AwareX Customer Engagement Journeys

Customer Experience Management Conformance Certification

Company Name: AwareX
Assessment Class: CEM/Customer Journeys

Report Version: 1.0
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1 Introduction

1.1 Executive Summary

This document provides details of AwareX and TM Forum's Conformance Assessment of AwareX Customer Engagement Journeys, against the following TM Forum solution components:

- Customer Experience Management Solution Suite 17.5
- Relevant TM Forum Open APIs
- TM Forum Business Process Framework (eTOM)
- Relevant TM Forum ODA Components
- Relevant TM Forum Metrics

The assessment included a review of the methodology approach to CEM (Customer Experience Management (CEM) modeling against the above listed TM Forum's solution components in scope corresponding to the specific Customer Journeys submitted in scope for the Assessment.

Note that Conformance to the Information Framework (SID) was not covered in this assessment.

For more information on AwareX Customer Engagement Journeys, please contact:

Michelle A. Nowak: michelle.nowak@awarex.com

For any additional information on this Customer Journeys Conformance Certification Report, please contact TM Forum Conformance Certification team at:

conformance@tmforum.org

2   Solution Functionality/Capability Overview

2.1   AwareX Digital Customer Engagement Suite – Solution Overview

The AwareX Digital Customer Engagement Suite enables Service Providers (SP) to provide their customers consistent, personalized, and intentional digital experiences via their digital touchpoint (channel) of choice.   The AwareX solution empowers SPs to quickly launch new digital customer experiences that dynamically achieve strategic differentiation on customer engagement and innovation while driving customer convenience, brand loyalty and new revenue streams

The Suite is comprised of digital touchpoints such as Apps, Web, which connect to the cloud AwareX Agora™ Engagement Hub which supports full Telecom Quad play customer engagement journeys out of the box. The Agora™ Hub is a high availability carrier grade platform which interconnects via APIs to middleware ESB or other external systems which remain the system of record for customer data.

The AwareX product is designed to allow SP customers to use the digital touchpoint of to engage with the SP, this includes:

- Native customer self-service apps - both IOS and Android
- Self-service web sites
- Smart voice assistants such as Amazon Alexa and Google Assistant
- Bots such as WhatsApp, Facebook Messenger, and SMS (short message service)

These digital touchpoints connect to the AwareX Agora™ Engagement Hub and the interactions are facilitated end-to-end thought the Agora™ Engagement Journeys.

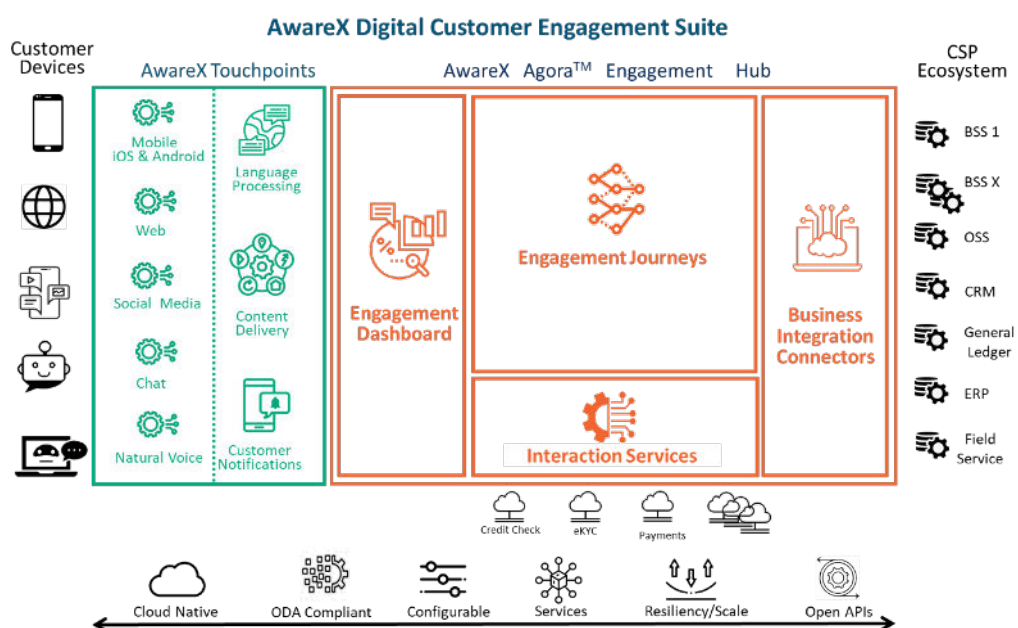AwareX Digital Customer Engagement Suite

Figure 1 – AwareX Digital Customer Engagement Suite

Visually engaging Apps provide configurable care, commerce and inquiry customer experiences provide for an intuitive and consistent customer engagement journey across single, hybrid and multi-play pre/post-paid mobile, fixed line, broadband, and video product and services. Dynamic content individualizes one-to-one interactions based on the SPs multi-faceted segments and criteria to personalize communications, upsell add-ons and offer recommendations that delivers the best outcomes for the customer and the SP.

AwareX Agora^{TM} Hub supports all digital channels with one underlying set of engagement journeys and business logic. These journeys and logic connect to all back-end systems and ensure consistency of presentation to front end customer digital touch points while enabling the back-end systems of record to maintain data integrity. It supports industry standard interfaces to all back end and external systems via a variety of programmatic means (e.g., REST APIs). It integrates (with industry standard encryption) into the widest range of Business Support Systems (BSS) as any other back end or external systems such as the payment gateway.

The AwareX Agora^{TM} Hub cleanses, transforms, and formats data in real time from various systems into meaningful customer usable data and display to a wide range of digital clients. All while ensuring customer data privacy is maintained. AwareX Agora^{TM} forms the heart of the SPs digital capability and can be built upon and expanded for any future digital engagement capability.

Service Types

AwareX supports all Telecom service types:

- Mobile Pre-Paid
- Mobile Post-Paid
- Mobile Hybrid
- Fixed Line
- Internet / Broadband
- TV/Video on Demand (VOD)/Cable
- Multi-Play

Fully Configurable with Rich Functionality

All AwareX digital touchpoints are white labeled and are be configured to match the SPs corporate style guide: colors, images, and fonts. We support multiple languages including double bit character sets. AwareX provides a range of digital customer journeys out of the box. These can enable many configurable events: self-purchase, top-up, bill payment and other revenue upside journeys. There are over 140 standard features and functions available right now with new innovations added in every new release of the suite.

Scalable and Secure

Using elastic scaling running on multiple active/active cloud-based server instances around the globe, AwareX enables systems to be economically configured from just a few thousand users up-to many millions providing consistently fast response times (which are continually monitored by the AwareX operational services) to ensure happy users. Data security is paramount. We provide encryption of transmitted data; zero retention of personal data and we fully support GDPR and PII requirements.

Analytics and Dashboard

SPs need to be able to monitor and manage the experience and satisfaction of customers and users both at an individual level and on an aggregate level measured over a range of time intervals. The Agora^TM Hub provides business-focused analytics and dashboard provide SP's with business insights to drive a greater awareness of the customer engagement with the SP's brand that:

- Increase understanding of your customer's engagement and their journeys resulting in a competitive advantage for your business while uncovering opportunities for growth
- Target specific SP Stakeholders
  - CxO/CMO/Marketing Managers
    - Improve NPS -- Attract New customers
    - Increase brand loyalty and Reduce Churn
    - Improve Customer Effort Score (CES)
  - Customer Care
    - Deflect calls from the call center
  - Finance
    - Measure uptake of promotions, campaigns, offers and addons to drive additional up-sell opportunities
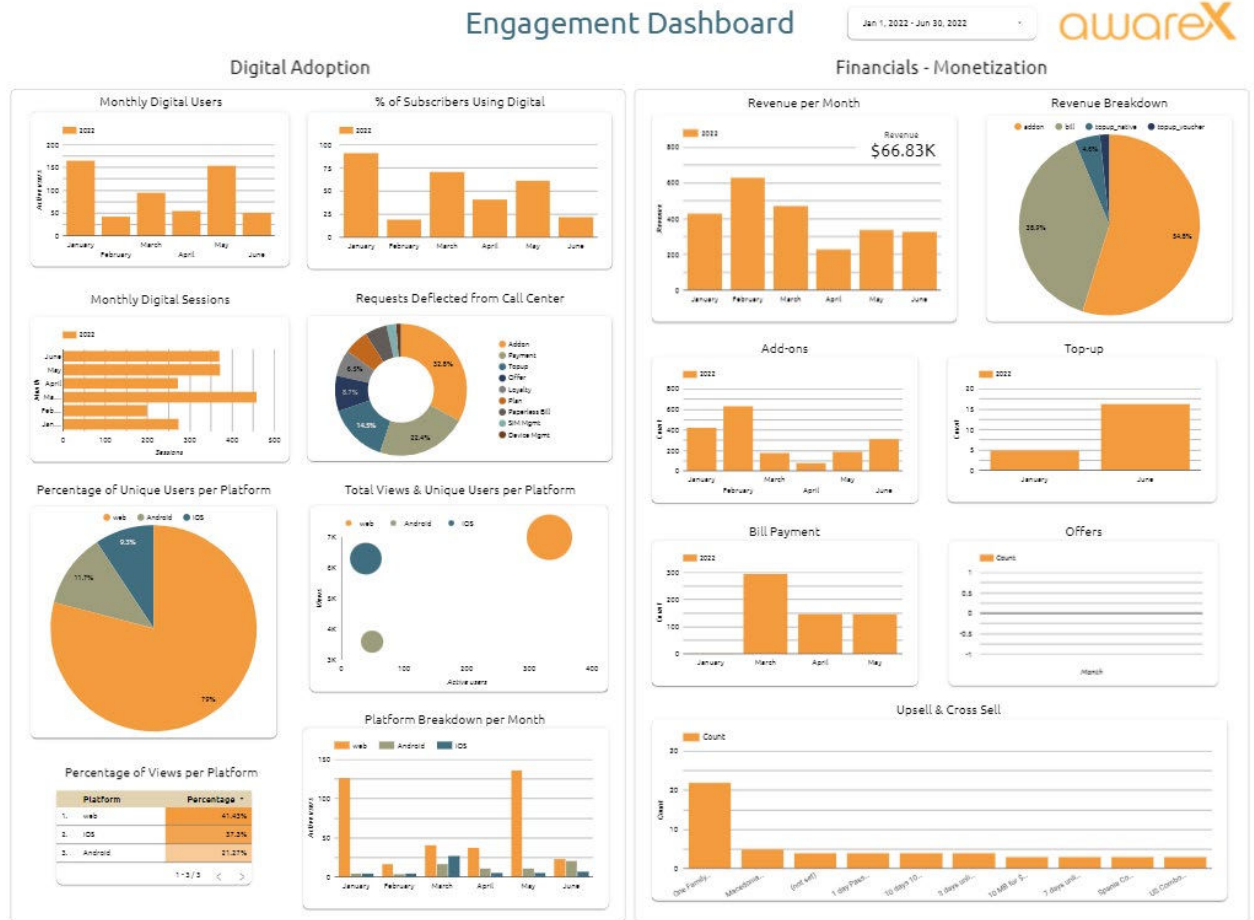
Figure 2 – AwareX Engagement Dashboard

Industry Standards and Compliance

While the digital service provider industry continues to evolve, industry bodies have already provided guidelines, recommendations, and architectures to enable and support the move from CSP (Communications Service Providers) to DSP (Digital Service Provider). The TM Forum (TMF) and its 900+ member-companies have created and endorsed Open Digital Architecture (ODA) to which AwareX is fully conformant. AwareX follows best practice guidelines and standards of existing model and data driven architecture that address current challenges and improvements within the telecom industry.

High Availability
AwareX systems' architecture is configured as an active/active multi server configuration with load balancing and graceful degradation but no service suspension in case of any failure. We offer both metro and wide area levels of high availability and disaster recovery. The standard AwareX SLA for service availability is 99.99% upgradable to 99.999% upon request.

Cloud and Software-as-a-Service (SaaS)
AwareX provides our service using native-cloud systems. They are fast, scalable, secure, and cost effective. We use the best public clouds like Amazon Web Services (AWS) which offer the most complete, capable, and globally present service to get you up and running and to stay that way for your end customers. Our Software as a Service subscription scales with you, we only charge for active users not subscribers and we scale the system automatically to accommodate those active users as they grow.

2.2 Overview of AwareX Customer Engagement Journeys

A Customer Journey is the sequence of interactions between a customer and the SP or partners of the SP (e.g., eKYC, Payment Processor, Credit Bureau, etc.) that occur as the customer pursues a specific intent that they would like to achieve. For a Customer Journey it is critical to understand, through the lens of the customer, the desired outcome of the interactions. Each individual customer journey then forms effortlessly, across Personas, service types, and Digital Touchpoints along a path that is seamless for the customer. Customer Journeys enable the SP to:

- Create the most personal, relevant, and desirable experiences possible
- Empowers businesses to help customers reach desired outcomes more swiftly
- Turn every interaction experience into a value adding service opportunity to build longer, more meaningful, and profitable relationships with the customer

The AwareX Customer Engagement Journey (AwareX CEJ) framework is based upon decomposition of Tele Management Forum (TM Forum or TMF) Customer Experience Management (CEM) Lifecycle structure (Customer Experience Management Solution Suite, GB962 Release 16.5.1 and TM Forum Customer Experience Management Solution Suite 1.5 GB962 Addendum C, Frameworx Release 13.5). This is displayed within TM Forum's Customer Experience Lifecycle Model, whereby AwareX can provide and track the experience of each Customer Journey across the phases of customer's lifecycle with a SP.

In addition to TM Forum CEM, Customer Journeys have a direct relationship to TM Forum Open Digital Architecture (ODA), TM Forum Enhanced Telecommunications Operations Map (eTOM) and TM Forum Open Application Programming Interfaces (APIs). Each AwareX Customer Engagement Journey starts with the customers intent and is described as a series of interactions are related to CEM, Open APIs, eTOM and ODA/ODF.

AwareX Customer Engagement Journeys are relevant to multiple Personas and Digital Touchpoints.   Regardless of the Persona or Digital Touchpoint the customer has a consistent engagement for the intent that they wish to complete.

For the majority of intents, the Customer Journey is classified as a complex customer journey due to its composition many Micro Customer Journeys.

A Micro Customer Journey is part of the overall complex customer journey that achieves all or a subset of the required customers intent to deliver a meaningful result. The Micro Customer Journey may be relevant to other AwareX Customer Engagement Journeys across the customer lifecycle. A Micro customer journey can be:

- Used by one or more Personas and service types
- Used by one or more Digital Touchpoints
- Used by one Persona and one Digital Touchpoint and re-used for a different Persona and/or Digital Touchpoint

These AwareX Micro Customer Journeys ensure that the customers interaction and outcome are the same – fulfill the customers intent regardless of the customer using an AwareX App, a chat bot, digital assistance, social media, etc.   They are aligned to provide a simplified, frictionless experience and consistent experience regardless of Digital Touchpoint.

Customers expect seamlessness across all Digital Touchpoints with the SP they do business with. For SPs aligning their systems and processes to orchestrate consistent and relevant customer interactions to satisfy the intent can be a challenge. Through its extensive prebuilt library of communications-centric customer engagement journeys (i.e., Micro Customer Journeys) and Open APIs AwareX enables SPs to overcome silos and legacy systems quickly and seamlessly providing the customer with the right interactions, at the right time.

Adhering to TM Forum Customer Experience Management Lifecycle Model and alignment with TM Forum eTOM, TM Forum Open APIs and TM Forum ODA AwareX can easily assemble customer journeys to create a customer experience that is simple and seamless across the customers chosen Touchpoint regardless of how the interaction started, which micro journeys it traversed, and how it completed.

The TM Forum CEM Lifecycle Model provides a view of the various interactions a customer has with a Service Provider. The model, which is defined by levels, also enables the variations which are specific for Persona (e.g., Consumer, Small Medium Business, SOHO, or GenZ customer, etc.).   At the models' highest levels, it is aimed to be agnostic to the type of Persona and service types providing consistency in the model. The below sections detail the highest levels (i.e., Level 0 and Level 1).
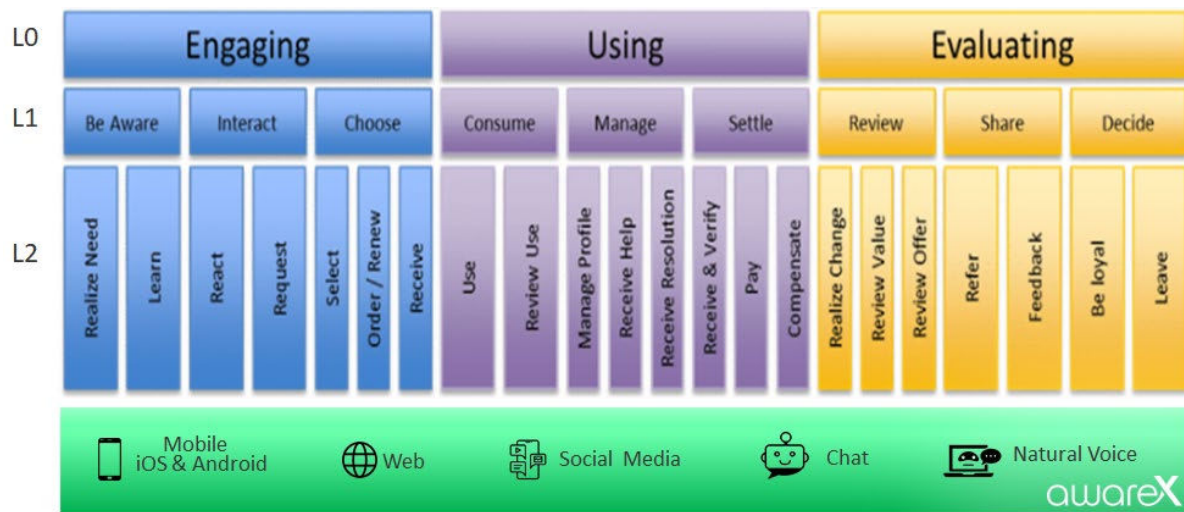
Figure 3 – TM Forum Customer Experience Management Lifecycle Model

3 Customer Journeys Conformance Assessment

3.1 Mapping Technique Employed

3.1.1 Overview

Customer Experience for Service Providers (SPs) is built around a better understanding of customers, their needs, their requirements and delivering and exceling against one or more of the following Open Digital Framework (ODF) components:

- Customer Experience Management Solution Suite 17.5
- TM Forum Open APIs
- TM Forum Business Process Framework (eTOM)
- TM Forum ODA Components
- TM Forum Metrics

Customer Journeys Conformance Assessment allows SPs to identify and define the dynamics of their relationships with their customers to deliver better customer experience.

Conformance certification is achieved by assessing whether the SP has applied or aligned the relevant ODF components correctly during the identification, design and development of customer lifecycles or Customer Journeys (CJ).
The assessment provides independent and unbiased verification of the application of the lifecycle model and other relevant ODF components resulting in greater confidence that a good customer experience will be achieved.

Customer Journeys are assessed against the following specific artifacts:

- GB962 Addenda A and C – (Solution Suite 17.5)
- GB921D (eTOM process definitions v21.5)
- TM Forum Open APIs (Swagger v4.0)
- TM Forum ODA Components (IG1242 v5.0.0)
- TM Forum Metrics (GB988 TM Forum Metrics Definitions v21.5)

The following steps describe the approach to conformance assessment:

Step 1: Recap of the end-to-end process, including guidelines, templates and type of evidence needed to demonstrate conformance

Step 2: A Workplan is drafted with detailed information on tasks and timeline

Step 3: Gathering Evidence, developing mappings and Submitting Customer Journeys for assessment, along with any other supporting artifacts e.g. use cases, workflow or sequence diagrams, component specification, etc.

Step 4: The member under assessment provides documentary evidence of the Customer Journeys and how they have been created using the previously mentioned TM Forum assets.

Step 5: Verification and Validation. TM Forum assesses, verifies and eventually validates the collateral provided. This review phase is interactive and provides the organization with an opportunity to clarify any queries and address any gaps identified. Once the reviews are completed, conformance to TM Forum CEM is granted and certification delivered.

Step 6: Produce Final Report: A final Conformance Certification Report is delivered by TM Forum.

Frameworx Best Practice

Customer Experience Management

Lifecycle Metrics

Customer Experience Management Solution Suite
GB962 Addendum A
Release 15.0.1
December 2015

Latest Update: Frameworx Release 15	TM Forum Approved
Version 2.5.3	IPR Mode: RAND
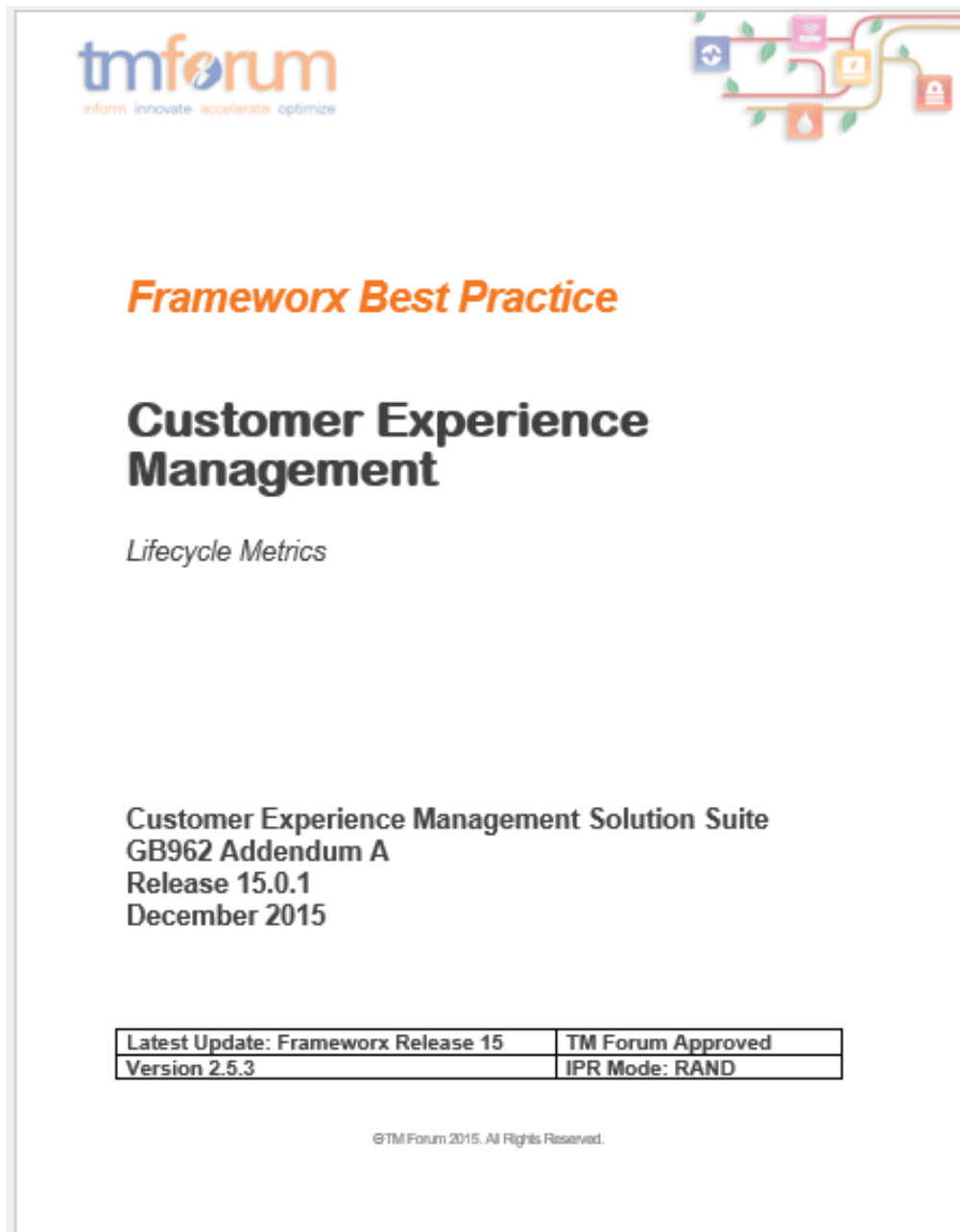
Figure 4 – GB962 Addenda A – Lifecycle Metrics
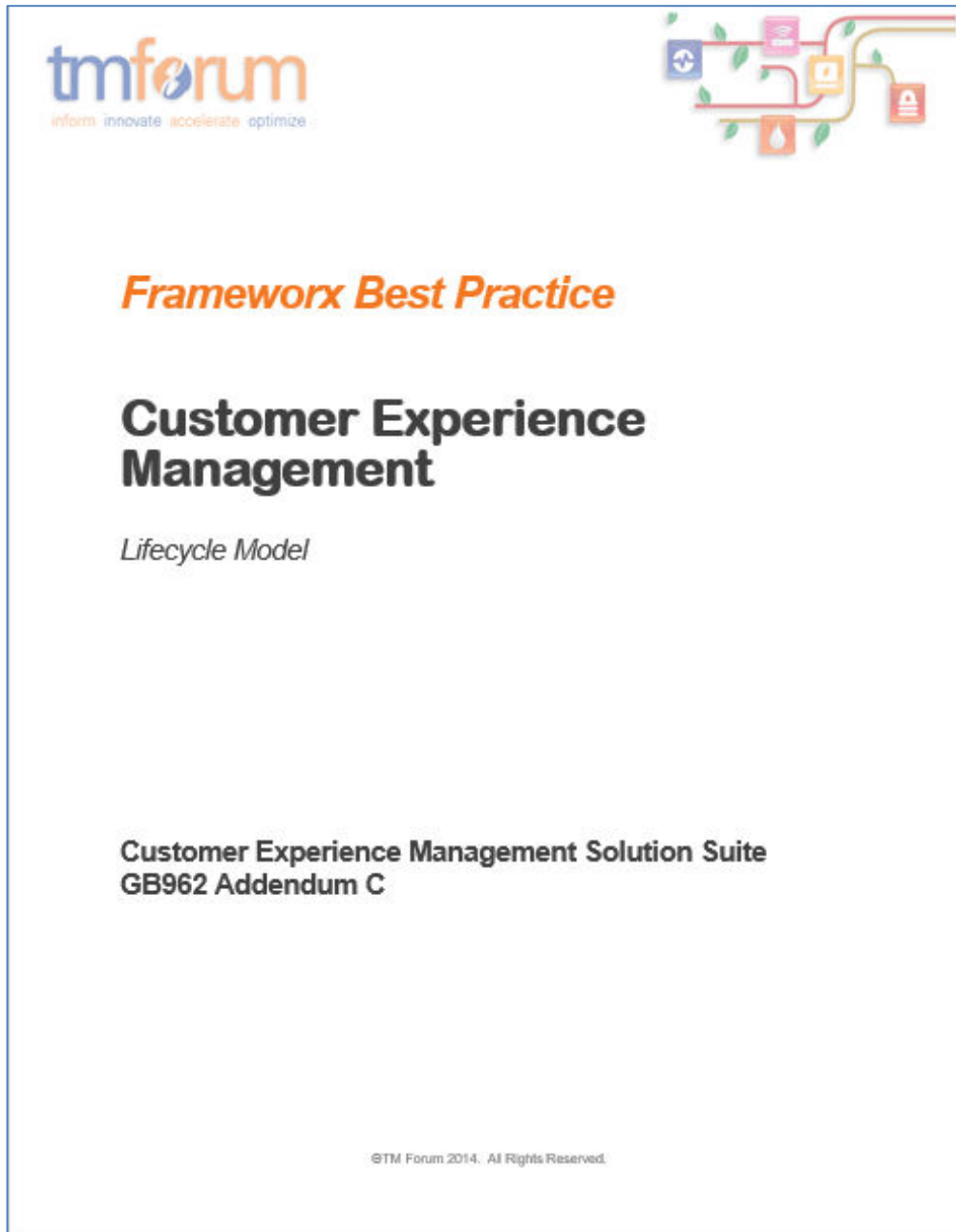
Figure 5 – GB962 Addenda C – Lifecycle Model

TM Forum Standard

This document provides details of the Metrics names, definitions, identification and calculation for use in various business types and business functions

GB988
Team Approved Date: 29-Sep-2021

Release Status: Production	Approval Status: TM Forum Approved
Version 21.5.0	IPR Mode: RAND

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Figure 6 – GB988 – TM Forum Metrics Definitions
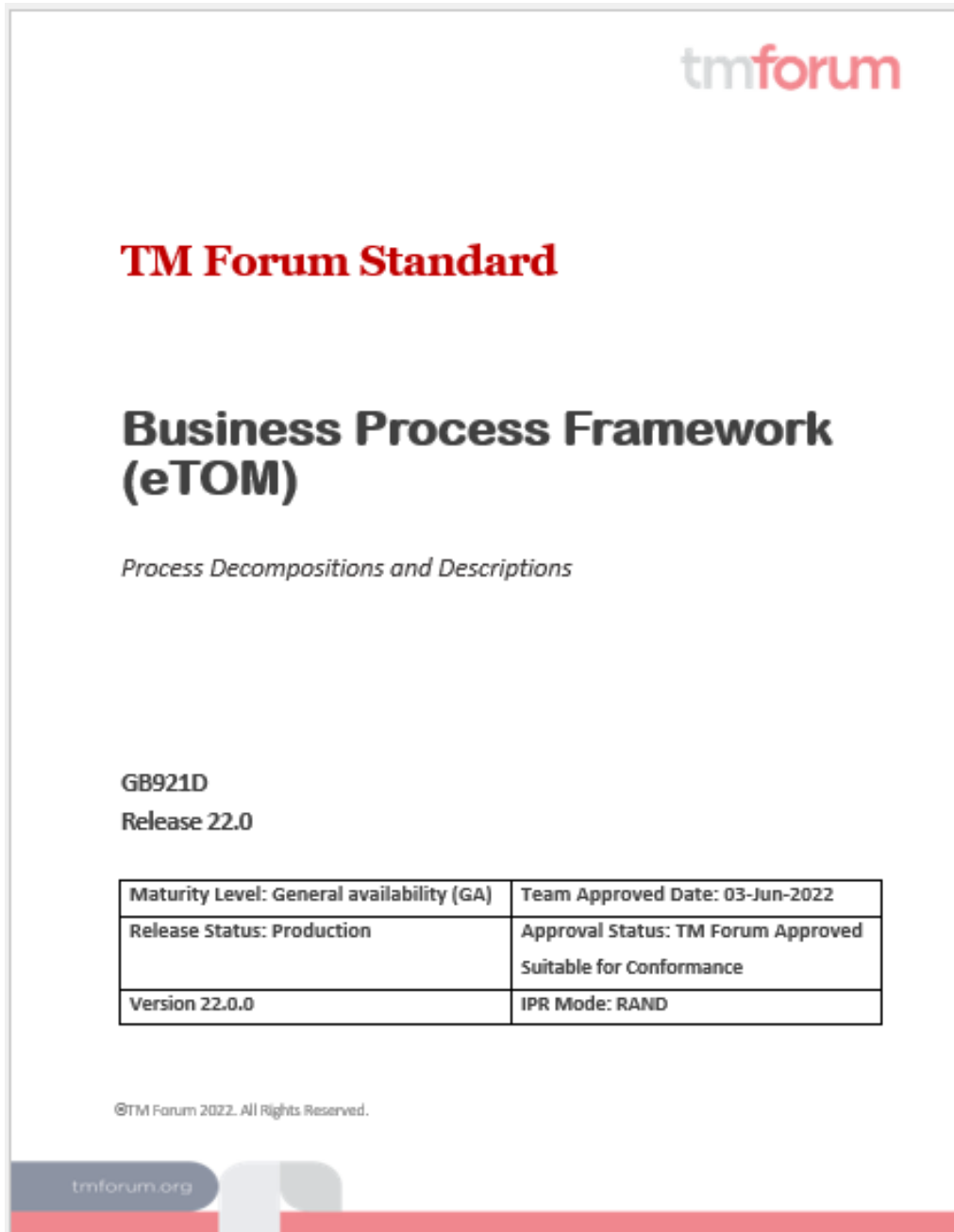
Figure 7 – GB921D Business Process Framework (eTOM) Definitions)

Figure 8 – Screenshot from the Open API TM Forum Portal
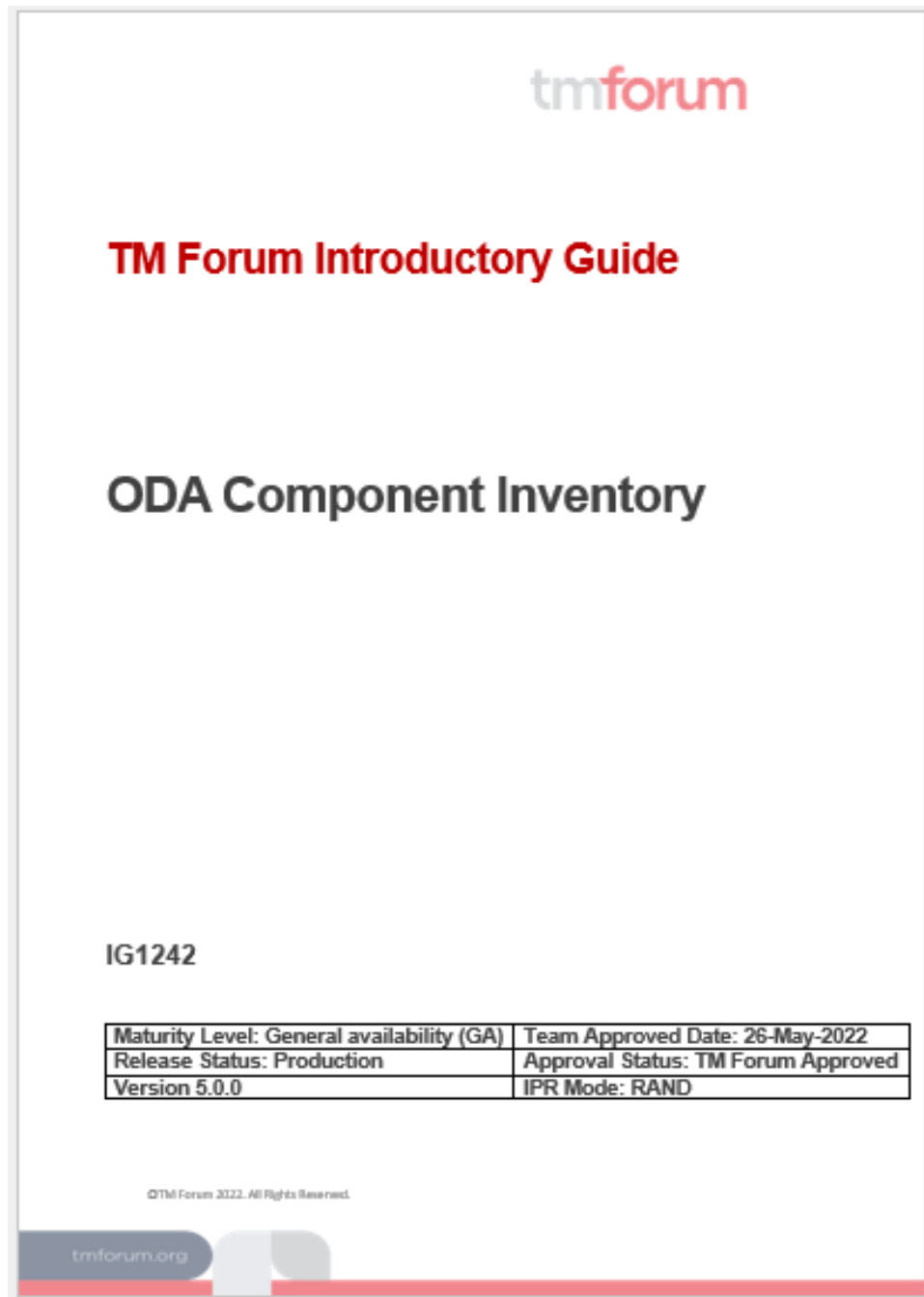
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Figure 9 – IG1242 ODA Component Inventory

3.2 Business Process Framework Level 2 Process Scope and Footprint

The following figure represents the scope of the assessment based on the Business Process Framework (eTOM) v.21.5. The Level-2 processes highlighted in red, and all their Level-3 constituents were submitted for conformance certification.

Figure 10- Level 2 eTOM process scope coverage for AwareX Customer Engagement Journeys
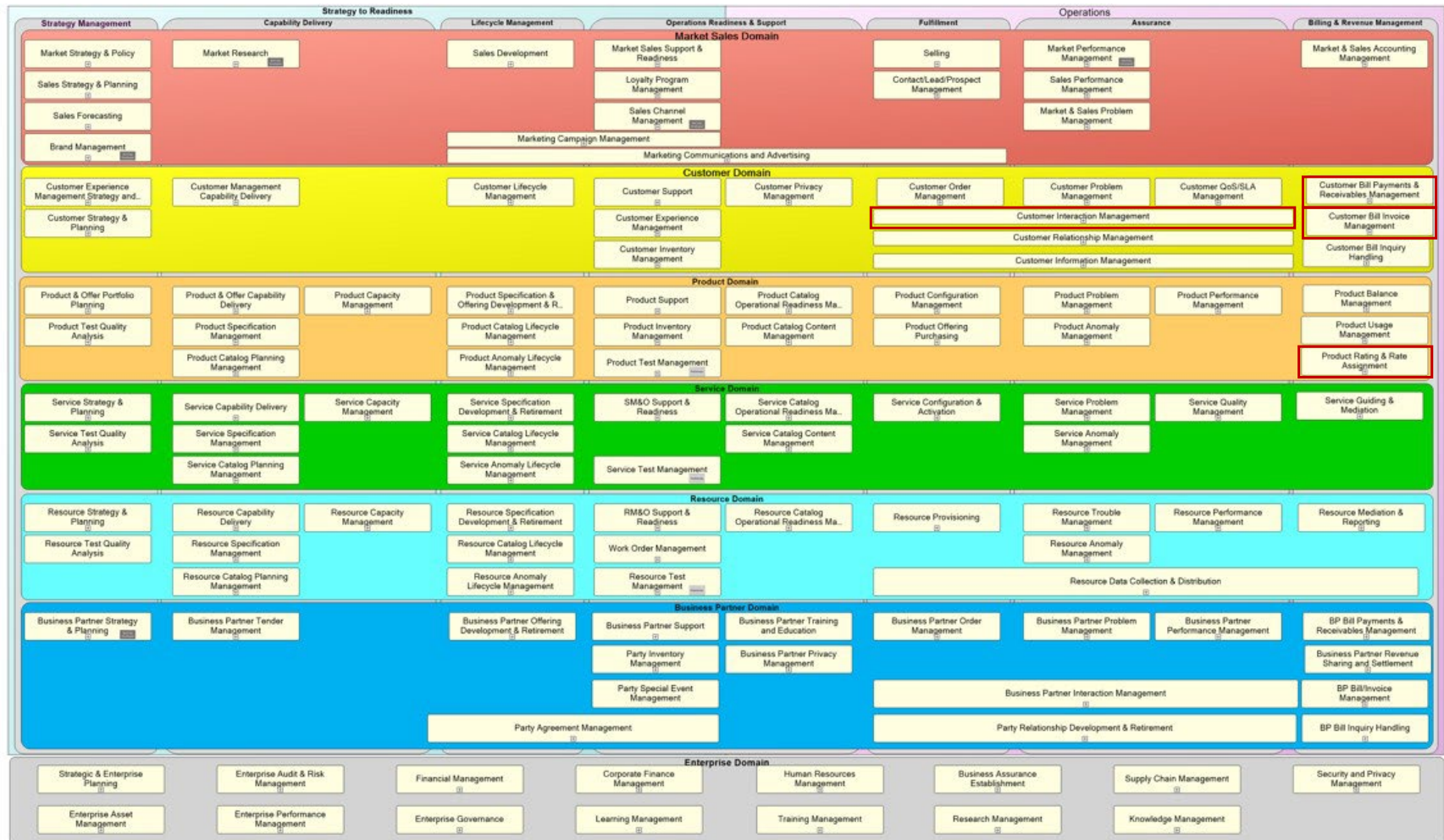
4 Customer Journeys Assessment
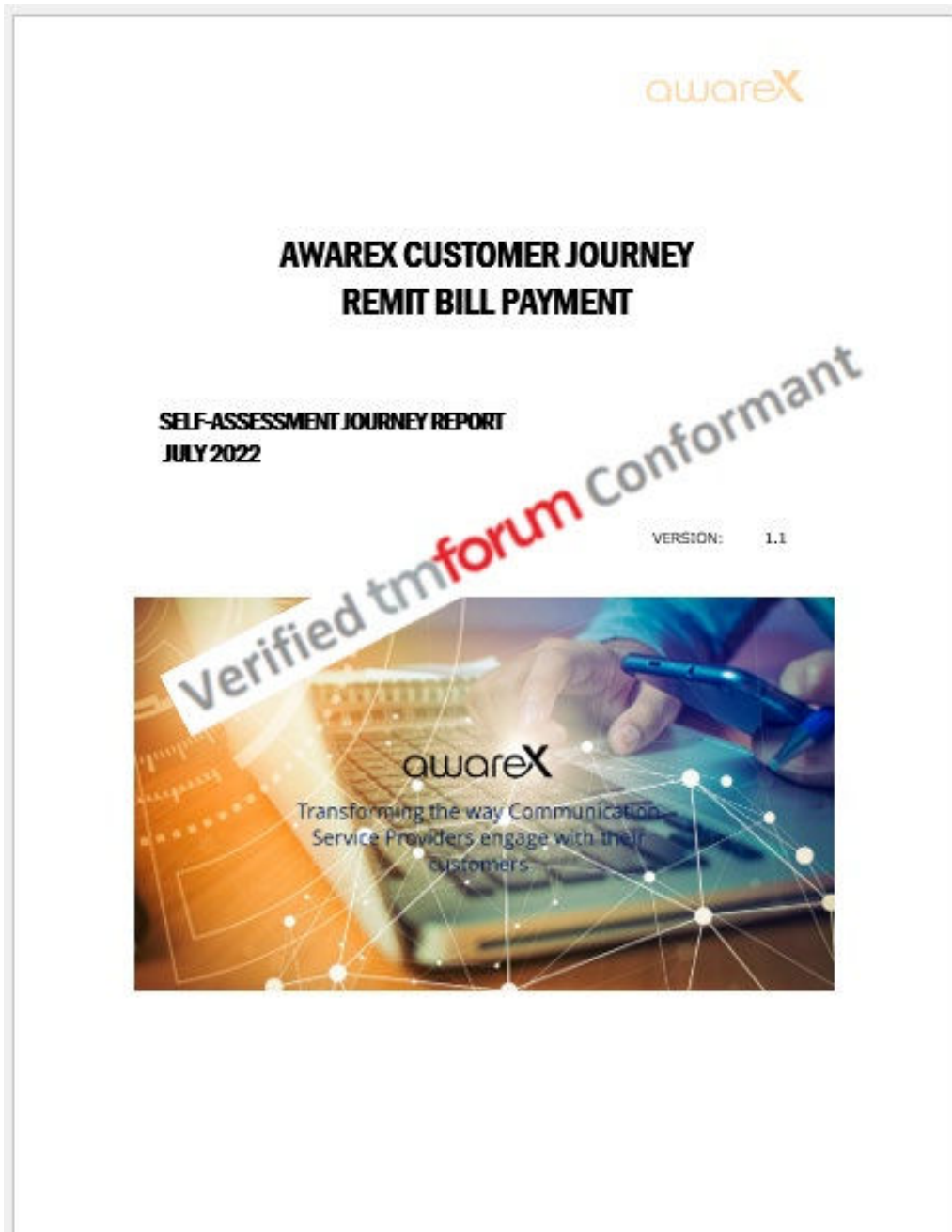
4.1 Remit Bill Payment

Figure 11 – Remit Bill Payment Customer Journey
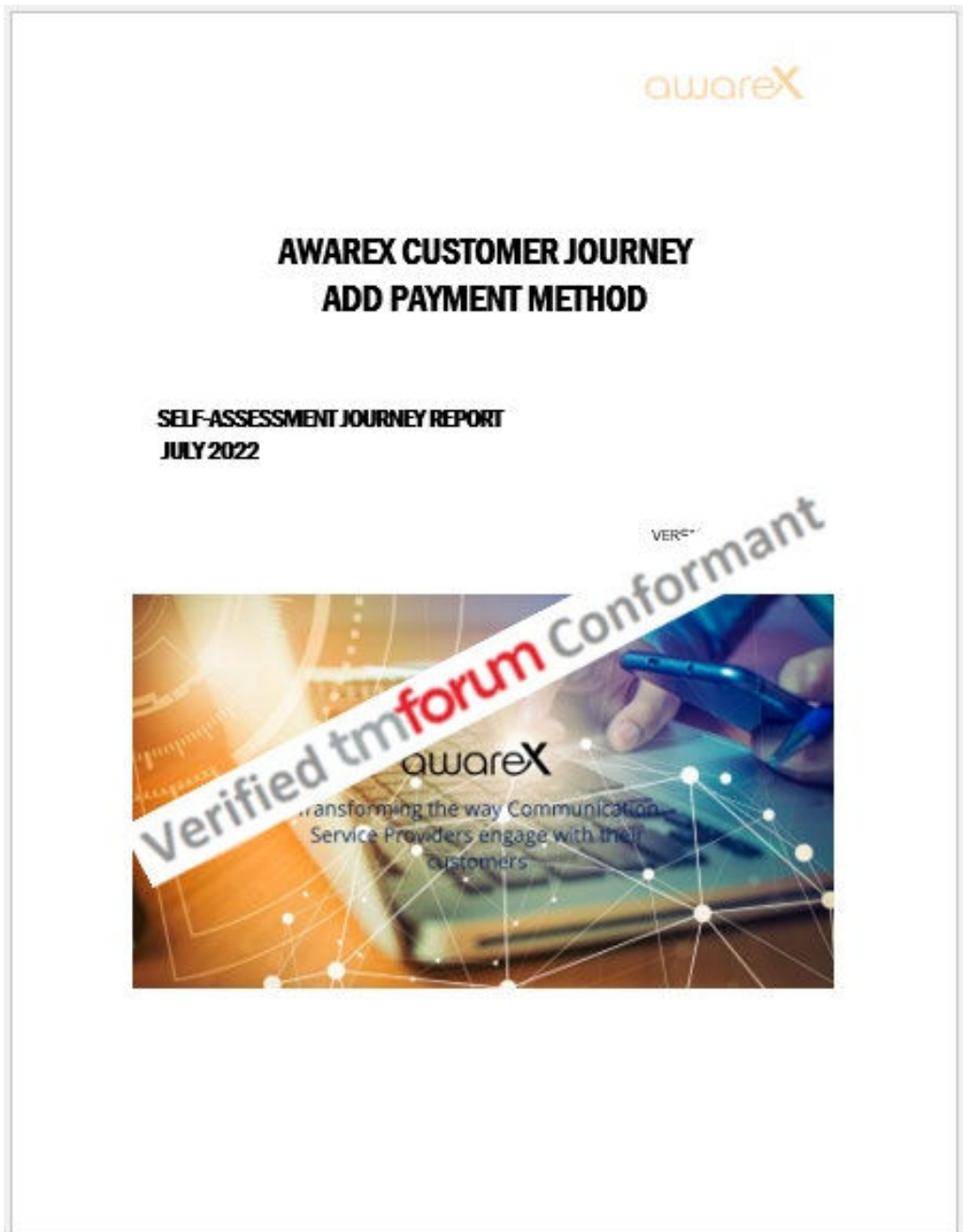
4.2 Add Payment Method

Figure 12 – Add Payment Method Customer Journey
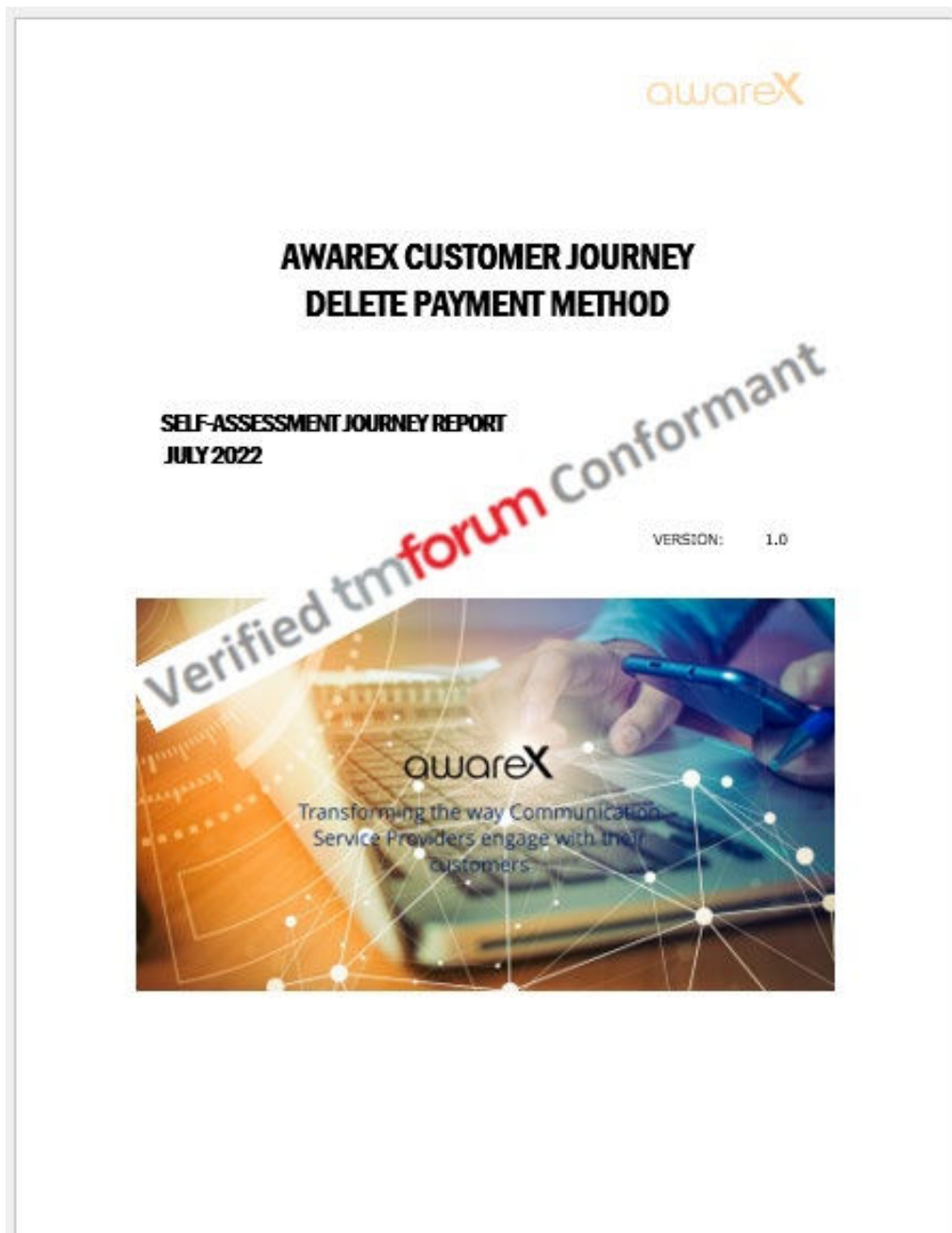
4.3 Delete Payment Method

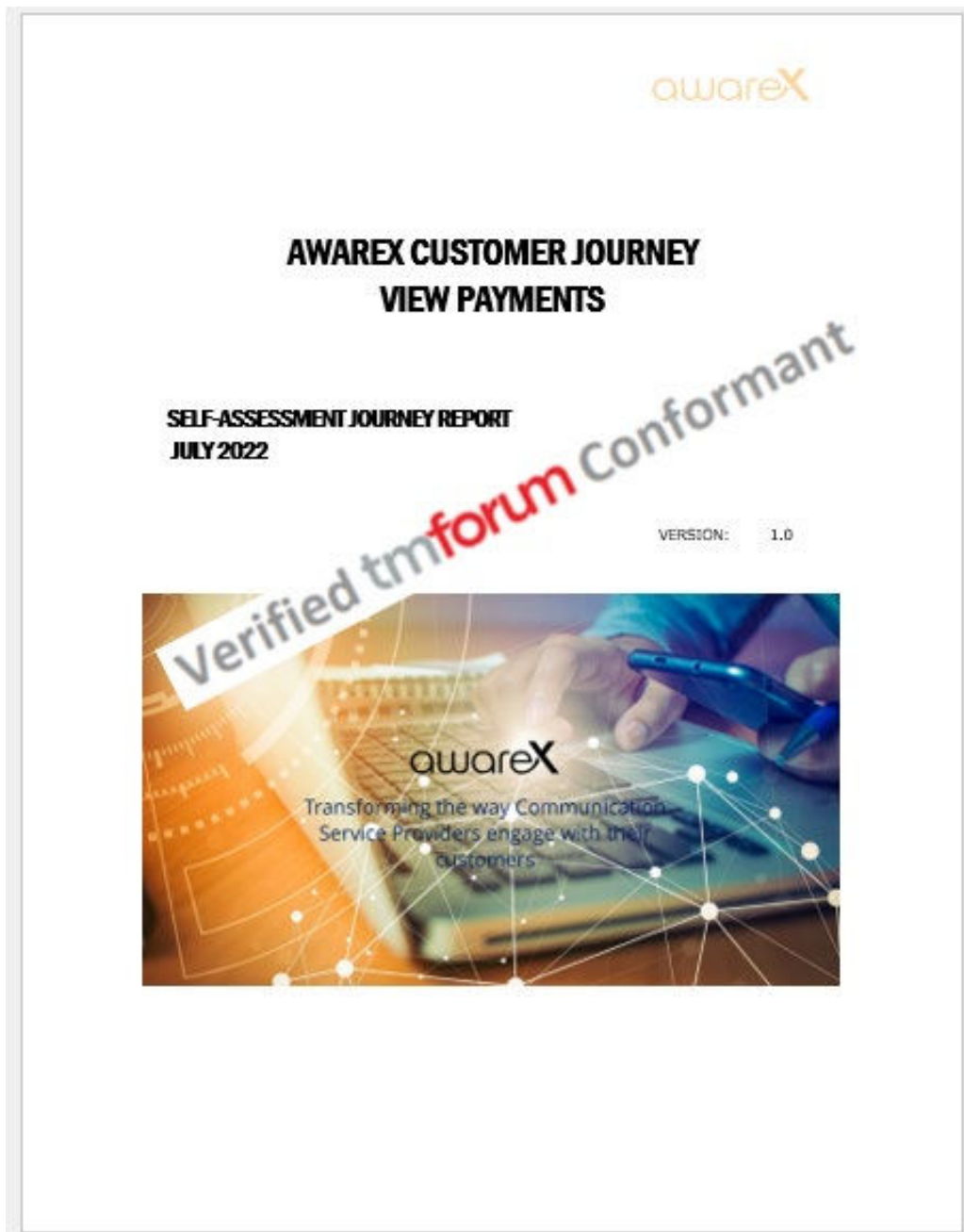Figure 13 – Delete Payment Method Customer Journey

4.4 View Payments

Figure 14 – View Payments Customer Journey
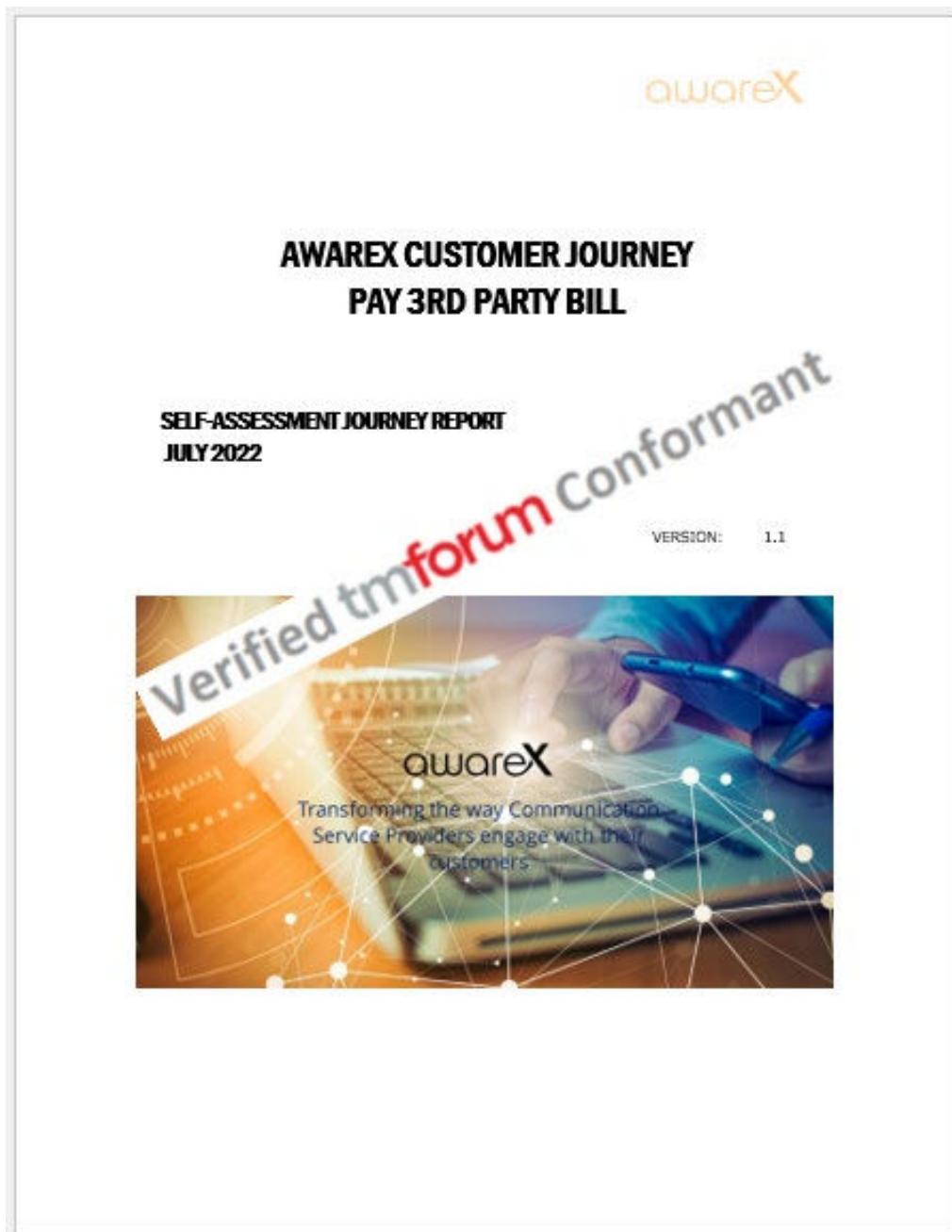
4.5 Pay 3rd Party Bill

Figure 15 – Pay 3rd Party Bill Customer Journey

5 Customer Journeys – Conclusion on TM Forum Conformance

5.1 Summary

The TM Forum Customer Experience Management (CEM) Solution Suite 17.5 framework and tool kit underpins each AwareX uncomplicated digital experience with CEM conformant pre-built customer engagement journeys. These journeys are available to all SPs out-of-the-box and are not SP specific due to their conformance to CEM and other TM Forum frameworks and assets. There have one set of business logic, APIs and workflows aligned to TM Forum Open APIs, eTOM and ODA/ODF and are shared across the Personas and Digital Touchpoints. These journeys deliver higher engagement for the products and services the SP offers to their customers. And for every Digital Touchpoint (e.g., mobile, web, chatbot, etc.) customer engagement journey interaction is captured which enhances analytics data, metrics, as well as customer and business insights enabling the SP to enrich their offerings and the customer experience.

Through AwareX customer engagement journey alignment and conformance to TM Forum frameworks and assets it enables a common, industry-standard language which helps to facilitate discussion across the various SP stakeholders (e.g., Digital, Care, Marketing, Finance, IT, etc.). Transparent business logic and data exchange for the orchestrated journeys provides a seamless customer engagement journey that gives value in real-time for SP customers. Using Open APIs, privacy, security, and data integrity industry best practices and processes it is easy connect to external systems, partners, and applications in the SP ecosystem. All this assures swift and simple processing across all the customer Digital Touchpoints and CEM-based customer engagement journeys. And it eliminates the need for a broad and lengthy digital transformation project in order to deliver a differentiated digital customer engagement.

5.2 Conclusion

AwareX submitted for certification:

- AwareX Customer Engagement Journey Payment Group which is comprised of complex and micro customer journeys. This covers all relevant Digital Touchoints, Personas and service types that need to view and maintain payment information or remit payments.
- Detailed mapping and interactions of the complex customer journeys to CEM, Open APIs, eTOM, ODA and ODF. AwareX is the first vendor to extend beyond the CEM and related metrics to document mapping, interactions and conformance of customer journeys to the significant TM Forum frameworks and assets.

Certification was carried out against the TM Forum's best practices defined in TM Forum Guidebooks and Frameworks:

- GB962 Customer Experience Management Suite, Addendum C Lifecycle Model
- GB962 Customer Experience Management Suite, Addendum A Lifecycle Metrics
- GB988 Metrics Definition
- TM Forum Open APIs
- GB921 Business Process Framework Processes v22.0.0
- GB921D L3 Process Decompositions v22.0.0
- IG1242 ODA Component Inventory v5.0.0
- IG1228 How to use ODA – Using Open APIs to realize Use Cases v10.0.0

As outcome of the detailed Conformance assessment carried out by TM Forum, it was concluded that AwareX achieved an **Excellent*** score on the Customer Journey descriptions, breadth of mapping and interactions to the frameworks and assets, as well as detailed supporting evidence.

* ⭐⭐⭐⭐⭐