



Company Profile

Established in 2004, BAAX, LLC specializes in enterprise-level data cleansing, integration and analysis strategies for financial institutions. Our core competencies include...

- Consultative guidance in optimal data profiling techniques
- Consultative guidance in data cleansing best practices
- Hands-on construction of Data Warehouse and Master Data Management (MDM) solutions
- Design and creation of business intelligence solutions, including executive dashboards and risk analytics

Though primarily a consulting firm, BAAX has also developed a proprietary data profiling and cleansing product that, when used in concert with the industry's leading ETL tools, expedites the construction of stable, meta-data driven data warehouses.

BAAX resources include six principals with over 80 years of combined experience in data warehousing with an emphasis on customer relationship management and credit risk management. The BAAX team also includes a team of developers with extensive experience within the financial services sector.

Industry Knowledge

For over 14 years, BAAX data warehouse designs have effectively addressed the needs of the financial services industry including both banking and insurance. During this time, BAAX principals developed a proven data cleansing, integration and modeling approach that enables rapid development of MDM/data warehouse solutions for the financial services industry. As a result, BAAX not only brings architectural expertise, but also business acumen. Examples of how past BAAX warehouse deployments have created economic value include:

Customer Relationship Management

One of the world's largest banks uses a BAAX warehouse design to enable customer relationship management. The solution leverages sophisticated customer data parsing and matching technology to assign unique customer and household identifiers, append external demographics, and identify prospective customers. Customer address information is also geo-coded and National Change of Address (NCOA) data is applied. The optimized customer data coupled with banking product ownership information is used to construct a customer relationship warehouse. This comprehensive customer environment enables the company to plan, execute and measure the success of marketing campaigns and retention efforts. The solution also identifies and delivers sales opportunities to the front line service and sales channels. All of the corresponding contact and response history is captured providing a complete closed loop solution. The



customer environment is also used to reconcile and manage customer privacy preferences and to comply with federally mandated programs (AML, Patriot Act, OFAC, etc.)

We are currently implementing a similar solution for a Fortune 200 insurance company.

Lending Solutions

BAAX has designed and built three lending data warehouses. The first was for one of the world's largest banks. The second was for one of the country's top 5 captive auto finance companies. The third was for one of the country's largest Education Finance companies. All three warehouse deployments enable lenders to review account-level performance across multiple servicing systems, spanning every aspect of the credit lifecycle. As a result, each organization uses the data warehouse to optimize a variety of operational practices. Whether it is presenting vintage charge-off performance to improve loss forecasting, identifying new risk-based pricing segments to create more competitive pricing or monitoring delinquency roll rates to hone collection strategies, the BAAX model offers on-going economic value to each client.

Deposit Solutions

One of the world's largest banks uses a BAAX warehouse design to rigorously monitor the behavior of deposit accounts serviced by multiple servicing systems. By providing extensive time-series, account-level data, the BAAX warehouse permits the bank to correctly identify core deposits levels and more accurately calculate transfer pricing. Transactional behavior is also tracked across all channels, enabling the optimization of each channel network (ATMs, Banking Centers and Internet) and providing trusted, early detection of fraudulent account behavior.

Business Intelligence Solutions

Based on the data warehouse it built for a captive auto finance company, BAAX designed and built a suite of award-winning, executive dashboards. The dashboards, which monitor delinquencies, losses, new volume and sales penetration, enable users across the organization to dynamically interact with data. Built using Hyperion's BI suite, these dashboards earned the "Hyperion Insight Award for Excellence in Performance Metrics."

Design Philosophy

BAAX data warehouse and MDM solutions present a robust array of data elements in an intuitive arrangement that can be accessed by a broad spectrum of users. Further, the solutions minimize the need to imbed logic into front-end, business intelligence tools. As a result, end users across the organization share a consistent view of the data regardless of which data access tools are used.

The BAAX approach is built upon a metadata-driven methodology. It employs a central repository that exhaustively profiles and cleanses underlying data. The repository expedites the development process and actively documents the components of the solution including source and target table/file definitions, element definitions, element



domain values and transformation rule definitions. The central repository also houses execution logs that document the data quality of source systems. Consequently, the repository not only supports the developers but also it naturally provides the information necessary to support the end user's meta-data needs. This unique methodology accelerates development time and simplifies maintenance through its use of consistent data classifications and code generation for common tasks such as data validation.

Despite its distinctive approach, the BAAX methodology is not dependent upon a specific set of tools. We have successfully developed enterprise data warehouse solutions in a variety of environments, including:

DBMS: DB2 (UDB), Oracle, Teradata
ETL Tools: Ab Initio, Informatica, Custom Built
Operating Systems: AIX, Solaris, HP/UX

Ultimately, our ability to successfully deliver data warehouse solutions stems from our commitment to directly confront the key obstacles that face data warehouse projects. Our methodology and architecture have been designed to specifically address these issues. The following table summarizes these key obstacles and provides a brief description of our principle based solution:

Key Obstacle	Solution Principle
Business analysis needs are constantly expanding and changing	<i>Supply – Full representations of the source data (e.g. copies of full source master files) are staged in the environment</i> <ul style="list-style-type: none">• Provides a readily available source of all the valuable information that is necessary to analyze the business now and in the future
Operational systems have data integrity issues including incomplete and inaccurate information.	<i>Inspect - All data is inspected and inspection results are published</i> <ul style="list-style-type: none">• Allows consistent assignment of “unknown” versus “not applicable” data values to missing data• Enables inclusion of validation results in the data when appropriate (e.g. Invalid LTV) so analysts know what information to avoid/compensate for during analysis• Allows data transformation process to react to validation issues appropriately
Through time, organizations often have had multiple operational systems serving the same purpose (e.g. Credit Account Servicing). Additionally, the source system data model(s) are typically not optimal.	<i>Standardize - Operational data is centrally transformed into a standard form (e.g. a standard credit account form) that generically yet completely describes the entity in question.</i> <ul style="list-style-type: none">• Eliminates analyst “programming” effort required to apply transformation rules• Reduces analysis execution times since transformation rules do not have to be applied during reporting and analysis• Increases understanding of the data since business rule developers only need to understand the common form• Promotes consistent and accurate analysis results across the analyst community



Key Obstacle	Solution Principle
Operational system elements are limited to those required for point in time servicing and transaction posting. They do not meet the specific needs of complex time series business analysis.	<i>Optimize – Business rules are applied to the standard form to simplify report development and ad-hoc analysis efforts</i> <ul style="list-style-type: none">• Provides same benefits as standardization rules (programming effort, execution times, consistency, accuracy, and understanding)• Reduces cases where multi-pass SQL and recursive SQL are needed (simplifies querying and speeds analysis execution)
Logically related information (customers, originations, accounts, etc.) exists in multiple operational systems. Often, the key structures are different from source to source.	<i>Integrate - All of the required data is in one logical structure that can be easily navigated/joined. (e.g. origination, account, customer, household, product, branch, dealer, etc.)</i> <ul style="list-style-type: none">• Simplifies data access because all data is centrally located and properly related• Reduces analysis time since all of the information can be retrieved through a single query
End users are often presented with arcane data structures that are not organized for business based decision making.	<i>Organize – A dimensional model is used to provide simple and quick data access to the data warehouse</i> <ul style="list-style-type: none">• Simplifies analysis by providing an intuitive, business-oriented data design• Reduces analysis execution times (same information is stored in considerably less space)• Simplifies development of pre-stored aggregations (cubes with drill-through to detail) to be easily developed and managed
Limited documentation is readily available for business analysts	<i>Document – Data definitions are documented and accessible</i> <ul style="list-style-type: none">• Promotes a shared understanding of the data throughout the user community

Contact Information

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