

# Solution Conformance Certification Report

**Business Process Framework (eTOM)** 

For:

## Jio Platforms Limited

JIO Customer Management Suite (JCMS)
Remaining Processes

**April 2025** 



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#### 1 Introduction

#### 1.1 Executive Summary

This document provides details of JIO Customer Management Suite (JCMS) Remaining Processes, against the following ODA Core Frameworks:

• Business Process Framework (eTOM) version 24.0.

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

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#### 2 Solution Overview

#### 2.1 About JIO

Reliance Jio has revolutionized the Indian telecom and digital services landscape, bringing affordable, high-speed connectivity to millions. Since its launch, Jio has been at the forefront of digital transformation, democratizing data access and fostering innovation across industries. With a customer-first approach, Jio's cutting-edge technologies, including 4G LTE, 5G, fiber broadband, and Al-driven solutions, empower businesses and individuals alike.

Jio's impact extends beyond connectivity, driving advancements in digital payments, cloud computing, and enterprise solutions. The company's Open Digital Architecture (ODA)-based platforms enable scalable and modular solutions, ensuring seamless integration across industries. Jio's Al-powered customer service and CRM solutions enhance customer experience while optimizing operational efficiency.

By embracing sustainability and digital inclusion, Jio supports India's vision of a self-reliant digital economy. Initiatives like rural broadband expansion, IoT-driven smart cities, and industry-focused automation highlight Jio's commitment to People, Profit, and Planet. Jio's innovative ecosystem fosters collaboration with startups and enterprises, accelerating the adoption of next-generation technologies.

Through continuous investment in digital infrastructure and disruptive technologies, Jio remains a driving force in India's digital revolution, enabling businesses, enhancing lives, and shaping the future of connectivity.

Jio 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 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.

For more information on our products and services, visit our website at: www.jio.com



#### 2.2 Solution Functionality / Capability

JIO Customer Management Suite (JCMS) is an In-house developed cloud-based application. The JIO Customer Management Suite (JCMS) offers a comprehensive range of functionalities designed to enhance customer service and operational efficiency. Key features include Order Management for seamless handling of customer orders, MACD Orders for managing service modifications, Customer Creation and Update functionalities to maintain accurate customer records, and Ticket Management for addressing and resolving customer issues. The suite also supports Autopay for convenient automatic bill payments, Data Pool Maintenance for consistent data management, and MNP (Mobile Number Portability) to facilitate smooth number transfers. Additionally, it offers Subscription and Product Change capabilities, Order Fulfillment using Floworx for efficient processing, and Data Replication to the Billing System to ensure accurate invoicing.

Service Requests can be efficiently managed within JCMS. All customer-related issues can be categorized and addressed systematically, ensuring timely resolutions and enhancing customer satisfaction.

Together, these features provide a robust solution for managing customer interactions and services effectively. This comprehensive approach enhances the customer experience, streamline operations, and ensures that all stakeholders remain informed throughout the order lifecycle.

- Customer Creation: This feature enables the creation of new customer profiles within the system. It captures essential customer information, ensuring that all necessary details are recorded for future interactions and service management.
- 2. **Customer Update**: The Update Customer functionality allows for the modification of existing customer information. This ensures that customer records are always up to date, reflecting any changes in contact details, service preferences, or other relevant information.
- 3. Account Creation: The Billing Account Creation JCMS facilitates the setting up of new billing accounts for customers. This feature ensures that all necessary billing information, such as payment details, billing addresses, and service plans, is accurately captured and recorded. By streamlining the billing account setup process, JCMS helps to ensure that customers are billed correctly and on time, reducing errors and enhancing the overall customer experience. This functionality is essential for maintaining efficient billing operations and providing seamless onboarding experience for new customers.
- 4. Order Management: The Order Management functionality allows users to efficiently handle customer orders from initiation to completion. It includes tracking order status, managing order details, and ensuring timely delivery, providing a seamless experience for both customers and service providers.
- 5. **MACD Orders**: MACD (Move, Add, Change, Delete) orders facilitate the management of service modifications. This functionality ensures that any changes to customer services, such as upgrades, downgrades, or relocations, are processed smoothly and accurately. Few MACD processes which are supported are mentioned below:
  - Service Suspension and Resumption
  - SIM Change
  - Relocation
  - Add/Remove VAS
  - Add/Remove/Changes Devices



- Autopay Functionality: Autopay functionality provides customers with the convenience of automatic bill payments. By setting up autopay, customers can ensure their bills are paid on time without manual intervention, enhancing customer satisfaction and reducing overdue payment issues.
- 7. **Data Pool Maintenance**: This feature encompasses the comprehensive management and upkeep of the data pool, ensuring that all customers within the same pool can share and allocate data from the donor to the associated beneficiaries. The data pool functionality allows customers to add or remove multiple members within their group, thereby maintaining accurate, consistent, and readily available data for various operational needs.
- 8. **MNP (Mobile Number Portability)**: The MNP functionality supports the process of transferring a customer's mobile number from one service provider to another. It ensures a smooth transition without service interruption, adhering to regulatory requirements and customer preferences.
- Subscription Change: Subscription Change functionality allows customers to modify their service subscriptions. Whether upgrading from postpaid to prepaid or vice-versa for more affordable option, this feature ensures that subscription changes are processed efficiently.
- 10. **Product Change**: This feature enables customers to switch between various products or services offered by the provider. It ensures that product changes are handled seamlessly, maintaining customer satisfaction and service continuity.
- 11. **Order Fulfillment using Floworx**: Order orchestration process integrates with the Floworx system to streamline the order fulfillment process. It ensures that orders are processed accurately and efficiently, leveraging automation to reduce manual effort and improve delivery times.
- 12. **Data Replication to Billing System**: This functionality ensures the seamless replication of all relevant customer, billing account, and order data to the billing system. By maintaining accurate and up-to-date billing information, it facilitates timely and correct invoicing. Additionally, this feature supports the synchronization of data across systems, reducing discrepancies and enhancing the overall efficiency of the billing process.
- 13. **Service Requests**: This functionality in JCMS enables efficient management of customer issues and inquiries. This feature allows for the categorization and systematic handling of all customer-related problems, ensuring that each request is addressed promptly and effectively. By streamlining the resolution process, JCMS enhances customer satisfaction and ensures that service standards are consistently met. This functionality is crucial for maintaining a prominent level of customer support and fostering positive customer relationships.



#### 2.2.1 Key Features:

The key features of the JIO Customer Management Suite are elaborated below.

#### **Key Features of JCMS**

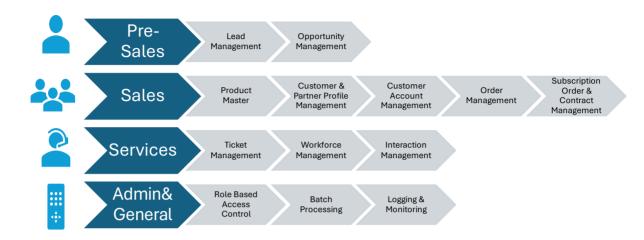


Figure 1 – JIO Customer Management Suite (JCMS) TMFC028 –Key Features

#### 1. Pre-Sales

#### Lead Management

- 1. **Description**: This feature involves tracking and managing potential customers (leads) from initial contact through to conversion. It helps in identifying and nurturing leads, ensuring a steady pipeline of potential customers.
- 2. **Benefits**: Enhances the efficiency of the sales process by ensuring that no potential customer is overlooked and that leads are systematically followed up.

#### Opportunity Management

- 1. **Description**: This feature focuses on managing sales opportunities by tracking their progress through various stages until they are closed. It includes forecasting, pipeline management, and win/loss analysis.
- 2. **Benefits**: Provides a clear view of the sales pipeline, helping sales teams prioritize efforts and improve conversion rates.

### 2. Sales

#### Product Master

- Description: This module manages the entire product catalog, including product definitions, product hierarchy, product relationships, pricing, and bundling options. It ensures that all product information is up-to-date and accessible to the user.
- 2. **Benefits:** Helps in maintaining a consistent and accurate product database, which is crucial for ordering and catalog view.



#### o Customer & Partner Profile Management

- 1. **Description:** This feature allows for the creation and management of detailed profiles for customers and partners. It includes contact information, interaction history, and preferences.
- 2. **Benefits:** Enhances customer relationship management by providing a 360-degree view of customer and partner interactions, leading to better service and customer satisfaction.

#### Customer Account Management

- Description: Manages customer accounts, including billing information, service
  plans, and account status. It integrates with a billing system to ensure accurate
  and timely invoicing.
- 2. **Benefits:** Streamlines account management processes, reduce billing errors, and improve customer satisfaction.

#### Order Management

- Description: Handles the entire order lifecycle from order creation to fulfillment. It includes order tracking, inventory management, and delivery scheduling.
- 2. **Benefits:** Ensures efficient order processing, reduces delays, and improves customer experience.

#### Subscription Order & Contact Management

- Description: Manages subscription-based services, including plan selection, renewals, and cancellations. It also handles customer contacts and communication preferences.
- 2. **Benefits:** Facilitates the management of recurring revenue streams and enhances customer retention through effective communication.

#### 3. Services

#### Ticket Management

- 1. **Description:** This module tracks and manages customer service tickets, including issue reporting, resolution tracking, and escalation management.
- 2. **Benefits:** Improves customer support efficiency by ensuring timely resolution of issues and better tracking of service performance.

#### Workforce Management

- Description: Optimizes the scheduling and management of field service personnel. It includes tools for dispatching, tracking, and managing field service tasks.
- 2. **Benefits:** Enhances the efficiency of field service operations, reduces response times, and improves customer satisfaction.

#### Interaction Management

 Description: Manages all customer interactions across various channels, including phone, email, and social media. It logs interactions and provides tools for follow-up actions.



2. **Benefits:** Enhances customer engagement by providing a unified view of all interactions, leading to more personalized and effective communication.

#### 4. Admin & General

#### o Role-Based Access Control

- 1. **Description:** This feature ensures that users have access only to the information and tools they need based on their roles within the organization.
- 2. **Benefits:** Enhances security and compliance by restricting access to sensitive information and reducing the risk of data breaches.

#### Batch Processing

- 1. **Description:** Handles large volumes of data processing tasks in batches, including scheduled reports, scheduled programs, and bulk utilities for updating customer and order-related data.
- 2. **Benefits:** Improves system performance and efficiency by managing resource-intensive tasks during off-peak hours.

#### Logging & Monitoring

- 1. **Description**: Provides tools for logging system activities and monitoring performance metrics. It helps in identifying and resolving issues proactively.
- 2. **Benefits**: Ensures system reliability and performance by enabling timely detection and resolution of potential problems.



#### 2.2.2 Architecture

An overview of JIO Customer Management Suite (JCMS) component level architecture is as follows.

## JIO Customer Management Suite (JCMS) Architecture

#### **JCMS Component Architecture**

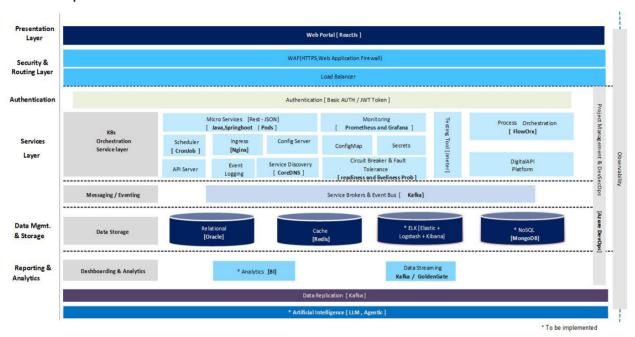


Figure 2 – JIO Customer Management Suite (JCMS) TMFC028 – Architecture Diagram

The JCMS platform is designed to be the core system of records for customer management and the business workflows are abstracted using Jio's Floworx platform. It leverages **Microservices and Micro Frontends architecture**, ensuring **scalability**, **flexibility**, and **real-time responsiveness**.

**Key Architectural Components:** JCMS application consists of the following layers.

- 1. **Presentation Layer:** Presentation layer encompasses of interface where users interact with the application.
  - a. **Web Portal [React.JS]:** Built using React.JS, this serves as the user interface for the system.
- Security and Routing Layer: Security layer ensures data protection and access control across
  the system and Routing layer manages the flow of data between components, directing
  requests to the appropriate services.
  - a. **WAF/HTTPS (Web Application Firewall):** Provides security by filtering and monitoring HTTP traffic between the web application and the Internet.
  - b. **Load Balancer:** Distributes incoming network traffic across multiple servers to prevent any single server from becoming overwhelmed.



- 3. **Authentication Layer [Basic-Auth/Token]:** Handles user authentication and authorization, ensuring secure access to system resources. Manages user authentication processes securely using various methods like Basic Auth and Token-based authentication.
- 4. **Service Layer:** Service layer implements the core functionality and business logic of the application. The Application section is hosted on a Kubernetes Active Cluster, which ensures high availability and scalability.
  - a. Micro Services [Rest/JSON (Java, Springboot Framework)]: Small, independent services communicating over REST/JSON, typically implemented using Java and Springboot Framework.
  - b. **API Server:** Hosts APIs that facilitate communication between distinct parts of the system.
  - c. Service Discovery [Consul]: Automatically detects services on a network using Consul.
  - d. **Configuration Management [Consul]:** Manages configuration settings across environments using Consul.
  - e. **Monitoring (Prometheus and Grafana):** Uses Prometheus for collecting metrics and Grafana for visualizing them on dashboards.
  - f. **Process Orchestration [JIO Floworx]:** Manages business process workflows through JIO Floworx platform.
  - g. **Digital/API Platform:** Enables API integrations with external systems or applications for digital transformation.
  - h. **Messaging Events [Kafka]:** Uses Kafka for posting outbound data on topics, which are then consumed by other external systems.
- 5. **Database Management:** Database storage stores and manages the application's data. It is made up of components like Database management system, Data schemas, back up & recovery management etc.
  - a. **Relational Database:** Uses Oracle databases to store relational data efficiently.
  - b. **Cache [Redis]:** Implements caching using Redis to speed up data retrieval. The active cache cluster ensures that frequently accessed data is quickly available, reducing the load on the primary database.



## 2.3 JIO Customer Management Suite (JCMS - Benefits)

- 1. Cost-Effective: Open-source solutions eliminate licensing fees, reducing overall costs.
- 2. **Flexibility:** JCMS is highly customizable to meet the unique requirements of telecom businesses. Its API driven interfaces maximize compatibility with third party infrastructure.
- 3. **User Friendly Dashboard:** JCMS includes a user-friendly interface that allows users to monitor the real-time progress of customers' orders throughout the entire lifecycle. This intuitive dashboard provides detailed visibility into each stage of order processing, enabling users to view the customer details, account details, product details, track order statuses, track distinct stages of order lifecycle such as order validation, fulfillment, and final order completion.
- 4. **Microservices based architecture**: A cloud-native microservices architecture enables each feature to be developed, upgraded, and deployed independently, ensuring continuous operations with zero downtime for other services.
- 5. **Scalability:** The platform is cloud-enabled and built on Docker and Kubernetes-based deployment architecture, leveraging open-source technologies for superior scalability and performance. It is designed for horizontal scalability, incorporating a highly optimized caching layer and self-healing architecture.



## Business Process Framework – JIO Customer Management Suite (JCMS) – Scope for remaining processes

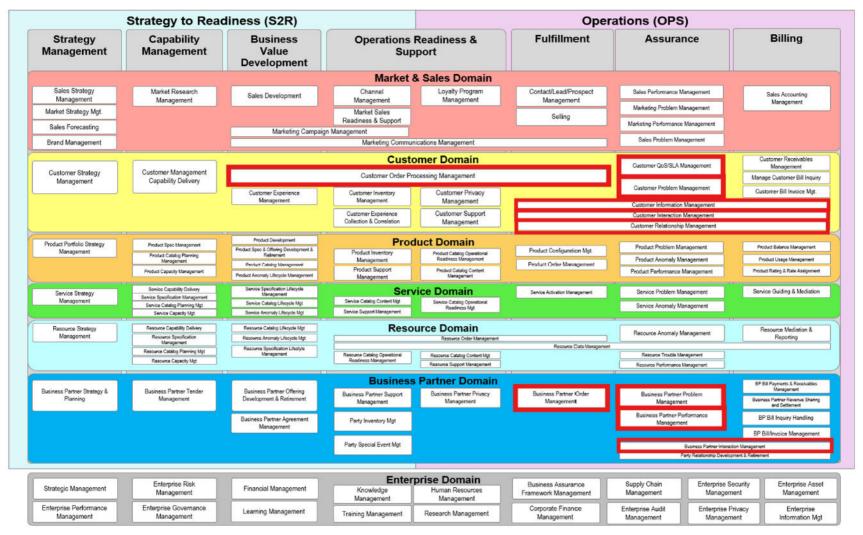


Figure 3 - Process coverage for JIO Customer Management Suite (JCMS) - Remaining Processes - Conformance Certification



#### 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 3 or a Level 4 implied task within a process element:

- 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.

#### **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 3 processes, such mappings are provided against the process' extended description. If an Extended Description is not defined, then the mapping is provided against the Brief Description.



## 3.2 Scope of Conformance Certification Graph (eTOM)

This diagram conveys information about the Business Processes implemented for JIO B2C System for JCMS – TMFC028 in accordance to the TM Forum Business Process Framework. It provides a snapshot of the L2 processes included in scope for certification. The scope covers the following L2 Processes in scope for certification.

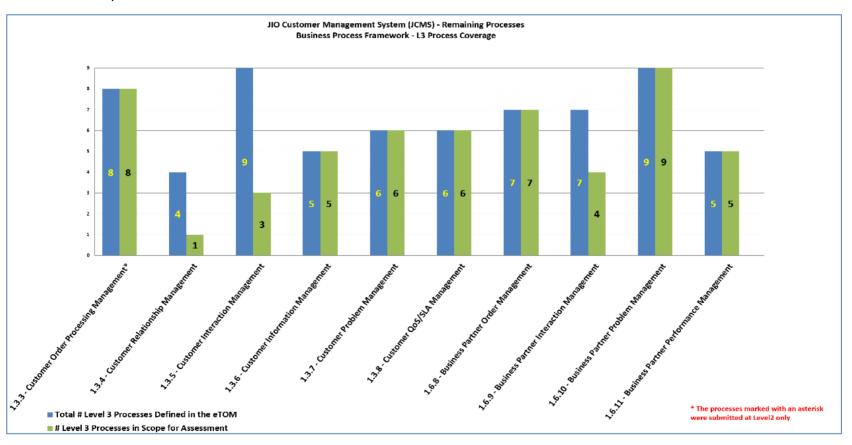


Figure 4- JIO Customer Management Suite (JCMS) - Remaining Processes -- Scope of certified processes - Chart



## 3.3 Scope of Conformance Certification - Chart (eTOM)

	TM Forum Assessm	nent Scoping Document - Business Process Framework (eTOM) v24.0		
	Member:	JIO		
	Solution:	JIO Customer Management System (JCMS) - Remaining Processes		
	Assessment Type	Solution		
#	of L2 Processes in Scope:	10		
Level 1		Level 2		
1.3 - Customer Domain				
		1.3.3 - Customer Order Processing Management*		
		1.3.4 - Customer Relationship Management		
		1.3.5 - Customer Interaction Management		
		1.3.6 - Customer Information Management		
	1.3.7 - Customer Problem Management			
		1.3.8 - Customer QoS/SLA Management		
1.6 - Business Partner Domain				
		1.6.8 - Business Partner Order Management		
	1.6.9 - Business Partner Interaction Management			
		1.6.10 - Business Partner Problem Management		
		1.6.11 - Business Partner Performance Management		

Figure 5- JIO Customer Management Suite (JCMS) - Remaining Processes -- Scope of certified processes - List



## 3.4 Conformance Results - Chart (eTOM)

This Section details the Scores awarded to reflect Conformance to the Business Process Framework (eTOM).

	TM Forum Assessm	nent Scoping Document - Business Process Framework (eTOM) v24.0	
Member:		JIO	
Solution:		JIO Customer Management System (JCMS) - Remaining Processes	Level 2 Process
Assessment Type		Solution	Elements
# of L2 Processes in Scope:		10	Scores achieved
Level 1	Level 2		
1.3 - Customer Domain			
1.3.3 - Customer Order Processing Management*		5/5	
	1.3.4 - Customer Relationship Management		3/5
		1.3.5 - Customer Interaction Management	3.7/5
		1.3.6 - Customer Information Management	5/5
1.3.7 - Customer Problem Management		1.3.7 - Customer Problem Management	4.3/5
		1.3.8 - Customer QoS/SLA Management	3/5
1.6 - Business Partner Domain			
		1.6.8 - Business Partner Order Management	3.9/5
		1.6.9 - Business Partner Interaction Management	4/5
		1.6.10 - Business Partner Problem Management	4.8/5
1.6.11 - Business Partner Performance		1.6.11 - Business Partner Performance Management	3/5

Figure 6- JIO Customer Management Suite (JCMS) – Remaining Processes –- Scores awarded to certified processes



## 3.5 Conformance Results - Graph (eTOM)

This Section provides a summary graph of the scores awarded to reflect Conformance to the Business Process Framework (eTOM).

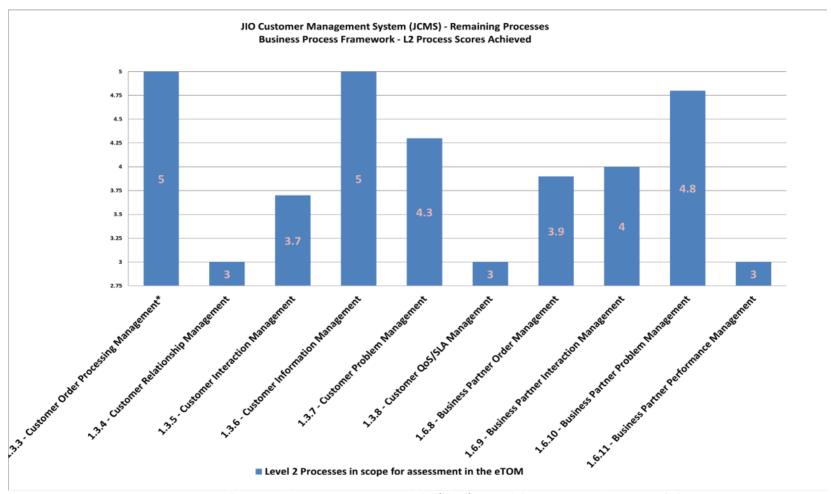


Figure 7- JIO Customer Management Suite (JCMS) - Remaining Processes -- Scores Awarded



## 3.6 Business Process Framework - Conformance Scoring Guidelines

Business Process Framework (eTOM) - Conformance Scoring 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  Certificatio The Certific submitted in processes s		A conformance level is not awarded to Level 2 processes in Frameworx 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	<ul> <li>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 &amp; 5 depending on the level of coverage &amp; conformance to the Level 3 process based on the alignment to the level 3 process definitions.</li> <li>A score of 5 indicates that the process is fully conformant with no deviations.</li> <li>A score of 4.5 indicates a process that is almost fully conformant, but displays some minor deviations from the standard.</li> <li>A score of 4.0 indicates a process that is partially conformant as it displays some deviations (not severe but not minor either) from the standard.</li> <li>A score of 3.5 indicates a process that is partially conformant as it displays major deviations from the standard.</li> <li>A score of 3.0 indicates a process that is not conformant as it displays no alignment or conformance at all with the standard.</li> </ul>				

<sup>\*</sup> 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.

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. For each Level 3 process, conformance shall be deduced according to the support for the process implied tasks, as decomposed and described in the underlying process descriptions. The score awarded for a Level 3 process, is deduced according to the support mapped to the Level 3 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. <u>This note specifically applies to Product & Solution Assessments.</u>

Note 5 - Processes that are supported via manual implementation <u>only</u>, are not considered in scope for the Assessment. <u>This note specifically applies to Product & Solution Assessments.</u>

Figure 8- TM Forum Business Process Framework: Conformance Scoring Rules



## 3.7 Business Process Framework - Process Mapping Descriptions

This section provides the mapping of Business Process Framework against the processes supported by JIO Customer Management Suite (JCMS) – Remaining Processes.

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

#### 3.7.1 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/2025/04/eTOM-

24.0 Conformance Mapping Template-JIO-B2C-System-JCMS-Remaining-Processes-VFRF.pdf