



Is the CDO really the Chief Requirements Officer?

MIT Chief Data Officer & Information Quality Symposium

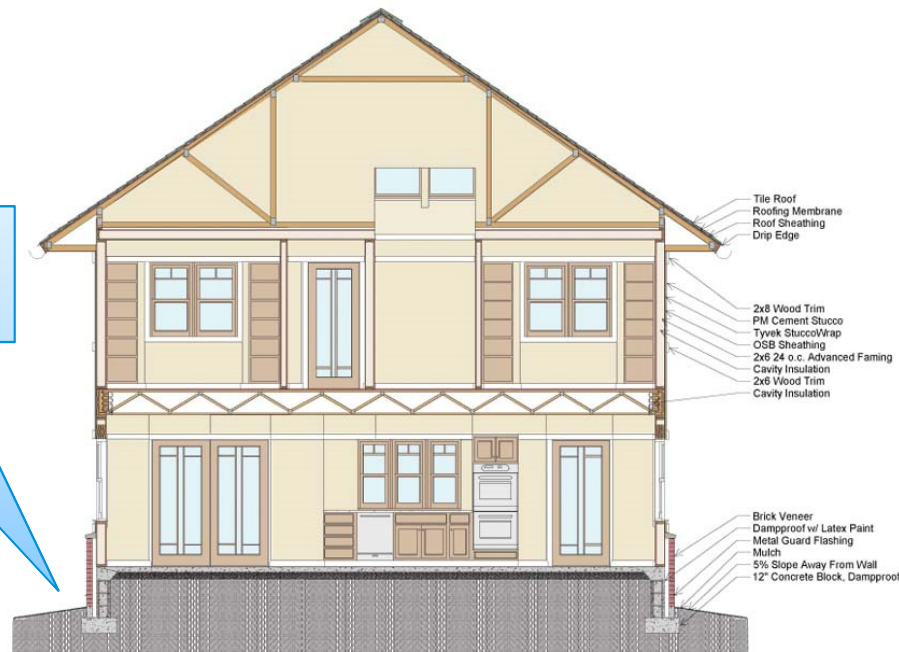
July 2014





- Who should collect, validate and maintain business data requirements?
- Who should provide data models and meta data to application developers?
- Who should developers turn to before building their own models and meta data?
- If data is one of the primary assets of an organization, who is accountable for asset management?
- Is the CDO really the Chief Requirements Officer? The Chief Requirements Architect?

The Foundation for Operations,
Analytics and Change
Management



- The role of the Chief Data Officer is a critical executive function in many large and growing organizations in financial services, insurance, healthcare, media, technology and government
- Smart organizations have created a “Data Program” or Data Management Office (DMO) to manage data strategy, policies and procedures, issues and shared services
- What does the executive role of the Chief Data Officer (CDO) look like?
 - » She is a member of the senior management team with years of experience in company operations
 - » She has executive-level authority for data management practices in business and IT
 - » She is empowered as the business champion for enterprise data management and quality
 - » She establishes, promotes and maintains the Enterprise Data Strategy

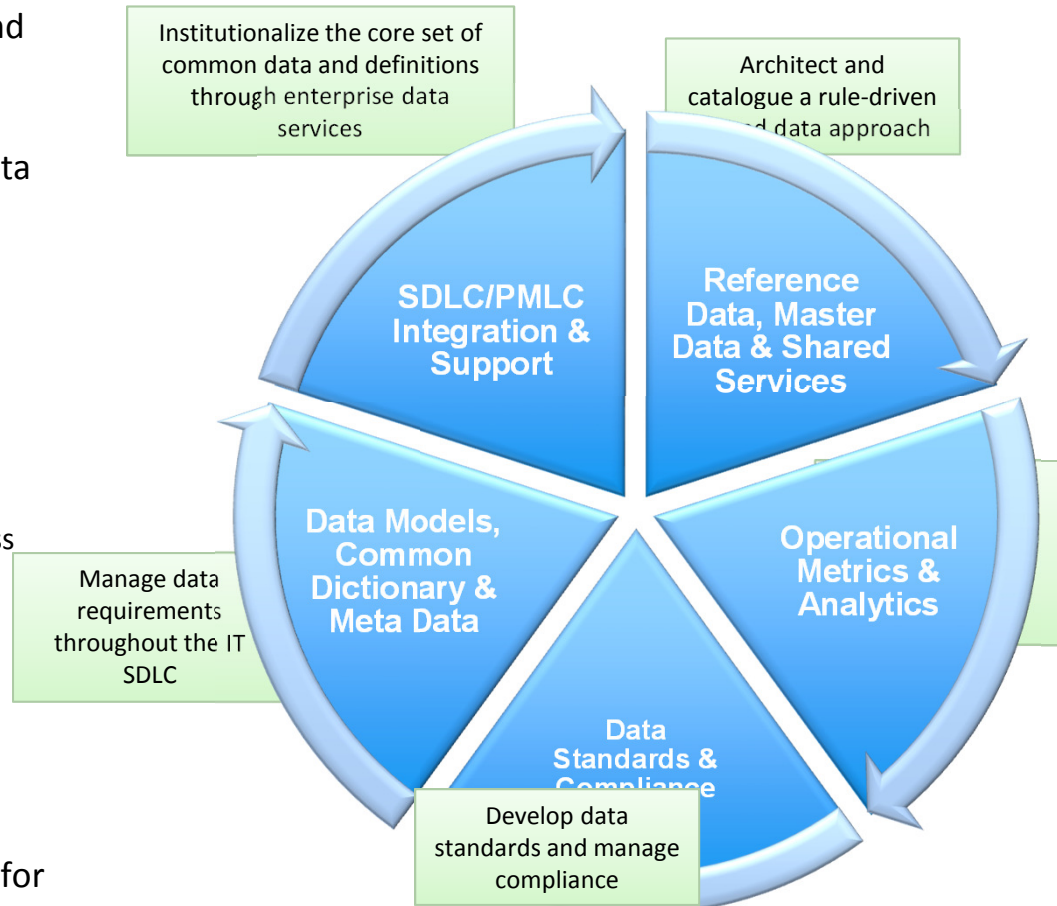


Her role is a balancing act...

How Does the CDO Operate?

- The effective CDO works collaboratively with business management, business operations, risk management, finance and accounting, and the IT organization, to assess, prioritize and mitigate risks that may potentially affect operations and data quality
 - » She is accountable for the management of enterprise data
 - » She creates and maintains the data management strategy
 - » She maintains connections between functionality and data requirements
 - » She builds relationships with IT and business units
 - » She promotes data requirements and well-managed database systems
 - » She educates management
 - » She recommends changes to the organizational structure

- The CDO is responsible and accountable for all things “data”



- What is the difference between business, data and technical requirements?
 - » Business or functional requirements are written artifacts, such as use cases, requirements specifications and sample artifacts, that describe business process, content and outcomes
 - » Technical and architectural requirements are written artifacts, such as requirements specifications and design diagrams, that describe the software code, software structures and hardware components required to satisfy the business and functional requirements
 - » Data requirements are written artifacts, including requirements specifications, meta data definitions, sample artifacts and data models, that describe

Account Statement Report

Section 1: Client Information

This section contains data that helps identify the specific client and their contact information. The fields in this section contain the name of the client, address, Contract Number, advisor, profile, and time period. The data for these fields are available in the Noetic Master Model.

Table	Source Field	Mart Field	Definition	Data Source
1.1	Party	Name	Name of the client	NMM Reference data
1.2		Name_Attention	Attention name for the report, only for moral parties	Reference data
1.3	Address			Reference data
1.4	Address			Reference data
1.5	Address			Reference data
1.6	Address	Postal Code	Address of client	Reference data
1.7	Address	Code_Cast	Address of client	Reference data
1.8	PartySubAccount	Folio	Folio Number	Reference data
1.9	PartySubAccount	LegacyContractID	Contract Number of the client	Reference data
1.1	PartySubAccount	Advisor Name	Advisor name of the client	Reference data
1.11	Party	Profile	Client's profile (Conservative, Moderate, Aggressive)	Reference data
1.12	PartyRole	Phone Advisor	Telephone # of Advisor	
1.13	ODS IntegratedTable	Time Period	Time Period for report Start/End	

Business Requirements

Below is an example of the Account Statement report displaying Client Information:

```
JESUS PEREZ PEREZ          CONTRATO          FECHA
INCIDENTES 208-448        23474             MODERADO
COL DEL VALLE             EJECUTIVO         TELEFONO DIR.
DE SALIADO OBREGON, DISTRITO FEDERAL, MEXICO  GONZALO DE LA MORA (0148 48 54 57)
CP 52000 CR 03001
```

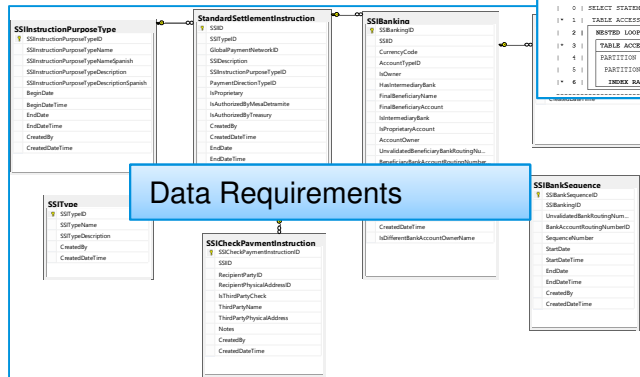
4.2.2 Table access full
Table access full means that Oracle must read the whole of the table. We cannot read an index first to identify the rows in the corresponding table. If the table is large this can be costly. There are times when this cannot be avoided. If you have to full scan a table try to full scan a small table and join from there. In the example below, we have a position postdate in feed_control. We look this value up and then join to Journals via its primary key.

```
SELECT j.*
FROM journals j, feed_control c
WHERE
c.position_postdate = '20050606' AND
```

Technical Requirements

This produces the plan:

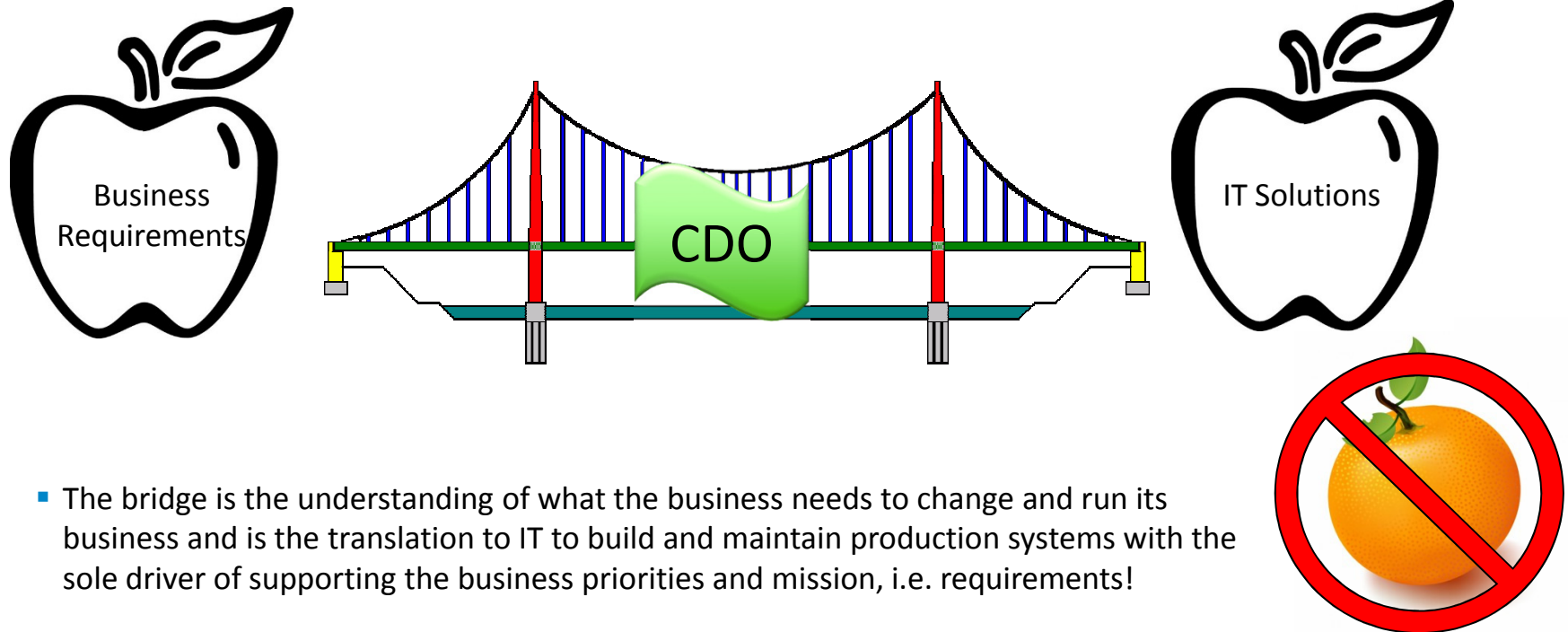
Id	Operation	Rows	Bytes	Cost	Remarks	Temp
0	SELECT STATEMENT	1	304K	500	5572	
1	TABLE ACCESS BY LOCAL INDEX RANGE	1724	492K	50		
2	INDEX RANGE SCAN	30461	500	5572		
3	TABLE ACCESS FULL	157	7434	242		
4	PARTITION RANGE ALL			1	1	1
5	PARTITION LIST ITERATOR			1	1	1
6	INDEX RANGE SCAN	1	1	149	1	1



Service	Description
Maintains Shared Data Models and Definitions	<ul style="list-style-type: none"> • Collect, integrate, maintain and distribute enterprise-wide data models for use by IT in change management processes • Develop and maintain a common business data dictionary with validated business terms and metadata services • Participate with IT partners in requirements gathering, analysis, validation and testing procedures
Enterprise Metrics, Risk and Data Analytics	<ul style="list-style-type: none"> • Develop, manage and report on the state of data quality. Use of a metrics rule engine with business lines as the partner and recipient of metrics reporting. • Develop data risk management reporting and align with Chief Risk Officer to determine severity of impact of potential risks • Develop overall strategy, approach and implement data analytics based on business line analytics, research and reporting needs
Enterprise Data Management Policy, Standards and Compliance Procedures	<ul style="list-style-type: none"> • Institute an enterprise wide data management policy and corresponding standards. • Institute a stewardship program to ensure data providers, consumers and controls ownership is understood and defined • Develop a data review process that would check initiatives against the policy and standards, with results provided in an assessment like format for senior management
IT SDLC Data Requirements Validation	<ul style="list-style-type: none"> • Develop data requirements leveraging the common data model and definitions • Partner with the CIO and IT to ensure it has accurate technical requirements for infrastructure, upgrades and other necessary needs. • Develop and integrate the Data Review process with the SDLC methodology
Maintains Shared Services to Distribute Common Data & Definitions	<ul style="list-style-type: none"> • Develop, implement and manage business elements of the enterprise repositories, such as Reference and Master Data Services (RDS), Operational Data Stores (ODS), Corporate Data Warehouses (CDW), Dictionaries, Physical Meta Data Repositories • Supports both business and IT organizations

Isn't the CDO the Chief Requirements Officer?

- The CDO is best selected from the senior management team.
- She brings years of experience in company operations, has executive-level authority over data management practices, and is empowered to be the business champion for enterprise data management and quality.
- The CDO establishes and maintains a “bridge” between the business, operations and information technology.



- The bridge is the understanding of what the business needs to change and run its business and is the translation to IT to build and maintain production systems with the sole driver of supporting the business priorities and mission, i.e. requirements!

- The Chief Data Officer is a Strong Leader and a Change Manager
 - » Creates the strategy for management of data about clients, partners, counterparties, products, transactions, pricing, MIS and BI, regulatory reporting, and many other functions
 - » Is the “go to” person for data issues on behalf of business and financial managers.
 - » Works closely with IT and the Chief Information Office to improve business capabilities
 - » Is an objective change manager who helps business and IT improve the quality of data
 - » Is empowered and accountable to establish and enforce policies and procedures for use of data
 - » ***Is funded to maintain the business processes, technology, data, repositories and controls***
- The effective CDO has good business knowledge, as well as knowledge of data management techniques, technologies and principles



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