Services (DSS), within Information Systems and Services (ISS), have created the foundation for the development of a University Data Warehouse for business intelligence with the potential to benefit every department within the University.

"A critical piece of data used in planning and forecasting is student enrollment. The BI initiative will provide consistent and reliable data, transparent variables, the ability to provide "what-if" scenarios, and the capability of responding to changes in enrollments in a more timely and productive manner. One source of data will also lead to greater data integrity and data access for multiple layers of users. This will reduce the amount of manual manipulation, differing and often misinterpreted data, and reduce the amount of resources required to produce enrollment projections." — Denise Krallman, Director Institutional Research, IR office and Donna Rohlfen Budget Analyst, University Budget office

Value is added by providing many different ways to present information. This allows a user to get data important to them in a format that best suits their needs. An executive might not need to run a status report on specific students, but would certainly like to see student trends over a specific time period. This can be done with a dashboard. One quick glance at a customizable dashboard can answer many repetitive, daily questions quickly without running many time-consuming reports.



Timesaving is a very important benefit of the BI Initiative. BI can save time in various ways, including:

- Answering questions at any level by accessing the BI solution instead of shipping the work to a different department
- Consistent data is accessible so users do not have to search for the correct source of data
- Less time is needed for reporting and analytics freeing up time to work on real needs of the person's job
- The standardization of reports so formatting a report is not repeated each time a report is run

"DSS's BI and Data Warehouse projects have the potential to make data-driven decisions at Miami easier, faster, and more accurate than our current methods, and allow us more time to truly analyze data, rather than spend the time simply gathering it." — Tim Kuykendoll, Technology & Data Specialist, Office of the Registrar

"I look forward to the ability to capture historical information better for data requests I receive. Without a data warehouse, I have pieces of HR data that it is impossible to provide a historical snapshot for. It then becomes impossible to provide trending information — where were we five years ago as compared to now? It can't be done without the historical aspect of the date. Also, with a Business Intelligence tool, some of the reports that take us days to analyze in order to be able to make projections would take us a lot less time if we were able to use a tool that was actually designed to be used for analysis." — Ruth Groom HR Systems Technical coordinator, Human Resources Department

Improvement to the Quality of our Service is the foundation to the BI Initiative:

- Better data access to all people needing access. From the Executive level to the report writer in the various business offices there is ONE SOURCE OF TRUTH
- More timely information Data will be accessed more quickly because it is designed to be accessed that way Data will have better time variance for analysis (i.e. daily snapshots over the course of the term)
- Better data will drive better decisions in a shorter period of time
- Data Cleansing will allow for better processes to be developed in data entry

Ask us for a demo of the BI software!!!

Proof of Capability (POC)

Delivering professional value using Miami's data on Miami's computers

Do you want a way to try software in Miami's environment before buying? Try using the DSS Proof of Capability method!

What is it?

A repeatable, benchmark process to acquire full versions of software to implement at Miami for evaluation with very little cost.

What are benefits to Miami?

Reduces risk of software purchases by proving product works in our environment
Real world experience and knowledge for IT and clients
Little upfront costs: No charge for unlimited licenses and consultant's time

What are benefits to Vendors?

Knowledge of Higher Ed to use with other Higher Ed clients
Relationship with Miami
Experience showcasing product to many different users in a familiar atmosphere to the user

How did it work for the BI POC?

We contacted potential vendors and started a relationship (all vendors interested in participating were included, Cognos and Microsoft)
Documentation detailing the data available and what types of reports we were looking for were provided
The software was installed free of charge on Miami servers with Miami data and access for Miami users
POC was done in conjunction with a Request For Information
Works best with well defined software market with multiple vendors and a low scale of physical implementation (example: BI Solutions)

PROVIDES A WIN-WIN OPPORTUNITY FOR MIAMI AND VENDORS

The DSS Proof of Capability process should become a benchmark model for choosing IT products at Miami University. Choosing business intelligence software may be time consuming and costly. You never know for sure if a product chosen will work well in your environment or if it will live up to the salesperson's hype. Miami's BI Proof of Capability has greatly reduced the risk of choosing a BI solution. The installation, development and use of multiple BI products in Miami's environment at a minimal cost provide an easy, straightforward platform for evaluating business intelligence for the future of Miami. This process can be replicated to benefit future IT product opportunities.

Ask us how it worked for the Business Intelligence Initiative!!!



IT SERVICES: *Delivering Value*