

Centralizing Core Business Data for Reporting and Analytics

Optimized Analysis of Hotel Operational Data

The Challenge

After undergoing multiple mergers and acquisitions, the Extended Stay Hotels (ESH) Information Technology (IT) group found itself supporting multiple data repositories – many with redundant data – and several departmental reporting applications.

As a result, ESH management received reporting results from one department that did not always align with those from another. These different “versions of the truth” were caused by external processes like post month-end adjustments applied to one data source and not another.

Furthermore, some departments could not readily access available, time-sensitive data without going to IT developers for ad hoc reporting. As a result, management could not receive reports quickly enough to make timely decisions.

Finally, an aggressive hotel acquisition strategy meant new data sources and applications would continue to tax these departmental applications and ultimately the IT department’s data and application support function.

Because the already over-burdened applications support staff could not adequately support the business’s on-demand reporting needs, IT had to find a way to centralize the company’s core business data and make it accessible to various departments for their own reporting and analytics. IT also had to close down the various silos of data and non-standard applications to better control the information being reported.

ESH required a solution that leveraged its existing MS SQL data infrastructure and developer expertise to build a cost-effective and extendable foundation for future growth.

The last requirement was that the solution needed start delivering value *ASAP!*

Results

- A technology and data infrastructure consisting of OLAP cubes that use easy-to-access Business Intelligence Software
- Underlying processes to extract and transfer core data to meet current and future reporting needs.
- Key guest and reservation data is available in reporting cubes and served through business intelligence front end for Marketing, Sales, and Operations analytics and reporting.
- Monthly and quarterly processes maintain data quality and synchronize to the source property management and central reservations applications.
- Operational processes that manage dynamic relationships such as employees, properties, regions, goals, and account ownership are automated.

Solution

Working closely with IT management and legacy process and application owners to define reporting needs, Edgewater built a phased approach to identify required data, centralize and convert the data into meaningful facts and dimensions, and then deliver the data to the business using *datamarts*. The datamarts partitioned data into subject areas such as Marketing, Sales and Operations based on readiness of the data.

Edgewater executed this strategy and delivered the solution, meeting objectives, including:

- Identification of the required data, reports and scope for a single subject area in order to rapidly provide value to the business;
- Selection and engagement of third-party vendors to fulfill data cleansing, de-duping, and data enhancement needs;
- Design and build of an extensible foundation to meet immediate marketing needs and long-term ESH business reporting priorities;
- Selection of a best-fit technical solution to deliver ESH business data;
- Development and execution of a change management plan to retire legacy reports and applications;
- Establishment of procedures for managing datamart processes and ensuring data quality; and
- Empowerment of departmental resources as 'power users' to perform their own post-production enhancements and report building.

By successfully implementing this strategy, ESH was able to create their reporting and perform their own analysis from production data. This allowed management to redeploy resources to work on other critical projects. Also, by having multiple departments access the same source data, management had the confidence that the data was consistent across departments.

Success Factors

- Choose a technical solution (cubes and Business Intelligence (BI) software) that fits with the current supported infrastructure.
- Use third-party vendors for data services, such as de-duping, cleansing, and historical integration.
- Focus solution on delivering BI, not transactional data.
- Stage all available data, but process into facts and dimensions, only the data that meets current business requirements.
- Choose BI software that offers one-stop shopping for all reporting needs.
- Get management buy-in that data from legacy systems is suspect due to challenges associated with the integration from different systems.
- Retire non-standard legacy systems, such as Notes and Microsoft Access databases.

The end solution included the development of datamarts that enabled departmental functions to:

- Report marketing project performance, sales channel measurements, and campaign performance;
- Segment ~14MM guests according to their stay behavior and create targeted marketing lists;
- Track room stays for compliance with certain revenue and tax rules;
- Measure sales person performance and national account productivity;
- Measure optimal rate achievement for each booked reservation; and
- Report, at a transactional level, to assist revenue managers maintain occupancy levels for 700+ hotels and through focused rate management.