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CTG corporate partner Oracle Corporation took the lead in building the HIMS prototype, which was designed to: collect data from different sources, place it in a single repository, clean and transform it, provide fast and easy-to-use views of it, and answer questions about homeless clients, services, and programs.

The prototype was built using Oracle data mart methodology, an iterative cycle of five development steps and 13 processes. Data marts are repositories of integrated, non-volatile, and time-variant data collected from heterogeneous transaction processing applications and stored in a format optimal for reporting and strategic analysis for a specific business area.

HIMS, like other data marts, uses online analytic processing-**or OLAP** - applications that report and summarize data for ad hoc reporting and decision support.

Data marts are systems that enable organizations to retrieve information to make crucial business decisions. The systems work on the feed-store-use model. Operations and external data are extracted, transformed, and transported into a storage facility; it is vital that these three processes be done separately. Selected data from operational systems are extracted and transported to the target database environment. The data are also transformed, meaning they're filtered and integrated into consistent and uniform formats in the target database. Relational and OLAP tools and desktop applications are then used to query the data to find specific information.

In the case of HIMS, a staging area houses 4,800 cases over three years from two shelter providers in New York City, as well as data from BSS and the state Welfare Management System. The users from BSS, shelter providers, and local social service districts will be able to access the system through the Internet. OLAP tools put the data in a three dimensional cube structure that provides different views of the information-by programs, time, facilities, clients, services, and providers. These tools provide: a multidimensional view of the data, drill-down analysis, analytical functions, access to detail and summary data, and integrated graphing and charting. This type of application allows all levels of system users to conduct queries and analysis.

Building a successful data mart presents a host of challenges that must be dealt with, such as data quality, user support, ease of use, performance, bad or missing data, implementation time frame, and changing requirements. But there's a list of data mart tips that will help you conquer these challenges:

- Simplify, simplify, simplify.
- A project never ends if it's successful.
- If it's not quality, they will not come.
- All end-users are not alike.
- Meta data is mega important.
- Encapsulate your extraction, transformation, and transportation.
- Capture data samples early on.
- The devil is in the detail.
- Beware of online transaction processing (OLTP) creep.
- There is method to this madness.

In addition, a number of helpful references about data marts exist. For example:

- "Data Warehouse Lifecycle Toolkit" by Ralph Kimball, 1998, ISBN 0-471-25547-5
- "Data Warehouse Toolkit" by Ralph Kimball, 1996, ISBN 0-471- 15337-0
- "Oracle 8 Date Warehousing" by Gary Dodge and Tim Gorman, 1998, ISBN 0-471-19952-4