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Solution Conformance Certification Report

Information Framework
v22.5

For

Segmatek DOT

April 27th, 2023

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1   Introduction

1.1   Executive Summary

This document provides details of Segmatek self-assessment and TM Forum's Conformance Assessment of Segmatek's data model deployed in their **DOT** solution **Release 1.0**, against the following TM Forum ODA 22.5 components:

- Information Framework (SID) version 22.5

The assessment included a review of:

- Conformance to the Information Framework (SID) Release 22.5, according to the specific L3 process elements and ABEs submitted in scope for the Assessment.

  For more information on the Segmatek DOT solution, please contact SEGMATEK at: sales@segmatek.com

  For any additional information on this SID Conformance Certification Report, please contact TM Forum at: conformance@tmforum.org.

1.2   About Segmatek

SEGMATEK is a system-integrator and customer-experience software solutions provider. Throughout its journey in various capacities enabled itself to deeply understand Telecom BSS & OSS "Needs, Wants and Desires" in context to "Digital Era".
We serve our customers in Telecom's mission critical business across Middle East, Africa, Asia and Europe.

1.3   About DoT

The DoT., like a tiny seed of innovation, holds immense potential as it symbolizes the ever-expanding landscape of Telco Industry. Just as a seed grows into a majestic tree, the DoT. sets up the stage for constant growth and evolution of technology, opening up new horizons and possibilities.

In our DoT. "BSS Stack", the name "DoT." is a figurative representation that branches out into DoT. CRM, DoT. Billing, DoT. Provisioning, and DoT. Mediation: signifying the infinite opportunities and breakthroughs that await us in the ever-expanding realm of digitalization.

The DoT. connects the pixels of digitalization, creating an endless journey of growth. DoT. is a symbol of the limitless potential and all-encompassing nature of technology, igniting the imagination of innovators and serving as a catalyst for Telecom revitalization.

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2   Product Functionality/Capability Overview

2.1   Product Overview – Segmatek DOT version 1.0

A digitally enabled CRM & Billing solution that empowers its customers to "Do-Things-By-Yourself". A strong ubiquitous platform with microservices architecture which allows speedy Time-To- Market for CSPs, through its personalized offerings and configurable workflows, DoT. blends-in an ultimate user experience.

2.1.1   Benefits of Segmatek DOT

- A comprehensive one-view on customers' data that generates meaningful insight on customer journey, behavior, and pattern. This enables the operator for personalized and channeled engagement with their customers.
- Dynamic customer relationship that supports customer-hierarchy records to include shared balance, unified bills, and other relationships.
- Flexible payment relationship that allows distribution of a single subscription usage in different billing accounts according to dynamic configuration.
- Workflow configurator triggers business process automation, and through its landmark feature of Ad-Hoc integration, it allows operator to "Do-Things-By-Yourself".
- Another Hallmark of DoT is its "Business rules Engine" – It is a dynamic configurator where operators can personalize the DoT screen by defining the rules and configurations by themselves.
- Digital capabilities make customer journeys more accessible and seamless. It helps in creating real-time customers' journey experience mapping.

2.1.2   Product Capabilities and Architecture
The following proposed solution is future ready by using latest proven technologies to keep track with evolving markets of the ICT, this guarantees solution's high performance and reliability.

Below is a high-level Architecture diagram that shows the logical architecture based on Microservices architecture.
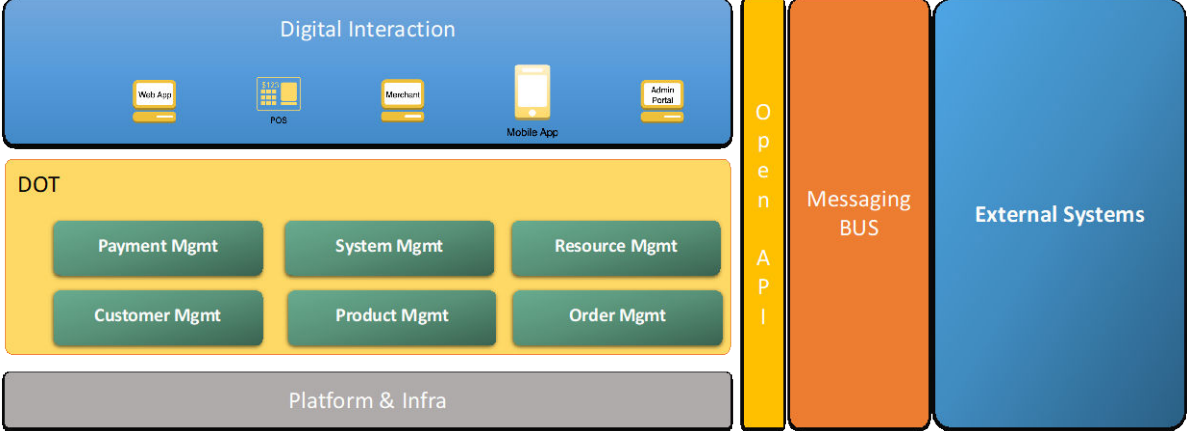
Figure 1: Segmatek DOT

2.2   Supported Installation Models: Segmatek DOT

2.3   Product Scope

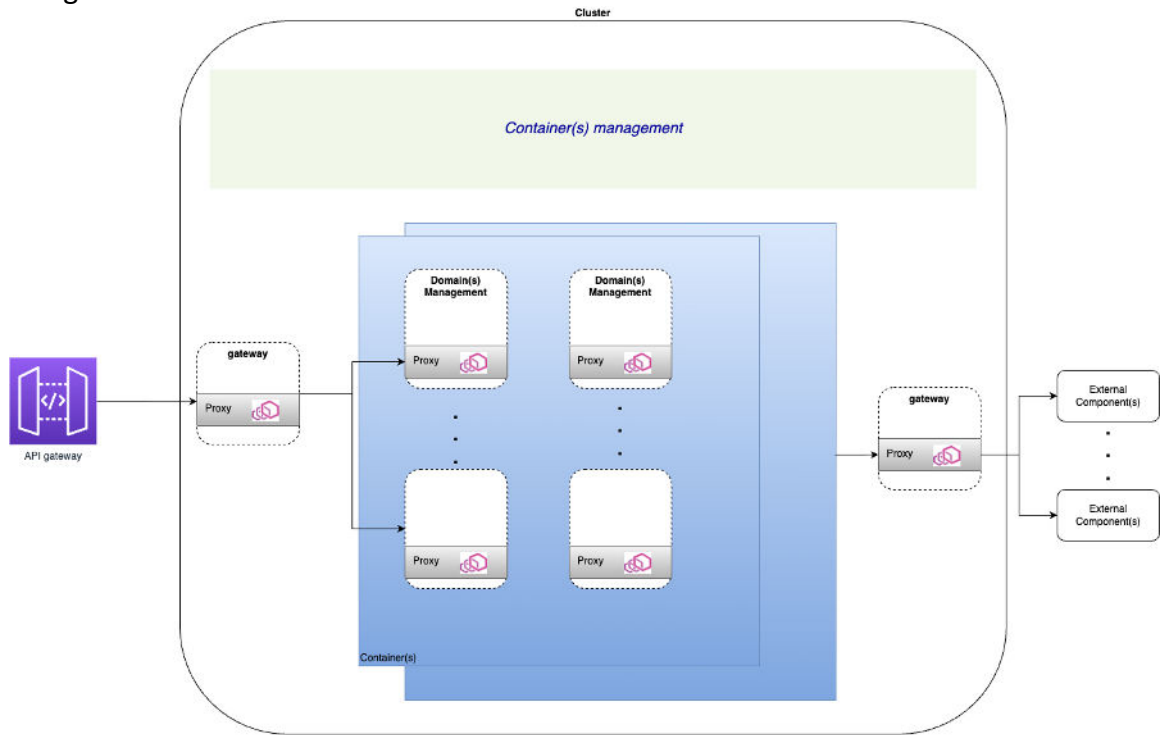DOT product is built over service mesh and use containerization for all its domain management.

Figure 2 Segmatek DOT mapped to SID elements in scope

2.4   Information Framework (SID) Certification Scope

The following figure represents the Information Framework (SID) ABEs that were presented in scope for conformance certification.
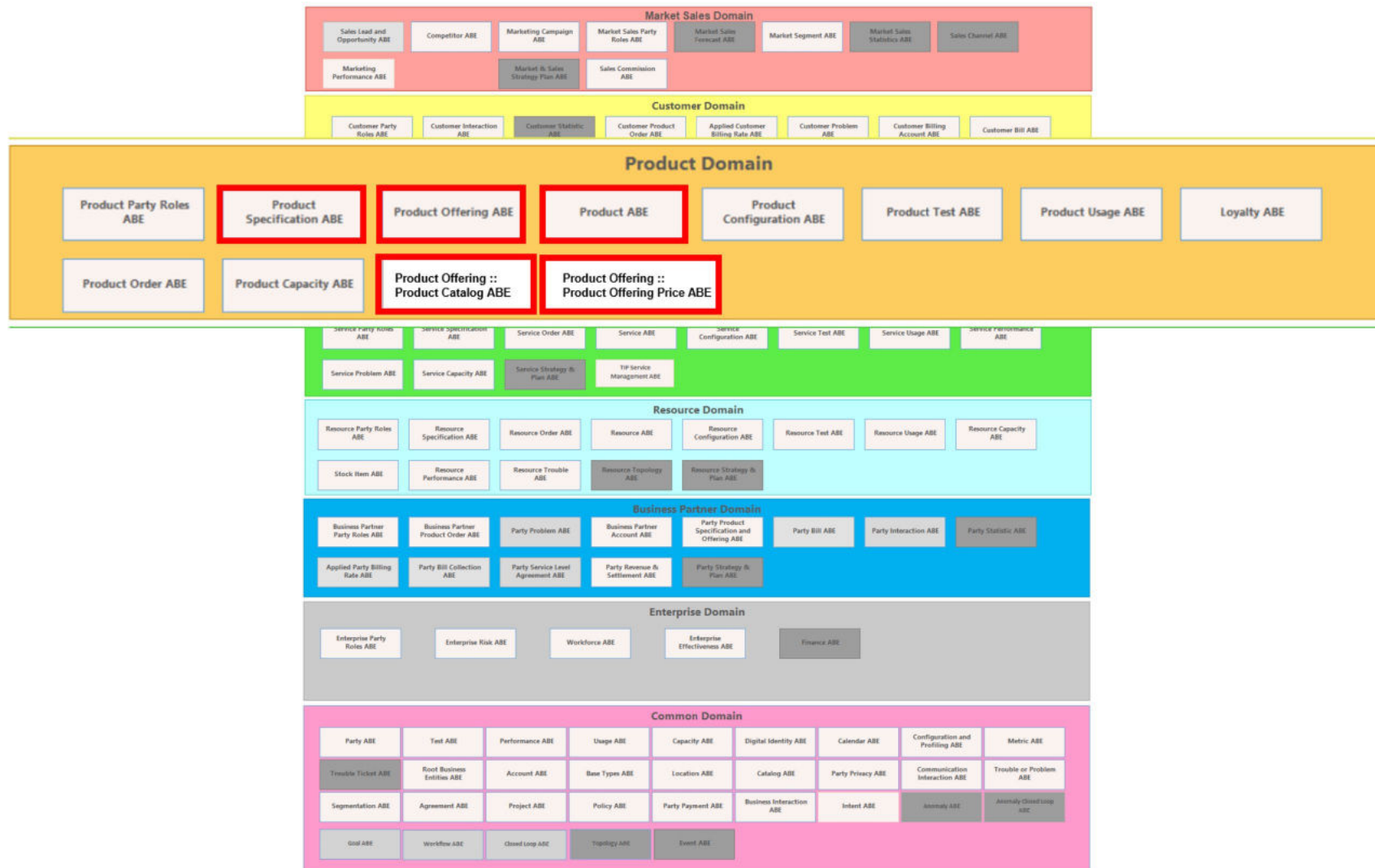
Figure 3 – SID ABEs coverage for Segmatek DOT Conformance Assessment

3   Information Framework Assessment Overview

3.1   Mapping Technique Employed

The certification scope defines the list of Information Framework (SID) ABEs (Aggregate Business Entities) for which mapping support is reviewed during the assessment. For each of the ABEs defined in scope for the assessment, the organization undergoing the assessment must map their information model to the core entities and dependent entities and the required and optional attributes for each entity, as defined in the SID model, according to what is supported for the product/solution under assessment.

For a view of the ABEs that were submitted in scope for conformance certification, please refer to scope in previous page.

3.1.1   Extract of the Actual Mapping Spreadsheet

Table 1 – Extract of the actual mapping spreadsheet

3.2   Additional Points from Segmatek concerning the Mapping

When mapping the ABEs on the mapping spreadsheet we were concerned with TM-Forum Entities within our model rather than showing our own extended models in the

needed areas; below modeling shows how we extended TM-Forum model in some areas to fulfil our own requirements:

We Inherited the physical and logical resource to create our own specification for MSISDN, IMSI and SIM Card.

Also, inherited ProductOfferingTerm to indicate if pre-payment is required before order is handled or not.
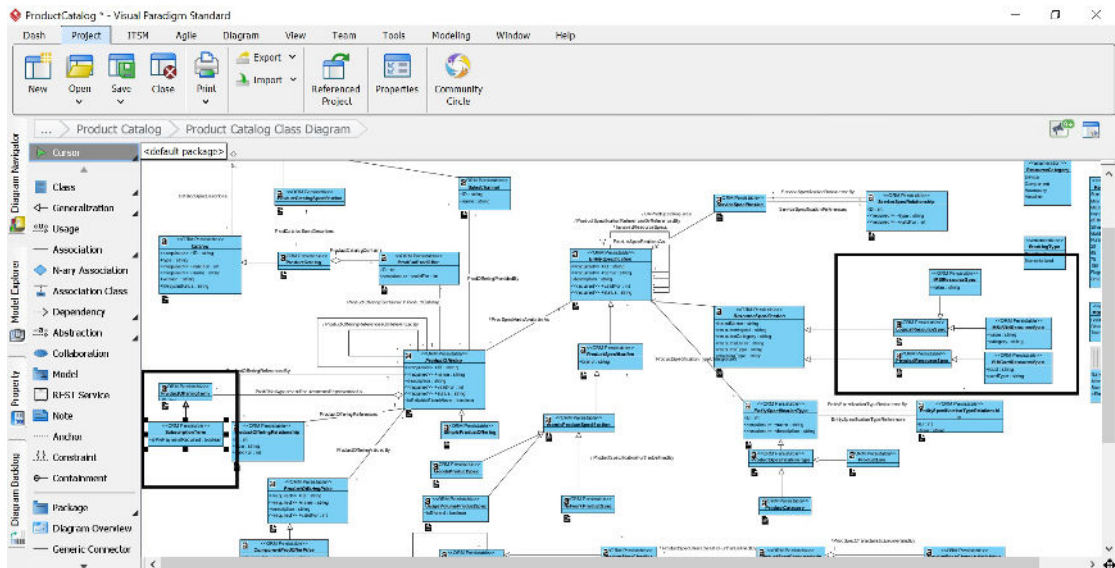
Figure 4 – Extended SID model to suit Segmatek Specific Requirements

3.3   Information Frameworx Conformance Result

This Section details the Scores awarded to reflect Conformance of Segmatek DOT R1.0 to the Information Framework components release 22.5.

3.3.1   Information Framework – Scoring Rules

Starting on the 1st of January 2018, one single method has been retained instead of the two previous scoring methods (Maturity + Adoption). The use of two different methods made interpretation and understanding difficult and ambiguous for many of our members, on the ground of such experience, the TM Forum decided to keep only the "Adoption" scoring method and discard the "Maturity" scoring method.

Adoption scoring ensures a good balance between qualitative and quantitative criteria on SID conformance criteria. The adoption scoring method consists of a range of scores from 1 to 10 which makes it intuitive and fair, it is also based on weighted criteria e.g. core element, dependent, required, optional, etc.

This section provides further details about the **<u>Adoption</u>** scoring method.

3.3.2   Information Framework Adoption Conformance Scoring Methodology

Information Framework Adoption scores are granted based on the detailed scoring guidelines outlined in Table 2 below.

Adoption conformance is based on an accumulative scoring system - i.e. scores are awarded for each element of an ABE to give an overall total Adoption score for the ABE – with elements in this context defined by core & dependent entities and required and optional attributes for both category of entity.

The scores for each element are calibrated according to relative weightings, according to the significance of each element e.g. core entity having higher weighting than dependent entities and required attributes having higher weighting than optional attributes. The relative weightings for each ABE 'element' are indicated in Table 1 - TM Forum Information Framework Adoption Conformance - Scoring Rules Table 2 below.

Table 2 - TM Forum Information Framework Adoption Conformance - Scoring Rules

Information Framework Adoption Conformance Scoring Guidelines	
SID Component	**Weighted Scoring Calculation**
Lowest Level ABE	Equivalent – 1 score point
Core Entity	Equivalent – 2 score points
Core Entity Required Attribute	% equivalent * 2 [Must support min 50% of Required Attributes]
Dependent Entity	% equivalent * 1.5
Dependent Entities – Required Attributes	% equivalent * 1.5
Core Entity – Optional Attributes	% equivalent * 1.2
Dependent Entity – Optional Attributes	% equivalent * 0.8

Adoption Conformance Score Graduation						
Non Conformance [Score = 1 to 3]	Very Low Conformance [3.0 < Score <= 4.0]	Low Conformance [4.0 < Score <= 5.0]	Medium Conformance [5.0 < Score <= 6.0]	High Conformance [6.0 < Score <= 8.0]	Very High Conformance [8.0 < Score < 10.0]	Full Conformance [Score = 10.0]

NOTES:
1. The score values for each SID component are added together to get the overall Adoption Conformance score.
2. If 50% of of the required attributes of Core entities are not supported, scores for following components are not applied as Adoption Conformance requires conformance to 50% of the required attributes of Core entities.
3. Adoption Score versus Maturity Level: Using the scoring category to recognise SID adoption, an assessed ABE for which there is equivalence to 2/3 required core attributes and 8/10 dependent entities would be awarded Maturity Level Score = 2.5 (Very Low Conformance) & Adoption Conformance score = 5.2 (Medium Conformance).

3.3.3   Additional Notes on Information Framework Conformance Adoption scoring:

1. For each level, according to what is required, a value is calculated based on the percentage of entities/attributes supported - as appropriate. This will result in a decimal figure (rounded to one decimal place).

2. Adoption Scoring is based on the progressive scoring schema from the former "Maturity" scoring; however it provides additional flexibility in-so-far as it allows to score all attributes and entities in an assessed ABE. In the former "Maturity" scoring, when not all required attributes of the Core Entity were supported, the Maturity Level score would not progress to the next level, regardless of conformance to other "subordinate" components of the ABE (e.g. dependent entities, optional attributes). "Adoption" scoring fixes this constraint as it provides a weighting mechanism to score all elements supported, regardless of the absence of the core entity or/and required attributes.

3. A **core business entity** is an entity upon which other entities within the ABE are dependent. For example, Service in the Service ABE. A model should strive to attain as high a level of Information Framework (SID) conformance as possible. A core entity is also an entity whose absence in the ABE would make the ABE incomplete.

4. A **dependent entity** is one whose instances are dependent on an instance of a core entity. For example, a ServiceCharacteristic instance within the Service ABE is dependent upon an instance of the Service entity.

5. The score values for each SID component are added together to get the overall Adoption Conformance score.

6. If 50% of the required attributes of Core entities are not supported, scores for following categories are not applied as Adoption Conformance requires conformance to 50% of the required attributes of Core entities.

3.4   Information Framework – Conformance Result Summary

The following sections provide the summary results of the Information Framework Adoption scores granted to the ABEs presented in scope for the assessment of Segmatek DOT R1.0.

Each ABE was measured using the Information Framework (SID) conformance scoring guidelines as described in section 3.2.2 above.

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3.5 Information Framework – Conformance Results

Segmatek DOT R1.0 - Certification Scope = 5 ABEs	
Level 1 ABEs	
Product Domain	
Product ABE	10.00
Product Offering ABE	10.00
Product Offering :: Product Catalog ABE	10.00
Product Offering :: Product Offering Price ABE	10.00
Product Specification ABE	10.00

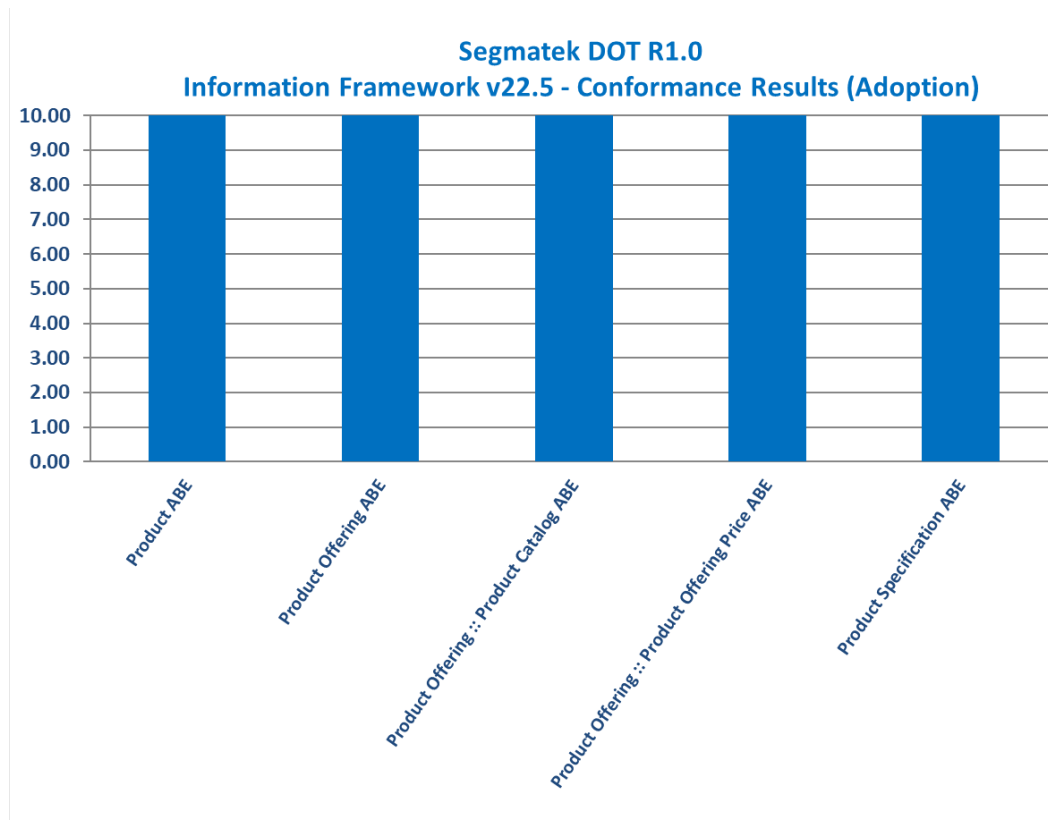**Table 3 - Information Framework : Conformance Scores**

Figure 5 – Information Framework: Conformance Scores (chart)

3.6 Conformance Assessment Team

Information Framework - Adoption Conformance Scoring Guidelines	
SID Component	**Weighted Scoring Calculation**
Lowest Level ABE	Equivalent – 1 score point
Core Entity	Equivalent – 2 score points
Core Entity Required Attribute	% equivalent * 2 [Must support min 50% of Required Attributes]
Dependent Entity	% equivalent * 1.5
Dependent Entities – Required Attributes	% equivalent * 1.5
Core Entity – Optional Attributes	% equivalent * 1.2
Dependent Entity – Optional Attributes	% equivalent * 0.8

Adoption Conformance Score Graduation						
Non Conformance [Score = 1 to 3]	**Very Low Conformance [3.0 < Score <= 4.0]**	**Low Conformance [4.0 < Score <= 5.0]**	**Medium Conformance [5.0 < Score <= 6.0]**	**High Conformance [6.0 < Score <= 8.0]**	**Very High Conformance [8.0 < Score < 10.0]**	**Full Conformance [Score = 10.0]**

NOTES:
1. The score values for each SID component are added together to get the overall Adoption Conformance score.
2. If 50% of of the required attributes of Core entities are not supported, scores for following components are not applied as Adoption Conformance requires conformance to 50% of the required attributes of Core entities.
3. Adoption Score versus Maturity Level: Using the scoring category to recognise SID adoption, an assessed ABE for which there is equivalence to 2/3 required core attributes and 8/10 dependent entities would be awarded Maturity Level Score = 2.5 (Very Low Confomance) & Adoption Conformance score = 5.2 (Medium Conformance).

Table 4 – Information Framework - Adoption Conformance Scoring Guidelines