

K-12 Data Warehouse



An Educational Data Warehouse Solution

School districts are encountering growing demands by legislators and communities who are clamoring for valuable information about their school system accountability. Today, most of the information is stored in disparate systems making it difficult to access and analyze.

A data warehousing strategy will alleviate a district's need to aggregate data from different systems repeatedly. It will increase efficiency, consistency, timeliness and accuracy.

MindSphere's K-12 Data Warehouse Solution:

MindSphere's educational focused solution is a comprehensive singular repository of information specifically designed for analysis and reporting, enabling administrators to make data-driven decisions.

We combine the speed of pre-built software with the capabilities to fulfill the requirements for customized components. This solution allows for:

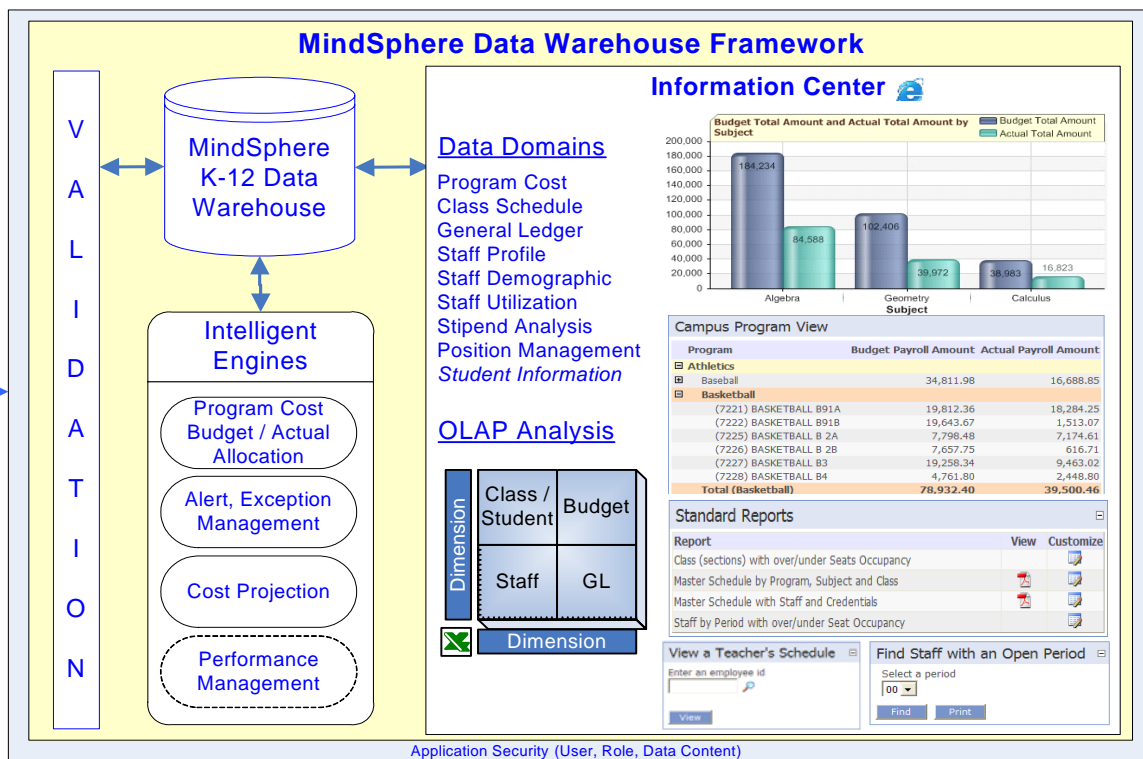
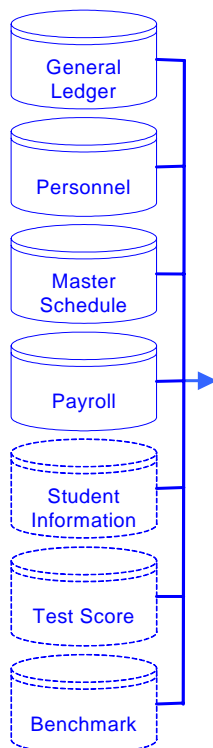
- ✓ Complex analysis with data from multiple systems
- ✓ Complex reporting and tracking at any level
- ✓ Continuous improvement in organizational efficiency
- ✓ Answering complex questions such as: How much does a particular program cost?
- ✓ Improvements in planning and forecasting
- ✓ Consistent reporting environment

Key Benefits:

- ❖ Enables data-driven decisions
- ❖ Provides district with a standard and consistent reporting environment
- ❖ Promotes data quality. The data validation mechanism conducts numerous consistency checks
- ❖ Increases organizational efficiency
- ❖ Enables staff to shift from collecting to analyzing data
- ❖ Enables district to answer complex questions in minutes

Key Features:

- ❖ Web-based visual (graphical) analysis and data display with drill-down, filters and compare features
- ❖ Advanced Security (role and user based) – you define who is authorized to see or use the data
- ❖ Robust data validation and exception reporting processes
- ❖ Comprehensive Reporting with a click of a button
- ❖ Automatic loading of data from your source systems. Loading may be daily, weekly or monthly depending on data category and district needs.
- ❖ Program cost allocation engine – drives cost to class level (activity based costing). Provides district with actual program cost at any time as well as project program costs



K-12 Data Warehouse



Standard Modules:

MindSphere's K-12 Data Warehouse solution offers the following modules:

- ❖ Program Cost Analysis
- ❖ Master Class Schedule / Teacher Schedule
- ❖ Staff Utilization
- ❖ Staff Profile – Demographics & Professional Profile
- ❖ General Ledger (budget and actual)
- ❖ Position Management / Stipend Analysis

Program Cost Analysis:

Provides for an objective approach to the evaluation of instructional programs, equipping district with the cost intelligence to drive improvements. It establishes the “True Cost” at the class level. For example, if a special ed teacher spends 20% of her time teaching regular classes, then only 80% of her salary and labor burden should be allocated to special ed costs.

Enables district to:

- Determine the cost of any instructional program/class
- Determine the cost per student for any program
- Compare costs of programs across campuses
- Identify the most or least expensive programs

Master Class Schedule:

Provides for comprehensive analysis and reporting on classes with information such as sections offered, seats filled and staff credentials (e.g., experience, college degree).

Enables district to:

- Evaluate class sizes for optimal leveling. Compare class utilization across campuses
- Determine how many students are enrolled in a particular program
- Quickly find a teacher's schedule
- Evaluate staff credentials with assigned subjects

Staff Utilization:

Provides for comprehensive analysis and reporting on staff's non-teaching time such as conference periods, lunch duty, travel, etc.

Enables district to:

- Determine total cost of Teacher's non teaching time
- Identify teacher with open (non teaching) periods

Staff Profile:

Provides for comprehensive analysis and reporting on staff demographics and professional credentials.

Enables district to:

- Analyze staff demographics (gender, ethnicity, age)
- Analyze staff professional profile (experience, degree, certifications)

General Ledger:

Provides for comprehensive analysis and reporting on the district's budget and expenses by fund, function, object, organization, program intent or by any way your district uses the accounting string.

Enables district to:

- Compare budget to actual by any combination of the accounting structure (e.g. fund, object, etc.)
- Review revenue sources
- Analyze fund balances
- Evaluate and report on financial accountability measures and state compliance directives

Position Management and Stipend:

Provides for comprehensive analysis and reporting of all positions and stipends across the district.

Enables district to:

- Analyze open positions by organization, job, position and status
- Analyze budget for open positions
- Analyze cost by position
- Evaluate stipend by organization, type and status
- Evaluate stipend budget for open positions

Enterprise Architecture:

The K-12 Data Warehouse architecture is based on Microsoft's Data Warehousing framework and a SQL Server database with rich data integration methods and data cleansing routines. Its comprehensive data cleansing process analyzes the data from different silos and reports in detail the data that may be inconsistent. This provides a vehicle for continuous data quality improvements.

Future Enhancements:

MindSphere is continuing to expand the data warehouse to include data analysis capabilities in the following areas:

- Student - Demographics, Attendance, Discipline and Performance (test scores)
- Staff Leave Utilization including Substitute Analysis

For more information or to schedule an on-site demonstration, please call us at 866.722.6784.

About MindSphere

MindSphere Technology Group is a single-source provider of data warehousing solutions, business productivity tools (bank reconciliation, benefit reconciliation) and custom web development for independent school districts. MindSphere is committed to improving your information technology experience through process, talent, innovation and technology