Information Architecture enabling BI

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WORK HISTORY
- 2008- Chief Consultant, Senior Consultant,
- 1989-1998 Research Scientist, VTT

MAIN PROJECTS/PROGRAMS
- NEIM Nokia Enterprise Information Model
- UNA Unified Nokia Approach
- CIF Nokia Common Internet Platform
- NSN Enterprise Data Warehouse Program
- NSN Business Intelligence Program
- NSN Common Sales Platform program

WORK EXPERIENCE
- Process and Enterprise Architecture Methodology and Framework development, utilization and facilitation at customer companies.
- Business Intelligence strategy creation (NSN).
- Enterprise architecture methodology and content creation and deployment (NSN and Nokia), especially Information architecture.
- Software development methodology creation and deployment (Nokia).

EDUCATION AND CERTIFICATIONS
- 2008 TOGAF
- 1989 MSc in Computer Science, University of Helsinki
Information quality is a measure to get the right data, to the right people, in the right place, at the right time, at the right cost so they can make the right decisions and take the right actions.

- Metadata
- Information
- Knowledge
- Business Decisions
- Competitive Advantage
The Usual Data Problems

- **Unknown data existence**
  - Organisation not aware of all data at its disposal
  - Often not even inventoried

- **Unknown data meaning**
  - Content and meaning of data not fully known
  - Data not thoroughly understood

- **High data redundancy**
  - Data highly redundant and inconsistent
  - Average redundancy factor of 10 for large organizations

- **High data variability**
  - Data highly variable in format and content
  - Average factor of 15 to 20 for large organizations
Have You Seen This Before?

Legacy files, contain this and that

DB triggers send data...

Is all this data exchange needed, maybe not, but who dares to touch the ERP system?
Towards high quality data resource and long-term stability

Disparate data cycle.

New data integrated and documented
Existing data resource readily shared

People find, trust, and access data

New data created when necessary

Compare data cycle.

Source: “DATA RESOURCE INTEGRATION”, DAMA INTERNATIONAL EUROPE CONFERENCE, 27 OCTOBER 2003, MICHAEL H. BRACKETT

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How to Get There?

Begin an initiative to

– Thoroughly understand
– Formally manage
– Fully utilize all data that are available to the organization within

one common enterprise wide information architecture (including an enterprise data model)

“We cannot solve problems with the same thinking we had when we created the problems.” -ALBERT EINSTEIN

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What is a Data Model?

A graphical representation of data

What is an Enterprise Data Model?

- A graphical representation of the data across an enterprise
  - Independent of technology
Three Representations of the same Data Model

Conceptual

Logical

Physical

More detail, more implementation specific

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It Is a Solution to Point2Point Integrations

- Utilize Corporate Bus solutions
- Do NOT exchange same point-to-point data sets accross Corporate Bus
- Solution would be Enterprise Information Integration, EII, that is based on a Canonical Data Model
Enterprise Architecture Benefits You Even More

Information Architecture
- Customer Information
- Product Offering
- Manufacturing
- Product Offering
- Installation
- Delivery
- Order
- Invoice
- Payment

Technology Architecture
- What server is our ERP on?
- Firewall
- Firewall

Risk and Control Management
- What risks are there in regards to Sales? How are they controlled?

Application Architecture
- Where do we keep Customer information?
- CRM
- ERP
- PDM
- Installed Base

Process Architecture
- Demand Creation
- Sales
- Order Management
- Delivery
- Invoicing and Payment
- Product Creation
- Care

Create Information, Application, Control and Risk specifications once, re-use in all Process models.

Get a holistic view on processes as well as information and applications needed to support them.

What must Product Creation give to Sales?

What information must Product Creation give to Sales?
With QPR ProcessGuide and ScoreCard, you can link measures to processes.
... as well as Drill Into Details
There are Several Reference Models to Jump Start EA Work

- Information/Data models
- Process models
- Application models

The TOGAF thinking....
Spectrum of Some Available Data Models

Size and cost

Business area specific, platform independent models
- IEC CIM
- SID

Models for data exchange and integration
- PLCS
- UDM
- XML Based Models
  - eCom
  - UBL
  - OAGIS
  - CICA

Platform specific models (data warehousing)
- IBM Industry Models
- NCR LDMs
Questions, Comments, Arguments?

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