

Product Conformance Certification Report

**Business Process Framework (eTOM) v20.0
&
Information Framework v20.0**

For:

BMC Software

Customer Service Management (CSM) v22.1

September 2023

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1 Introduction

1.1 Executive Summary

This document provides details of **BMC Software** self-assessment and TM Forum's Conformance Assessment of the **CSM (Customer Service Management) v22.1**.

The assessment included a review of the methodology approach to process modeling and data modelling against the following TM Forum frameworks:

- Business Process Framework (eTOM) version 20.0
- Information Framework (SID) version 20.0

For more information on **BMC Software - Customer Service Management (CSM)** please contact:

Revathi Nair

Email: Revathi.Nair@bmc.com

Tasnim Pithapurwala

Email: Tasnim.P@cybermak.net

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

2 Product Functionality/Capability Overview

2.1 CSM - Customer Service Management v22.1 - Overview

In today's digital world where online interactions are more frequent than face-to-face conversations and personal likes and dislikes are social phenomena that witness the over-night rise and fall of corporates, BMC Software's Customer Service Management is an answer to innovation diffusion and sustainable growth. BMC Software's CSM incorporates key aspects like customer integration, creating in them a sense of belonging. It heightens service quality, increases customer experience and allows an organization to reach a broader audience rapidly. It is a proven proactive tool for swaying customer's sentiments favorably by showing that the organization cares, acting upon customer concerns, enhancing interpersonal communication, promoting positive sentiments, reducing churn, increasing brand loyalty and invariably building equity.

The major differentiating factor in Enterprise Service Providers that successfully out-rival their competitors is the ability to ensure that Customer Service Management (CSM) is a fundamental part of their corporate strategy, which becomes an integral part of their corporate fabric. CSM is a strategic project that has exponential positive business outcomes. Without it, an enterprise runs on approximations and assumptions.

Telecoms are no different to this rule. In fact, with many Telecoms operating in more than a single geography, a unified service experience is crucial since impact on brand is no longer local but global. With the pervasiveness of social media, professional and personal networking, even a modest improvement in customer experience would create a tremendous positive difference to an organization. Furthermore, complexities arise of having to depend on a blend of disparate legacy systems and innovative trending technologies to provide services to customers, apart from several MSPs, BSS/OSS platforms and providers, suppliers, shops, the retail chain and other customer touchpoints that directly or indirectly impacts the quality of services rendered to customers.

Delight enterprise customers by giving them an extraordinary customer experience with BMC Software's Customer Service Management (CSM), built on the acclaimed digital enterprise-wide software from BMC Software. Our solution integrates into the existing Business and IT environments, providing enterprises with a single digital customer interface.

2.2 CSM - Customer Service Management v22.1 - Benefits

BMC Software's Customer Support Solution has 16 years of success and evolution and is used by some of the largest customer centric organizations such as Telecoms, Banks, Retailers, MSPs, etc. This solution has incorporated the wish-list of some of the biggest names in the service industry enabling real-time customer experience with 360° visibility of enterprise customers from various touch points for Service Requests, Complaints, Enquiries and Suggestions.

BMC Software constantly adds intelligence into our software that would give companies using CSM a differentiating edge in winning over customers from competitors.

The solution helps organizations measure granular details and use insights to drive continuous improvement thereby positively impacting their reputation, sales and the stickiness factor of their customers.

The solution can reside independently or seamlessly within an existing CRM, helps one address several current challenges faced within organizations as they strive to enhance their customer's journey and experience, such as:

- No 360-degree visibility of the Customer Problem Report from disparate source systems into a single view, to make it meaningful and actionable.
- Lack of measurements of internal and external services to customers.
- Loss in Time-to-Market, since product launch issues, could provide quick valuable feed-back into marketing in order to address issues and re-vamp the offering.
- No centralized solution which touches all channels and touchpoints, Call Center, Branches, Shops, IVR, Social Media Platforms, Company Portal, Email, SMS, Company Mobile Apps.
- Inability to track a single SLA with multiple granular OLAs as the case moves across departments all the way to IT, NOC, Vendors, Partners etc.
- Inability to see service performance from a Customer's point of view.
- Inability to measure Agent and Group performance at a granular level.
- No Real-time Management Dashboard reporting for proactive remediation of situations before Customers are impacted.
- Need to proactively heighten customer experience and increase revenues, brand loyalty and create positive word-of-mouth.

The Customer Support Solution is tailor-made for Customer Care and Service Quality departments to bring about the desired outcomes, promoting the service recovery paradox, and continually help define and re-share the customer's perceptions to reflect positivity and loyalty. This in turn brings about decreased churn, increased loyalty, heightens brand visibility and is conducive to the WOW factor providing a personalized user experience and creating a Personal Emotional Connect (PEC) with customers.

2.3 CSM - Customer Service Management v22.1 - Modules

- Customer Case Management Module
- SLA - Service Level Agreement Module
- OLA – Operational Level Agreement Module
- Survey Module
- Mystery Shopping Module
- Cell Tower Planning and Deployment Application
- BMS/Site Access Management
- B2B Project's Workflow Management

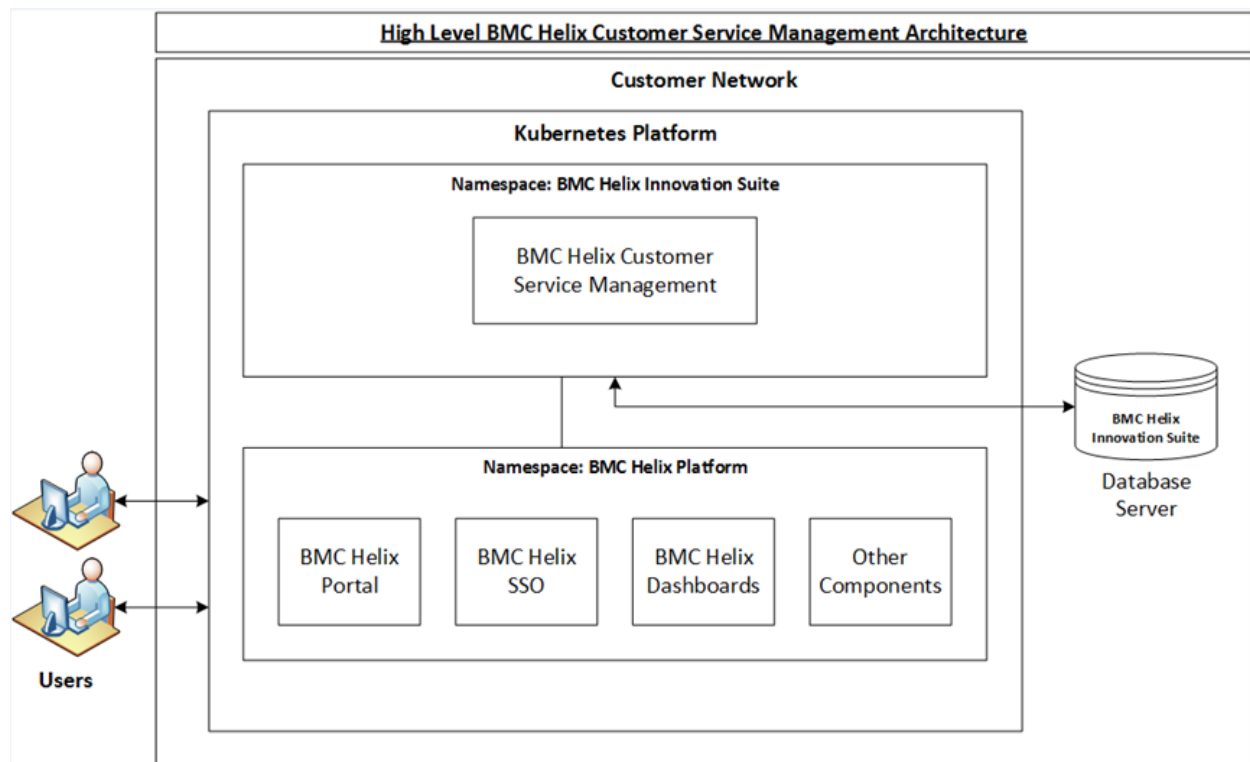
2.4 CSM - Customer Service Management v22.1 - Supported Installation Models

The following installation models are applicable for CSM - Customer Service Management v22.1:

Customer Service Management is a Client–Server based Architecture. It can be deployed on both Physical or Virtual Servers.

CSM supports industry standard Windows/Linux/Solaris Server Operating Systems. It also supports the industry standard databases such as MS-SQL and Oracle databases.

CSM integrates with Active Directory, SAML based IDP for user authentication and authorization. It also integrates with many third-party external applications such as CRM, Billing, Business Intelligence etc and so on to meet the various requirements. The key success of a Customer Service Management resides in its ability to gather customer related data from various sources in real-time to give the CSR agents the ability to use those insights for meaningful actions. Built on BMC Software technology CSM provides the ability to integrate into disparate sources of data.



2.5 Product Scope

- **Multi-Channel ticket submission** through Web Portal, Email, Call Center, IVR, Walk-In, Mobile and SMS.
- **Multi- Channel ticket closure, feedback and reopen.**
- **CSM Mobility** giving customer support teams access to perform operations on tickets through mobility.
- **Scenario Automation** to perform multiple actions on a ticket with a single click by automating repeated action.
- **Advanced Notifications Module** for notifications based on customer preference.
- **Role-based access control and consoles** for Frontliners, Customer Care/BackOffice. Resolver Groups, Supervisor/Managers.
- **Configurable Issue Templates and scripts** to enhance the efficiency of Frontliners.
- **Advanced Notifications Module for customers and internal staff** for automated escalation notifications.
- **Status- Based Ticket Tracking**
- **Skill based Auto-Assignment Engine** with Round Robin / Load Balancing features for individuals and groups using Group Queue feature with **automated shift-based ticket re-assignment.**
- **Advanced proactive Global / Child Ticket indicator functionality** to manage global issues and outages.
- **Automated Approval Cycle**
- **Related Ticket Module** for logical relationships between tickets.
- **Duplicate Case Warning** to notify agents of a potential duplicate ticket.
- **Detailed audit logs** of every ticket activity and modification history.
- **Ticket Analyzer Feature** for deep analysis into a ticket.
- **Ability to send Broadcasts or Bulletins** to agents and end-users.
- **Ability to attach files to the ticket.**
- **Ability for Supervisors to perform Batch Activities** to reduce call management time.
- **Submission OLA** to track the efficiency of the first line support.
- **Advanced flexible SLA & OLA Module** tracks and manages the ticket to provide insights for continuous service improvements.
- **Ability to define business hours and holidays** for accurate SLA and OLA reporting.
- **Email-Handler Module** to configure rules for automated ticket creation through Email.
- **Configurable business categorization-based ticket flow** for service requests, complaints, enquiries, suggestions.
- **Bulk and Ticket based Surveys Module** with ability to send surveys by SMS, Email and through Outbound agents.
- **Broadcasting & Bulletin Board module** for scheduled and automated broadcast to all agents.
- **Knowledge Base Module** to increase the FCR rate.
- **The richness and flexibility of the CSM configuration manager** to meet the demands of ever-changing business without the requirement for customizations.

- **Get detailed insights into agent & team performance** for continuous improvement of service and efficiency by drawing insights from the various metrics available and use this data to drive future decisions.
- **Multitenancy feature of CSM** allows creation of multiple tenants using one centralized system.
- **Configurable Question & Answers feature** to guide agents to ask the right set of questions in order to provide second line support with information required to resolve the case.
- **Bulk SMS Module** to send SMS to selected customers and maintain SMS history.
- **Auto Escalation Manager** to enable Time & Event triggered automation.
- **Out of Box Industry standard Reports** for Customer Care and Service Quality departments.

2.6 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.

eTOM - v20.0 - BMC Software - Customer Service Application (CSM) v22.1 - Conformance Footprint

Common	Strategy to Readiness				Operations					
	Strategy Management	Capability Delivery	Lifecycle Management	Operations Readiness & Support	Fulfillment	Assurance		Billing & Revenue Management		
	Market & Sales	Market Research	Sales Development	Sales Channel Mgt	Selling	Market Performance Mgt				
	Market Strategy & Policy			Loyalty Program Mgt						
	Sales Strategy & Planning			Market Sales Support & Readiness						
	Sales Forecasting			Marketing Campaign Management	Contact/Lead/Prospect Mgt					
	Brand Management	Marketing Communications and Advertising								
	Customer			Customer Support	Customer Interaction Management			Bill Invoice Management	Bill Payments & Receivables Mgt	
	Customer Experience Management Strategy and Planning			Customer Experience Management	Customer Information Management			Bill Inquiry Handling	Billing Events Management	
				Customer Inventory Mgt	Order Handling	Customer Problem Handling	Customer QoS/SLA Mgt	Charging	Manage Balances	
									Pricing, Discounting, Adjustments & Rebates Application	
	Product	Product & Offer Portfolio Planning	Product & Offer Capability Delivery	Product Specification Test Development & Retirement	Product Test Management	Product Configuration Mgt	Product Performance Management			
	Product Test Strategy	Product Capacity Management	Product Specification & Offering Dvt & Retirement	Product Support	Product Offering Purchasing					
	Product Test Quality Analysis			Product Inventory Mgt						
	Service	Service Test Strategy	Service Capability Delivery	Service Specification Test Development & Retirement	Service Test Management	Service Configuration & Activation	Service Problem Management	Service Quality Management	Service Guiding & Mediation	
	Service Test Quality Analysis Management			Service Development & Retirement	SM&O Support & Readiness					
	Service Strategy & Planning									
	Resource	Resource Test Strategy	Resource Capability Delivery	Resource Specification Test Development & Retirement	Resource Test Management	Resource Provisioning	Resource Trouble Management	Resource Performance Management	Resource Mediation & Reporting	
	Resource Test Quality Analysis			Resource Development & Retirement	RM&O Support & Readiness					
	Resource Strategy & Planning									
Business Partner	Party Strategy & Planning	Party Tender Management	Party Offering Development & Retirement	Party Support	Party Order Handling	Party Problem Handling	Party Performance Mgt	Party Bill/Invoice Management	Party Charging	
				Party Privacy Management						
				Party Training and Education						
				Party Special Event Mgt						
		Party Agreement Management		Party Inventory Mgt	Party Interaction Management		Party Bill Payments & Receivables Management			
				Party Relationship Development & Retirement		Party Billing Events Mgt		Party Bill Inquiry Handling		
Enterprise										
Strategic & Enterprise Planning		Enterprise Risk Management	Enterprise Effectiveness Management	Knowledge & Research Management	Financial & Asset Management	Stakeholder & External Relations Mgt	Human Resources Management	Common Enterprise Processes	Business Assurance	

Figure 1 - Level 2 process coverage for BMC Software – Customer Service Management (CSM) v22.1 Conformance Assessment

2.7 Information Framework Assessment - ABE Scope

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

SID Information Framework – v20.0 – Cybermak – Customer Service Application (CSA) v5.0 - Conformance Footprint

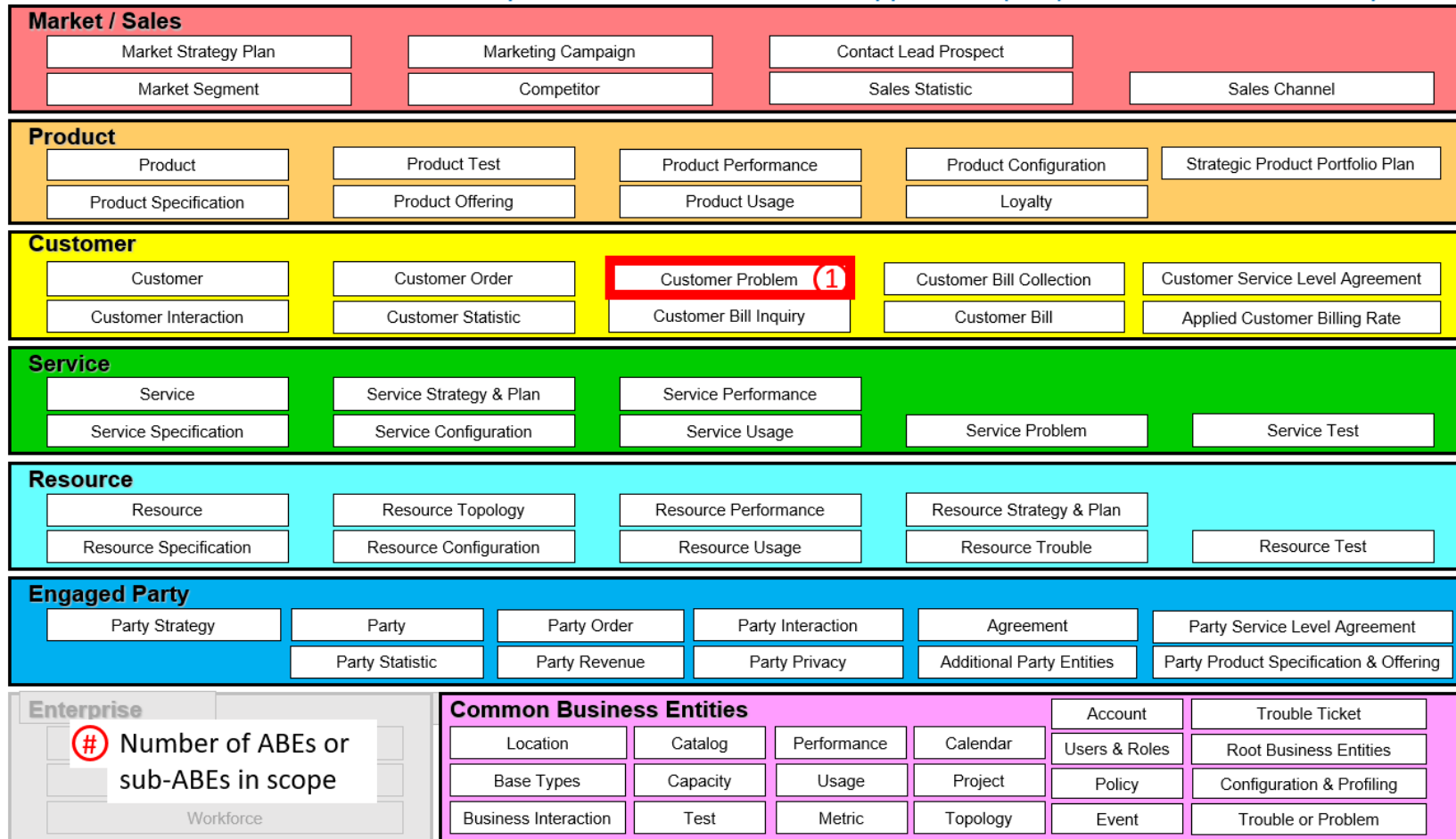


Figure 2 - Level 1 ABEs - SID coverage for BMC Software – Customer Service Management (CSM) v22.1 Conformance Assessment

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)

TM Forum Business Process Framework (eTOM) - Assessment Scope		
Member	BMC Software	
Product	Customer Service Management (CSM) v22.1	
Assessment Type	Product	
Business Process Framework Version	20.0	
Number of L3 Processes in Scope:	6	
Level 2	Level 3	
1.3 - Customer Domain		
1.3.7 - Customer Problem Handling		L2
1.3.7.1 - Isolate Customer Problem		L3
1.3.7.2 - Report Customer Problem		L3
1.3.7.3 - Track & Manage Customer Problem		L3
1.3.7.4 - Close Customer Problem Report		L3
1.3.7.5 - Create Customer Problem Report		L3
1.3.7.6 - Correct & Recover Customer Problem		L3

Table 1 - Business Process Framework (eTOM) Assessment Scope

3.3 Scope of Conformance Certification – Chart (eTOM)

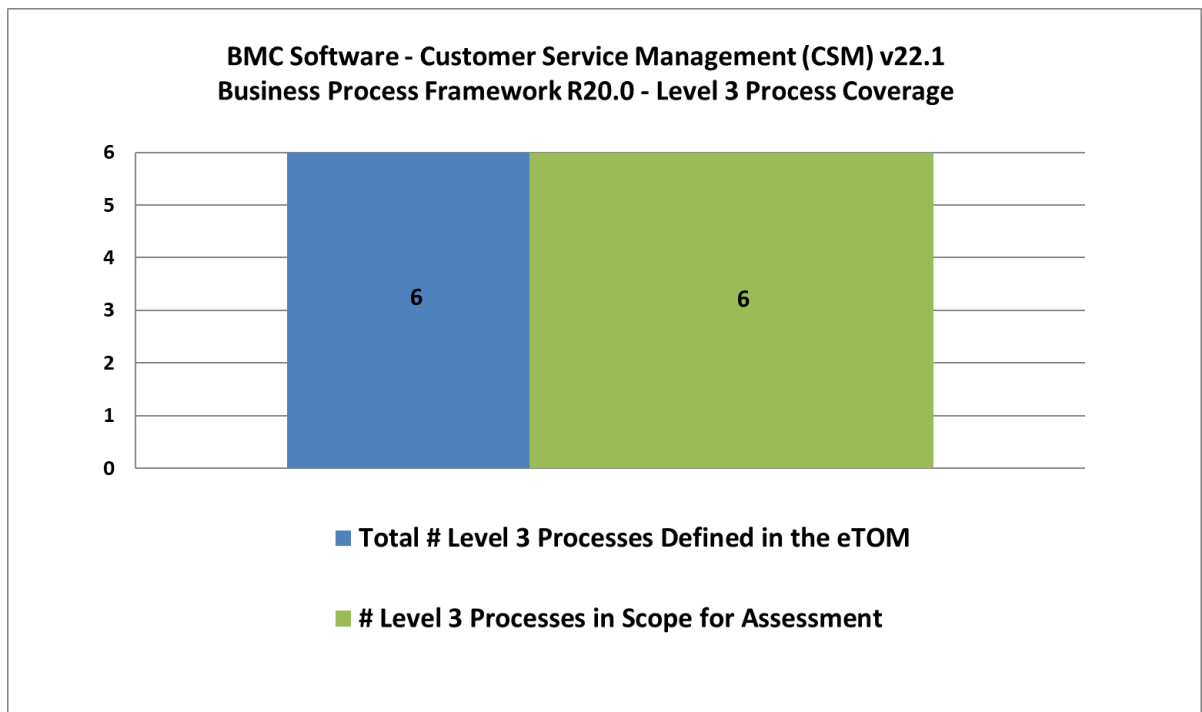


Figure 3- Level 3 process scope for certification

3.4 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 4- TM Forum Business Process Framework: Conformance Scoring Rules

3.5 Business Process Framework – Process Mapping Descriptions

This Section provides a summary of the solution mappings that were provided in the form of self-assessment.

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

3.5.1 Customer Domain

3.5.1.1 Mapping Details & Supporting Evidence

The documented mapping information for all Level 3 processes in scope for the ‘1.3 – Customer Domain’ business processes are available from the following link:

https://www.tmforum.org/wp-content/uploads/2023/09/BMC_1.3.7-CustomerProblemHandling_V1RF.pdf

Mappings and supporting evidence were presented for the following L3 processes:

Customer Domain	
1.3.7 - Customer Problem Handling	
	1.3.7.1 - Isolate Customer Problem
	1.3.7.2 - Report Customer Problem
	1.3.7.3 - Track & Manage Customer Problem
	1.3.7.4 - Close Customer Problem Report
	1.3.7.5 - Create Customer Problem Report
	1.3.7.6 - Correct & Recover Customer Problem

3.6 Conformance Result

This Section details the Scores awarded to reflect Conformance to the Business Process Framework components of eTOM v20.0.

TM Forum Business Process Framework (eTOM) - Assessment Scores		
<i>Member</i>	<i>BMC Software</i>	<u>Level 3 Process Elements</u> Scores achieved
<i>Product</i>	<i>Customer Service Management (CSM) v22.1</i>	
<i>Assessment Type</i>	<i>Product</i>	
<i>Business Process Framework Version</i>	<i>20.0</i>	
<i>Number of L3 Processes in Scope:</i>	<i>6</i>	
Level 2	Level 3	
1.3 - Customer Domain		
1.3.7 - Customer Problem Handling		
1.3.7.1 - Isolate Customer Problem		5
1.3.7.2 - Report Customer Problem		5
1.3.7.3 - Track & Manage Customer Problem		5
1.3.7.4 - Close Customer Problem Report		5
1.3.7.5 - Create Customer Problem Report		5
1.3.7.6 - Correct & Recover Customer Problem		5

Figure 5- - eTOM Conformance Scores Summary - BMC Software - Customer Service Management (CSM) v22.1

3.7 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 BMC Software - Customer Service Management (CSM) v22.1 conformance assessment. 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)

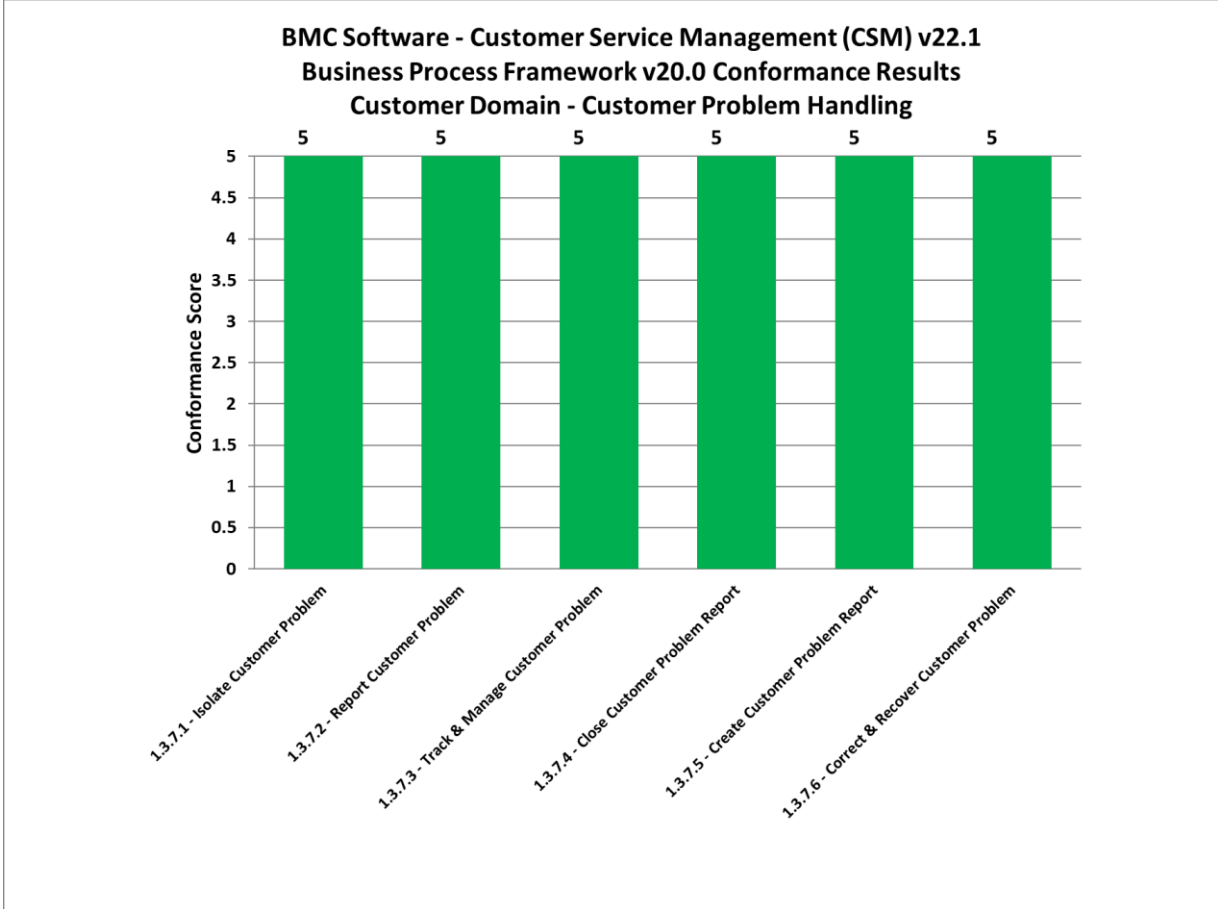


Figure 6- eTOM Conformance Scores - BMC Software - Customer Service Management (CSM) v22.1

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 2 - Level 1 ABEs - SID coverage for BMC Software – Customer Service Management (CSM) v22.1 Conformance Assessment on page 12.

4.2 Information Framework Conformance Result

This Section details the Scores awarded to reflect Conformance of the BMC Software - Customer Service Management (CSM) v22.1 to the Information Framework components release 20.0.

4.2.1 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.

4.2.2 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 2 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 2 - TM Forum Information Framework Adoption Conformance - Scoring Rules Table 2 below.

Table 2 - 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>NOTES:</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) & Adoption Conformance score = 5.2 (Medium Conformance).</p>						

4.2.3 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.

4.3 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 BMC Software - Customer Service Management (CSM) v22.1 Assessment.

Each ABE was measured using the Information Framework (SID) conformance scoring guidelines as described in section 4.2.2 above.

4.4 Information Framework – Detailed Conformance Results

Table 3 - Information Framework: Detailed Conformance Result

TM Forum Information Framework (SID) - Assessment Scoring Document				
<i>Member</i>	<i>BMC Software</i>			<i>Conformance Certification Final Scores Achieved for ABEs</i>
<i>Product</i>	<i>Customer Service Management (CSM) v22.1</i>			
<i>Assessment Type</i>	<i>Product</i>			
<i>Framework Version</i>	<i>20.0</i>			
<i>ABEs in Scope</i>	<i>1</i>			
<i>Level 1 ABEs</i>	<i>Level 2 ABEs</i>	<i>Level 3 ABEs</i>		
Customer Domain				
Customer Problem ABE				10

4.5 Information Framework - Adoption Conformance Detailed Results

Customer Domain

BMC Software - Customer Service Management (CSM) v22.1 Information Framework v20.0 - Conformance Results (Adoption)

The data in these columns is based on what was extracted from the SID Release 20.0 Information Model						
Predefined SID Model Data - Please do not modify data in these columns - For TM Forum use only						
ABE name	Entity name	Attribute name	Attribute origin	Item Type	Conformance Result	ABE Conformance Score Adoption
Customer Problem ABE				ABE	Y	10 = Full Conformance
Customer Problem ABE	CloseCustomerProblemSummary			DE	Y	
Customer Problem ABE	CloseCustomerProblemSummary	ID	CloseCustomerProblemSummary		Y	
Customer Problem ABE	CloseCustomerProblemSummary	closeDate	CloseCustomerProblemSummary	DO	Y	
Customer Problem ABE	CloseCustomerProblemSummary	description	CloseCustomerProblemSummary	DR	Y	
Customer Problem ABE	CustomerProblem			CE	Y	
Customer Problem ABE	CustomerProblem	severity	CustomerProblem	CO	Y	
Customer Problem ABE	CustomerProblem	ID	BusinessInteraction	CR	Y	
Customer Problem ABE	CustomerProblem	description	BusinessInteraction	CR	Y	
Customer Problem ABE	CustomerProblem	endDate	BusinessInteraction	CR	Y	
Customer Problem ABE	CustomerProblem	startDate	BusinessInteraction	CR	Y	
Customer Problem ABE	CustomerProblem	status	BusinessInteraction	CR	Y	
Customer Problem ABE	CustomerProblemTask			DE	Y	
Customer Problem ABE	CustomerProblemTask	ID	CustomerProblemTask	DR	Y	
Customer Problem ABE	CustomerProblemTask	creationDate	CustomerProblemTask	DR	Y	
Customer Problem ABE	CustomerProblemTask	dueDate	CustomerProblemTask	DO	Y	
Customer Problem ABE	CustomerProblemTask	status	CustomerProblemTask	DO	Y	
Customer Problem ABE	CustomerProblemWorkaround			DE	Y	
Customer Problem ABE	CustomerProblemWorkaround	description	CustomerProblemWorkaround	DO	Y	
Customer Problem ABE	CustomerProblemWorkaround	name	CustomerProblemWorkaround	DR	Y	
Customer Problem ABE	KnownProblemDescription			DE	Y	
Customer Problem ABE	KnownProblemDescription	description	KnownProblemDescription	DR	Y	
Customer Problem ABE	KnownProblemDescription	name	KnownProblemDescription	DR	Y	

Figure 7- SID Conformance Score granted to BMC Software - Customer Service Management (CSM) v22.1