A pragmatic guide to BCBS 239 compliance: Inventorise, Connect and Control

Collaborative Approaches To Risk Data Aggregation And Reporting
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Background

“One of the most significant lessons learned from the global financial crisis that began in 2007 was that banks’ information technology (IT) and data architectures were inadequate to support the broad management of financial risks. Many banks lacked the ability to aggregate risk exposures and identify concentrations quickly and accurately at the bank group level, across business lines and between legal entities.” *

Objectives

- Enhance infrastructure
- Improve decision-making process & MI timeliness
- Enhance MI at legal entity and consolidated level
- Reduce probability and severity of losses
- Improve strategic planning & new product risk mgmt

Scope

- G-SIBs
- National supervisors may apply principles to a wider range of banks, including D-SIBs
- Banking group and solo basis
- All risk management processes & reporting

* BCBS Principles for effective risk data aggregation and risk reporting
Overview of the Basel Committee Principles – Four Topics

The Principles cover four closely related topics.

- Define a strong governance framework, risk data architecture and IT infrastructure.
- Ensure risk data aggregation capabilities and risk reporting practices are subject to strong governance.
- Design, build and maintain data architecture and IT infrastructure.

I. Overarching Governance and Infrastructure

II. Risk Data Aggregation Capabilities

- Generate accurate, reliable and up to date risk data across the banking group activities in order to identify and report risk exposures, concentration and emerging risks.
- Supervisors should periodically review and evaluate bank’s compliance to these principles.

III. Risk Reporting Practices

- Ensure reports are accurate, convey aggregated risk data and are reconciled and validated.
- Ensure reports are comprehensive, clear, useful and set on a frequency which meets recipients’ requirements.

IV. Supervisory Review, tools and cooperation

- Ensure reports are comprehensive, clear, useful and set on a frequency which meet recipients’ requirements.

Supervisory Authorities' scope
Key challenges

- **Governance.** Robust governance arrangements must be in place. Data quality risk must be a Board-level issue.

- **Documentation of the data architecture.** Processes, controls, roles & responsibilities, data items, identifiers and reporting must be fully defined and documented. The lineage of risk data throughout the data lifecycle must be fully understood.

- **Validation.** Risk data and reports must be reconciled and subject to independent validation.

- **Adaptability – flexible aggregation.** Group structure should not hinder aggregation capabilities within the organisation. It must be possible to aggregate data at geographical/regional, legal entity, industry, asset class and business line levels.

- **Adaptability – ad hoc reporting.** Banks must implement flexible infrastructure and processes to produce timely *ad hoc* reports – under both stressed and normal conditions.

- **Effectiveness of risk data aggregation processes.** The Board and senior management must be aware of and address any limitations – technical or legal – that compromise risk data aggregation. Where a bank relies on manual processes and desktop apps it must have effective mitigants and controls in place.

- **Resilience to change.** Firms must be able to assess the impact of change on risk data aggregation and reporting capability – including regulatory changes, new products, process changes and IT initiatives.

- **Sustainability.** Enterprise-wide understanding of the data architecture and resilience to change mean that the approach to compliance must be sustainable.
The struggle to comply

Why are firms struggling? What are the symptoms?

- Over-reliance on existing purpose-built infrastructure and reporting capabilities
  - Firms rate their own compliance with the risk reporting principles higher than their compliance with the governance, infrastructure and data aggregation principles.
  - Firms appear compliant at Group level or at the level of a specific legal entity – but lack the same capability at different aggregation levels. They don’t meet the adaptability requirement.

- Large-scale in-flight projects – spanning 2016 and beyond
  - Resources are not available – and the data landscape is changing at the same time.
  - Dependence on project resources, and not on embedded data governance and data management capabilities, means that compliance – once achieved – could not be sustained.

- The fundamental reason?
  - Lack of a sustainable embedded enterprise-wide understanding of the data landscape – and the business context in which it operates.

G-SIBs have only five quarters left to comply. Yet out of thirty participating in the BCBS self-assessment, a third of them expected to fail. And that may be optimistic…
The solution: inventorise, connect and control

**Inventorise** the key objects making up the firm’s data aggregation capability – incrementally

- *Risk data elements, identifiers and data definitions* – both in standardised form and in their representations in specific systems.
- *Governance* – roles and responsibilities for risk data at each stage in the data aggregation and reporting lifecycle.
- *Infrastructure* – systems where data is originated, transformed and stored.
- *Data transformation and aggregation processes*, including manual interventions.
- *Reporting* – coverage and content, distribution and purpose.

**Connect** the objects and make them visible in an integrated way across the organisation

- *Information* about the data landscape must become corporate *understanding* that is embedded and actionable – sustainable through collaboration by business and IT owners.
- *Data elements* must be set in business context – related to people, policies and processes.
- *Data lineage and data aggregation* must be visible and understandable to all stakeholders throughout the lifecycle from data capture to reporting.

**Control** the resulting corporate understanding so that it remains current and correct

- Business owners of data and process remain responsible for content.
- Key stakeholders – e.g. decision-makers and independent validators – can access information.
Data architecture captured in project-generated and system-level documents or spreadsheets is neither usable nor maintainable. To create a compliant solution, build data understanding incrementally, using a web-delivered toolset that supports collaboration among the community of business owners, decision makers and change managers.
Collaborative platform to chart data & business landscape

**INVENTORISE**
Collate inventories describing the building blocks of your business

**CONNECT**
Connect items together to provide context, relevance and provenance

**CONTROL**
Filter and analyse the business from your perspective

**COLLABORATE**
A knowledgeable community at your fingertips

**LEVERAGE**
Combine understanding & community to improve your business

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<tr>
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<th>Attributes</th>
<th>System</th>
<th>Glossary</th>
</tr>
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<td>10 of 98</td>
<td>8 of 76</td>
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<th>Process</th>
<th>Regulation</th>
<th>Library</th>
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<th>Project</th>
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<th>Policy</th>
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<tr>
<th>Jurisdiction</th>
<th>Role</th>
<th>Client</th>
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<td>3 of 3</td>
<td>525 of 325</td>
<td>3 of 3</td>
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Solving everyday challenges

**Multiple DWH and Platforms**
Data lineage and data disconnects are now in plain view.

**Lack of Communication**
Cross-functional impacts can now be traced and visualised.

**Manual Workarounds**
Get visibility of manual workarounds and their impact on the architecture.

**Differing Taxonomies**
Local terms are mapped into a central glossary to allow a two-way translation.

**Changing Architectures**
Clickable view of how projects are impacting individual data, process, system, policy etc. items.
DATA IS CORE TO THE FIRM
REACTIVE APPROACHES HAVE FAILED

INCREASING EFFORT TO MAINTAIN
COMPLIANCE AND UNDERSTANDING
NO LONGER SUSTAINABLE

STOP BURYING VALUABLE KNOWLEDGE IN WORD,
POWERPOINT, EXCEL AND SHAREPOINT...
EMPOWER COMMUNITIES TO CAPTURE, CONNECT,
LEVERAGE AND SHARE KNOWLEDGE
## Demonstration (1)

### Table of Data Sets

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Name</th>
<th>Version</th>
<th>Definition</th>
<th>Type</th>
<th>Status</th>
<th>System</th>
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<tbody>
<tr>
<td>1</td>
<td>Legal Entity record</td>
<td>1.0</td>
<td>The legal entity record construct captures the key attributes that describe customers at a legal entity level. The construct includes a mix of value lists reference data and other data items where only a definition and semantics are recorded. This...</td>
<td>System Entity</td>
<td>Active</td>
<td>CMD</td>
</tr>
<tr>
<td>2</td>
<td>Trading Counterparty</td>
<td>1.0</td>
<td>The trading counterparty captures all required details to identify the client execute and post-process the trade.</td>
<td>System Entity</td>
<td>Active</td>
<td>FXM</td>
</tr>
<tr>
<td>3</td>
<td>FX Trade</td>
<td>1.0</td>
<td>Description of core data elements on the FXM trading record.</td>
<td>System Entity</td>
<td>Active</td>
<td>FXM</td>
</tr>
<tr>
<td>4</td>
<td>ISO Country List</td>
<td>1.0</td>
<td>ISO country list as sourced from ISO with some modifications.</td>
<td>Value List</td>
<td>Active</td>
<td>CMD</td>
</tr>
<tr>
<td>5</td>
<td>KYC/KYB Status</td>
<td>1.0</td>
<td>Value list of KYC/KYB statuses</td>
<td>Value List</td>
<td>Active</td>
<td>CMD</td>
</tr>
<tr>
<td>6</td>
<td>Legal Entity</td>
<td>1.0</td>
<td>Legal entity construct with associated core risk attributes. Some entities are synthetic to ensure mapping into guarantor and netting pool constructs.</td>
<td>System Entity</td>
<td>Active</td>
<td>CRR</td>
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</table>
Demonstration (2)
Glossary Hierarchy

<table>
<thead>
<tr>
<th>Glossary</th>
<th>Description</th>
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<tbody>
<tr>
<td>Party Data</td>
<td>Parties are entities that have a economic relationship of some sort with the company with exception of employment.</td>
</tr>
<tr>
<td>Party Classifications</td>
<td>Party Classifications of all sorts. Good classifications are exhaustive sets of mutually exclusive values.</td>
</tr>
<tr>
<td>Party Risk Data</td>
<td>Party related data that is used to describe, assess or measure the risk profile of a party.</td>
</tr>
<tr>
<td>Party Identifiers</td>
<td>Identifiers for parties.</td>
</tr>
<tr>
<td>CMD-ID</td>
<td>Unique identifier of legal entities in the CMD system</td>
</tr>
<tr>
<td>BIT-ID</td>
<td>Unique identifier of legal entities in the Branch IT system</td>
</tr>
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</table>

Other Relationships

- This glossary is not connected to any other glossary item.
I have a background in running large change and outsourcing programmes for one of the Big 4 consultancies.

<table>
<thead>
<tr>
<th><strong>Axon details</strong></th>
<th><strong>Profile</strong></th>
<th><strong>SuperAdmin</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Address:</td>
<td><a href="mailto:root@diaku.com">root@diaku.com</a></td>
<td>Last Logon: 21-02-2014</td>
</tr>
<tr>
<td>Status:</td>
<td>Active</td>
<td></td>
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<table>
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<tr>
<th><strong>Personal details</strong></th>
<th><strong>Org Unit</strong></th>
<th><strong>Function</strong></th>
<th><strong>Function Description</strong></th>
<th><strong>Internal Mail Code</strong></th>
<th><strong>Telephones</strong></th>
<th><strong>Employed Since</strong></th>
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<tr>
<td>Name: John Admin</td>
<td>Test Org Unit</td>
<td>Head of Client Operations</td>
<td>Part of the Wholesale Bank COO Office responsible for all operations related to client onboarding, KYC and set-up in local trading systems.</td>
<td>CB-123</td>
<td>020-12345-678</td>
<td>01-01-2013</td>
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<tr>
<td>Function:</td>
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<tr>
<td>Employee Type:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Company:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Team Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Assistant: No assistant</td>
<td></td>
<td></td>
<td></td>
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<td>Direct Reports: 2</td>
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</tbody>
</table>

**Axon - John Admin**

**People**

**About Me**

No Image
Demonstration (5)

Data Quality Dashboard

- DQ Rules By Criticality:
  - Completeness: 93%
  - Accuracy: 83%
  - Consistency: 96%
  - Validity: 94%
  - Timeliness: 83%

- Attributes by Glossary:
  - Total Attributes: 11
  - All Categories Glossary

- DQ Rules against Target:
  - Timeliness
  - Accuracy
  - Consistency
  - Validity
  - Completeness

- DQ Rules measured:
  - Timeliness
  - Accuracy
  - Consistency
  - Validity
  - Completeness

Legend:
- Above Target
- Below Target
- Below Threshold

Graphs showing data quality metrics and criticality.
Any questions?
We have the resources to ensure you succeed:
A dedicated team for risk data aggregation and reporting

**Frédéric Blard - Senior Consultant**

**Experience:** 10 years in Banking industry  
**Specialises in:** Credit Risk Framework, Data Aggregation  
**Typically assists clients with:** Credit risk projects, Risk systems transformation programs  
**Call Frédéric to discuss:** Basel 3, Large Exposures reporting, Data Aggregation  

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**Phone:** +352 691 143 903

**Jonathan Van Malleghem - Senior Consultant**

**Experience:** 4 years in Banking industry  
**Specialises in:** Credit Risk Framework, Data Aggregation  
**Typically assists clients with:** Credit risk projects, Integration projects  
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**Barry Smith - Director**

**Experience:** Over 20 years in Banking  
**Specialises in:** Credit Risk, Market Risk, Data Aggregation  
**Typically assists clients with:** Counterparty credit risk and market risk projects, Risk systems transformation programs  
**Call Barry to discuss:** Basel 3/CRD IV, CCR, Data Aggregation  

**Email:** b.smith@reply.eu  
**Phone:** +44 7776 178267

**Patrick Dewald - Director**

**Experience:** 15 years in Data & Banking  
**Specialises in:** Data Strategy & Governance  
**Typically assists clients with:** data understanding & governance projects  

**Call Patrick to discuss:** BCBS239, Collaborative Working & Driving Cultural Change around data  

**Email:** patrick.dewald@diaku.com  
**Phone:** +442071001244
Introduction to Avantage Reply and Diaku
Established in 2004, Avantage Reply is a pan-European specialised management consultancy delivering change initiatives in Operations, Risk, Finance (Capital Management and Regulatory Reporting) and Treasury.

Rapidly Growing Pan-European Firm
Avantage Reply employs 200 consultants within our 13 offices across Europe and the UK.

200 consultants who typically have a minimum of 6 years of experience in Financial Services.

Member of the Reply Group, a publicly-listed group, with US$ 750 million in sales, employing 4,400 consultants and technology-delivery service professionals.

A Pan-European Risk, Regulatory and Treasury Consultancy
Outstanding Credentials in Financial Services

Proven Credentials

Our clients are large international financial institutions as well as specialised financial services Business Units within international groups.

Delivery capabilities covering Advisory Services, Project Management, Business and Functional Analysis, Data Analysis.

Delivery capabilities spanning across consulting (Avantage Reply) and technology (Reply Group).

Specialised Management Consultancy

Operations, Risk, Finance, Treasury

Retail & Corporate Banking
Investment Banking & Capital Markets

Investment Management & Investment Services

Post-trading Service Providers

Regulatory Expertise

Proven track record in delivering pragmatic solutions to our clients.

Operate in small delivery-focused teams in collaboration with the client to ensure transfer of knowledge.

ABN Amro, Belfius, BNP Paribas, Delta Lloyd, Deutsche Bank, ING, IntesaSanPaolo, KBC, RBS, Société Générale, Unicredit

BPSS, BNY Mellon, CACEIS, RBC, State Street, etc. Alliance Bernstein, MAN Group, Rothschild, etc.

Clearstream, Euroclear, etc.
End-to-end Delivery Capabilities within a Half-a-Billion Euro Group

Since early 2011, Avantage Reply has been a member firm of the Reply Group, a pan-European group specialised in consulting, systems integration, service management and business process outsourcing. As such, Avantage Reply can provide clients with support from the initial phase of the project to its completion, including technology and operational implementation, if required.

Overview of the Reply Group

- Pan-European publicly-listed Group, established in 1996, with offices in 19 European cities, Brazil and the US.

End-to-end Delivery Capabilities

- Avantage Reply and the Reply Group bring clients product knowledge and financial services experience coupled with technology delivery capabilities.
Overview of Diaku

About Diaku

• Diaku is a governance consulting and software company.

• Diaku has a unique take on Data Governance with a focus on collaboratively building a shared understanding of data within its business context.

• Diaku has the methodology, expertise and software for its clients to unlock value fast and work towards lifting the data burden once and for all.

What makes us unique

• Our framework and software puts understanding first. It empowers everyone to see across boundaries first and be more connected with minimal additional effort.

• Governance of core business facets like Data, Process, Quality and Regulation starts by embracing the state of the business today and recognizing the only way to make lasting change is to work through it together.

Focus
We have over 15 years experience in designing, implementing and running governance related initiatives and only governance related initiatives.

Non-Disruptive
The last thing you need is another programme disrupting your business. Diaku solutions leverage existing assets and initiatives.

Collaborative
We enable people to work together more easily. Being connected becomes the norm, not the exception.

Value Driven
No governance for the sake of governance. Our approach and software is value driven, ensuring the appropriate level of governance to unlock value in a sustainable manner.
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