

BIAN

Data Architecture & Design Specialist

BIAN Data Architecture & Design Specialist
Courseware

Colophon

Title:	BIAN Data Architecture & Design Specialist Courseware
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Contributor:	Guy Rackham (BIAN)
Publisher:	Van Haren Publishing, 's-Hertogenbosch
ISBN Hard Copy:	9789401808958
Edition:	First edition, first print, March 2022 Second edition, first print, February 2023 Third edition, first print, August 2023
Design:	Van Haren Publishing, 's-Hertogenbosch
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Publisher about the Courseware

The Courseware was created by experts from the industry who served as the author(s) for this publication. The input for the material is based on existing publications and the experience and expertise of the author(s). The material has been revised by trainers who also have experience working with the material. Close attention was also paid to the key learning points to ensure what needs to be mastered.

The objective of the courseware is to provide maximum support to the trainer and to the student, during his or her training. The material has a modular structure and according to the author(s) has the highest success rate should the student opt for examination. The Courseware is also accredited for this reason, wherever applicable.

In order to satisfy the requirements for accreditation the material must meet certain quality standards. The structure, the use of certain terms, diagrams and references are all part of this accreditation. Additionally, the material must be made available to each student in order to obtain full accreditation. To optimally support the trainer and the participant of the training assignments, practice exams and results are provided with the material.

Direct reference to advised literature is also regularly covered in the sheets so that students can find additional information concerning a particular topic. The decision to leave out notes pages from the Courseware was to encourage students to take notes throughout the material.

Although the courseware is complete, the possibility that the trainer deviates from the structure of the sheets or chooses to not refer to all the sheets or commands does exist. The student always has the possibility to cover these topics and go through them on their own time. It is recommended to follow the structure of the courseware and publications for maximum exam preparation. This courseware includes the official manual. The pages following the manual contain the courseware and syllabus.

The courseware and the recommended literature are the perfect combination to learn and understand the theory.

-- Van Haren Publishing

Other publications by Van Haren Publishing

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- IT and IT Management
- Architecture (Enterprise and IT)
- Business Management and
- Project Management

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Topics are (per domain):

IT and IT Management

ABC of ICT
ASL®
CATS CM®
CMMI®
COBIT®
e-CF
ISO/IEC 20000
ISO/IEC 27001/27002
ISPL
IT4IT®
IT-CMF™
IT Service CMM
ITIL®
MOF
MSF
SABSA
SAF
SIAM™
TRIM
VeriSM™

Enterprise Architecture

ArchiMate®
GEA®
Novius Architectuur
Methode
TOGAF®

Business Management

BABOK® Guide
BiSL® and BiSL® Next
BRMBOK™
BTF
EFQM
eSCM
IACCM
ISA-95
ISO 9000/9001
OPBOK
SixSigma
SOX
SqEME®

Project Management

A4-Projectmanagement
DSDM/Atern
ICB / NCB
ISO 21500
MINCE®
M_o_R®
MSP®
P3O®
PMBOK® Guide
Praxis®
PRINCE2®

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Self-Reflection of understanding Diagram

‘What you do not measure, you cannot control.’ – Tom Peters

Fill in this diagram to self-evaluate your understanding of the material. This is an evaluation of how well you know the material and how well you understand it. In order to pass the exam successfully you should be aiming to reach the higher end of Level 3. If you really want to become a pro, then you should be aiming for Level 4. Your overall level of understanding will naturally follow the learning curve. So, it’s important to keep track of where you are at each point of the training and address any areas of difficulty.

Based on where you are within the Self-Reflection of Understanding diagram you can evaluate the progress of your own training.

<i>Level of Understanding</i>	<i>Before Training (Pre-knowledge)</i>	<i>Training Part 1 (1st Half)</i>	<i>Training Part 2 (2nd Half)</i>	<i>After studying / reading the book</i>	<i>After exercises and the Practice exam</i>
<i>Level 4 I can explain the content and apply it .</i>					
<i>Level 3 I get it! I am right where I am supposed to be.</i>					Ready for the exam!
<i>Level 2 I almost have it but could use more practice.</i>					
<i>Level 1 I am learning but don't quite get it yet.</i>					

(Self-Reflection of Understanding Diagram)

Write down the problem areas that you are still having difficulty with so that you can consolidate them yourself, or with your trainer. After you have had a look at these, then you should evaluate to see if you now have a better understanding of where you actually are on the learning curve.

Troubleshooting

Problem areas:

Topic:

Part 1

Part 2

You have gone through the book and studied.

You have answered the questions and done the practice exam.

Timetable

Day 1

Introduction

PART I

1. Introducing BIAN and its Framework
2. Explaining the BIAN Architecture

PART II

3. Documentation conventions in ArchiMate and UML
4. Explaining the BOM approach
 - 4.1 Understanding the BOM Content Pattern
 - 4.2 Understanding the BOM Structure Pattern
 - 4.3 Defining a business concept
 - 4.4 Classifying: Finding the building blocks of the data model
 - 4.5 Completing the information requirements

Day 2

5. Understanding the BOM approach
 - 5.1 Using the ArchiMate and UML language
 - 5.2 Managing the three-dimensional puzzle
 - 5.3 The devil is in the detail

PART III

6. General abilities
7. Information Governance
8. Data Architecture
9. Data on System level

BIAN

Data Architecture & Design Specialist Certification Training

COURSEWARE



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INTRODUCTION

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2

WELCOME TO THIS TRAINING

- In this age of digital transformation, Open API's and Open data, the importance of **information** - as **an enterprise asset** - cannot be underestimated.
- However, insight in these "information asset", and the agile data architecture, required for flexibly exploitable information is often lacking.
 - Information is only looked at from the point of view of one "business silo".
 - Data are managed and stored only in view of the application that requires them
 - Resulting in a fragmented data landscape, with data duplicated endlessly, data conflicts , insufficient data quality.... And huge data integration efforts.
- BIAN recognizes the problems of a financial industry, faced with a fragmented ICT platform, due to a long history of fragmented views on functionality to be performed, services to be exchanged and information that is required.
 - BIAN offers a Reference Architecture for the Financial Industry, that can support its members in their migration to a "coreless platform", open to and integrated in the Open API economy.

BIAN IS (ONLY) THE INSPIRATION

BIAN treats information as an equal partner to "behavior"

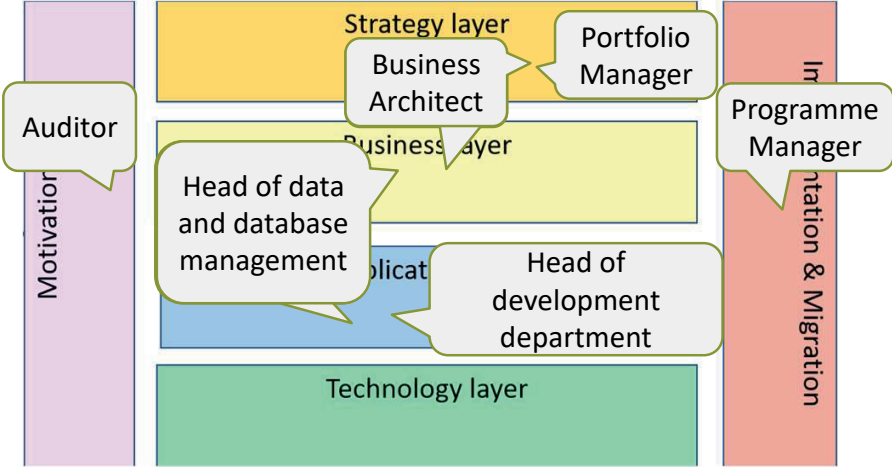
- The BIAN BOM offers a "Reference Information Architecture Model", containing a MECE collection of information building blocks relevant for a financial institution (the Business Objects).
- Its "information related deliverables" can be applied in different contexts
- In synergy with its two other dimensions: building blocks for functionality (Service Domains) and services (Service Operations).

The BIAN path can be followed by other sectors too

- The BOM approach, used to create the BIAN BOM, can be used to extend and tailor the BIAN BOM. This approach is also applicable (and being applied) in other sectors of the service industry.
- The way the results of the BOM approach can be used in different contexts, is not limited to the financial sector.

Trainer bio

Martine.Alaerts@envizion.eu



TRAINEE INTRODUCTION

- Such as:
- Name
- Background
- BIAN knowledge
- Architectural & modeling experience
- Information and data management experience
- Course objectives / expectations

COURSE OBJECTIVES

- Understanding BIAN's approach to architecture in general and information architecture in particular
 - Principles
 - BIAN's pattern-based approach and its building block types
- Understanding and being able to apply the Business Object Modeling (BOM) approach to Data Modeling
- Being able to exploit BIAN's Information-related deliverables
 - Understanding BIAN's documentation standards for data models
 - Being able to use the BIAN repository
- Understanding BIAN's approach to managing the BIAN BOM as Enterprise Information Architecture Model
- Understanding the different usages of the BIAN BOM – or your Enterprise BOM
 - Understanding how you can make your own Enterprise BOM, starting – or not- from BIAN's
 - Understand the different ways in which deliverables such as BIAN's can be applied
 - Be inspired to apply the BIAN Reference Architecture in your own organization and field of expertise
- Becoming certified

CONTEXT OF THIS COURSE AND CERTIFICATION

BIAN offers an exhaustive “reference architecture for the banking industry”, highlighting the “behavior” and “integration/interaction through services” point of view as well as the information/data point of view.

This training focuses on the information/data dimension of the BIAN Architecture. It offers an overview of the BIAN Framework, Architecture and approach in order to facilitate the exploitation of its “information/data dimension”

- For a deeper and “wider” insight and understanding, we refer to the BIAN foundation training and “BIAN 2nd Edition – A framework for the financial services industry”
BIAN 2nd Edition – A framework for the financial services industry (vanharen.store)
ISBN978940180768E

The BOM approach, hence this training, is relevant independently of the BIAN context and outside the banking industry.

COURSE OVERVIEW

Introduction

Understanding BIAN's approach to architecture

PART I Introducing BIAN and its Reference Architecture for the financial industry

1. Introducing BIAN, its Framework and its principles
2. Explaining the BIAN Architecture

Being able to exploit BIAN's repository

PART II Understanding the BOM approach

3. Documentation conventions in ArchiMate and UML
4. Explaining the BOM approach
5. Documenting the BIAN BOM as Enterprise Model

Understanding and being able to apply the BOM approach

Understanding BIAN's approach to managing an Enterprise Architecture

PART III Applying the BOM approach and an enterprise data model in your organization

6. General abilities
7. information Governance
8. Data Architecture
9. Data on System level

Understanding the different usages of the BIAN BOM

PART I UNDERSTANDING THE BOM APPROACH



3. Documentation conventions in ArchiMate and UML
4. Explaining the BOM approach
 - 4.1 Understanding the BOM Content Pattern
 - 4.2 Understanding the BOM Structure Pattern
 - 4.3 Defining a business concept
 - 4.4 Classifying: Finding the building blocks of the data model
 - 4.5 Completing the information requirements
5. Documenting the BIAN BOM as Enterprise Model
 - 5.1 Using the ArchiMate and UML language
 - 5.2 Managing the three-dimensional puzzle : an enterprise model
 - 5.3 The devil is in the detail

Schedule

Introduction

PART I Introducing BIAN and its Reference Architecture for the financial industry

1. Introducing BIAN, its Framework and its principles
2. Explaining the BIAN Architecture

PART II Understanding the BOM approach

3. Documentation conventions in ArchiMate and UML

4. Explaining the BOM approach

4.1 Understanding the BOM Content Pattern

4.2 Understanding the BOM Structure Pattern

4.3 Defining a business concept

4.4 Classifying: Finding the building blocks of the data model

4.5 Completing the information requirements

Half a day break

Half a day break

Schedule

PART II Understanding the BOM approach

5. Documenting the BIAN BOM

5.1 Using the ArchiMate and UML language

5.2 Managing the three-dimensional puzzle : an enterprise model

5.3 The devil is in the detail

test yourself questions

Half a day break

PART III

Applying the BOM approach and an enterprise data model in your organization

6. General abilities

7. information Governance

8. Data Architecture

9. Data on System level

PURPOSE OF THE BIAN CERTIFICATION

General benefits of the BIAN certification

- It enables professionals and financial service providers to leverage the benefits of BIAN.
- It creates a baseline of knowledge needed to effectively use BIAN.
- It increases the amount of BIAN knowledge for owners and ambassadors in the market and thereby supports the general usage and adoption of BIAN.

Benefits for professionals

- It enables professionals to leverage the benefits of BIAN.
- It helps in the authentication of banking professionals and banking architects and supports their credibility.
- It increases the knowledge and general skills of professionals regarding financial services providers and enables the creation of more transparent IT systems within.
- It provides professionals and their organizations with a competitive advantage.

CERTIFICATION EXAM AND LITERATURE

About the exam

Number of questions:	60 multiple choice questions
Duration of exam:	60 minutes
Pass mark:	70%
Type:	Closed-book exam



Literature

- BIAN 2nd Edition – A framework for the financial services industry
- Business Object Modeling: an approach to create, manage and use an enterprise data model

PREPARING FOR THE CERTIFICATION EXAM

During the training, we will test your understanding of each chapter with multiple-choice questions.

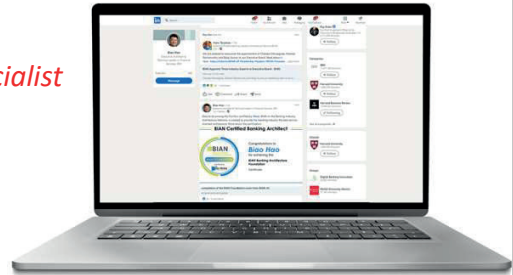
Before taking the actual exam, you are able to take one or more trial exams. This is strongly advised.

After the exam

you receive the title:

BIAN Certified Data Architecture and Design specialist

(You can share your performance on LinkedIn)



CONTENTS AND WEIGHTINGS OF EXAM

Exam Specification	Weight %
Introducing BIAN, its Framework, and principles	5%
Overview of the elements of the BIAN Architecture and their relationship to its data-deliverables	10%
Using ArchiMate and UML to document BIAN's data-related deliverables	15%
The Business Object Modeling Approach, its patterns and guidelines	35%
Documenting in view of manageability of BIAN's data deliverables	10%
Applying BIAN's deliverables and Business Object Modeling approach on governance, architecture and design level	25%

COURSE APPROACH

Theory: Ex cathedra

Supported by examples

Interspersed with exercises

And your questions and remarks

ABOUT THIS COURSEWARE

Example



Exercise



Practice question



Literature reference

This courseware is based on "Business Object Modeling: an approach to creating, managing and using an enterprise data model" (referred to as "BOM approach")

The structure of the book and this training correspond almost completely.

The publication "BIAN 2nd edition, a framework for the financial services industry" (referred to as "BIAN Book") is recommended for those who want a deeper insight in BIAN as an organization and the full scope of its reference architecture for the financial industry .



Interaction please!!!

This is your training!
Feel free to ask, tell, yell, signal, wave.....



BIAN

PART I

INTRODUCING BIAN AND ITS REFERENCE ARCHITECTURE FOR THE FINANCIAL INDUSTRY

A framework for the financial services industry



1. INTRODUCING BIAN , ITS FRAMEWORK AND ITS PRINCIPLES



KEY LEARNING OBJECTIVES

By completing this chapter, you will have gained:

- Understanding of BIAN's mission, vision and objectives.
- Understanding of the philosophy upon which BIAN's Reference Architecture for the Financial Industry is based.
- Insight into the "constructs" (techniques and organization) used to create and maintain BIAN's Reference Architecture for the Financial Industry.
- Insight in what BIAN has to offer to facilitate the adoption of its information architecture.

BIAN, The Banking Industry Architecture Network



The Banking Industry Architecture Network (BIAN) is a global, not-for profit association of banks, solution providers, consultancy companies, integrators and academic partners with the shared aim of defining a semantic standard for the banking industry covering almost all the well-known architectural layers.



The Banking Industry Architecture Network was formed in 2008 by a group of banks and solution providers with the shared aim of defining a semantic service operation standard for the financial services industry.



At a later stage other standards bodies, along with some academic partners, joined.



The BIAN Association strives to enhance the flexibility and agility of financial services systems by improving the integration of these with an architecture that is based on services.

BIAN's vision and mission



BIAN's **vision** and expectation is that a standard definition of business functions, service interactions and business objects that describe the general construct of any bank will be of significant benefit to the industry.

BIAN's **mission** is to provide the world with the best banking architecture framework and banking standard. BIAN provides a trusted roadmap for constant innovation.

Benefits of BIAN's Reference Architecture for the financial industry

Created by industry experts from around the globe.

Regular updates following the market developments and industry needs.

It enables the more efficient and effective development and integration of software solutions within the bank and between banks.

It significantly lowers the overall integration costs.

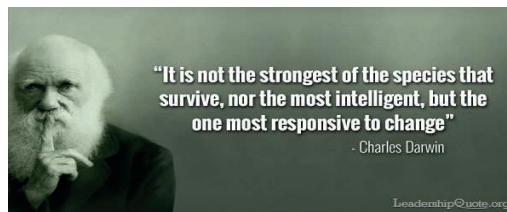
It improves the operational efficiency within and between banks and provides the opportunity for greater solution and capability re-use within and among banks.

It supports the current need for more industry integration and collaboration through the usage of (open) APIs.

It supports the adoption of more flexible business service sourcing models and enhances the evolution and adoption of shared third-party business services.

It supports FinTechs and RegTechs in gaining an easy insight in the complex financial services industry structure.

PRINCIPLES OF BIAN'S REFERENCE ARCHITECTURE FOR THE FINANCIAL INDUSTRY



This quote is often, but without real evidence, attributed to Charles Darwin

“Agility is a **persistent behavior** or ability of an entity that exhibits **flexibility** to accommodate expected or unexpected **changes** rapidly, follows the **shortest time span**, and uses **economical, simple, and quality instruments** in a **dynamic environment**”

Qumer & Henderson-Sellers, 2008.

In order to be adaptive in rapidly changing circumstances, financial institutions need an **agile banking architecture** on an enterprise level.

BIAN supports financial institutions in system agility, through an agile enterprise architecture. Together with a bank's process agility, this enables the required business agility.

AGILE PRINCIPLES

Result in Simplicity

- *providing clear overview and an optimal ability to change*

1. Separation of concerns

- *Separating different aspects of functionality in different components*
- *In BIAN, this principle is used for defining sets of responsibilities that are elemental and non-overlapping*

2. Loose coupling

- *Components are weakly associated with each other. Each component fulfills its responsibility by offering services, with minimal dependency on the services of other components.*

3. Reusability

- *Each component can be used in multiple situation independent of statuses in an end-to-end process*

4. Encapsulation

- *Each component has its own internal data structure and functionality to realize the offered services.*

5. Interoperability

- *Each component offers information and functionality services. New or changed business processes can thus be assembled as an orchestration of such components.*

6. Service orientation

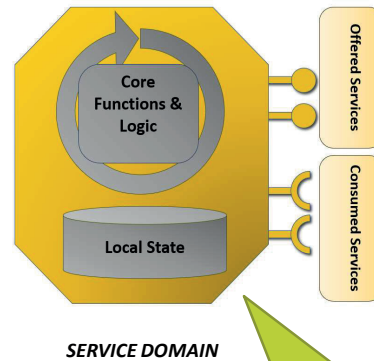
- *Components deliver services to each other. Direct access to the internal data is not allowed ... needs to be requested through a service.*

BIAN REFERENCE ARCHITECTURE'S BUILDING BLOCKS

- BIAN provides a **MECE** collection of elemental **capability building blocks (Service Domains)** that together cover all banking functionality.
- Each Service Domain is "encapsulated" by a series of services (**Service Operations**) that offer the Service Domain functionality and provide information to other Service Domains and environment.
- Each Service Domain is responsible for its own **data building blocks (Business Objects)**
- All BIAN components are defined on a **semantic level**.
- BIAN chooses to remain implementation and technology agnostic

BIAN'S SERVICE DOMAIN

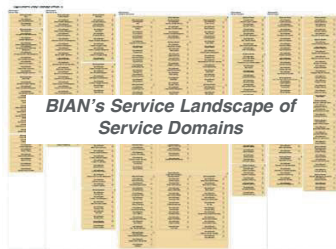
- Service Domains, the **semantic** functionality building blocks
 - As a MECE collection, cover all banking functionality
 - Are each responsible for a MECE part of the bank's information
 - And offer their own unique Service Operations
-
- These services can be offered and received by banks and/or their partners in the "Open API economy"
 - Service Domains can provide their services in any number of orchestrations, to provide (financial) services to the stakeholders of that economy



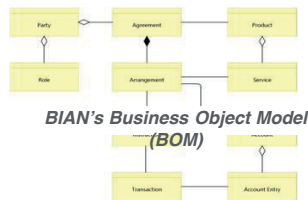
The MECE character is ensured by the use of patterns to define the building blocks

CHANGING ARCHITECTURE THINKING

From "process-oriented design" to "capability-oriented design"

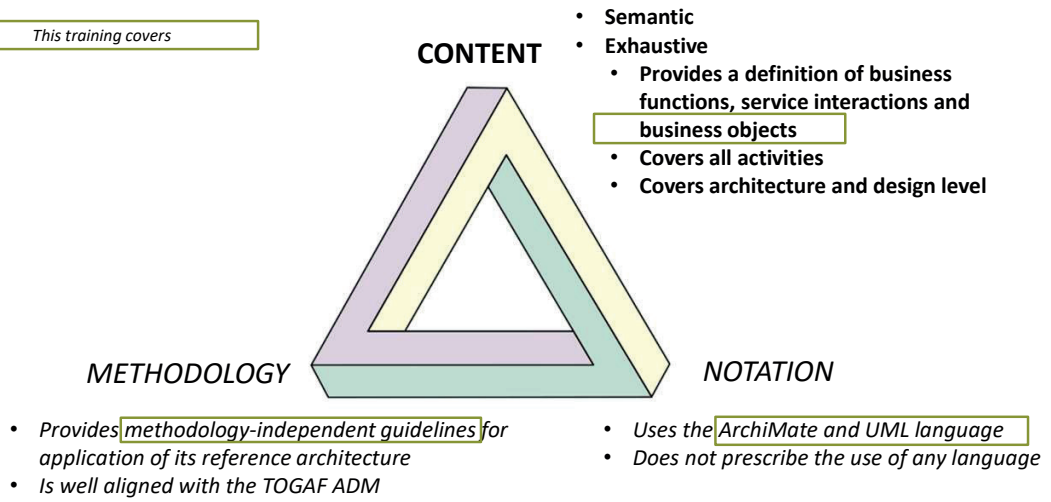


BIAN defines elementary, MECE building blocks

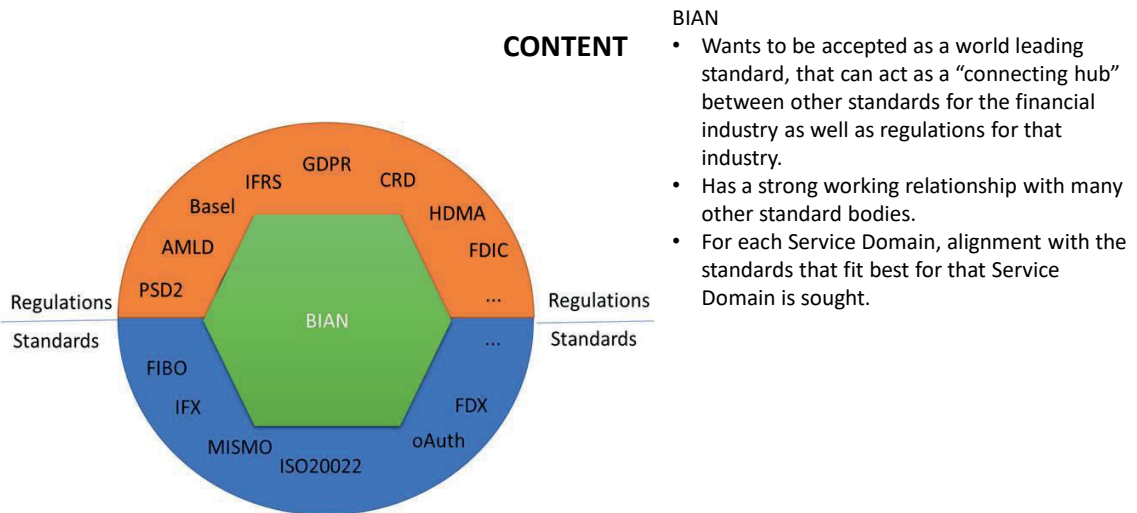


POSITIONING THE BIAN STANDARD

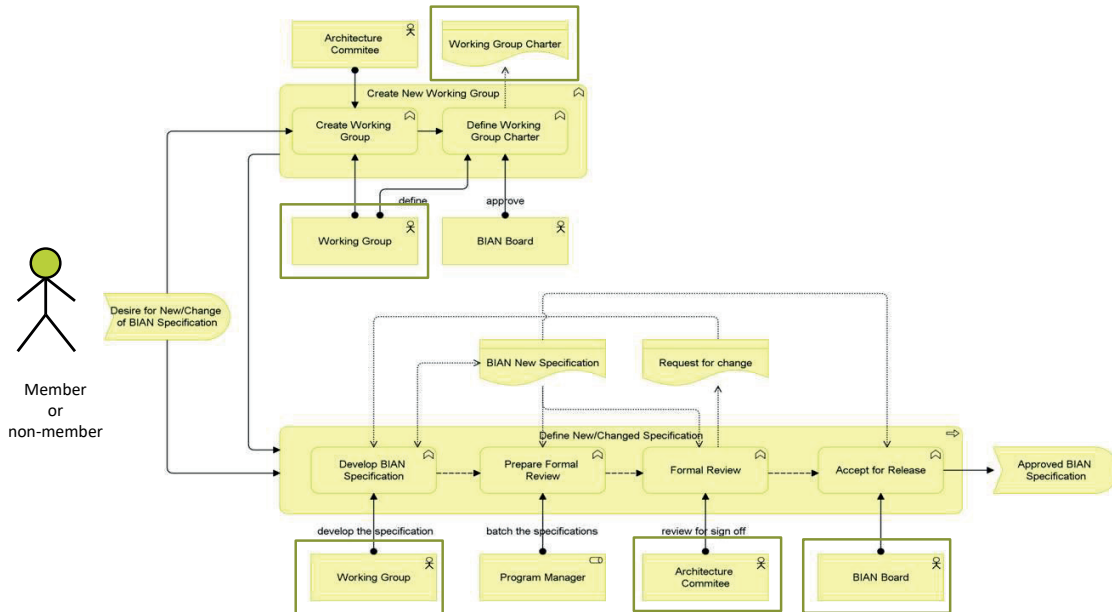
This training covers



POSITIONING THE BIAN STANDARD VERSUS OTHER "CONTENT" STANDARDS AND REGULATIONS



How BIAN evolves: the BIAN validation process



BIAN IS BASED ON YOUR INPUT : WORKING GROUPS

Active BIAN Working Groups

Strategic



Architecture



Service Definition



The BIAN Framework: a toolbox

The BIAN Framework: a toolbox

Framework
Business Capabilities

Reference Architecture
Service Domains

Standards
Business Scenarios

Wireframes

Semantic APIs

Data Models

Webinars, White Papers & Guidelines

Agile Digital Bank

Certification
About the BIAN Foundation Exam

Books and Trainings
BIAN 2nd EDITION

Adoption Journey

- STAGE 1: Estimate BIAN
- STAGE 2: Build Pilot Case
- STAGE 3: Pilot BIAN
- STAGE 4: Adopt BIAN
- STAGE 5: Evolve your Architecture Practice
- STAGE 6: Realize the Benefits

BIAN'S REFERENCE ARCHITECTURE IS PUBLICLY ACCESSIBLE

BIAN Portal

Service Domain APIs

Semantic API Portal
Service Domain Semantic APIs | Related Business Scenarios & Core BOM
ACCESS > HOW TO USE THE PORTAL? >

Architecture

Service Landscape
Service Landscape | Business Capabilities | BOMs | Business Scenarios
DIGITAL REPOSITORY >

TEST YOURSELF QUESTION



TEST YOURSELF QUESTIONS

What is/are (a) correct statement(s) regarding BIAN and its Framework?

- A. BIAN's Reference Architecture is based on best practices in process management.
- B. BIAN is a Semantic, Exhaustive Content standard. It covers functionality, information and services. It covers architecture and design level.
- C. BIAN's deliverables are only available to members or financial institutions applying for membership.
- D. The development of the BIAN architecture is step-by step, relying on the active contribution of industry participants.

Disclaimer: examples and lists are base on BIAN version 9. Wording may have changed. Concepts have not.

2. EXPLAINING THE BIAN ARCHITECTURE

COURSE OVERVIEW

Introduction

PART I Introducing BIAN and its Reference Architecture for the financial industry

1. Introducing BIAN, its Framework and its principles

2. Explaining the BIAN Architecture

PART II Understanding the BOM approach

3. Documentation conventions in ArchiMate and UML

4. Explaining the BOM approach

5. Documenting the BIAN BOM as Enterprise Model

PART III Applying BIAN's data-related deliverables and approach in your organization

6. General abilities

7. Information Governance

8. Data Architecture

9. Data on System level

KEY LEARNING OBJECTIVES

By completing this chapter, you will have gained:

- Understanding of the concepts through which BIAN's Reference Architecture for the Financial Industry captures the reality of the financial services industry:
 - Focus on the concepts you will use in your information / data architecture and design practice.
- Understanding and knowledge of the relationships between the BIAN concepts:
 - Between the concepts used in architecture and design practice.
 - Patterns in view of the creation of the former concepts.

BIAN

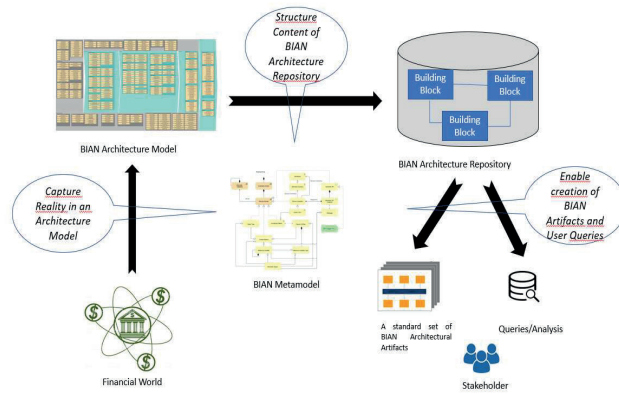
2nd EDITION

2.1 The BIAN Metamodel

A framework for the financial services industry

THE BIAN METAMODEL

- A model is an abstract representation of reality.
- A **metamodel** defines the constructs and rules for creating such models.
- The BIAN Metamodel defines the types of building blocks BIAN uses to capture the reality of a financial institution in an architecture model and their relationships. It also describes what artifacts BIAN produces to support financial institutions.




BIAN

2nd EDITION

2.2 The BIAN Service Domain

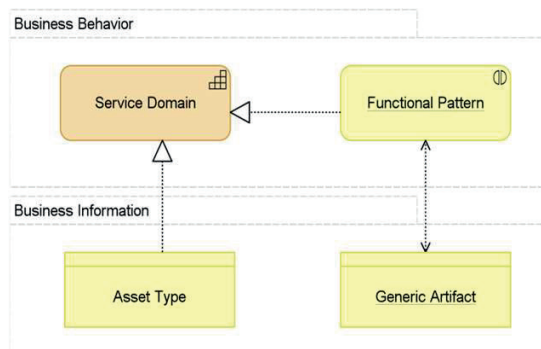
A framework for the financial services industry

SERVICE DOMAIN

Service Domain	An elemental or atomic functional building block that can be service enabled as a discrete and unique business responsibility.	
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- The **Service Domain** is a core concept in the BIAN architecture – and standard.
- A BIAN Service Domain represents the smallest functional partition that can be service-enabled as a discrete and unique business responsibility.
- Service Domains are Mutually-Exclusive and Collectively-Exhaustive (MECE).
- A Service Domain offers its services (Service Operations) to other Service Domains. This allows Service Domains to fulfil their role by delegating the execution of functionality to other Service Domains.
- The interaction between the Service Domains can realize all the business activities that make up a bank.

BIAN METAMODEL - SERVICE DOMAIN VIEW

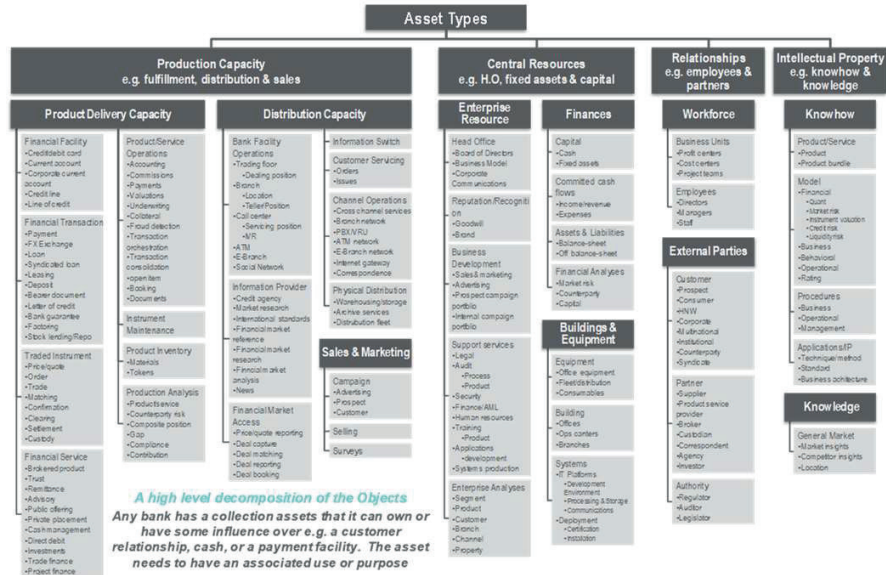


ASSET TYPE


Asset Type	Something tangible or intangible the bank has ownership and/or influence over, that can create value for the bank.	<div style="border: 1px solid black; background-color: #ffffcc; padding: 5px; display: inline-block;">Asset Type</div>
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- BIAN has created a hierarchical Asset Type classification of the likely Asset Types found in any bank.
- Some Asset Types are obvious - for example a machine or building. Some are intangible but easily identified such as knowhow, knowledge, relationships, reputation. Some are less obvious - most common is the “capacity to perform” type.
- A Service Domain is responsible for implementing its Functional Pattern on each instance of its associated Asset Type for its full lifecycle.

ASSET TYPE DECOMPOSITION - TOP LEVELS



FUNCTIONAL PATTERN

Functional Pattern	A behavior or mechanism that can be applied to some asset in the execution of commercial business.	
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- The business role or purpose of a Service Domain is characterized by its Functional Pattern.
- BIAN has identified 19 Functional Patterns that can be applied to Asset instances in order to model all aspects of banking.

FP Group	FP Name	FP Description
CREATE	Direct	Define the policies, goals & objectives and strategies for an organizational entity or unit. Example: Direct a division of the enterprise.
	Manage	Oversee the working of a business unit, assign work, manage against a plan and troubleshoot issues. Example: Manage the day-to-day activities at a bank branch location.
	Administer	Handle and assign the day-to-day activities, capture time, costs and income for an operational unit. Example: Administer the time reporting and billing for the specialist sales support team.
	Design	Create and maintain a design for a procedure, product/service model or other such entity. Example: Create and maintain product designs and analytical models.
	Develop	To build or enhance something, typically an IT production system. Includes development, assessment and deployment activities. Example: Build, enhance, test and deploy a major enhancement to a production product processing system.
INITIATE	Process	Complete work tasks following a defined procedure in support of general office activities and product and service delivery. Example: Process the evaluation and completion of customer offers.
	Operate	Operate equipment and/or a largely automated facility. Example: Operate the bank's internal intranet facility.
	Maintain	Provide a maintenance service and repair devices/equipment as necessary. Example: Establish a maintenance and repair program covering the PC technology used in the central offices.
	Fulfill	Fulfill any scheduled and ad-hoc obligations under a service arrangement, most typically for a financial product or facility. Example: Perform the scheduled (e.g., statements, standing orders) and ad-hoc/requested (e.g. balance inquiries, fund transfers) fulfillment tasks for a customer current account facility.
	Transact	Execute a well-bounded financial transaction/task, typically involving largely automated/structured fulfillment processing. Example: Execute a payment transaction.
REGISTER	Advise	Provide specialist advice and/or support as an ongoing service or for a specific task/event. Example: Handle the provision of specialist advice/expertise.
	Monitor	Monitor and define the status/rating of some entity. Examples: Monitor the status and key indicators of a customer to influence online interactions and track the status of issued cards for security and access control.
	Track	Maintain a log of transactions or activity, typically a financial account/journal or a log of activity to support behavioral analysis. Examples: Maintain a financial journal of transactions processed for a product or service and maintain a log of customer events and activity for subsequent analysis.
	Catalog	Capture and maintain reference information about some type of entity. Example: Maintain party reference information.
	Enroll	Maintain a membership for some group or related collection of parties. Example: Administer the membership status of a syndicate of investors.
EVALUATE	Agree terms	Maintain the terms and conditions that apply to a commercial relationship. Example: Define and maintain the terms governing the contractual relationship with a customer.
	Assess	To test or assess an entity, possibly against some formal qualification or certification requirement. Examples: Perform regulatory tests on a proposed financial transaction and check that a new offer conforms to an existing contractual agreement.
	Analyze	Analyze the performance or behavior of some on-going activity or entity. Examples: Provide behavioral insights and analysis into customer behavior and analyze financial market activity in order to identify opportunities, define pricing and evaluate risks.