Table 1: Issues with traditional approaches

Traditional approach of handling irregular data	Issues
Add new columns to source, create maintenance screens in source and develop new load process and reporting	 Source may not be changeable or very expensive to change. Turnaround time may be lengthy. Source maintenance forms may not be appropriate way to maintain this data. Data entry staff may not understand the data.
Create one-off maintenance forms to augment the existing data and develop new load process and reporting	 Ad hoc development each time, no generic approach. Difficult to change or update forms. New development effort for each change or new form.
Business users extract data from the DWH using the BI tool, cut and paste this to Excel or Access and then integrate this with the irregular data, and format it for output	 Business user spends too much time on data preparation rather than analysis. BI system resource being used for extraction. No integration of the irregular data. Leads to unexpected uses of DWH data, feeding grey IT efforts.
Irregular data not reported on	 Reports are less relevant to business.
Hard coded into reports	 Effort of coding into every report that requires the information. No integration of irregular data. Overhead of processing coding on reporting server. Complex processing makes reports difficult to understand and manage.



Table 2: Integrating irregular data

Impact of integrating irregular data at the various stages of the DW / BI process. The first column (ETL development) is a cost, while all other columns are benefits.

Descripti on	ETL Devel opme nt Requi red	Dat a inte grat ed	Data Persists	Fast Simple Bl develop ment	High Performanc e Queries	Sustainabl e as data volume grows
ETL and full integration with DWH keys	Y	Y	Y	Y	Y	Ν
Direct maintenanc e in tables	Ν	Ν	Y	Ν	Ν	Ν
Direct maintenanc e in tables and addition of DWH keys with ETL	Y	Y	Y	Y	Y	Ν
Standard DWH data modeling	Y	Y	Y	Y	Y	N
BI Application Layer	Ν	Ν	Ν	Y	Ν	N

