

Discussion Paper on Enterprise Data Modelling for Container Shipping

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1.Introduction

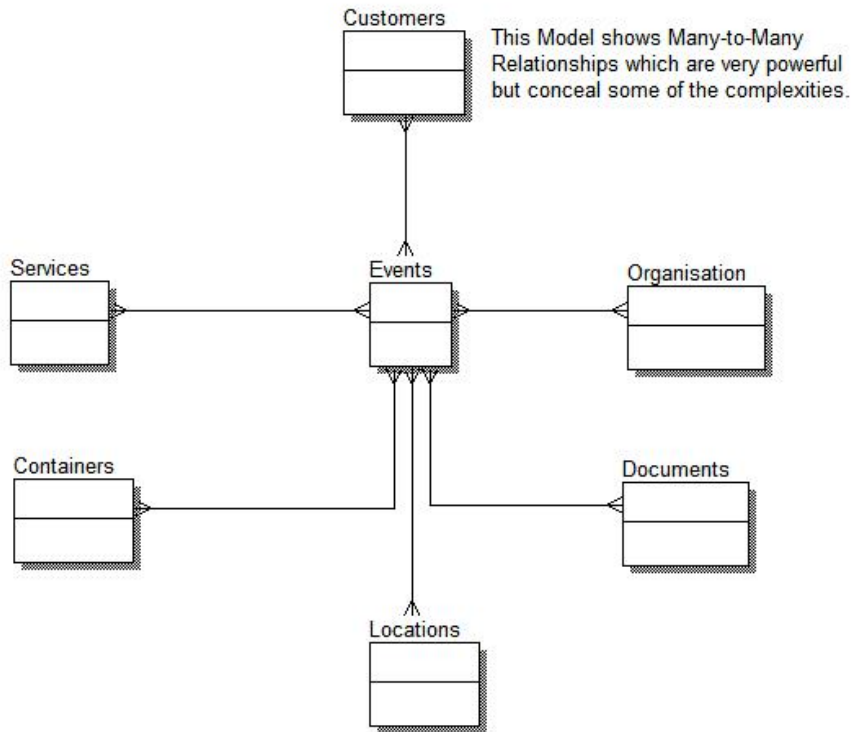
This Paper describes an approach to Enterprise Data Management.

Steps 1 to 3 discuss Data Modelling and in particular, the creation of an Enterprise Data Management ('EDM') which is designed specifically to make it easy to populate a Data Warehouse and provide 'A Single Version of the Truth'.

Steps 4 to 8 are concerned with the environment within which the Data Model and Data Warehouse combine to meet the goals of the organisation.

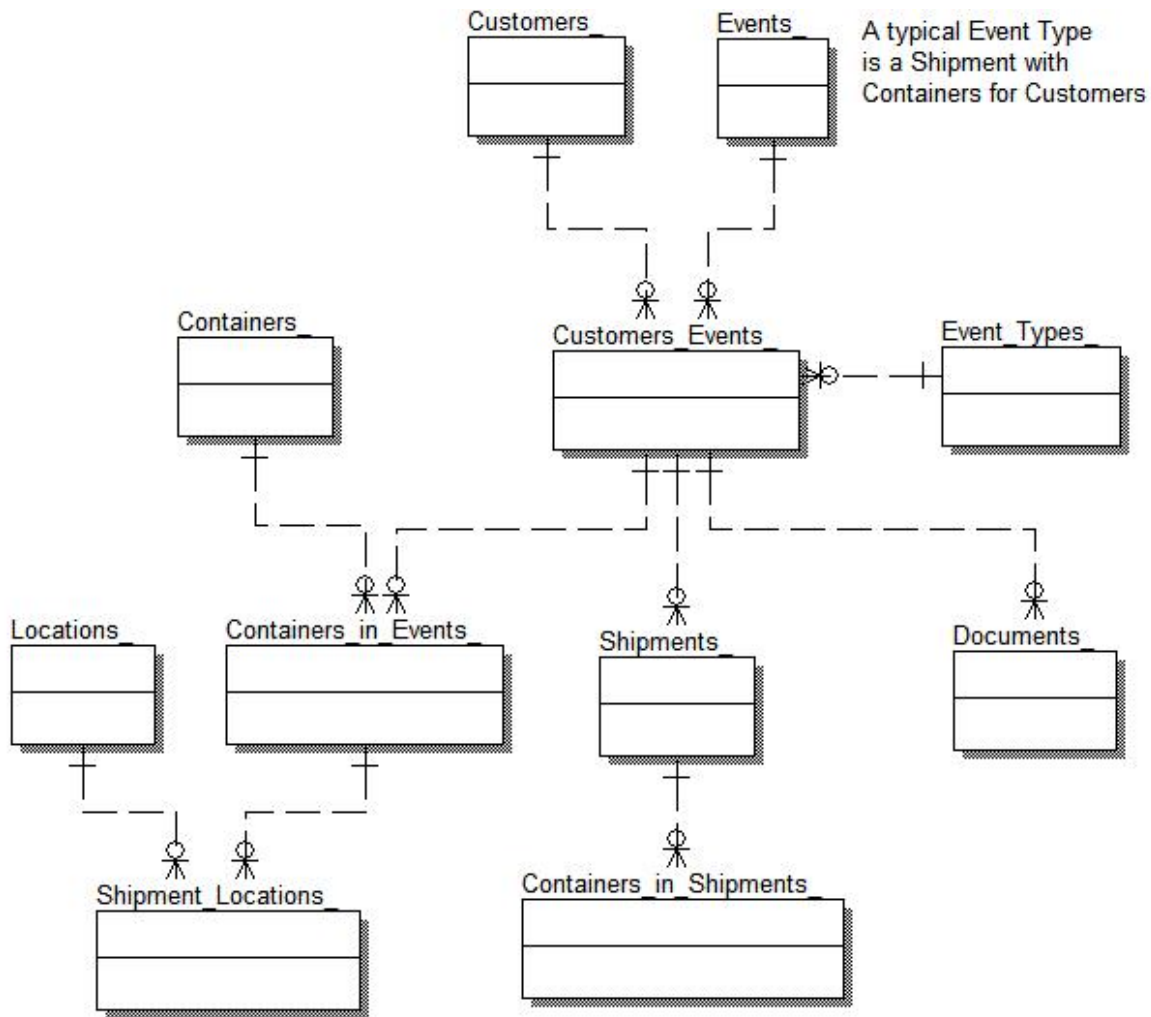
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STEP 1. Design the Enterprise Data Model



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STEP 2. Design the Entity-Relationship Diagram



STEP 3. Define the Lifecycle of Containers and Customers

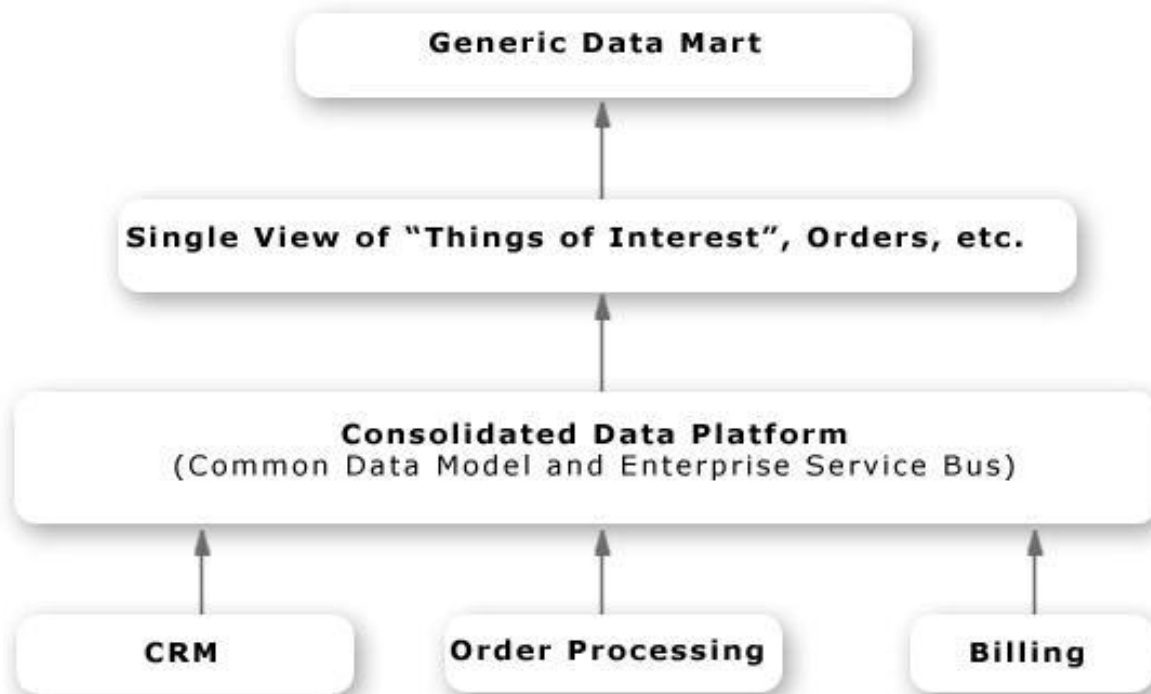
This table shows the Stages in the Lifecycle of Containers and Customers.

For each Stage, a Subject Area Data Model can be created to show the details involved.

Plan	Buy Containers	Use "Container Shipments"			Dispose of Containers	Analyse
		Customer Services and CRM				
		Booking	Tracking	Documentation Services		

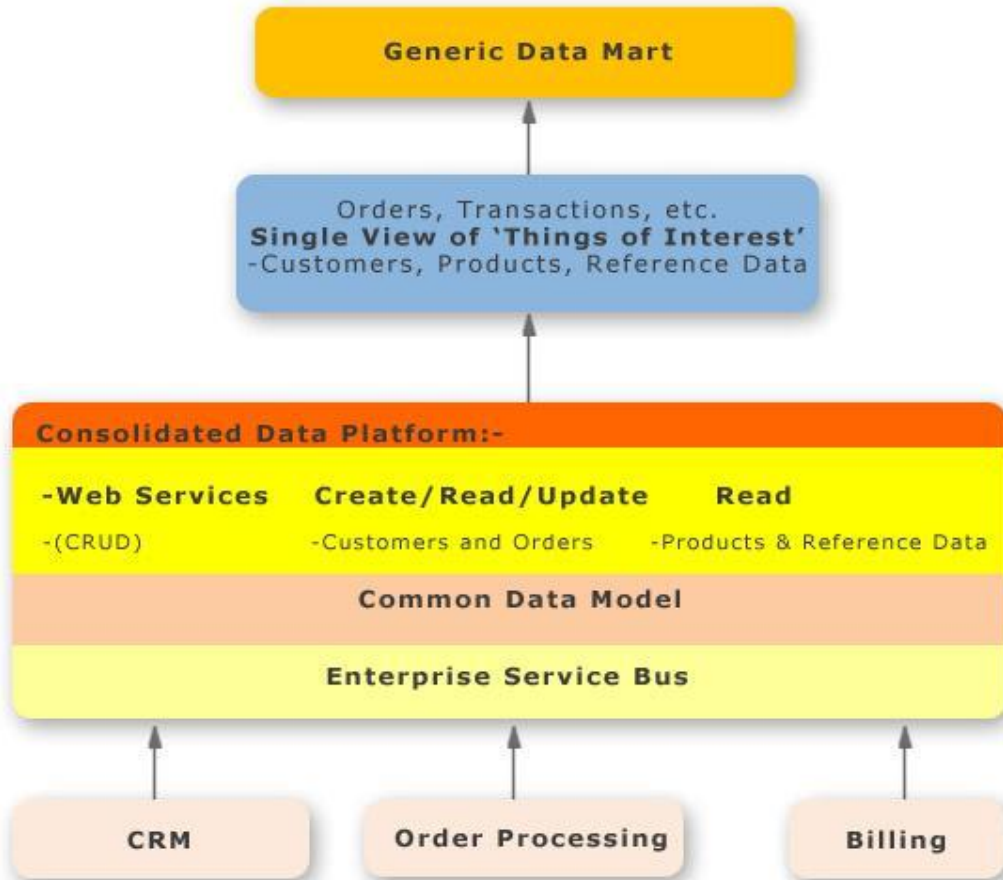
STEP 4. Simplified Data Platform and Web Services

This table shows the Layers in a simplified Data Platform.



STEP 5. A Detailed Data Platform and Web Services

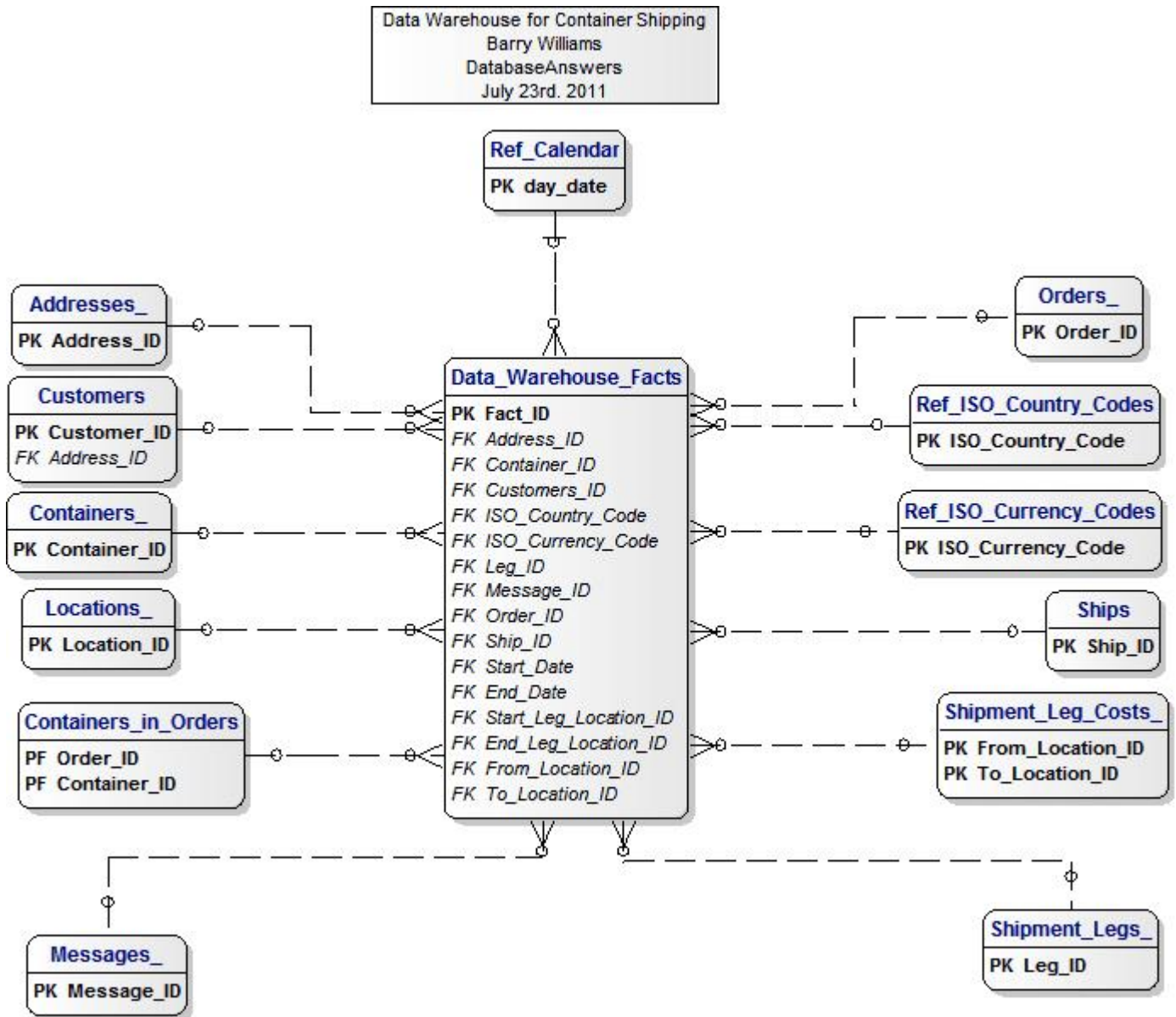
This table shows the Layers in a detailed Data Platform.



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STEP 6. Review the Data Warehouse Design

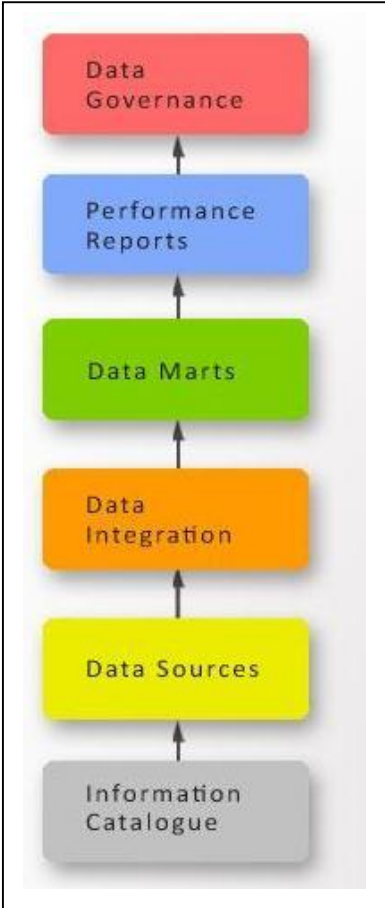
This shows the starting-point..



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STEP 7. Review the Road Map for Best Practice

This shows Stages and related Business Questions.

Stages	Comment	Business Questions
	Roles, Responsibilities and Compliance	How can the CEO be sure that data in the Reports is consistent, correct
	Use Report Templates and Ad-Hoc Enquiries	Are the Key Performance Indicators (KPIs) appropriate ?
	A Generic Design to provide totals for Reports	What data summaries are required for strategic Reports ?
	Review Data Quality and MDM	Is there a Single Version of the Truth for Customers etc. ?
	Details of all major Systems	How many different sources of data have to be considered ?
	A Repository of all Databases, Applications, People, etc.	What Information is available about Systems, Data Owners and so on ?

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STEP 8. Carry out a Self-Assessment

This diagram can be used to assess the Stage that an Enterprise is situated in Data Management.

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

STEP 9. Plan a Strategy

This diagram can be used to plan a Strategy

	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