



## Case Study : Business Intelligence in a call center

A large call center environment provides ample opportunities for the application of data-mart and business intelligence techniques that could provide greater insight to their data and result in vastly optimizing their operations.

The present case study provides details of a BI database design for call center operational data. The database design follows the dimensional modeling techniques as detailed given in following Link . Open below Link in browser –

<http://www.kimballgroup.com/data-warehouse-business-intelligence-resources/kimball-techniques/dimensional-modeling-techniques/>

As the tutorial details, the four step process in a dimensional design process are the following –

1. Select the business process.
2. Declare the grain.
3. Identify the dimensions.
4. Identify the facts

The first step towards a BI database modeling would be to understand the needs and the benefits desired from the exercise. One of the benefits a call center would want to optimize would be the number of agents employed at any particular hour of the day or night so as to result in a minimum wait time for callers as well as ensure agents are not idle. To complicate the process, agents in a call center normally possess different skill sets – while some agents may be required to answer in English, another set may be required to speak Spanish. Depending on the DNIS (number dialed by the caller), the calls are forwarded to agents with the required skill set.

The requirement of the exercise therefore could be summarized as –

**Business Processes** The business processes are the activities that result in operational data. For a call center, this would be answering a call or making a call. Other similar activities could be answering to emails or answering IM chats.

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