

WindUp Software

Open Digital Architecture Solution Conformance Certification Report

EW Billing System Solution v.7.0

Business Process Framework (eTOM) Release 22.5

TM Forum Standard

Business Process Framework (eTOM)

27th April 2023

Report Version: 1.0

Table of Contents

1.	INTRODUCTION.....	4
1.1	EXECUTIVE SUMMARY.....	4
1.2	ABOUT WINDUP SOFTWARE	4
2.	PRODUCT FUNCTIONALITY/CAPABILITY OVERVIEW	5
2.1	EW BILLING SYSTEM SOLUTION 7.0 OVERVIEW.....	5
2.2	EW BILLING SYSTEM SOLUTION BENEFITS.....	6
2.3	EW BILLING SYSTEM SOLUTION MODULES	7
2.4	SOLUTION SCOPE	8
2.5	EW BILLING SYSTEM SOLUTION SUPPORTED INSTALLATION MODELS.....	8
2.6	BUSINESS PROCESS FRAMEWORK (ETOM) CERTIFICATION SCOPE	8
3.	BUSINESS PROCESS FRAMEWORK ASSESSMENT OVERVIEW	10
3.1	MAPPING TECHNIQUE EMPLOYED	10
3.2	SCOPE OF CONFORMANCE CERTIFICATION (ETOM)	12
3.3	LIST OF CERTIFIED PROCESSES– CHART (ETOM)	12
3.4	COVERAGE OF CERTIFIED PROCESSES AGAINST ETOM FRAMEWORK	13
3.5	BUSINESS PROCESS FRAMEWORK – SCORING GUIDELINES	14
3.6	BUSINESS PROCESS FRAMEWORK – PROCESS MAPPING DESCRIPTIONS	15
3.7	CONFORMANCE RESULT	15
3.8	BUSINESS PROCESS FRAMEWORK – CONFORMANCE RESULT SUMMARY.....	16

List of Figures

Figure 1 - EW Billing System Solution Overview	5
Figure 2 – Summary of key features of EW Billing System Solution 7.0.....	6
Figure 3 - EW Billing System Solution value proposition.....	6
Figure 5 – EW Billing System Solution Scope.....	8
Figure 6 – eTOM L2 processes coverage for EW Billing System Solution	9
Figure 7- List of Level 3 certified processes	12
Figure 8- Level 3 process scope for certification.....	13
Figure 9- TM Forum Business Process Framework: Conformance Scoring Rules.....	14
Figure 10- - eTOM Conformance Scores Summary.....	15
Figure 11- eTOM Conformance Scores	16

1. Introduction

1.1 Executive Summary

This document provides details of WindUp self-assessment and TM Forum’s Conformance Assessment of the **EW Billing System Solution v 7.0** against the following ODA core frameworks:

- Business Process Framework (eTOM) Version 22.5

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 submitted in scope for the Assessment.

For more information on the EW Billing System Solution please contact: billing@windupsoft.com

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

1.2 About WindUp Software

WindUp Software develops software solutions for the telecommunications industry and banks. Our goal is to enable brands to build long-term relationships with their audiences and increase customer loyalty. With more than 160 successful projects for 200 million users worldwide, including Russia, CIS, Africa and Asia, we have gained invaluable experience in Big Data Analytics, Customer Value Management, OSS/BSS, Messaging and VAS.

We help banks and telecom operators improve customer experience, maximize LTV, reduce churn, protect infrastructure from fraud and spam, increase operational efficiency, and accelerate revenue growth. We prioritize long-term and trusted partnerships with every company we work with.

2. Product Functionality/Capability Overview

2.1 EW Billing System Solution 7.0 Overview

EW Billing System Solution is a modular system allowing the operator to offer the full spectrum of telecoms services, rapidly market new services and products, support easy operation and guarantee operator-class performance as well as high deployment speed in any network.

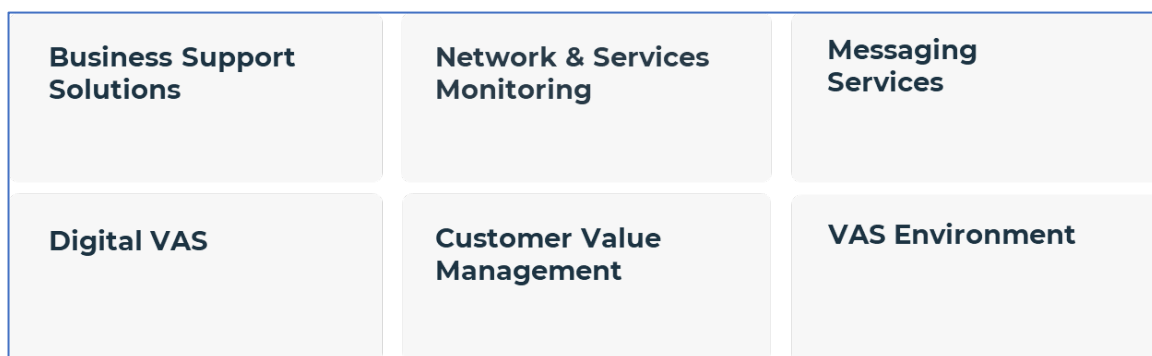


Figure 1 - EW Billing System Solution Overview

The following are the key features of EW Billing System Solution 7.0:

- Attracting and retaining subscribers. High quality of services, prompt expansion of service range, and flexible rating based on principles of individual approach will build long-term subscriber loyalty and attract new subscriber categories.
- The Billing System Solution is convergent both in terms of network types and types of rating. It means that the system can be run in networks of different standards (including multiple standard networks) and allows online and offline rating. The convergent billing principle allows issuing a consolidated bill for all the types of the services rendered.
- Efficient tool for business expansion and profitability due to flexible rating of voice and non-voice service, roaming services support, introduction of special discounts and promotional rates stimulating increased usage, efficient management of business processes.
- Retaining operator's revenues due to prevention of potential fraud (Fraud Control), dynamic restriction of services available to a subscriber, based on the online analysis of the subscriber's consumption/expenditure indicators.
- The system performance is determined by the operator's current needs and can be easily increased as soon as it is required.
- High functional and quality characteristics of the system ensure rapid return on the operator's investments in the system within minimum time scales and improve profitability.

- Minimizing integration costs. The system is built on the basis of open software and hardware platforms enabling the system to be interfaced with solutions of any other developers.
- Managing the full cycle of a marketing campaign.
- Target group selection with maximum flexibility.
- Providing deep analysis and visualization of any data, creating a complete dynamic profile of each client and Advanced segmentation features.
- Communication with subscribers via all integrated classical and digital channels.
- Instant reaction to market demands thanks to the rapid deployment of additional services.

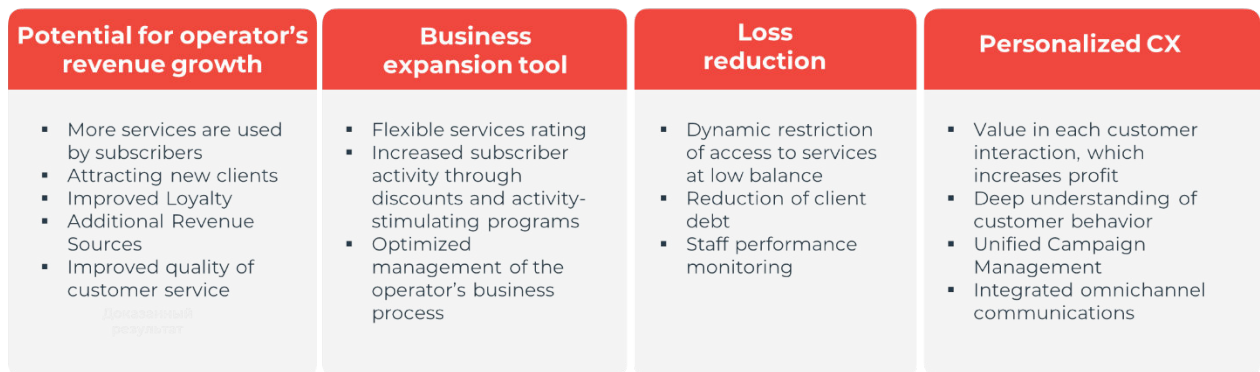


Figure 2 – Summary of key features of EW Billing System Solution 7.0

2.2 EW Billing System Solution Benefits

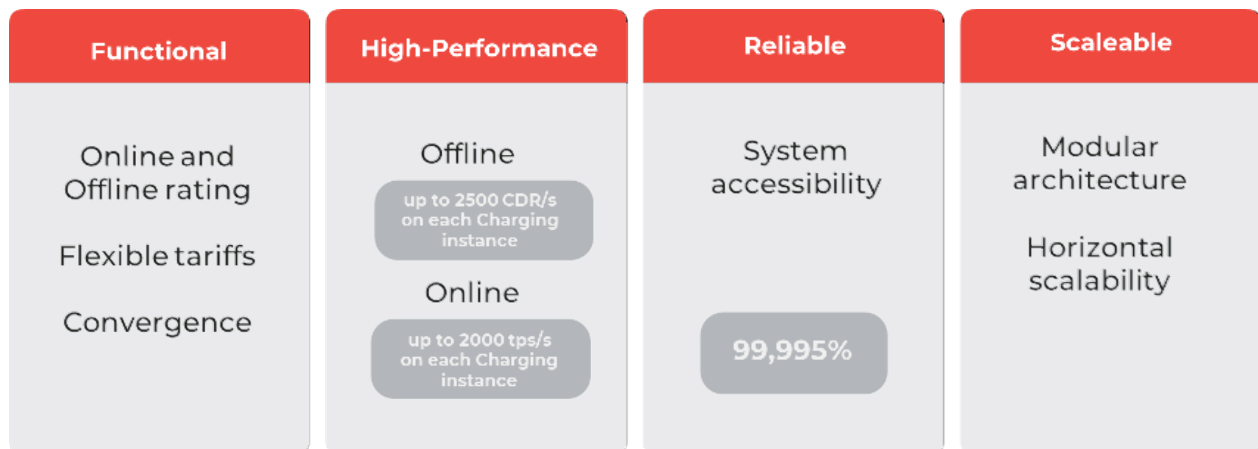


Figure 3 - EW Billing System Solution value proposition

2.3 EW Billing System Solution Modules



Figure 4 – EW Billing System Solution Architecture

Business Support Solutions

- Solutions for supporting MNO's business operations and monitoring subscriber devices registered in the network

Network and Services Monitoring

- Automated tools for testing the quality and availability of services of a mobile and fixed line operator

Messaging Services

- A new vision of classic platforms for communications (Full-featured interactive portal for service and profile management, accessing data, Full-featured high-performance SMS Center + 25 Rich Messaging VAS)

Digital VAS

- A mobile network operator's platform for providing digital services via different channels and additional integrations for increased user engagement and revenue growth

VAS Environment

- VAS Environment platforms for developing and rapidly deploying unlimited services and improving operational efficiency

Customer Value Management

- Solutions for automating customer interactions and increasing marketing effectiveness at all points of the life cycle

2.4 Solution Scope

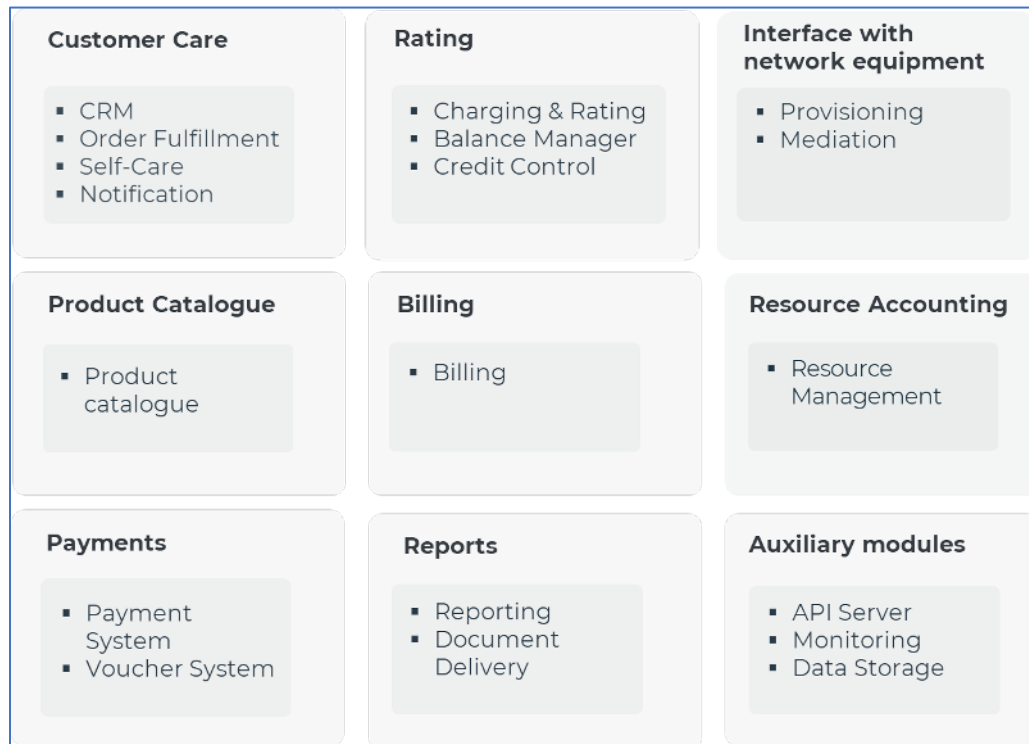


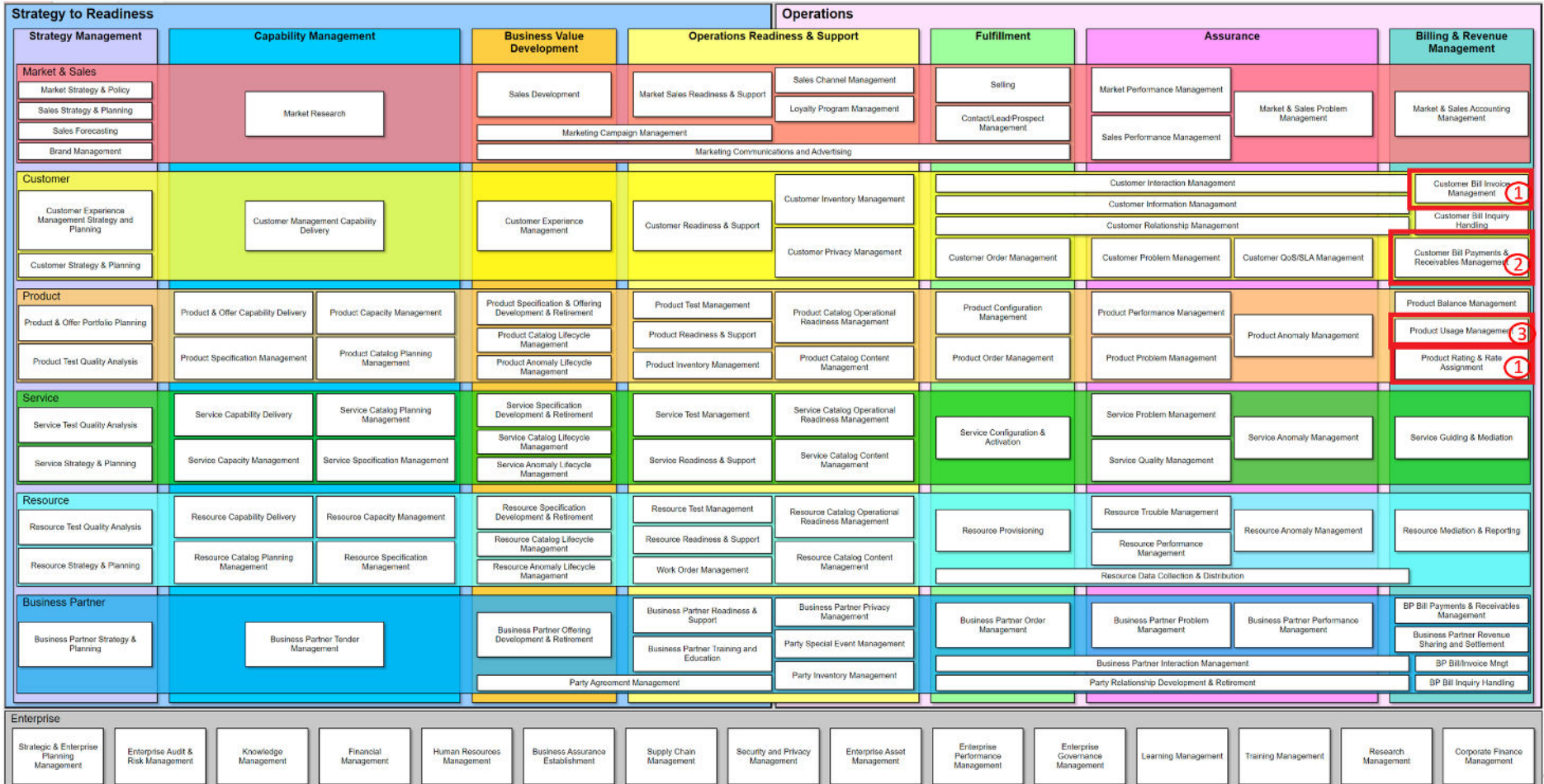
Figure 5 – EW Billing System Solution Scope

2.5 EW Billing System Solution Supported Installation Models

EW Billing System Solution supports on-premise based installation model. It is a client-server and microservice based architecture. EW Billing System Solution can be deployed on both physical or virtual servers. Solution supports industry standard Windows/Linux server operating systems and the industry standard databases such as MS-SQL, PostgreSQL, MongoDB, ClickHouse databases.

2.6 Business Process Framework (eTOM) Certification Scope

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



Number of L3 processes included in scope for certification

Figure 6 – eTOM L2 processes coverage for EW Billing System Solution

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 section conveys information about the Business Processes implemented by WindUpSoft EW Billing System Solution v 7.0 in accordance to the TM Forum eTOM Framework Version 22.5. The section covers the following five L3 Processes within the Billing & Revenue Management vertical.

3.3 List of Certified Processes– Chart (eTOM)

TM Forum Assessment Scoping Document - Business Process Framework (eTOM) v22.5		
Member:		Eastwind
Assessment Name:		EW Billing System
Assessment Type		Solution
Number of L3 Processes in Scope:		7
Level 1	Level 2	Level 3
1.2 - Product		
	1.2.16 - Product Usage Management	
		1.2.16.1 - Product Usages
		1.2.16.3 - Mediate Product Usages
		1.2.16.4 - Report Product Usage Records
	1.2.17 - Product Rating & Rate Assignment	
		1.2.17.5 - Apply Rate Level Discounts
1.3 - Customer		
	1.3.9 - Customer Bill Invoice Management	
		1.3.9.2 - Create Customer Bill Invoice
	1.3.10 - Customer Bill Payments & Receivables Management	
		1.3.10.1 - Manage Customer Billing Account
		1.3.10.2 - Manage Customer Payments

Figure 7- List of Level 3 certified processes

3.4 Coverage of Certified Processes against eTOM Framework

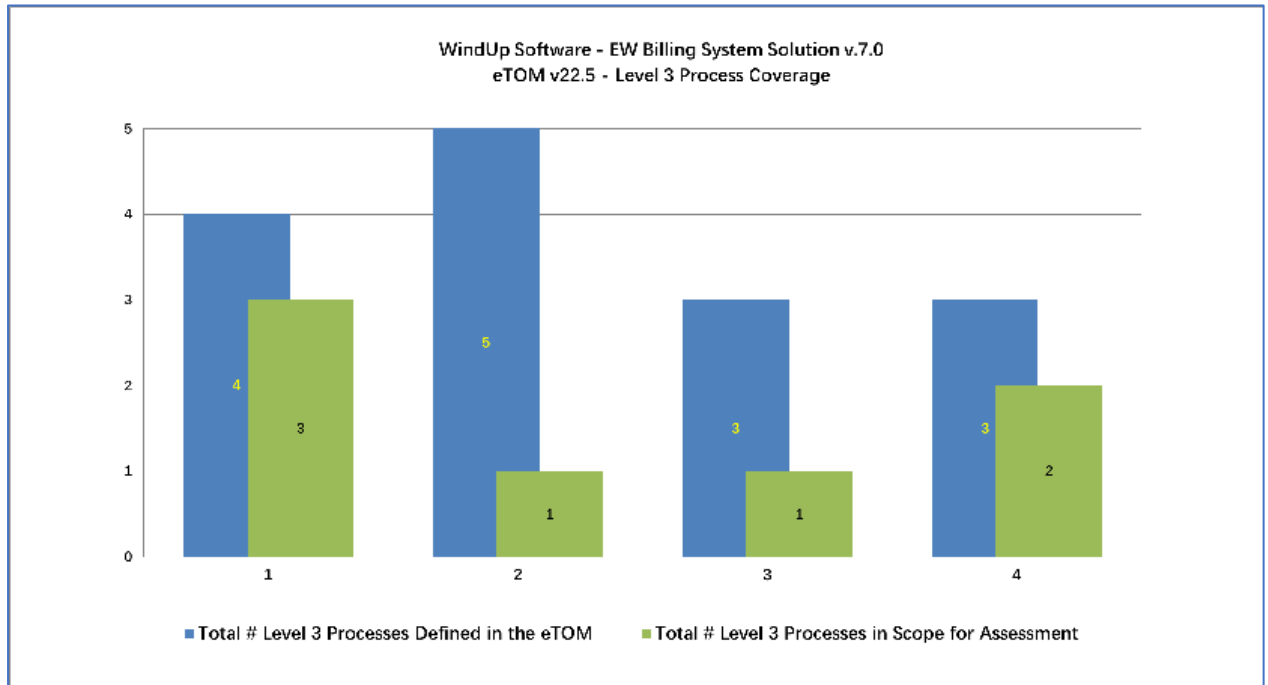


Figure 8- Level 3 process scope for certification

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 given 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 9- TM Forum Business Process Framework: Conformance Scoring Rules

3.6 Business Process Framework – Process Mapping Descriptions

This section provides the mapping of the eTOM v22.5 against the processes performed by WindUpSoft EW Billing System Solution v 7.0.

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

Mapping details & reference to supporting evidence

The documented mapping information for all Level 3 processes in scope for the certification are available from [this link](#).

3.7 Conformance Result

This Section details the Scores awarded to reflect Conformance to the Business Process Framework components of eTOM v22.5.

TM Forum Open Digital Architecture v.22.5 Assessment Scoring Document - Business Process Framework (eTOM)			
Company:		Eastwind	
Product:		EW Billing System	
Assessment Type:		Solution	
Number of L3 Processes in Scope:		7	
Level 1	Level 2	Level 3	Certification Final Scores for Level-3 Process Elements
1.2 - Product			
	1.2.16 - Product Usage Management		
		1.2.16.1 - Product Usages	5/5
		1.2.16.3 - Mediate Product Usages	5/5
		1.2.16.4 - Report Product Usage Records	5/5
	1.2.17 - Product Rating & Rate Assignment		
		1.2.17.5 - Apply Rate Level Discounts	5/5
1.3 - Customer			
	1.3.9 - Customer Bill Invoice Management		
		1.3.9.2 - Create Customer Bill Invoice	5/5
	1.3.10 - Customer Bill Payments & Receivables Management		
		1.3.10.1 - Manage Customer Billing Account	5/5
		1.3.10.2 - Manage Customer Payments	5/5

Figure 10- - 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 WindUpSoft - EW Billing System Solution v 7.0. 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)

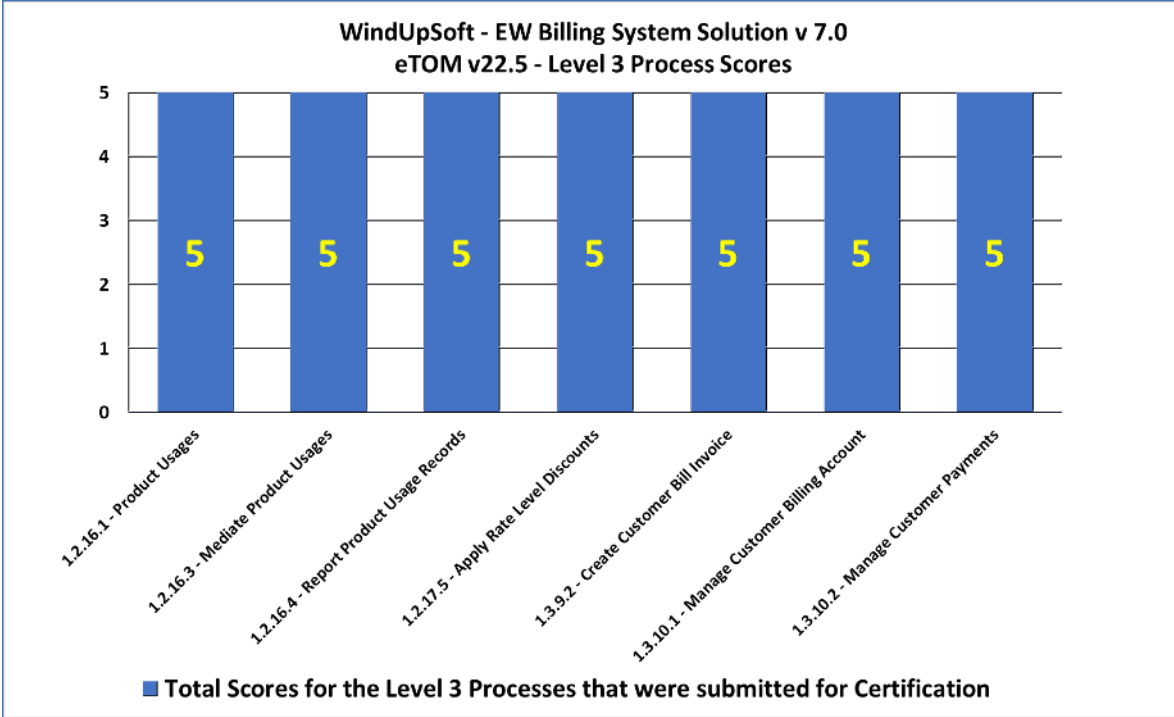


Figure 11- eTOM Conformance Scores