

# Product Conformance Certification Report

## Business Process Framework (eTOM) v21.5 & Information Framework (SID) v21.5

For:

**Jio Platforms Limited**

**Jio Rating and Charging System (JRCS)**

**July 2022**

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## 1 Introduction

### 1.1 Executive Summary

This document provides details of JIO's Self-Assessment of JIO's Rating and Charging System (JRCS) product, against the following ODA Core Frameworks:

- Business Process Framework (eTOM) version 21.5
- Information Framework (SID) version 21.5

The assessment included a review of the methodology approach to process and information modeling, respectively against the TM Forum's Business Process Framework (eTOM) and the Information Framework (SID) according to the specific processes and entities submitted in scope for the Assessment.

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## 2 Product Overview

### 2.1 About JIO

Reliance Jio Infocomm Limited (Jio) is India's largest telecom operator with over 410 Mn subscribers. Jio's advance 4G network is future ready and can be easily upgraded to support advance technologies of 5G, 6G and beyond. Jio has brought transformational changes in the Indian digital services space to enable the vision of Digital India for 1.3 billion Indians and propel India into global leadership in the digital economy. It has created an eco-system comprising of network, devices, applications and content, service experience and affordable tariffs for everyone to live the Jio Digital Life. Since launch of its commercial operations in 2016, it has been redefining benchmarks, setting new milestones, inspiring unprecedented adoption, usage and service metrics that are among the best in the industry. Jio's product offering now spans across multiple business lines including connectivity, media & entertainment, payments, gaming, education, internet of things applications.

For more information on our products and services, visit our website at: [www.jio.com](http://www.jio.com)

### 2.2 Product Functionality / Capability

JIO's Rating and Charging System (JRCS), is the next gen, flexible, scalable, cloud native, convergent Rating and Charging platform providing both online and offline charging capabilities. It is compliant to 3gpp and aligned to TM Forum's Framework. Segregation of business and technical layer provides the flexibility to configure complex business rules through intuitive GUI. These rules take effect immediately with zero downtime. It provides quick switchover to Disaster Recovery Site. The platform has been rolled-out in one of the regions and planned to be progressively rolled out to cover 400 million customers.

TM Forum's Business Process Framework (eTOM) followed to identify, design, and develop automated business processes to run as an efficient and agile cloud native IT digital platform. It helped in increasing the overall operational efficiency, driving down the project cost and reducing the integration time frame.

TM Forum's Information Framework (SID) enabled building the canonical data model to streamline the business processes. The SID provided standard information vocabulary, framework, and model reduced the time to market, integration cost, and management time and cost.

The Application Framework (TAM) followed to define Service Interfaces & Schemas to facilitate creation & assembly of process implementations.

ODA's implementation approach was adopted to build the JRCS platform based on the microservices architecture.

Open APIs are used to create standard interfaces that enable rapid, repeatable, and flexible integration, which results in increased operational agility and improved customer centricity, and to deliver a practical approach to seamless end-to-end management of complex digital services.

### 2.2.1 Key Features:

The key features offered by JRCS are as follows:

**#Futuristic Design Framework:** JRCS is developed with a futuristic design framework, that offers convergent rating and charging capabilities across various business verticals like Telecom (Fiber, Mobility and Enterprise), Utilities, IoT etc. It has centralized rule configuration engine for various Rating and Charging requirements. Platform is based on declarative principles where all components are independently designed and configured. Seamlessly integrates with the Enterprise Product catalogue for automated product configuration synchronization. It offers 100% accurate and real-time automated rating and charging processing capabilities without any manual intervention. It supports multi-account and multi-level of plans. Uses open standards to connect with network mediation layers offering 3GPP compliance. It natively supports 5G Interface for HTTP2 based services.

**#API Driven architecture:** JRCS's fully API driven interfaces maximizes the compatibility with 3rd party applications. It offers Integrated subscription management for IoT and other subscription-based product offerings. Reusable common services are designed for Recharge, Usage and Provisioning operations for enhanced customer experience.

**#Open-Source Technologies:** Microservices based cloud native architecture ensures each feature is developed, enhanced, and deployed independently with zero downtime. JRCS uses the JSON based REST APIs and gRPC for inter-system communication and thus allowing it to keep minimal network footprint. Open APIs are documented using Open API Specs and is compliant to latest 3.x standard.

**#Zero downtime deployment:** Jio Rating and Charging System segregates the business layer and technical layer. New business rules providing additional capabilities could be deployed by operational user without any business down time. New Rules takes effect

immediately. It provides version control capabilities to manage different versions of the rule objects and allows operations to switch back to older version.

**#Scalable & resilient:** Cloud enabled, Docker and Kubernetes based deployment architecture. A highly performant platform built using Open-Source technology - Golang for better scalability and performance. Horizontally scalable platform uses highly engineered caching layer and self-healing design to automatically recover from outages providing 99.999% uptime. JRCS provides almost instant capability to switch to Disaster Recovery Site.

**#Instant Start Up:** Jio Rating and Charging System comes up instantly from few seconds (simple installation) to less than 2 minutes (complex installation) and loads configuration details in local cache memory. It additionally follows the blue green deployment i.e. first the new rater instances comes up and then only old instances are terminated.

**#Data Import & Export capabilities:** Integrated aggregation module to support regulatory reporting, revenue assurance and analytics. Offers data import and export functionalities for managing multi-JRCS deployment architecture.

**#Intuitive GUI:** Jio Rating and Charging System provides intuitive GUI to manage complex business rules. User can view the rule as they develop using visualization layer. This reduces the number of errors.

**#Operational Portal:** Dedicated web-based operations portal allows easy, efficient rating and charging operations management. It offers enhanced operational capabilities to view and manage Customer Balances, Allowances, Credit Limits and T2R activities.

**#Enhanced security framework:** Defense-in-depth approach with security controls at all layers i.e. Coding, Application, Hardware, Network and People practice.

### 2.2.2 Architecture

An overview of JIO's Rating and Charging System (JRCS) component level architecture is as follows:

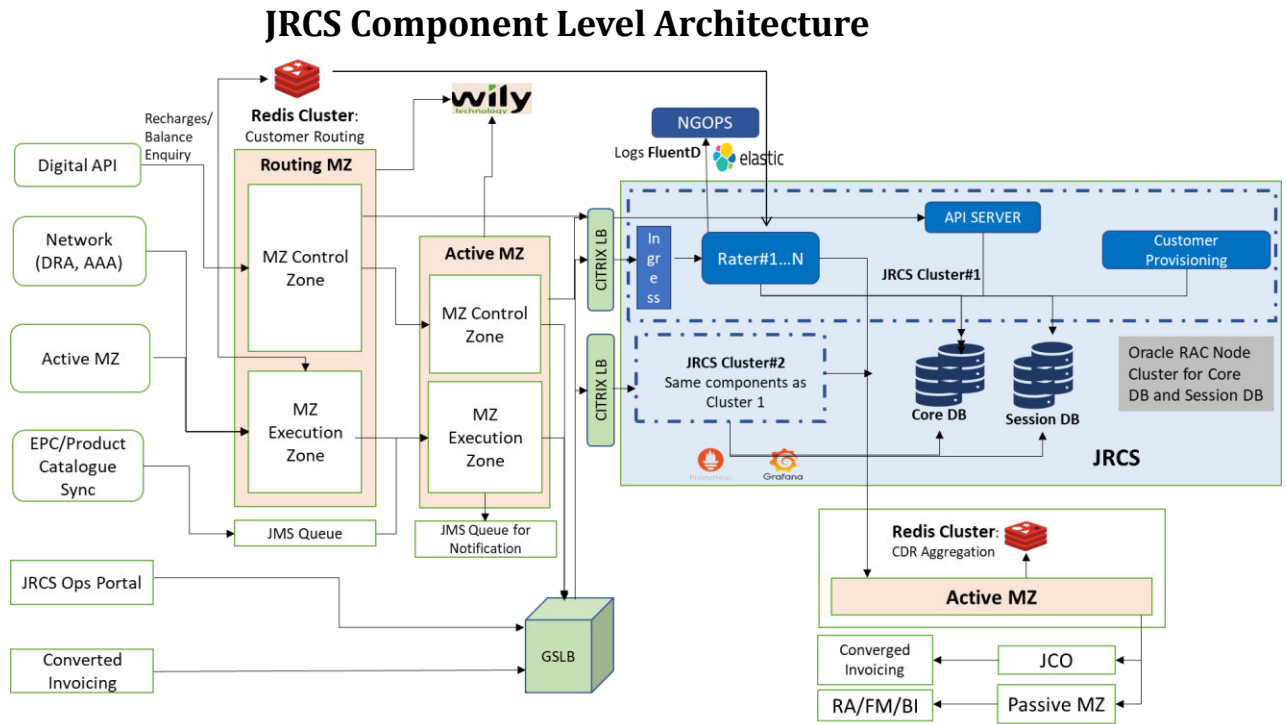


Figure 1 – JRCS Component level Architecture



## 2.3 JIO's Rating and Charging System (JRCS) – Benefits

As new business models emerge, and the networks start to evolve and consolidate, there is a need for the future operations model.

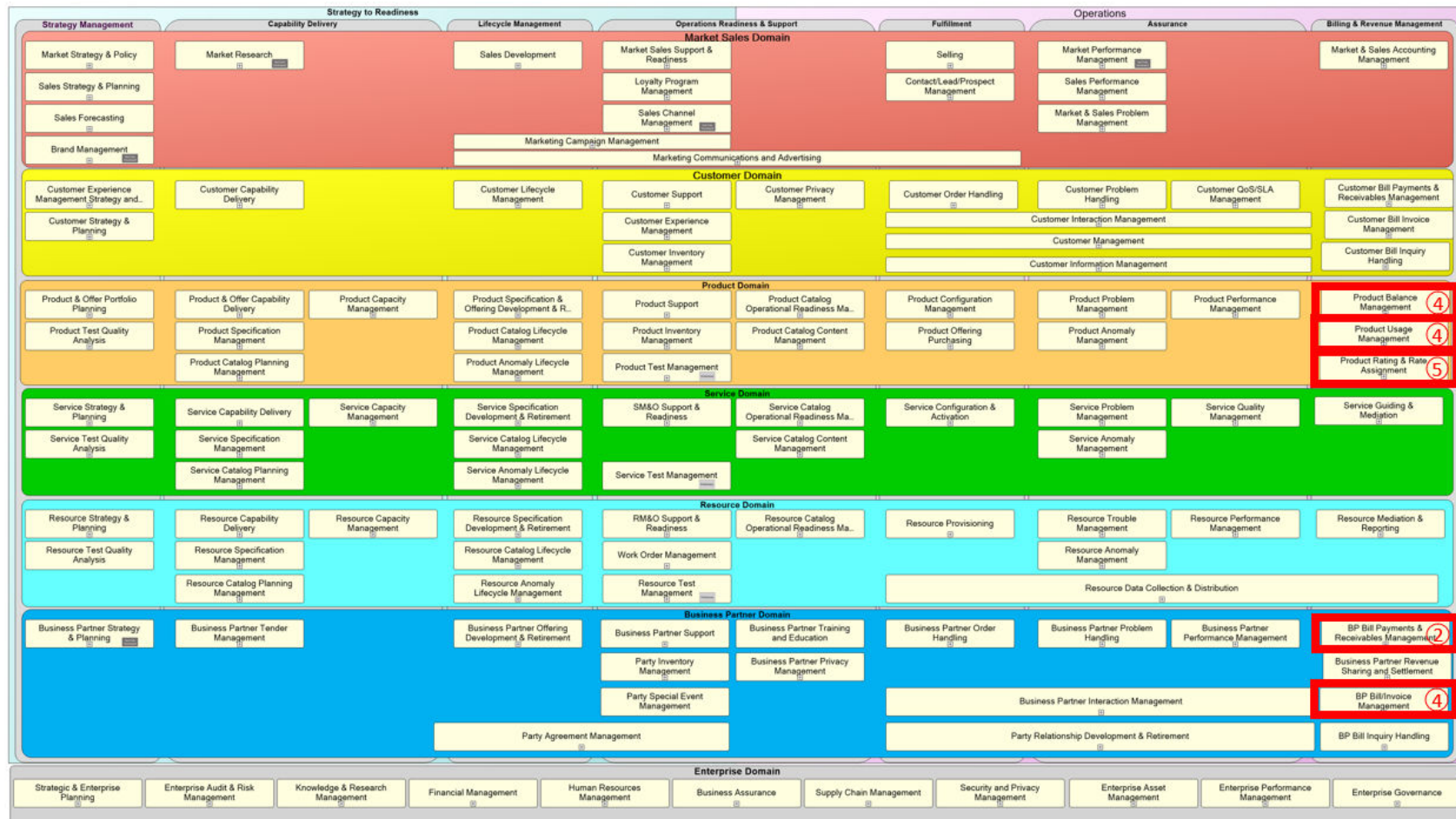
Following are the benefits of JIO's Rating and Charging System (JRCS).

- **Flexible Real-time rating and charging**
  - Centralized rule configuration for various types of Rating and Charging needs
  - 100% accurate and real-time rating and charging processing without any manual intervention
- **Fully configurable tariff system**
  - Unique, differentiating service bundles for all customer segments
- **Scalable & resilient**
  - Horizontally scalable platform uses highly engineered caching layer and self-healing design to automatically recover from outages
- **Security at all Layers**
  - Applying defence-in-depth approach with security controls in all layers. i.e. Coding, Application, Hardware, Network and People practice
- **Open-Source Technologies**
  - Microservices based cloud native architecture ensures each feature is independently developed, enhanced, and deployed with zero downtime
- **Configurable**
  - Based on declarative principles where all components are independently designed and can be configured using backend
- **Compliance and Compatibility**
  - Compliance to global standards such as 3GPP, TMForum ODA framework and 5G and IOT Ready
- **API Based Integrations**
  - Reusable common services for Recharge, Usage and provisioning
  - API driven interfaces maximize compatibility with third party infrastructure.
- **Future-proof product roadmap**
  - Enable real-time convergent charging to embrace future technological changes

## 2.4 Business Process Framework Level 2 Process Scope

The following figure represents the Business Process Framework Level 2 processes that were presented in scope for conformance certification.

## Business Process Framework (eTOM) – v21.5 – JIO’s Rating and Charging System (JRCS) – Conformance Footprint



# Number of L3 processes included in scope for certification = 19

Figure 2 - Level 2 process coverage for JIO’s Rating and Charging System (JRCS) Conformance Assessment

## 2.5 Information Framework Assessment - ABE Scope

The following diagram illustrates the Information Framework ABEs that were presented in scope for Certification.

### Information Framework (SID) - v21.5 – JIO’s Rating and Charging System (JRCS) – Conformance Footprint

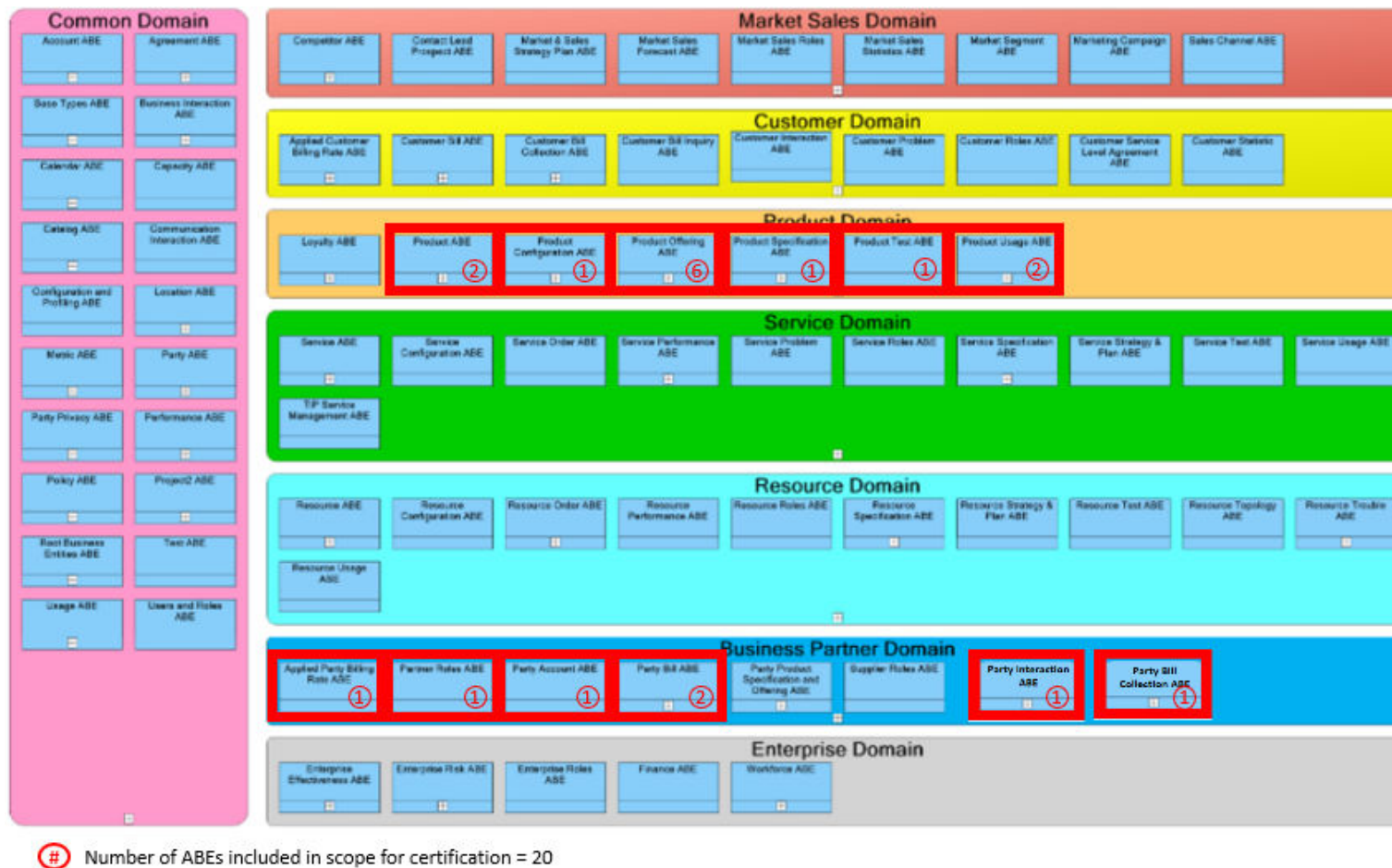


Figure 3 - Level 1 ABEs - SID coverage for JIO’s Rating and Charging System (JRCS) Conformance Assessment

## 3 Business Process Framework Assessment Overview

### 3.1 Mapping Technique Employed

Business Process Framework Level 3 descriptions are analyzed by focusing on implied tasks also referred to as implied functional requirements. (This is similar to how process decomposition can use Semantic Analysis). Each Business Process Framework process is supported by descriptive text. In many cases, each process is aligned and mapped to appropriate company documentation references solution, methodology or modeling material.

Color coded text as highlighted below is used as part of the process mapping whereby highlighted text indicates the level of support for a Level 4 process implied task:

- **GREEN** is used to highlight key words or key statements that are fully supported
- **YELLOW** is used to highlight key words/key statements that are partially supported
- **GREY** is used to highlight key words/key statements that are not supported
- No highlighting is used for words/statements that are irrelevant, just for reference or needed to complete the sentence.

As of February 2018, TM Forum allows mappings to be provided against Level-3 process elements when:

- L3s have relevant, consistent full detailed descriptions reflecting all L4 process elements in their decomposition (usually implied tasks identified and separated by bullet points)
- No decomposition to Level 4 processes was available for a particular L3 process, but the Level-3 mappings fulfil the condition described above, therefore the score awarded hereafter is for the Level 3 process in its entirety.

#### Manual and Automated Support

It is important to determine whether the implied task is supported by manual steps, automated steps, or a combination of both. In this document, “A”, “M”, or “AM” is used for each task to indicate that the step or steps is/are automated (A), manual (M), or both (AM).

#### TM Forum Note 1:

When process mappings are presented against Level 4 processes, the mappings are most often provided against the text in the “Mandatory” field for the process. In the event of the Mandatory field not being defined in the eTOM specification, the process mappings are in that case provided

against the Level 4 Extended description. If an Extended description is not defined, then the mapping is provided against the Brief description.

**TM Forum Note 2:**

Note that if a Level 3 process has not been decomposed to Level 4 processes in the Business Process Framework, in such cases the process mapping support is provided against the Level 3 process descriptions using the Mandatory/Extended/Brief description as per the guidelines explained for Level 4 based mappings in the previous note.

### 3.2 Scope of Conformance Certification (eTOM)

This document conveys information about the Business Processes implemented by JIO’s Rating and Charging System (JRCS) in accordance to the TM Forum Business Process Framework. It also maps the processes with the Level 2 and Level 3 frameworks Activities. The document covers the following L3 Processes in scope for certification.

### 3.3 Scope of Conformance Certification – List (eTOM)

TM Forum Assessment Scoping Document - Business Process Framework (eTOM) v21.5		
<b>Member:</b>		<b>JIO</b>
<b>Product:</b>		<b>Jio Rating and Charging System (JRCS)</b>
<b>Assessment Type</b>		<b>Product</b>
<b># of L3 Processes in Scope:</b>		<b>19</b>
<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
<b>1.2 - Product Domain</b>		
	<b>1.2.16 - Product Usage Management</b>	
		1.2.16.1 - Product Usages
		1.2.16.2 - Guide and Assign Product Usages
		1.2.16.3 - Mediate Product Usages
		1.2.16.4 - Report Product Usage Records
	<b>1.2.17 - Product Rating &amp; Rate Assignment</b>	
		1.2.17.1 - Perform Rating
		1.2.17.2 - Aggregate Items For Rate Assignment
		1.2.17.3 - Manage Customer Assignment Hierarchy
		1.2.17.4 - Provide Advice of Rate
		1.2.17.5 - Apply Rate Level Discounts
	<b>1.2.18 - Product Balance Management</b>	
		1.2.18.1 - Manage Product Balance Containers
		1.2.18.2 - Manage Product Balance Policies
		1.2.18.3 - Product Balance Operations Management
		1.2.18.4 - Authorize Transaction Based on Product Balance
<b>1.6 - Business Partner Domain</b>		
	<b>1.6.15 - BP Bill/Invoice Management</b>	
		1.6.15.1 - BP Bill/Invoice Process Management
		1.6.15.2 - BP Bill/Invoice Control
		1.6.15.3 - BP Bill/Invoice Lifecycle Management
		1.6.15.4 - Specific BP Revenue Handling
	<b>1.6.16 - BP Bill Payments &amp; Receivables Management</b>	
		1.6.16.1 - Business Partner Payment Management
		1.6.16.2 - Business Partner Account Balance Management

Figure 4- Level 3 process list in scope for certification

### 3.4 Scope of Conformance Certification – Chart (eTOM)

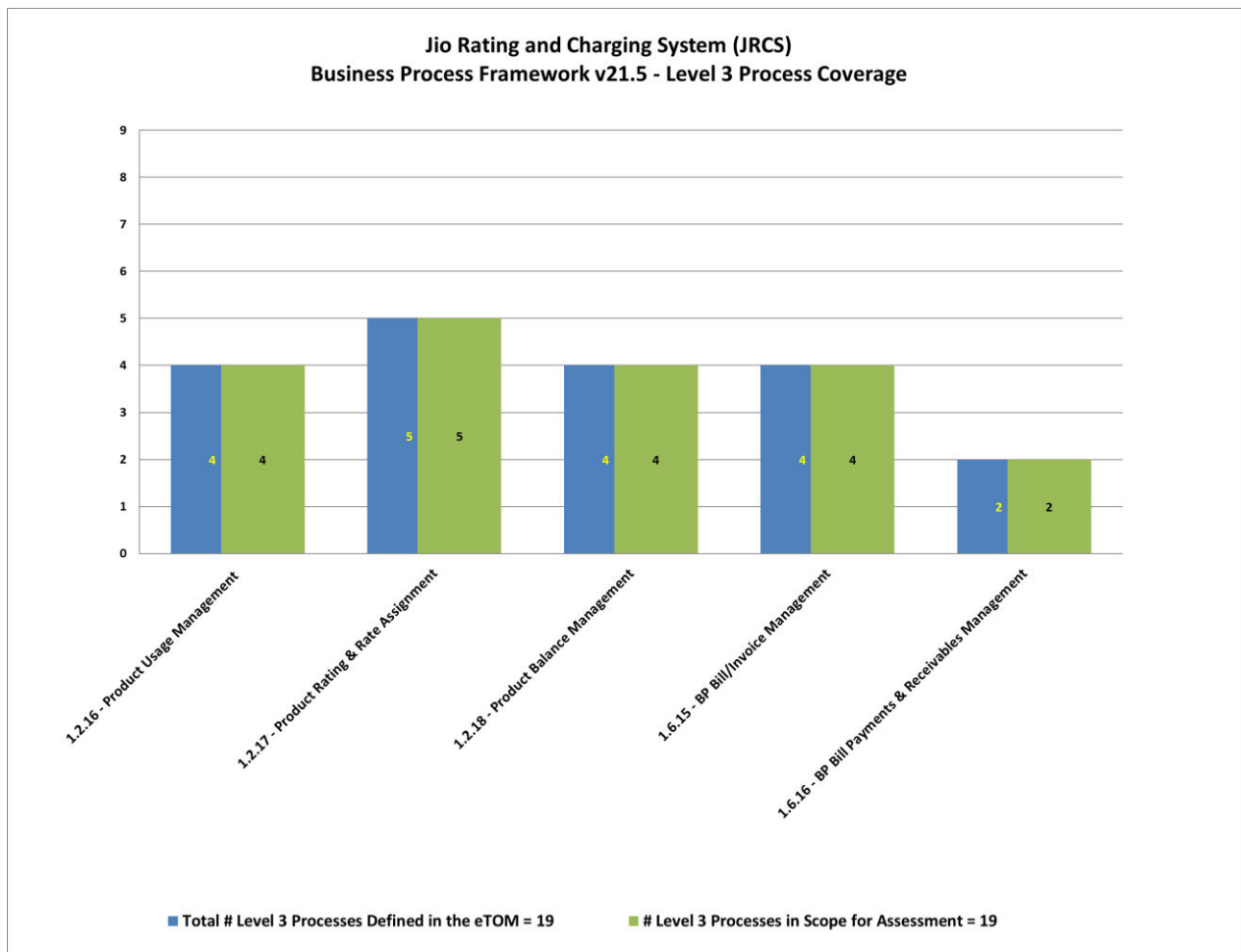


Figure 5- Level 3 process scope for certification

### 3.5 Business Process Framework – Scoring Guidelines

This section provides the Process Mapping output from the self-assessment carried out by TM Forum Subject Matter Experts alongside supporting documentation made available for this purpose.



Business Process Framework - Conformance Certification Methodology		
Process Level	Conformance Score	Qualifier
Level 1 Process	Not applicable	Conformance Assessment shall not be carried out at this process level.
Level 2 Process	Not applicable	A conformance level is not awarded to Level 2 processes in Framework Certification. The Certification Report shall highlight the coverage within a Level 2 process submitted in scope for an Assessment, in terms of number of Level 3 processes submitted for assessment out of the total number defined in the Business Process Framework for the Level 2 process.
Level 3 Process	Conformance Score is awarded between 3.1 & 5.0	The Conformance Score is awarded for each Level 3 process submitted in scope for the Assessment. The Conformance Score awarded can be a value between 3.1* & 5 depending on the level of coverage & conformance to the Level 3 process based on the alignment to the level 3 Implied Tasks as decomposed in the Level 4 process definitions. If a Level 3 process has not been decomposed to Level 4 processes, the Level score is awarded according to alignment to the Level 3 defined Implied Tasks.
Level 4 Process	Level of conformance is calculated as input to parent Level 3 Process Score	Levels of conformance are calculated for Level 4 processes according to alignment to the individual implied tasks. Level 4 scores are summed and averaged to give an overall score for the parent Level 3 process.
* In earlier Conformance Assessments, scores were awarded to Level 1 & Level 2 processes using values 1 through to 3. For this reason, the Level 3 scores start from > 3.		
Additional Notes		
Note 1 - Level 1 processes shall be presented to define the assessment scope only. i.e. they shall not be assessed as self-contained processes since the level of detail is not considered sufficient. A conformance level shall not be awarded for Level 1 processes.		
Note 2 - Level 2 processes shall be presented to define the assessment scope only. i.e. they shall not be assessed as self-contained processes since the level of detail is not considered sufficient. A conformance level shall not be awarded for Level 2 processes. However, the Certification Report shall provide good indication of the coverage of the Level 2 process in terms of number of contained Level 3 processes submitted in scope for the Assessment.		
Note 3 - The Conformance Assessment shall be carried out at process level 3 (if there are no level 4 process elements defined for a specific level 3 in scope) or at level 4 (if there are level 4 process elements defined for a specific level 3 in scope). For each Level 3 process (when there are no level 4 processes available), conformance shall be deduced according to the documented support for the process implied tasks. For each Level 4 process (when available), conformance shall be deduced according to the documented support for the process implied tasks, as decomposed and described in the Level 4 process descriptions. The score awarded for a Level 3 process, is deduced according to the support mapped to the Level 4 processes/Implied Tasks.		
Note 4 - In evaluating conformance to the standards, manual intervention shall not impact the conformance score granted. However, any level of manual support shall be noted in the Conformance Report and Detailed Results Report. This note specifically applies to Product & Solution Assessments.		
Note 5 - Processes that are supported via manual implementation only, are not considered in scope for the Assessment. This note specifically applies to Product & Solution Assessments.		

Figure 6- TM Forum Business Process Framework: Conformance Scoring Rules



### 3.6 Business Process Framework – Process Mapping Descriptions

This section provides the mapping of Business Process Framework against the processes supported by JIO’s Rating and Charging System (JRCS).

The self-assessment was reviewed by TM Forum Subject Matter Experts alongside supporting documentation provided.

#### 3.6.1 Mapping Details & Supporting Evidence

The documented mapping information for all Level 3 business processes in scope is available from the following link:

<https://www.tmforum.org/wp-content/uploads/2022/07/JIO-RCS-eTOM-Conformance-Mapping-Template-Product-Customer-Domains-V3RF-.pdf>

### 3.7 Conformance Result

This Section details the Scores awarded to reflect Conformance to the Business Process Framework components of eTOM.

TM Forum Assessment Scoping Document - Business Process Framework (eTOM) v21.5			
<b>Member:</b>		<b>JIO</b>	
<b>Product:</b>		<b>Jio Rating and Charging System (JRCS)</b>	
<b>Assessment Type</b>		<b>Product</b>	
<b># of L3 Processes in Scope:</b>		<b>19</b>	
<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 3 Process Elements Scores achieved</b>
<b>1.2 - Product Domain</b>			
	<b>1.2.16 - Product Usage Management</b>		
		1.2.16.1 - Product Usages	5
		1.2.16.2 - Guide and Assign Product Usages	5
		1.2.16.3 - Mediate Product Usages	5
		1.2.16.4 - Report Product Usage Records	5
	<b>1.2.17 - Product Rating &amp; Rate Assignment</b>		
		1.2.17.1 - Perform Rating	5
		1.2.17.2 - Aggregate Items For Rate Assignment	5
		1.2.17.3 - Manage Customer Assignment Hierarchy	5
		1.2.17.4 - Provide Advice of Rate	5
		1.2.17.5 - Apply Rate Level Discounts	5
	<b>1.2.18 - Product Balance Management</b>		
		1.2.18.1 - Manage Product Balance Containers	5
		1.2.18.2 - Manage Product Balance Policies	5
		1.2.18.3 - Product Balance Operations Management	5
		1.2.18.4 - Authorize Transaction Based on Product Balance	5
<b>1.6 - Business Partner Domain</b>			
	<b>1.6.15 - BP Bill/Invoice Management</b>		
		1.6.15.1 - BP Bill/Invoice Process Management	5
		1.6.15.2 - BP Bill/Invoice Control	5
		1.6.15.3 - BP Bill/Invoice Lifecycle Management	5
		1.6.15.4 - Specific BP Revenue Handling	5
	<b>1.6.16 - BP Bill Payments &amp; Receivables Management</b>		
		1.6.16.1 - Business Partner Payment Management	5
		1.6.16.2 - Business Partner Account Balance Management	5

Figure 7-- eTOM Conformance Scores Summary

### 3.8 Business Process Framework – Conformance Result Summary

This Section provides a graphical view of the conformance levels granted to the Level 3 Processes presented in scope for JIO’s Rating and Charging System (JRCS). Each Level 3 process was measured using a Business Process Framework (eTOM) conformance score according to the level of Conformance – Full Conformance (Score = 5) or Partial Conformance (Score below 5)

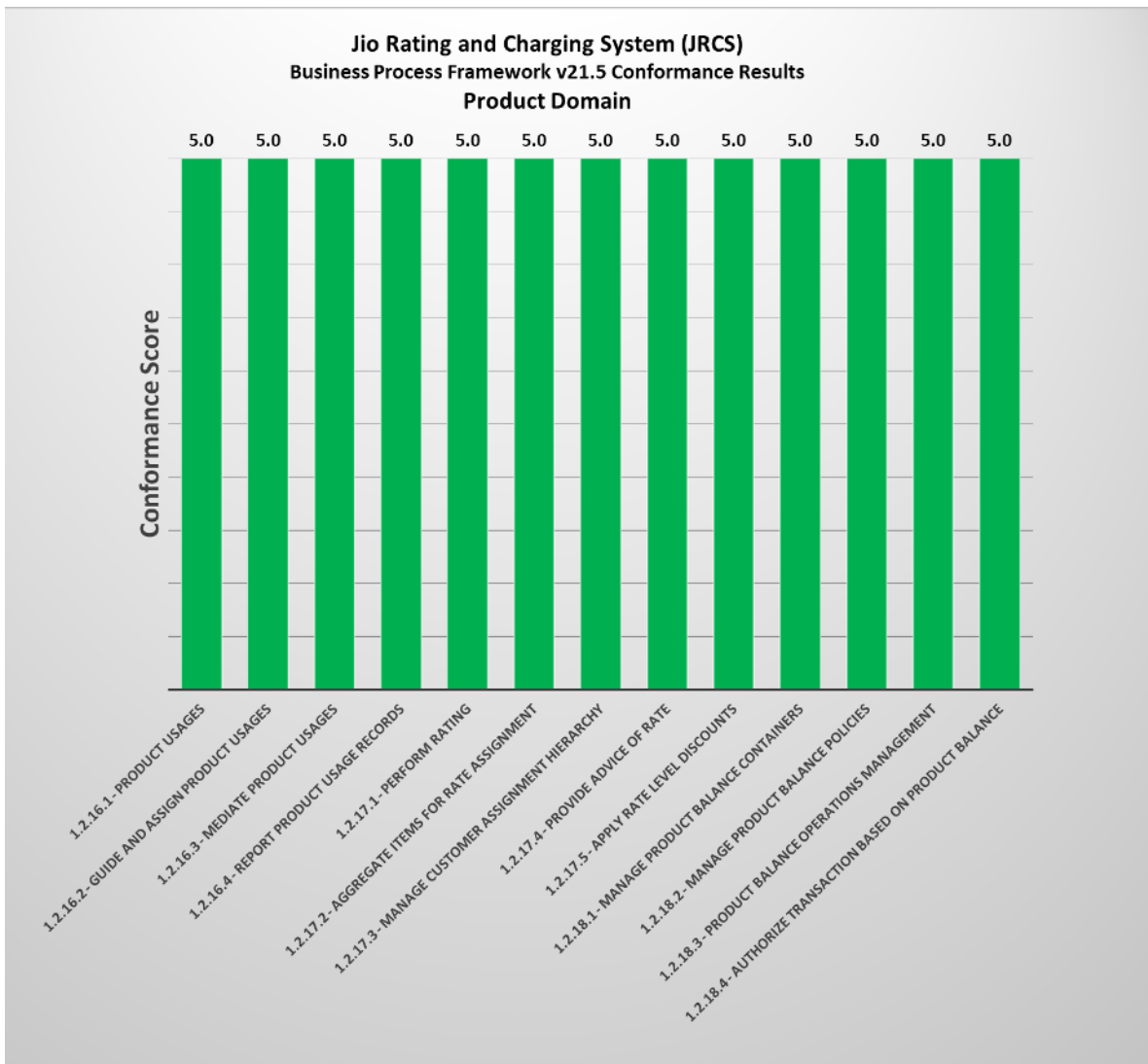


Figure 8- eTOM – Product Domain Conformance Scores

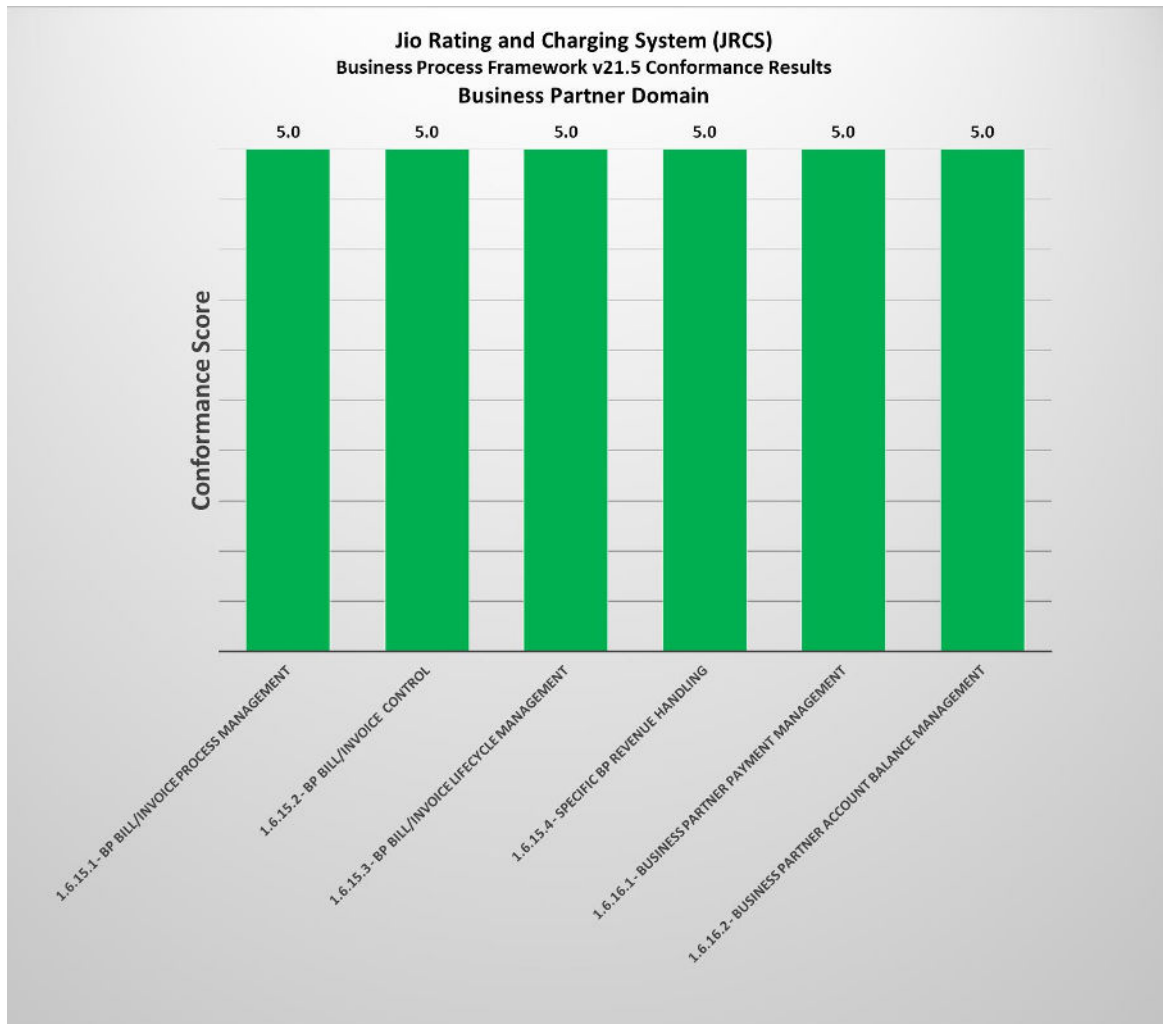


Figure 9- eTOM – Business Partner Domain Conformance Scores

## 4 Information Framework Assessment Overview

### 4.1 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 Figure 3 - Level 1 ABEs - SID coverage for JIO's Rating and Charging System (JRCS) Conformance Assessment on page 10.

### 4.2 Scope of Conformance Certification (SID)

This following list conveys information about the ABEs implemented by JIO's Rating and Charging System (JRCS) in accordance to the TM Forum Information Framework (SID). The scope for certification includes the following ABEs.

<b>JIO - SID Certification Scope Rating and Charging System (JRCS) = 20 ABEs</b>	
<b>Level 1 ABEs</b>	<b>Level 2 &amp; Level 3 ABEs</b>
<b>Product Domain</b>	
Product ABE	Product Price ABE
Product ABE	Usage Volume Product ABE
Product Configuration ABE	Product Action ABE
Product Offering ABE	Pricing Logic Algorithm ABE
Product Offering ABE	Pricing Logic Algorithm/ PLA Spec ABE
Product Offering ABE	Product Catalog ABE
Product Offering ABE	Product Offering Price ABE
Product Offering ABE	Product Offering Price Rule ABE
Product Offering ABE	Product Offering Price Tax ABE
Product Specification ABE	Usage Volume Product Spec ABE
Product Test ABE	
Product Usage ABE	
Product Usage ABE	Product Usage Spec ABE
<b>Business Partner Domain</b>	
Applied Party Billing Rate ABE	
Business Partner Account ABE	
Business Partner Party Roles ABE	
Party Bill ABE	Party Billing Credit ABE
Party Bill ABE	Party Billing Statistic ABE
Party Bill Collection ABE	Business Partner Payment ABE
Party Interaction ABE	

Figure 10- SID – Product & Business Partner Domains Conformance Scope

### 4.3 Information Framework Conformance Result

This Section details the Scores awarded to reflect Conformance of JIO's Rating and Charging System (JRCS) to the Information Framework components release 21.5.

#### 4.3.1 Information Framework – Scoring Rules

Between 2013 (Framework 14.0) and the end of 2017, TM Forum applied a combined scoring method based on two different categories of conformance scoring:

1. Information Framework Maturity
2. Information Framework Adoption

Starting on the 1st of January 2018, only one method has been retained instead of these two 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 Adoption scoring method.

### 4.3.2 Information Framework Adoption Conformance Scoring Methodology

As of Framework 14.0 based Conformance Assessments, to recognize the overall adoption of the Information Framework SID Information model, the Information Framework Adoption Scoring system was introduced to complement the Maturity Levels that have been used since the launch of the Framework Conformance Program.

Information Framework Adoption scores are granted based on the detailed scoring guidelines outlined in Table 1 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 1 below.

Table 1 - 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]
<p><b>NOTES:</b></p> <p>1. The score values for each SID component are added together to get the overall Adoption Conformance score.</p> <p>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.</p> <p>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) &amp; Adoption Conformance score = 5.2 (Medium Conformance).</p>						

### 4.3.3 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.

## 4.4 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 JIO’s Rating and Charging System (JRCS).

Each ABE was measured using the Information Framework (SID) conformance scoring guidelines as described in section 4.3.2 above.

## 4.5 Information Framework – Detailed Conformance Results

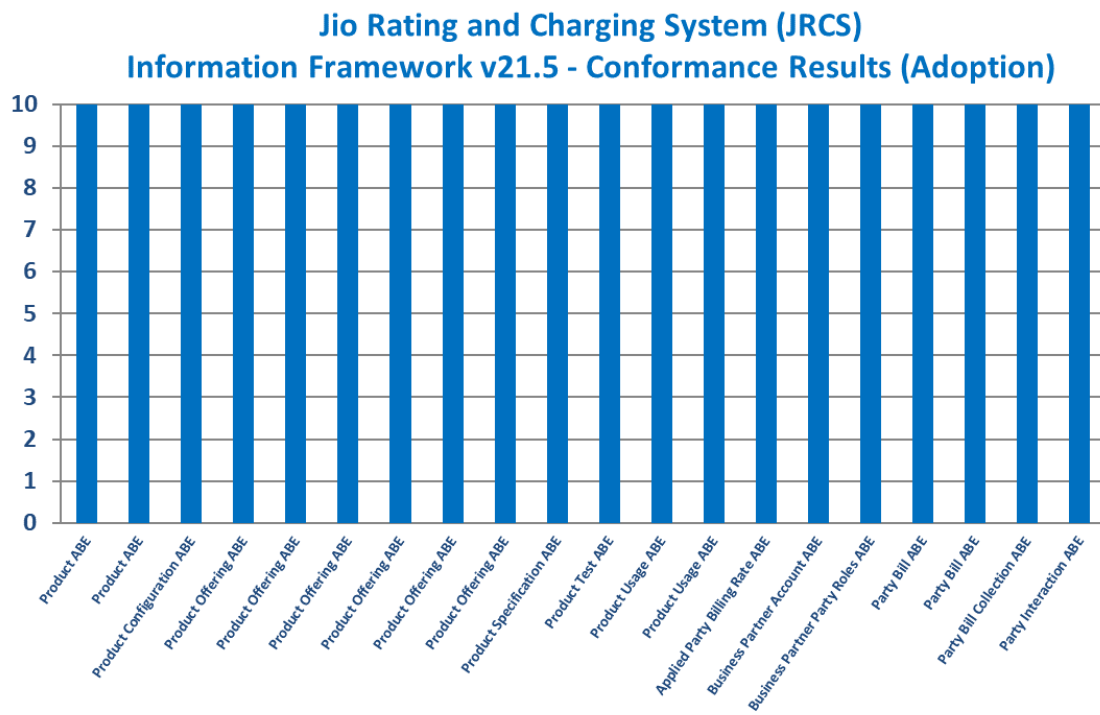


Figure 11 - Information Framework: Conformance Scores