

DATA WAREHOUSING

By now you are probably familiar with the term “data warehousing”.

It’s an odd term that conjures the image of a great information storehouse where manufacturers place their finished product and where consumers or distributors go to get it. And that’s right. Here, the product is bits and bytes of data – results from corporate data processing applications such as payables, billing, payroll, operations, etc.

But storing data is only part of the story. Making that data *informative* is the real key to Warehousing. How the bits and bytes of data are *organized* is what makes it information, and not just data. How *well* its organized determines just how effective the data warehouse is – that is, whether it’s intuitive, and whether it will really save time. The power of a *well-designed* warehouse is highly underestimated.

Imagine the savings if corporate analysts could design and create their own reports on the fly, as soon as analytical needs change, and without having to submit a request for technological help? Imagine the business advantage of such quick response to change. Imagine the technical resources that would be available for new development.

WHAT IS A DATA WAREHOUSE?

From a business perspective, data warehousing is the process of publishing corporate information into a central place that is organized the way the corporate analyst would do so at his desk or in a spreadsheet in order to analyze and draw conclusions from it. Information is gathered/prepared **once** and available to **all**.

The technical definition says its “subject-oriented, time-variant, integrated, scrubbed, and involatile.” It’s a huge undertaking that is generally built and made available in segments related to a particular subject or analysis for which the need is most immediate. Each segment is a separate lifecycle, or one cycle in the life of the data warehouse.

The data warehouse *environment* is the complete technical and business infrastructure necessary to make it happen. People. Planning. Design. Hardware and software. Tools and training. Processes and methodology. And – not the least – communication. This is a cooperative effort between the analyst users and the technological enablers.

WHY A DATA WAREHOUSE?

Warehousing done right eradicates the limits of the corporate analyst’s final report of conclusions or recommendations. What are those limits? What is the benefit of warehousing this activity rather than just reporting results?

Time is a limit. Early analytical reports may not be available for up to 15 days after data processing systems’ monthly closings, which can be up to 30 days after an event (payment, receipt, order, etc.) occurs.

Availability is a limit. The analyst’s report is available only to those who commissioned it, or who know of and request it. Somewhere another analyst is doing the same thing just a little differently. This limit fosters inconsistency and duplication of effort.

Detail is a limit. Only the corporate analyst knows the details behind the final numbers. Any data consumer who needs further detail must make a call to the analyst.

With warehousing, the final report is ready when the source data is ready – not after 60 hours of gathering, verifying, cleaning up, re-keying, and manipulating that data. It is published,

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along with the underlying detail, in a corporate database structure, in order for everyone across the enterprise (within appropriate security restrictions) to access the same set of numbers. And the analyst is just one part of the team that gets it done.

WHAT SISG CAN DO FOR YOU

SISG specializes in this very thing. Our seasoned professionals know the tools and the politics. We know what works, and what doesn't. You can begin taking full advantage of our experience and not have to feel the pain of doing everything for the first time.

We can help you build a data warehouse, or we can do it for you. While we offer data warehousing as an end-to-end solution that we provide, ideally SISG will manage a mixed team of our consultants and your staff. And when we are through, your team will be trained in the environment and able to carry on the effort.

The Data Warehousing engagement consists of the following lifecycle phases, also offered as independent engagements:

Readiness Assessment – A free analysis of the scope, technical environment, and available resources for the first (or next) data warehouse or enterprise integration project.

Facilitated Discovery – independent facilitation of joint discovery sessions to establish in-house consensus on project technical, business, and analytical requirements, and to explore feasibility.

Review of Applications & Inspection of Data (RAID) – a focused, methodical analysis of existing systems and source data for accuracy, focusing on requirements and a detailed plan for the proposed project, highlighting gaps and issues that could cause unexpected delays.

Information Architecture – a comprehensive plan containing detailed logical schemas for database, data flow, and data transformation to support business requirements for analytical functionality, regulatory restrictions, comprehensibility, etc.

Technical Architecture – a comprehensive solution containing detailed physical schemas for ETL design, infrastructure design, and data access and delivery design to support the information architecture.

Development & Maintenance – creation of the “physical reality” to architectural specifications, i.e., installation, configuration, coding, testing, tuning, deployment, and maintenance.

Information Delivery – installation, configuration, and when appropriate, portal integration of the selected data access tools as well as the development of the ad-hoc query and standard reporting environments and reports.

Technology Training – customized programs to educate users and IT staff in software tools, modeling techniques, and lifecycle methods used during the implementation.

Each data warehouse project will provide greater return on investment if initiated within the context of a pre-determined strategic framework. SISG's **Strategic Information Planning** and **Strategic Technology Planning** services lend vision and cohesion to the cumulative warehousing projects.

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DELIVERABLES

The comprehensive Data Warehousing engagement offers all the deliverables from each of its individual phases discussed above; see individual brochures for details.

TIMEFRAME

A data warehouse lifecycle, generally consisting of one or two star schemas, can be completed in approximately 3-4months, depending on the readiness of the organization to undertake the task and on the cleanliness of the data. Please refer to SISG's strategic offering **Readiness Assessment** for more information.

CLIENT BENEFITS

By taking advantage of SISG's data warehousing services, our clients enjoy the benefit of

- An experienced analysis, design, and development team
- A complete iteration of a Data Warehouse lifecycle
- Hands-on job shadowing with your IT resources
- Project completion on time and on budget
- Measurable return on investment

LEADING TECHNOLOGIES

SISG can support these and other leading technology solutions:

SOURCE/TARGET APPLICATIONS	DATABASE MANAGEMENT	DATA INTEGRATION /ETL TOOLS	ANALYTICS PACKAGES	META DATA MANAGEMENT	DATA ACCESS & ANALYSIS	WEB INTEGRATION
Oracle Financials	Oracle	Informatica Data Integration Suite (PowerCenter, Connectors, etc.)	Informatica Analytics	Informatica SuperGlue	Informatica PowerAnalyzer	IBM WebSphere Application Server
SAP	DB2/UDB	MQ Series, MQ Integrator	Jaros Analytics	ERwin	Actuate	IBM WebSphere Portal Server
Siebel	Informix	SeeBeyond	PeopleSoft EPM		Brio	BEA WebLogic Application Server
PeopleSoft	SQL Server	Tibco	SAP Business Warehouse		Business Objects	IBM Directory Server
Other custom-built applications	Sybase	Other JMS-compliant messaging toolsets			Cognos	

Our consultants are also proficient in the following core competencies:

ARCHITECTURE	PACKAGED DATA WAREHOUSE	INFORMATION DELIVERY
Normalized Data Modeling	Customer Relationship Management	Standard Report Design
Dimensional (star schema) Data Modeling	Supply Chain Management	Design for Multi-Dimensional Analysis
Advanced Data Modeling	Financial Management	Real-time Alerts
Extract, Transform & Load	Human Resources Management	Portal Integration
Real-time Application Integration	Weblog Analysis	

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