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Chapter 1. The Plan

1.1 Background

Database Answers is an established company in the UK providing consulting services in Enterprise Data Management to a range of Clients in both the public and private Sectors. Their Website is :-

- <http://www.databaseanswers.org/index.htm>

It is now their intention to investigate the feasibility of opening an Office in Egypt.

Database Answers supports a global Community of people interested in Databases and Data Management which includes fifty members in Egypt who will be invited to be involved in the new Office.

1.2 Strategy

The strategy is to establish the business in Egypt and use this to extend in the Middle East. There will be four major areas of activity :-

- 1) The Future of Ubiquitous Data
In the future data will be available 'any Time, any Place using any Device'.
This will involve collaboration with Universities and Research organizations to address areas of interest which will bridge the gap between the present and the future.
An example is creating Transformation Frameworks to produce formal specifications from unstructured statements of business requirements.
- 2) Smarter City Applications
Building a Generic Platform for Smarter City Applications.
- 3) Best Practice in Data Management
This will involve continuing the current work, including Training for Egyptian Data Management professionals
- 4) Developing Tutorials – eg "Learning Data Modelling by Example".
- 5) Careers Advice
Mentoring Students on how to have a successful career in Enterprise Data Management

A Start-Up Plan for Database Answers in Egypt

1.3 Getting Started

Part of our mission is to establish Proof of Concept for the feasibility of a general approach to Ubiquitous Data by building on a Best Practice Road Map for Enterprise Data Management. In casual conversation, we might say simply 'The Theory and Practice of Ubiquitous Data'.

This would achieve the aim of moving the concept of Ubiquitous Data into mainstream thinking.

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Chapter 2 . Planning for the Future

2.1 Ubiquitous Data

Our Vision of the Future is 'Ubiquitous Data' with data available 'at any Time, any Place and using any Device'.

We can see this now with the Apple iPhone and other Smartphones.

These all offer thousands of Applications ('Apps') for specific functions that are delivered over the mobile device.

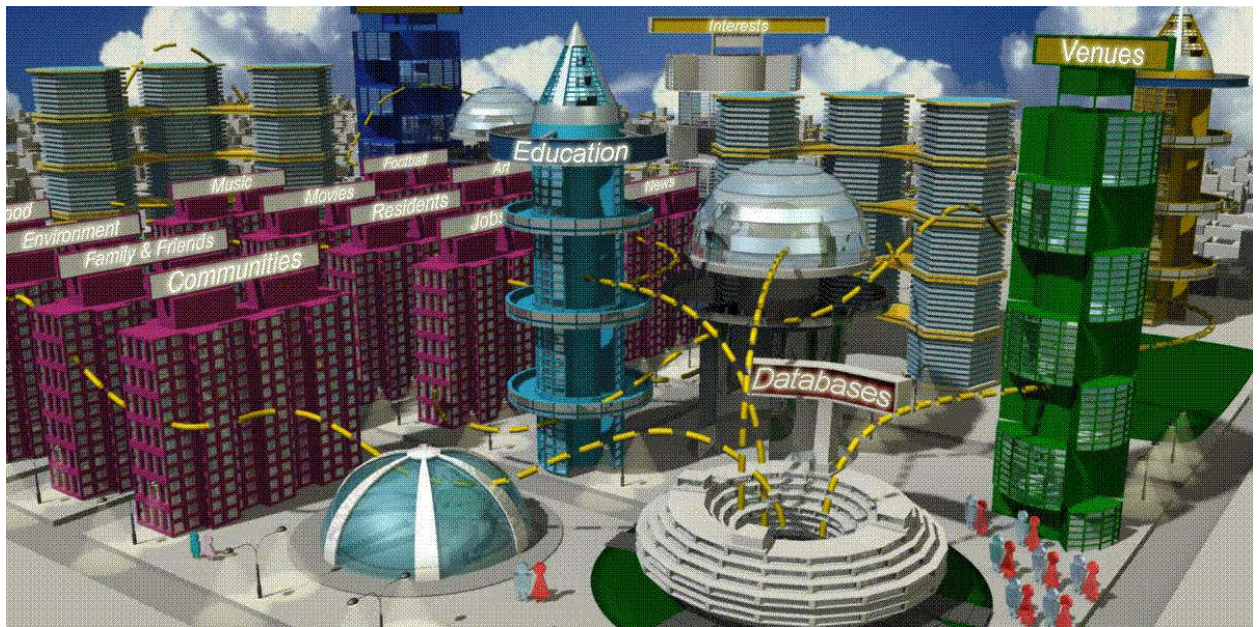
Our vision of the Future replaces all these specific Applications with a Generic Data Platform to support families of Generic Applications.

This picture shows Data Sources with streams of data going everywhere.

Sources include Communities, Education, Environment, Family and Friends, Interests and so on.

This diagram can be seen in full on this page of the Database Answers Website :-

- http://www.databaseanswers.org/Future_of_Databases/the_vision.htm



A Proof-of-Concept is in the process of development.

This page describes the specifications and the current situation with IBM Software :-

- http://www.databaseanswers.org/Future_of_Databases/poc_bmews_ibm.htm

2.2 Families need Data

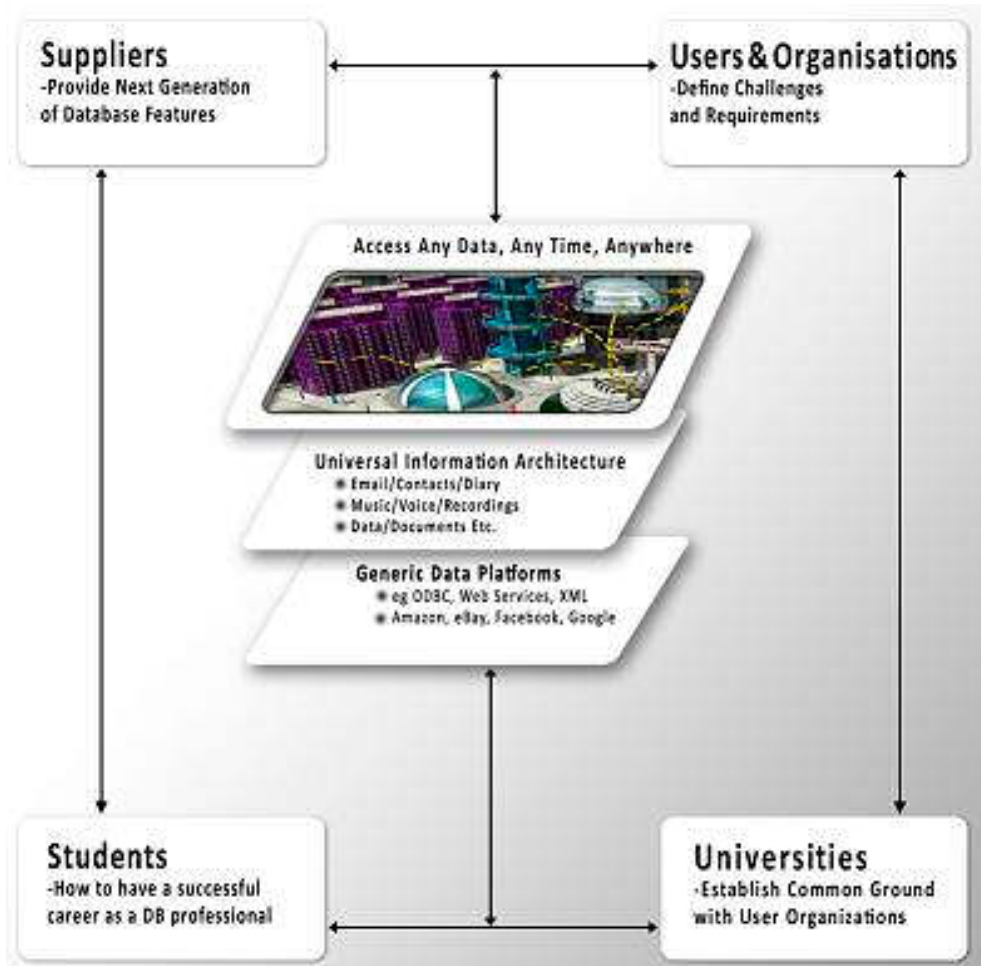
This diagram shows the range of Data that a typical Family will need.



2.3 A Universal Information Architecture

There are four points of view representing four different points of interest. This diagram appears on this Page on the Database Answers Web Site :-

- http://www.databaseanswers.org/Future_of_Databases/Universal_Information_Architecture.htm



2.4 Data Architecture for Migration to the Future

This diagram shows the major Building Blocks for the future.

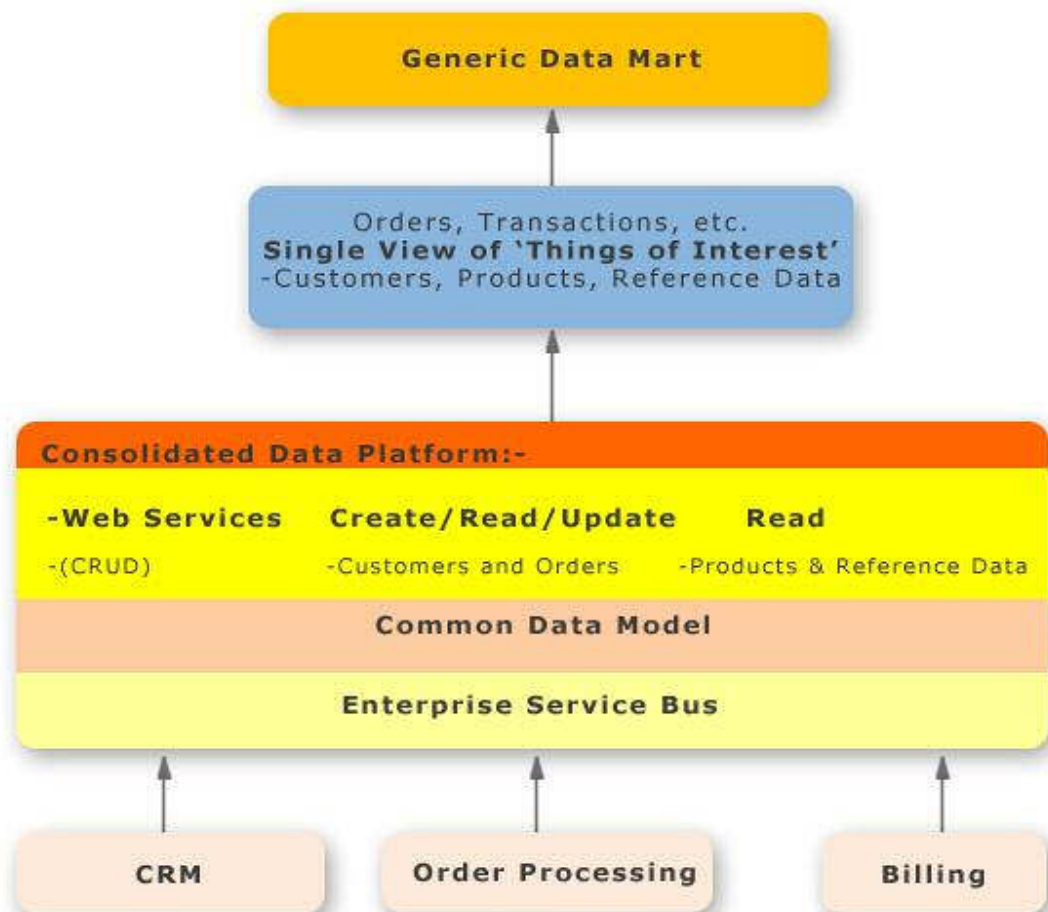
They provide a migration path from Business Specifications to implementation using Products from specific Vendors.

Each of these Building Blocks can be provided by major vendors and niche players.

They represent the 'State-of-the-Art' and using them in an integrated manner is currently a serious challenge.

It appears on the Proof-of-Concept Page on the Database Answers Web Site :-

- http://www.databaseanswers.org/Future_of_Databases/proof_of_concept.htm



Chapter 3 .A Generic Platform for Smarter City Applications

3.1 Monitoring the Environment

This diagram shows a 'Traffic Light' approach to monitoring the environmental quality of a region in London, England.

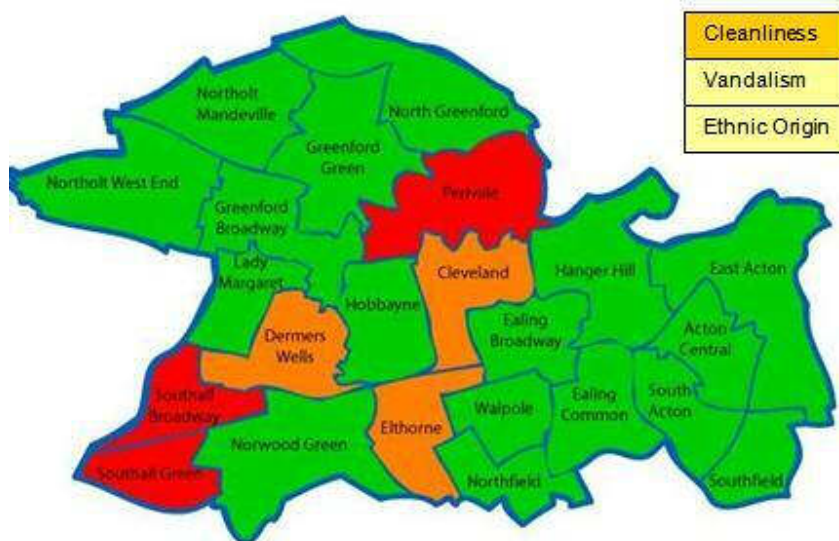
Key Performance Indicators ('KPIs') have been defined and values are displayed as Red, Amber or Green, depending whether the environmental situation needs:-

- urgent management attention ('Red')
- attention but not urgently (Amber)
- no attention (Green).

The same approach is used to monitor other factors such as Vandalism and the Ethnic Origins of the population.

It appears on the Database Answers Web Site :-

- http://www.databaseanswers.org/street_environment_services/traffic_lights_rag.htm

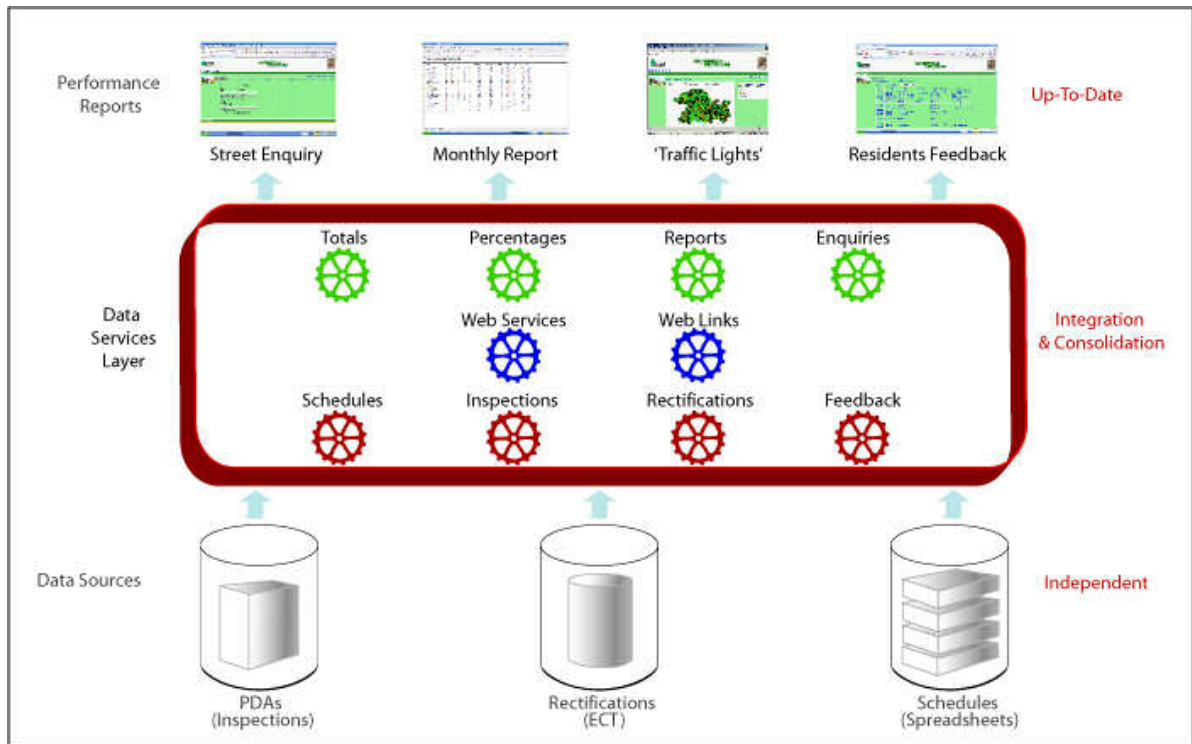


3.2 An SOA Architecture

This diagram shows the SOA Architecture that we designed to support the Monitoring System shown above.

It appears on the Database Answers Web Site :-

- http://www.databaseanswers.org/bmews/bmews_data_architecture.htm



Chapter 4 . The Present – Road Map for Data Management

4.1 Road Map for Best Practice

This Framework defines a Road Map with six Stages.

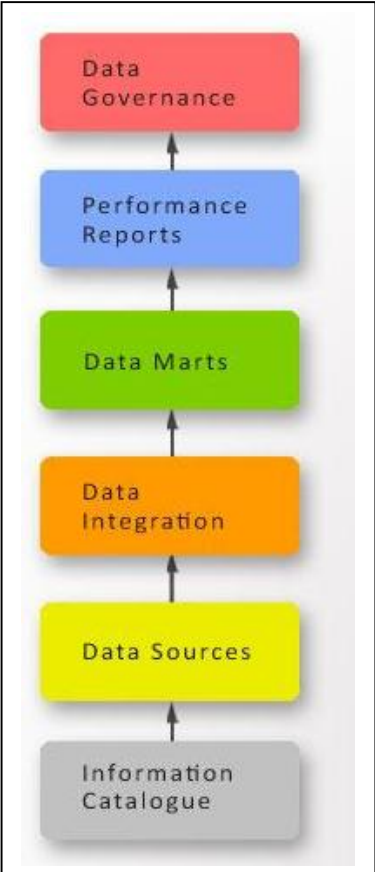
The Road Map recommends Best Practice in each of six major Stages for Data Management.

This document defines Templates for each Stage.

Best Practice involves Activities in each Stage, along with the integration of these Activities.

The major vendors, such as IBM, Microsoft and Oracle, all offer Software Products for each Stage.

This shows Stages and related Business Questions.

Stages	Comment	Business Questions
	Roles, Responsibilities and Compliance with	How can the CEO be sure that data in the Reports is consistent, correct
	Use Report Templates and Ad-Hoc Enquiries	Do the Key Performance Indicators (KPIs) report the things that should be monitored ?
	A Generic Design to provide totals for Reports	What data summaries are required for strategic Reports,
	To provide a 'Single View of the Truth', with	Is there a 'Single View of the Customer' and other important Things, like Products,
	To record details of all major Systems	How many different sources of data have to be considered ?
	Maintain a Repository of all Databases, People	What Information is available about Systems, Data Owners and so on ?

4.2 Maturity Model in Data Management

This diagram makes it possible to identify where an organization is situated in its use of Data Management.

It appears on the Database Answers Web Site :-

- http://www.databaseanswers.org/best_practice_road_map/maturity_model.htm

NOTHING	BASIC (AA)	BASIC (H)	AVERAGE (E)	AVERAGE (BG)	IDEAL
Data Governance	Data Governance	Data Governance	Data Governance	Data Governance	Data Governance
BI+Perf Rpts	BI+Perf Rpts	BI+Perf Rpts	BI+Perf Rpts	BI+Perf Rpts	BI+Perf Rpts
Data Marts	Data Marts	Data Marts	Data Marts	Data Marts	Data Marts
Data Integration	Data Integration	Data Integration	Data Integration	Data Integration	Data Integration
Data Sources	Data Sources	Data Sources	Data Sources	Data Sources	Data Sources
Info Catalogue	Info Catalogue	Info Catalogue	Info Catalogue	Info Catalogue	Info Catalogue

4.3 Planning a Strategy for Data Management

This diagram offers possibilities for strategies.

It appears on the Database Answers Web Site :-

- http://www.databaseanswers.org/best_practice_road_map/strategy_production.htm

	BASIC	AVERAGE	IDEAL
Data Governance	Do Nothing	Define Roles and Responsibilities	Define Accountability, Data Lineage
BI+Perf Rpts	Establish KPIs	Create Templates and Users	Define Dashboards, Mashups
Data Marts	Do Nothing	Create Specific Data Mart	Create Generic Data Mart
Data Integration	Use SQL	Create Gen Data Model, Choose Tool-eg Informatica, MS SSIS	Put MDM in Place
Data Sources	Identify Basic Sources	Data Sources	Provide On-demand Details
Info Catalogue	Appoint Owner, Format	Info Catalogue	Obtain Top-level Sign-off

Chapter 5 . Career Guidance

We offer advice on your Career based on our many years experience.

Here is a selection of pages on the Database Answers Web Site :-

- Careers - <http://www.databaseanswers.org/careers.htm>
- Personal Qualities for Success - choose a career that suits your personality :-
 - http://www.databaseanswers.org/personal_qualities_for_success.htm
- Tutorials - <http://www.databaseanswers.org/tutorials.htm>

Chapter 6 . Implementation with IBM Products

Here are Web Links for each Stage :-

- 1) Data Governance –
 - Data Governance Council - http://www-01.ibm.com/software/sw-library/en_US/detail/Z992137B74662E40.html
- 2) Performance Reports
 - Cognos - <http://www-01.ibm.com/software/data/cognos/>
- 3) Data Marts
 - InfoSphere <http://www-01.ibm.com/software/data/infosphere/warehouse/values/design.html>
- 4) Data Integration
 - Cast Iron - <http://www.castiron.com/>
 - Data Architect - <http://www.ibm.com/software/data/integration/rda/>
- 5) Data Sources –
 - Business Glossary - <http://www-01.ibm.com/software/data/infosphere/business-glossary/>
- 6) Information Catalogue –
 - <http://www-01.ibm.com/software/data/infosphere/business-glossary/>

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