

Framework 10

Information Framework R9.0

Product Conformance Certification Report

Microsoft

**Business Analytics Accelerator for
Telecommunications**

Release 1.0

November 2011

A decorative graphic at the bottom of the page consisting of several overlapping, 3D-style rectangular blocks in shades of yellow and orange, creating a sense of depth and movement.



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1 Introduction

1.1 Executive Summary

This document provides details of Microsoft's self-assessment and TM Forum's certification of Microsoft's Business Analytics Accelerator for Telecommunications, Release 1.0 product against TM Forum's Information Framework Release 9.0 Domains/Aggregate Business Entities.

1.2 Microsoft Business Analytics Accelerator for Telecommunications - Functionality/Capability

1.2.1 Microsoft Business Analytics Accelerator for Telecommunications – Product Overview

The primary objective of the Microsoft Business Analytics Accelerator for Telecommunications (Telco BAA) is to provide a framework that can be readily reused and extended to fast-track the design, development, and deployment of a business analytics solution for the telecommunications industry. The Telco BAA focuses on a few core scenarios and Key Performance Indicators (KPIs) to speed the time to implementation for telecommunications operator. However, the solution can be easily grown to support countless other scenarios.

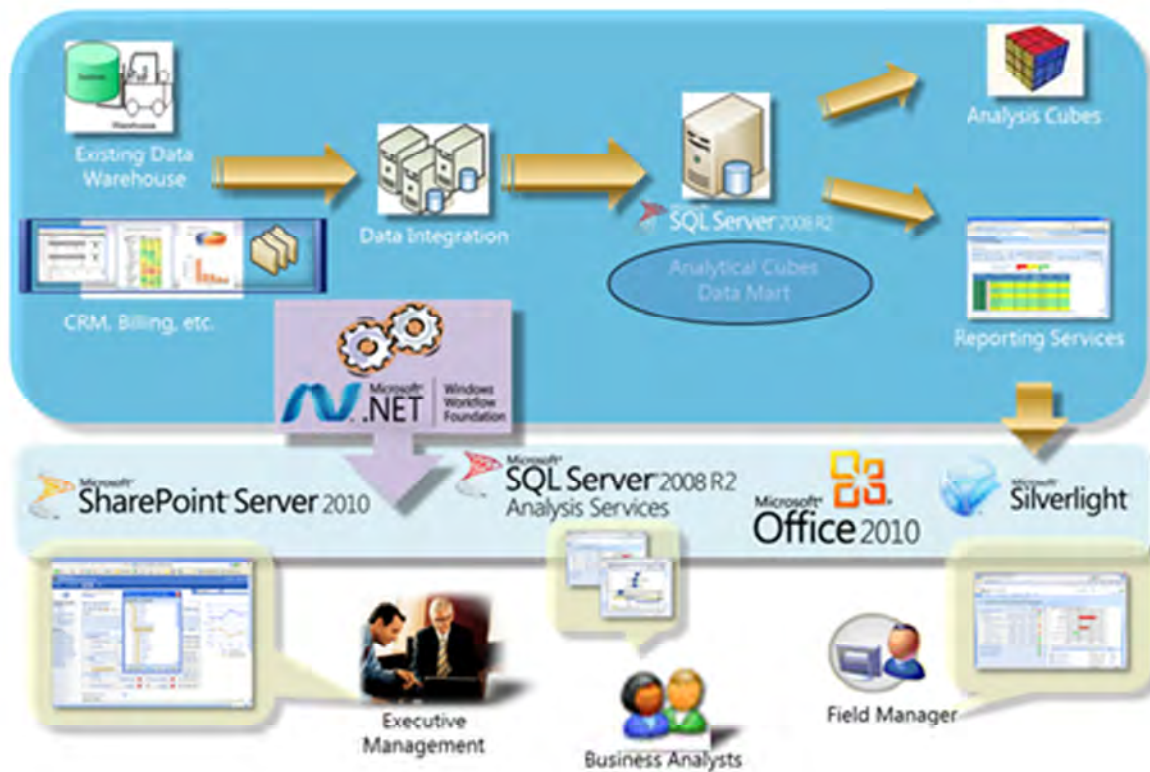
1.2.2 Microsoft Business Analytics Accelerator for Telecommunications – Application Overview

Companies in the telecommunications industry have complex internal operations, with the need to track millions of customers and billions of calls and transactions. They are also dealing with an extremely competitive, rapidly evolving external environment. Effective business intelligence (BI) solutions are critical to their future success.

The Telco BAA is an initial business analytics solution for the telecommunications industry that can help manage and exploit the massive amounts of data their operations generate. The solution provides databases, data marts, analysis cubes, reports, dashboards, and other components which can be used to provide insight into the Key Performance Indicators (KPIs) that are imperative to a telecommunications operator.

The components of the Telco BAA provide a pre-built and extensible framework that enables the creation of business analytic dashboards to tackle common business challenges such as churn management, customer profitability, and revenue management.

The diagram below shows a conceptual view of the Telco BAA. Data that is generated from the Business and Operational Support Systems (B/OSS) and an existing data warehouse is pumped into the SQL Server 2008 R2 Telco data marts. Analysis cubes and reports build against the schema provide simple, fast, and efficient access that enable deep insight into subscribers, services, usage, and more. Finally, for visualization of the data, the Telco Demo Image provides dashboards that users can employ to report and analyze the data.



All of the components rely heavily of the analytics capabilities of the Microsoft Business Intelligence platform, which is powered by Microsoft Windows Server 2008 R2, Microsoft SQL Server 2008 R2, and Microsoft SharePoint Server 2010. The data model and business processes that it enables respect the industry standards promoted by the TM Forum.

The Telco BAA has been fine-tuned through the years and received input from leading industry experts. By leveraging the pre-packaged components and industry best practices, the accelerator provides a better time to market and lower costs for implementing business analytics solutions.

1.3 Mapping Technique Employed

Based on the certification scope the list of ABEs (Aggregated Business Entities) is defined. The entities, association classes and dependent entities for each ABE in scope are allocated for the assessment.

SID model files and addendum specifications are analyzed for the entities' and association classes' definitions to determine their roles. Attributes explicit to the entities and association classes as well as inherited attributes are listed.

This information is used to map each entity's or association class' attribute to the appropriate product's attribute to show how the model is supported. For each (when needed) mapping item - attribute type, possible values and comments are provided.

2 Assessment Scope

2.1 Information Framework Scope and Mapping

Figure 2.1 illustrates the Information Framework Level 1 ABEs (blue border) that were presented in scope for the Assessment, and the textual callouts represent the domain areas of the Microsoft Business Analytics Accelerator for Telecommunications that were assessed and support the corresponding SID ABEs.

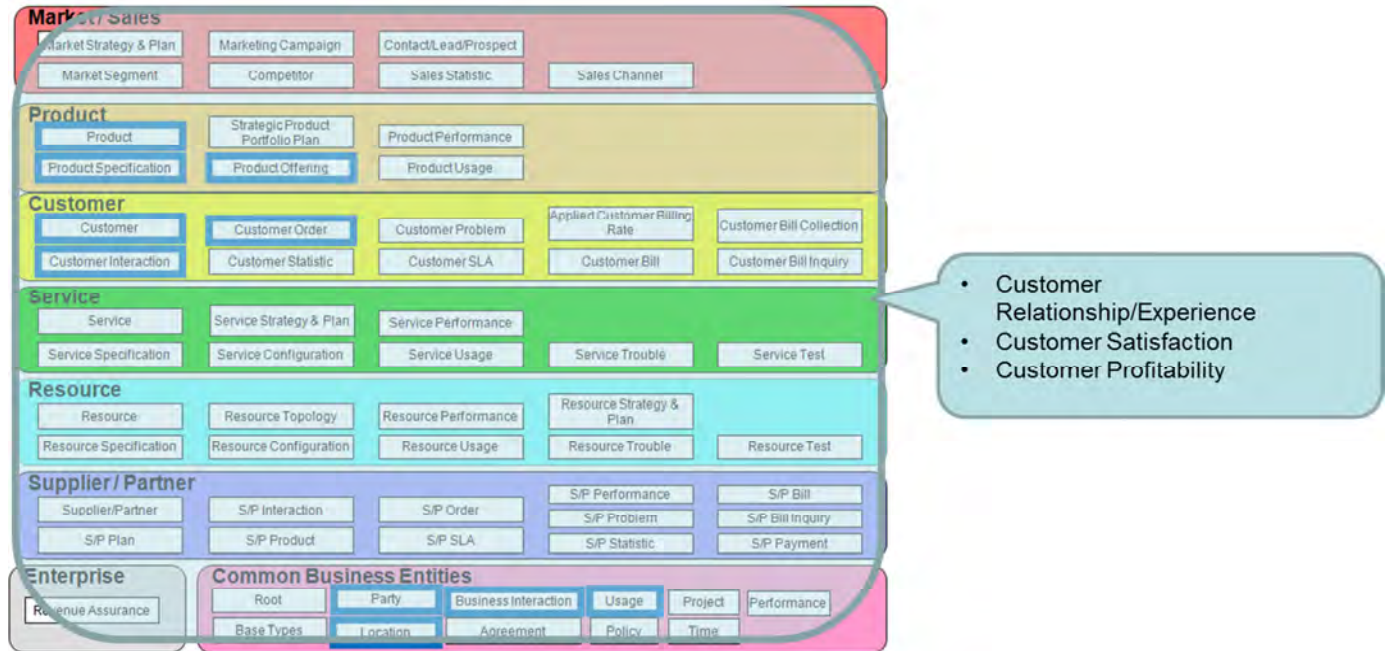


Figure 2.1 Information Framework – Microsoft Business Analytics Accelerator for Telecommunications Release 1.0, Assessment Scope

2.2 Product Scope

Figure 2.2 illustrates the Microsoft Business Analytics Accelerator for Telecommunications, Release 1.0 with the domains that were presented in scope bordered in blue. The textual callouts represent the TM Forum Aggregate Business Entities (ABEs) that were assessed and are supported by the corresponding Microsoft domains.

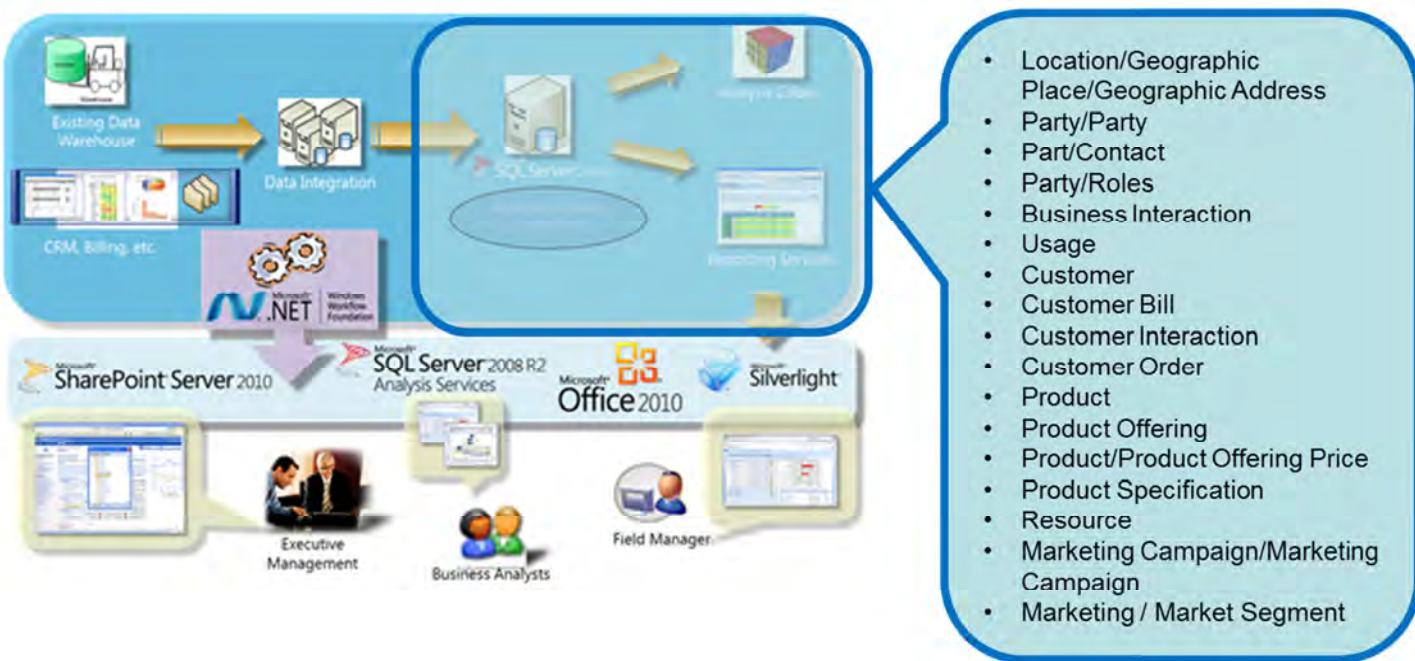


Figure 2.2 Microsoft Business Analytics Accelerator for Telecommunications – Product Scope

3 Information Framework (SID) Conformance

3.1 Information Framework – Conformance Overview

The charts in the following sections provide an overview of the conformance levels granted to the ABEs presented in scope for the Microsoft Business Analytics Accelerator for Telecommunications, Release 1.0 Information Framework Assessment. Each ABE was measured using an Information Framework (SID) conformance scale of 1–7, with 1 being lowest, 3 being the acceptable minimum, and 7 being the highest level of conformance.

The conformance scores granted were based on the following TM Forum scoring rules:

Product & Solution: Information Framework (SID) Conformance Score Descriptions	
Conformance Score	Qualifier
Conformance Score 1	The content of the model is compatible with a subset of the Information Framework (SID) ABEs that define its domain coverage. This provides two interacting components/solutions with a common vocabulary and model structure. The subset represents the scope of the model, expressed in Information Framework (SID) domains and ABEs.
Conformance Score 2	The model has achieved Conformance Score of 1 and the content of the ABE, part of the domain coverage and defined in the model, contains the ABE's core business entity or entities.
Conformance Score 3	The model has achieved Conformance Score of 2 and the required attributes of the ABE's core entity or entities are defined in the model.
Conformance Score 4	The model has achieved Conformance Score of 3 and dependent entities within the ABE's are defined in the model.
Conformance Score 5	The model has achieved Conformance Score of 4 and the required attributes of the ABE's dependent entities are defined in the model.
Conformance Score 6	The model has achieved Conformance Score of 5 and all attributes of the ABE's core entities are defined in the model.
Conformance Score 7	The model has achieved Conformance Score of 6 and all attributes of the ABE's dependent entities are defined in the model.

Figure 3.1 TM Forum Information Framework – Conformance Scoring Rules

Notes:

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.

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.

3.1.1 Online Data Store (CSODS) V7 – Conformance Result

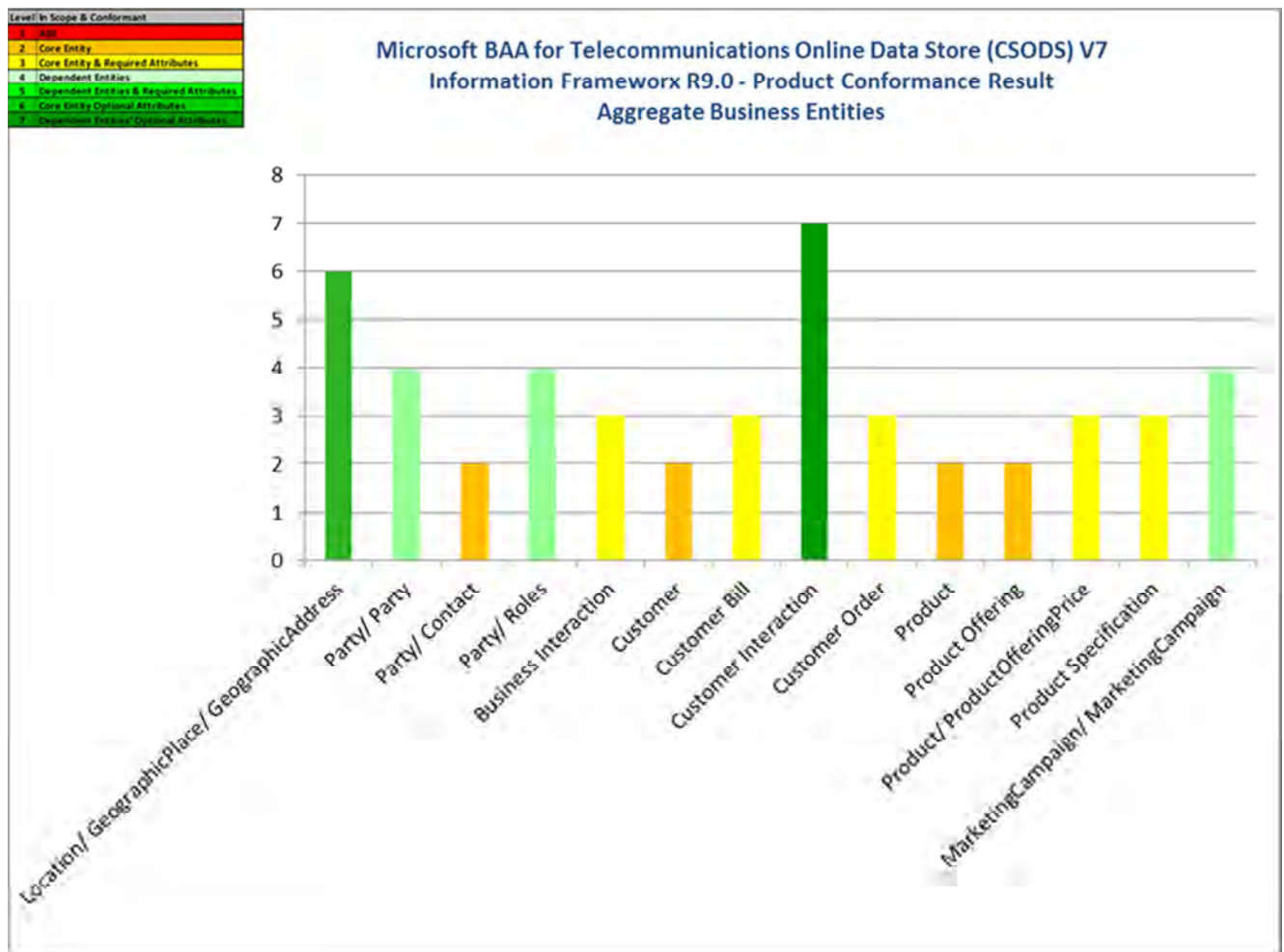


Figure 3.2 Online Data Store (CSODS) V7 ABEs -- Conformance Scores



3.1.2 Customer Relationship / Experience Data Mart (CRE-DM) V4 – Conformance Result

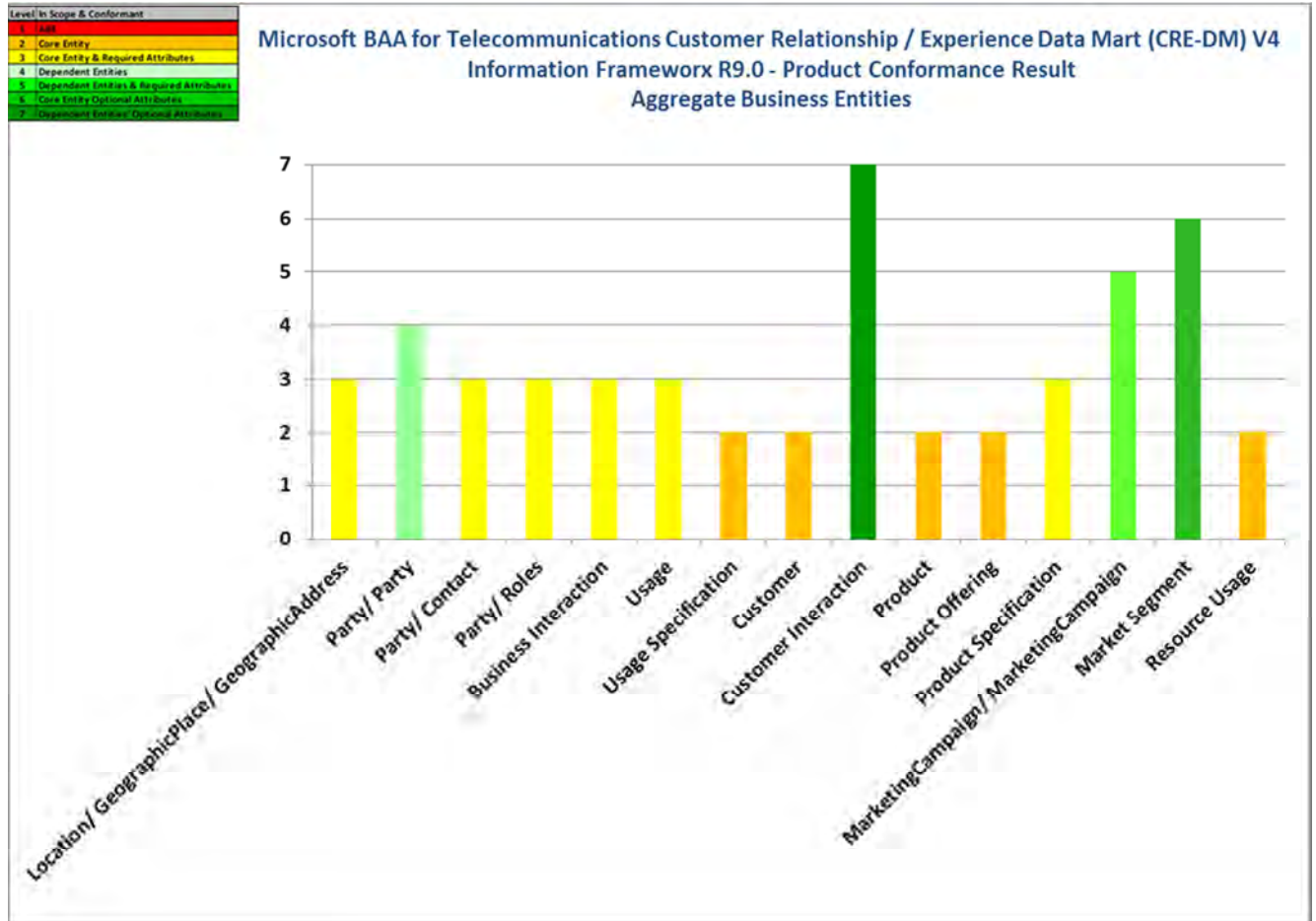


Figure 3.3 Customer Relationship/Experience Data Mart (CRE-DM) V4 ABEs - Conformance Scores

3.1.3 Customer Segmentation (CS DM) V4 – Conformance Result

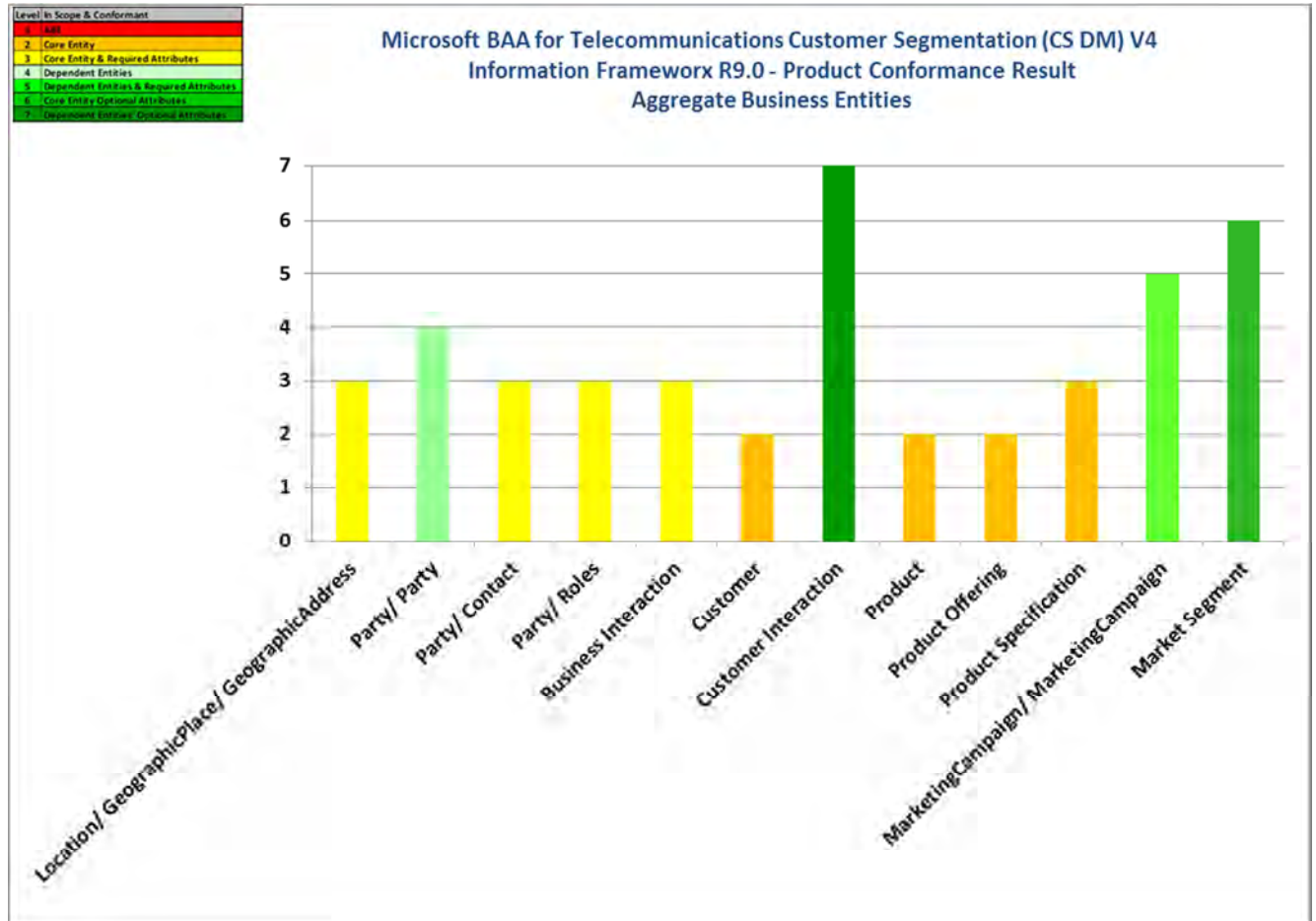


Figure 3.4 Customer Segmentation (CS DM) V4 ABEs -- Conformance Scores

3.1.4 Customer Profitability Data Mart (CP DM) V4 – Conformance Result

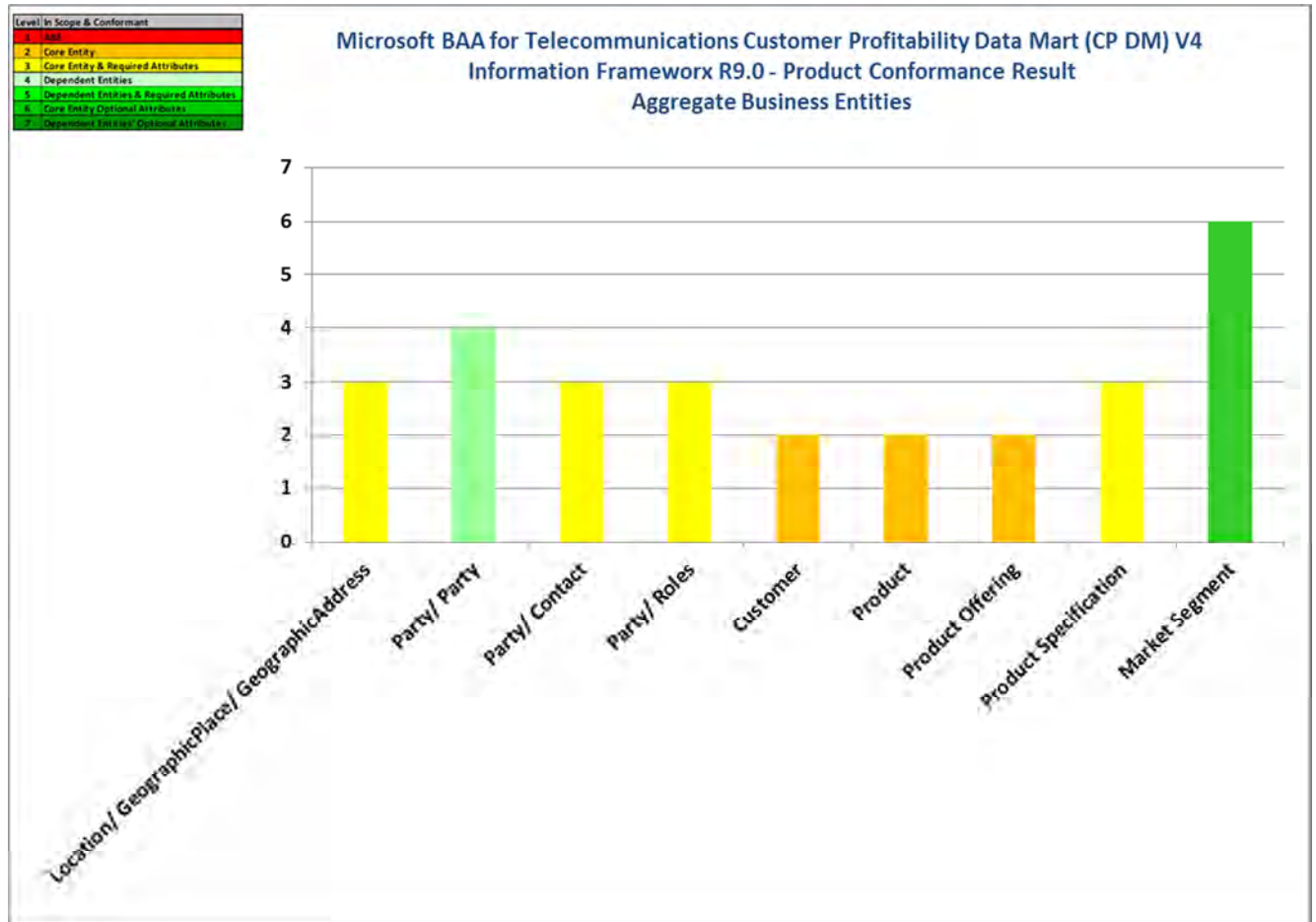


Figure 3.5 Customer Profitability Data Mart (CP DM) V4 – Conformance Scores

3.2 Information Framework – Detailed Conformance Result

3.2.1 Online Data Store (CSODS) V7 – Conformance Result

Table 3.1 Online Data Store (CSODS) V7 ABEs – Conformance Scores

Software Solution Information Framework (SID) Compliance			
Information Framework (SID) ABE	Software Solution Domain	Compliance Score	Comment
Location/ GeographicPlace/ GeographicAddress		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
Party/Party		4	Core entity, required attributes, dependent entities.
Party/Contact		2	Core entity.
Party/Roles		4	Core entity, required attributes, dependent entities.
Business Interaction		3	Core entity, required attributes.
Customer		2	Core entity.
Customer Bill		3	Core entity, required attributes.
Customer Interaction		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities. TM Forum comment: Because this is based on the Business Interaction ABE, please see the conformance score for the Business Interaction ABE.
Customer Order		3	Core entity, required attributes. TM Forum comment: Because this is based on the Business Interaction ABE, please see the conformance score for the Business Interaction ABE.



Software Solution Information Framework (SID) Compliance			
Information Framework (SID) ABE	Software Solution Domain	Compliance Score	Comment
Product		2	Core entity.
Product Offering		2	Core entity.
Product/ Product Offering Price		3	Core entity, required attributes.
Product Specification		3	Core entity, required attributes.
MarketingCampaign/ MarketingCampaign		4	Core entity, required attributes, dependent entities.



3.2.2 Customer Relationship / Experience Data Mart (CRE-DM) V4 – Conformance Result

Table 3.2 Customer Relationship / Experience Data Mart (CRE-DM) V4 ABEs -- Conformance Scores

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Location / Geographic Place / Geographic Address		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped POBoxAddress entity prevented a score of 4/5.
Party/Party		4	Core entity, required attributes, dependent entities.
Party/Contact		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped FaxNumber entity prevented a score of 4/5.
Party/Roles		3	Core entity, required attributes, 30% of dependent entities.
Business Interaction		3	Core entity, required attributes, 30% of dependent entities.
Usage		3	Core entity, required attributes, 30% of dependent entities.
Usage Specification		2	Core entity.
Customer		2	Core entity. TM Forum Note: Unmapped accountName attribute prevented a score of 3.
Customer Interaction		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities. TM Forum Note: See conformance score for Business Interaction ABE.



Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Product		2	Core entity.
Product Offering		2	Core entity. TM Forum Note: Unmapped status attribute prevented score of 3.
Product Specification		3	Core entity, required attributes, 30% of dependent entities.
Marketing Campaign /Marketing Campaign		5	Core entity, required attributes, dependent entities, required attributes of dependent entities.
Market Segment		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
Resource Usage		2	Core entity. TM Forum Note: The Resource Usage Specification, Resource Specification, and Resource ABEs were not included in the assessment.



3.2.3 Customer Segmentation (CS DM) V4 – Conformance Result

Table 3.3 Customer Segmentation (CS DM) V4 ABEs – Conformance Scores

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Location / Geographic Place / Geographic Address		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped POBoxAddress entity prevented a score of 4/5.
Party/Party		4	Core entity, required attributes, dependent entities.
Party/Contact		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped FaxNumber entity prevented a score of 4/5.
Party/Roles		3	Core entity, required attributes, 30% of dependent entities.
Business Interaction		3	Core entity, required attributes, 30% of dependent entities.
Customer		2	Core entity. TM Forum Note: Unmapped accountName attribute prevented a score of 3.
Customer Interaction		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities. TM Forum Note: See conformance score for Business Interaction ABE.
Product		2	Core entity.
Product Offering		2	Core entity. TM Forum Note: Unmapped status attribute



Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
			prevented score of 3.
Product Specification		3	Core entity, required attributes, 30% of dependent entities.
Marketing Campaign /Marketing Campaign		5	Core entity, required attributes, dependent entities, required attributes of dependent entities.
Market Segment		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.



3.2.4 Customer Profitability Data Mart (CP DM) V4 – Conformance Result

Table 3.4 Customer Profitability Data Mart (CP DM) V4 ABEs – Conformance Scores

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Location / Geographic Place / Geographic Address		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped POBoxAddress entity prevented a score of 4/5.
Party/Party		4	Core entity, required attributes, dependent entities.
Party/Contact		3	Core entity, required attributes, 30% of dependent entities. TM Forum Note: Unmapped FaxNumber entity prevented a score of 4/5.
Party/Roles		3	Core entity, required attributes, 30% of dependent entities.
Customer		2	Core entity. TM Forum Note: Unmapped accountName attribute prevented a score of 3.
Product		2	Core entity.
Product Offering		2	Core entity. TM Forum Note: Unmapped status attribute prevented score of 3.
Product Specification		3	Core entity, required attributes, 30% of dependent entities.
Market Segment		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.