Deloitte.

Data Quality Framework Our broad offering helps to determine that Data Quality is a continuing process and supports your strategic and tactical goals

The Business Case for Data Quality

Organizations of various sizes and industries are recognizing the importance of high-quality data and the critical role of data quality in information governance and stewardship driven by broader enterprise information management initiatives1. Without the assessment and monitoring of your data quality, unpleasant or even devastating consequences can follow. Deloitte has a broad experience when it comes to data quality. Analyzing risks and consequences can lead to valuable winnings in just a few steps.

1. Gartner, Inc.

Common Culprits of Bad Data Quality

Architecture and Application Complexity

With today's complicated integration architecture it is very difficult to track how changes to a system filters through and affects the others. Multiple, overlapping applications – often with non-integrated data sources can create a data environment highly susceptible to bad data quality.

Lack of ownership and responsibility for data quality

Without ownership of data quality at each integration point, there is a potential for assuming good data quality when in reality it is very poor.

Repetitive or ambiguous business processes

Repetitive or ambiguous business processes can create redundancy in how data quality is addressed, often resulting in data quality conflicts.

Unclear and multiple definitions of data elements

Mismatched syntax, formats, and structure from disparate data sources require consistent definitions of data elements to ensure clear mappings across the enterprise

No clearly defined data quality escalation processes

Without clearly defined data quality escalation processes, known data quality issues may never be addressed.

Consequences of Bad Data Quality

- Lack of real-time process execution and access to the enterprise data
- · High cost of managing data caused by inefficiency and redundancy of data
- Inaccurate data element information results in wrong and irrelevant data deliveries
- · Inaccessible data can make even basic business questions difficult to answer
- · Manually-intensive activities, and error-prone data integration processes
- · Data privacy and security compliances are not met
- Unclear and multiple definitions of data elements

As used in this document, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright © 2012 Deloitte Development LLC. All rights reserved. Member of Deloitte Touche Tohmatsu Limited

What is Deloitte's Data Quality Framework?

Deloitte's Data Quality (DQ) framework is designed to assess the data risks and data health, to analyze and provide insights into the root causes of poor data quality and to provide appropriate remediation recommendations to enhance data standardization activities. Data quality monitoring is performed on an ongoing basis to ensure sustainable data quality.

	Program Management and Data Go		
DQ Assessment	Data Discovery	DQ Profiling	
 Activities Work with business users and IT to understand pain points Map issues to requirements and identify risks Review process and technology landscape Current state assessment Output Consolidated list of data quality risks and issues High level understanding data quality scope Strategy and plan to approach data issues 	 Activities Perform critical systems inventory Complete application topology Determine systems of records Map Key metrics to data elements for processes Review current processes and business rules, and identify possible gaps Output Consolidated list of inscope process and source systems Unified expected business rules and data requirements Identify key business rules for data object Technology landscape 	 Activities Data profiling Metadata validation and statistics Data pattern matching and processing Develop and execute business rule assessment Relationship between data from disparate sources Data statistics identifying data anomalies, interpretability, completeness, and integrity issues Data Quality Dashboards Data remediation strategy 	
		Iterative Approach	



overnance

	DQ Remediation
A	ctivities
•	Determine data quality
	exceptions based on
	targets
•	Develop and execute data
	remediation procedures

- For applicable data
- objects, re-execute data quality tests for each data object
- Identify data exceptions that do not comply with defined rules

Output

- Track the remediation
 effort
- Routines to provide algorithm-based matching, de-duplication, engineered data routines, data standardization, and rulebased cleansing

DQ Monitoring

Activities

- Validate data governance framework
- Validate data profiling results
- Verify standards, policies, and procedures compliance
- Implement data cleansing procedures in business processes
- Produce data quality reports and measure against defined metrics

Output

 Continuous data cleansing and monitoring process for sustainable data quality

Deloitte

Data Quality Framework – Accelerators and Offerings Leverage our prebuilt solutions to enable your data quality needs in less time and with less cost

DQ Assessment and Governance

Accelerators and Tools

For DQ assessment and discovery phase we would utilize our various accelerators to increase speed of delivery





Enterprise Data Quality Scorecard

Weighted Score Card

and source systems

requirements

of values to data quality

Scores are rolled bottom up

· Criticality of each data quality

· A methodical approach will be

applied to formulate metrics for

key attributes, DQ dimensions.

· Weighting system drives allocation

dimensions and attribute sets

dimensions and default values are

determined based on business

Red Score of 0-74

Yellow

Green

Score of 75-94

Score of 95-100

Data Monitoring

Data Quality Executive Dashboard

Data Quality remediation can be tracked through a feedback loop to the Data Quality Dashboard leveraging issue management and resolution framework



As used in this document, "Deloitte" means Deloitte LLP and its subsidiaries. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.



	R	oll up	
Overall Svstem/KPIs	DQ Dimension	Priority Set	Data Standard
		VEIGHTING = 2	APPLSTATE 100% 100.00%
	VEIGHTING = 2	0THERFIELDS 100% 99.91% WEIGHTING = 1	HAIL STATE 100% 99.91%
OVERALL QUALITY		VEIGHTING = 2	PRIMARY 33H 100% 100.00%
100× 92×	VEIGHTING = 2	• 0THERFIELDS 100% 72.66%	SECONDARYSSN 100% 100.00%
			HOME PHONE 100× 94.54×
	DUPLICATION	VEIGHTING = 2	PRIMARYSSN 100% 100.00%
		OTHERFIELDS 100% 100.00% WEIGHTING = 1	SECONDARYSSN 100× 100.00×



Take Action

Abhi Parab
aparab@deloitte.co
Jenny Yi
ienvi@deloitte.com

Dilip Kamath @deloitte.com

Copyright © 2012 Deloitte Development LLC. All rights reserved. Member of Deloitte Touche Tohmatsu Limited



The data is cleansed in a sandbox environment using the rules defined in step 2.

Clean data is then migrated back to production for use.

Do you have questions or comments about how Deloitte can help you with your Data Quality issues?

om