The Canonical Model

Myths, Straw men and Befuddlement

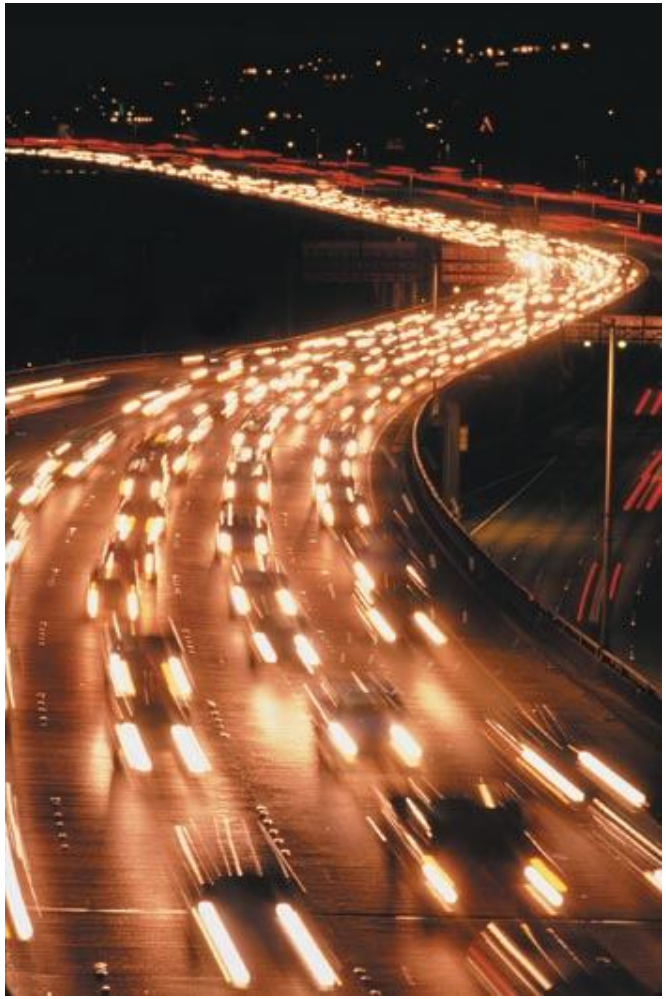
Canonical Model Defined

- Canonical Model
  - Any model that is canonical in nature, i.e. - a model which is in the simplest form possible based on a standard, common view within a given context. Often this term is used interchangeably with Canonical Data Model (CDM) though the two are distinct. A CDM is a type of CM, but a CM is not necessarily a CDM.
- Canonical Data Model
  - An enterprise design pattern which provides common data naming, definition and values within a generalized data framework. The framework of CDM's tends to be flat. CDM's are more abstract than other models and represent the agreed upon data within the domain being represented. CDM's do not contain all the data within a domain, only the common, agreed upon data
- Canonical Schema
  - An XML Schema (XSD) designed to represent a physical implementation of data taking advantage of the hierarchical nature of XML to create dependencies that may be deep and rich. Canonical Schema is a SOA design pattern in which services are constructed using a single common schema.

Why a Canonical Model?

Integration Layer...

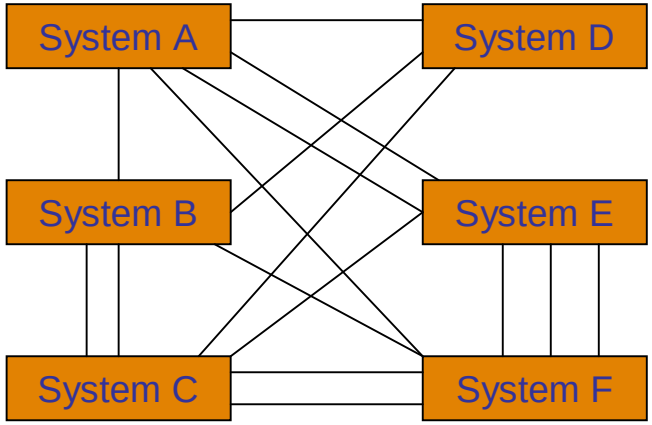
With a CM



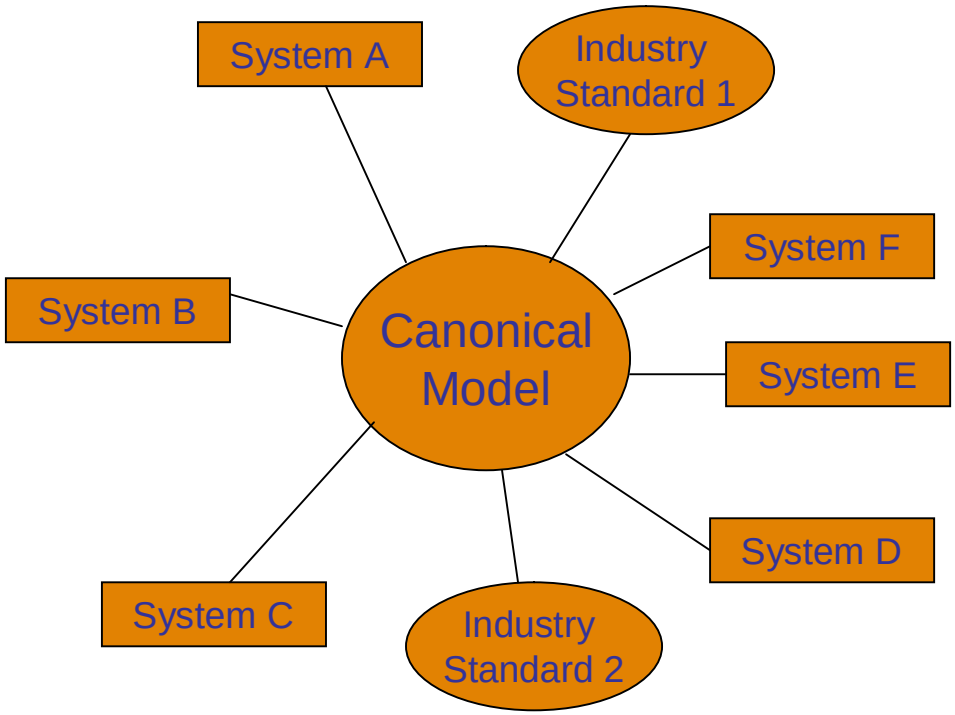
Without a CM

Organization is the Difference

Point to Point



Enterprise Integration with CM



Reuse is the result!

Wachovia Case Study

- Purchased new Loan Processing System
  - Vendor recommended Industry Standard
- ESB already in place (MQ Series)
  - XML Messages were interface specific
- Reuse of messages desired
- Industry Standard (MISMO) didn't meet all our needs
- Decided to create our own CM

A Journey….

- Original CM was MISMO ‘based’
- CM was a Canonical Schema (almost)
- Initially messages & CM built together
  - Long development times for messages
- As CM matured, it became less volatile
  - Development time decreased dramatically
- Productivity of modelers, analysts and developers increased with time
  - Reuse of existing objects

Results

- Data quality increased
  - Hard questions were being asked
  - Legacy systems were ‘cleaned up’
- Messages were reused
  - Very helpful for mergers
- CM objects were reused
- CM evolved from MISMO ‘based’ to ‘pure’

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