Open Digital Architecture

Business Process Framework (eTOM) 22.5

Solution Conformance Certification Report

Company Name: Huawei

Solution Name: Huawei BSS (Extension for Huawei Digital CRM recertification)

Solution Version: v23

Date: 28th August, 2023



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1 Introduction

1.1 Huawei BSS – eTOM Certification Scope for Reference

TM Forum - Business Process Framework (eTOM) v22.5 Conformance Assessment					
Company:	Huawei				
Product:	Huawei BSS (Extension for Huawei Digital CRM recertification)				
Assessment Type:	Solution				
Number of L3	8				
Processes in Scope:	Ö				
Level 2	Level 3				
1.1.9 - Selling					
	1.1.9.4 - Cross/Up Sell				
1.1.15 - Marketing Ca	ampaign Management				
	1.1.15.4 - Launch Marketing Campaign				
1.3.3 - Customer Ord	er Management				
	1.3.3.5 - Issue Customer Orders				
1.3.3.7 - Close Customer Order					
	1.3.3.9 - Customer Order Orchestration				
1.3.9 - Customer Bill	Invoice Management				
1.3.9.2 - Create Customer Bill Invoice					
1.3.10 - Customer Bill Payments & Receivables Management					
1.3.10.3 - Manage Customer Debt Collection					
1.5.4 - Resource Readiness & Support					
	1.5.4.7 - Manage Number Portability				

Figure 1-1 Huawei BSS Certification Scope

1.2 Executive Summary

This document provides details of the self-assessment and TM Forum's Conformance Assessment of the extension recertification for Huawei Digital CRM – BSS solution for the Business Process Framework Version 22.5.

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

For more information on the Huawei Digital CRM – BSS solution please contact:

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For any additional information on this Frameworx Conformance Certification Report, please contact TM Forum Conformance Certification team at: <u>conformance@tmforum.org</u>.



2 Product Functionality/Capability Overview

Disrupting change happens in customer consumption behavior and enterprise upgrading in the current digital era. Traditional telecom operation models no longer meet daily increasing demands of the customers. Meanwhile, challenges from new internet service providers are becoming more intense. Telecom operators are gradually seeking transformation to stay at the head of this tide of evolution.

2.1 Huawei BSS

Huawei BSS, as the future-oriented IT enablement solution and based on digital architecture design, is an excellent product portfolio in helping operators in transformation. Huawei BSS is composed of two pre-integrated products. These two products are designed to be available independently and able to work coordinately.

- Huawei Digital CRM (Customer Relationship Management) is also named Huawei Commerce.
- Huawei CBS (Convergent Billing System) is also named Huawei RM (Revenue Management).

They have the following core capabilities for telecom operators to **LINK** together the digital world:

1) Leading Experience of Transformation

- 100% successful transformation with Telco
- New BSS contract every year
- Migration of 200M subscribers in last 3 years
- E2E delivery with mature assets & tools

2) Intelligent Solution

- Al-driven customer insight
- Lightweight embedded AI engine
- Real-time & personalized recommendation: NBO & NBA
- Prediction of customer churn risk
- Intelligent order troubleshooting

3) New Era Evolution

- Enabling B2B evolution (LEAP in new direction):
 - ♦ Loaded with proven B2B soul
 - ♦ Enlarge telco process value
 - ♦ Ally the ecosystem
 - ♦ and achieving **Profitable** growth.



- Fast offer/promotion TTM by flexible configuration
- Zero touch partnering with rapid on-boarding

4) Keep Value-growing

- API monetization
- Integration openness
- Omni-channel collaboration
- Reusable business and IT assets
- Enriched offer category
- Cloud-native with Elastic scaling & High performance
- Automatic O & M
- Fully decoupled COTS
- Micro-service based

2.2 Huawei Digital CRM Product Overview

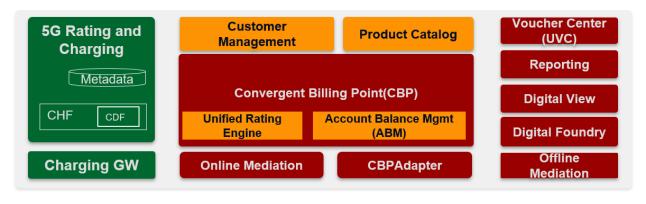
Huawei Digital CRM (also named as Huawei Commerce) responds to these changes by helping the operators to redefine BSS from supporting business operation to enabling digital operation. It consists of omni-channel collaboration, customer engagement, federated offering catalogue, convergent order, intelligent marketing, business orchestration, revenue management etc. It aims to help the operators quickly transform into digital Telcos by improving NPS, boosting business agility, and increasing digital service revenue.

Channel	1.1.10	0 %	P 🛞		
Experien	ce Intelligence	Interaction Contro	Cor	mmunication Engine	
Application Marketplace		Business Or	rchestration		Open Integration Framework
ion l		Business C	apabilities		grati
Mark	Sales	Marketing	Commerce	Service	on Fi
etplac	Customer mgmt	Product mgmt	Order mgmt	Revenue mgmt	amew
ë		Business	Analytics		vork
Platform & Infrastructure					
	Fi	gure 2-1 Huawei [Digital CRM Arch	itecture	



2.3 Huawei CBS Product Overview

Huawei CBS was designed to enable Telcos to capture new opportunities to succeed with revenue management challenges in the digital economy.





2.4 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 for the Huawei Digital CRM – BSS product conformance certification extension.



Strategy to Readiness (S2R)					Ope	erations (OPS)		
Strategy Management	Capability Delivery	Lifecycle Management	Operations Readiness & Support	Fulfillment	Assurance		Billing & Revenue Management	
				arket & Sales Doma	in			
Market Strategy & Policy	Market Research	Sales Development	Sales Channel Management	Selling 1	Market Performance Management	Market & Sales Problem Management	Market & Accounting	
Sales Strategy & Planning			Loyalty Program Management	Contact/Lead/Prospect	-			
Sales Forecasting Brand Management		Marketing Campaign	Market Sales Support & Readiness	Management	Sales Performance Management			
brane wanagement		Ma	keting Communications and Advert	ising				
Customer Experience			Customer Support	Customer Domain	A			
Management Strategy and Planning			Customer Experience		Customer Interaction Manageme		Customer Bill Invoice	Customer Bill Payments &
and Fraining	Customer Management Capability Delivery	Customer Lifecycle Management	Management		Customer Information Managem Customer Relationship Managem			Receivables Management
Customer Strategy & Planning	Capacing Derivery	management	Customer Inventory Management	Customer Order	Customer Problem	Customer QoS/SLA	Customer Bill inquiry Handling	(-
ridning			Customer Privacy Management	Management	Management	Management		
Product & Offer Portfolio Planning	Product & Offer Capability Delivery	Product Catalog Lifecyle Management	Product Test Management Product Support	Product Domain	Product Pr	erformance Management	Product Rating & Rate	
	Product Specification Product Management Capacity Myt	Product Anomaly Lifecyle Management	Product Inventory Mgt	Product Configuration Management		Problem Management	Assignment	
Product Test Quality Analysis	Product Catalog Planning Mgt	Product Specification & Offering Development & Refirement	Froduct Catalog Operational Head nees Management Product Catalog Content Ng1	Product Offering Purchasing		Anomaly Management	Product Balance Management	Product Usage Management
Service Test Quality Analysis	Service Capability Delivery Service Specification Management	Service Specification Development & Parlnament	Service Test Management SM&O Support & Feedmese	Service Domain		Quality Management		
Service Strategy & Planning	Service Capacity Mpt Service Catalog Planning Mpt	Service Catalog Lifecycle Mgt Service Anomaly Lifecycle Mgt	Service Calalog Content Mgt Revice Cataly Operation Realists Mgt	Service Configuration & Activation		Problem Management Anomaly Management	Service Guiding & Mediation	
	Resource Capability Delivery	Resource Specification Development & Reference t		Resource Domain	Resou	rce Performance Mgt		
Resource Test Quality Analysis	Resource Specification Management	Resource Catalog Lifecycle Mg	Resource Readiness & Bupport (1)	Resource provisioning	Resource	e Trouble Management	Resource	
Resource Strategy & Planning	Resource Capacity Mgt Resource Catalog Planning Mpt	Resource Anomely Lifecycle Mgr	Resource Celaky Operational Readiness Management			Anomaly Management	Rep	arting
						e Data Collection & Distribution		
				siness Partner Dom	ain			
Business Partner Strategy & Planning	Business Partner Tender	Party Offering Development &	Business Partner Support Business Partner Privacy Mgt	Business Party Order	Business Partner Problem	Business Partner Performance	Business Partne	er Bill/Invoice Management
& Planning	Management	Retirement	Business Partner Training and	Management	Management Management		Business Partner B	NI Payments & Receivables Mgt
	Party Agreement Management Management Party Special Event Myt		Business Partner F	tevenue Sharing and Settlement				
Party Inventory Mgt		Party Relationship Development & Retirement		Business Par	tner Bill Inquiry Handling			
en e								
Strategic & Enterprise	Enterprise Audit & Risk Management	Financial Management	Corporate Finance Management	Enterprise Domain	During to	Estilizione	Supply Chain Management	Security & Privacy
Enterprise Asset Management	Enterprise Performance Management	Enterprise Governance	Learning Management	Human Resources Manage		surance Establishment	Knowledge Management	Management

(#) Number of L3 process elements in scope for certification

Figure 3 – eTOM L2 processes coverage for Huawei Digital CRM – BSS product conformance certification extension

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.



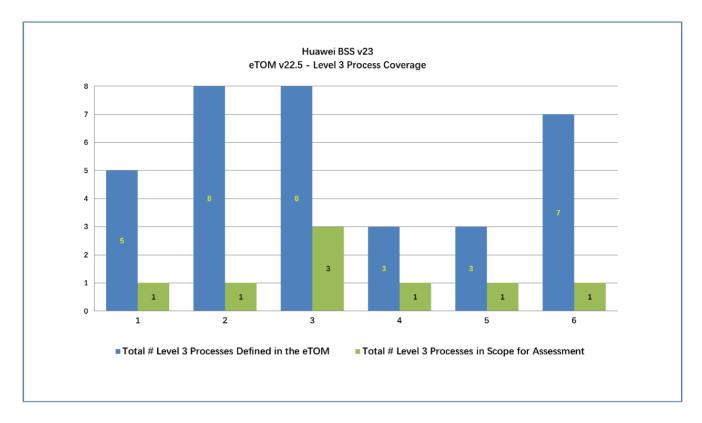
3.2 Scope of Conformance Certification (eTOM)

This section conveys information about the Business Processes implemented by Huawei BSS v23.0 in accordance to the TM Forum eTOM Framework Version 22.5. The section covers the following L3 Processes.

3.3 List of Certified Processes- Chart (eTOM)

TM Forum - Business Process Framework (eTOM) v22.5 Conformance Assessment					
Company:	Huawei				
Product:	Huawei BSS (Extension for Huawei Digital CRM recertification)				
Assessment Type:	Solution				
Number of L3	8				
Processes in Scope:	0				
Level 2	Level 3				
1.1.9 - Selling					
	1.1.9.4 - Cross/Up Sell				
1.1.15 - Marketing Ca	ampaign Management				
	1.1.15.4 - Launch Marketing Campaign				
1.3.3 - Customer Ord	er Management				
1.3.3.5 - Issue Customer Orders					
1.3.3.7 - Close Customer Order					
1.3.3.9 - Customer Order Orchestration					
1.3.9 - Customer Bill	1.3.9 - Customer Bill Invoice Management				
1.3.9.2 - Create Customer Bill Invoice					
1.3.10 - Customer Bill Payments & Receivables Management					
1.3.10.3 - Manage Customer Debt Collection					
1.5.4 - Resource Readiness & Support					
1.5.4.7 - Manage Number Portability					

Figure 4- List of Level 3 certified processes



3.4 Coverage of Certified Processes against eTOM Framework

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 a warded 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	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 calculate d 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 Con	formance Assessments	s, 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.		
	l.	Additional Notes		
	· · · · ·	ented to define the assessment scope only. i.e. they shall not be assessed as self- detail is not considered sufficient. A conformance level shall not be awarded for Level 1		
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 process es 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 the eTOM v22.5 against the processes performed by Huawei BSS v23.0.

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

3.6.1 Mapping details & reference to supporting evidence.

The documented mapping information for all Level 3 processes in scope for the certification are available from <u>this link</u>.

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 Digita	al Architecture v.22.5 Assessment Scoring Document - Business Process Fra	amework (eTOM)
Company:	Huawei	
Product:	Huawei BSS (Extension for Huawei Digital CRM recertification)	Certification Final
Assessment Type:	Solution	Scores
Number of L3 Processes in	8	for Level-3 Process
Level 2	Level 3	Elements
1.1.9 - Selling		
	1.1.9.4 - Cross/Up Sell	5/5
1.1.15 - Marketing Campaig	n Management	
	1.1.15.4 - Launch Marketing Campaign	5/5
1.3.3 - Customer Order Man	agement	
	1.3.3.5 - Issue Customer Orders	5/5
	1.3.3.7 - Close Customer Order	5/5
	1.3.3.9 - Customer Order Orchestration	5/5
1.3.9 - Customer Bill Invoice	Management	
	1.3.9.2 - Create Customer Bill Invoice	5/5
	ents & Receivables Management	
	1.3.10.3 - Manage Customer Debt Collection	5/5
1.5.4 - Resource Readiness a	& Support	
	1.5.4.7 - Manage Number Portability	5/5

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 Huawei BSS v23.0. 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)

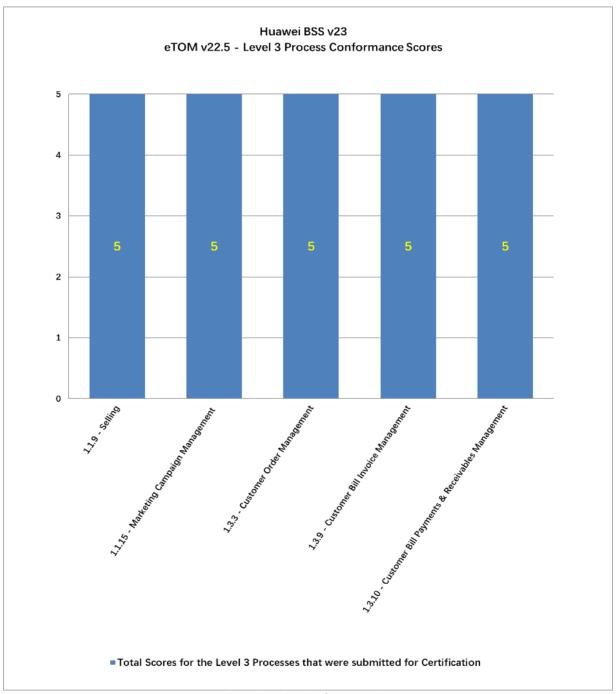


Figure 8- eTOM Conformance Scores