

Framework 13.0 Product Conformance Certification Report

Ericsson
Charging & Billing in One (CBiO)
Version 3.X

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1 Introduction

1.1 Executive Summary

This document provides details of Ericsson' self-assessment and TM Forum's Conformance Assessment of **Ericsson's Charging & Billing in One CBIo** product, against the following Framework 13.0 components:

- Business Process Framework Version 13.0
- Information Framework Version 13.0

The assessment included a review of:

- The methodology approach to process modeling against the TM Forum's Business Process Framework Release 13.0 according to the specific processes submitted in scope for the Assessment.
- Conformance to the Information Framework Release 13.0 Domains/Aggregate Business Entities according to the specific ABEs submitted in scope for the Assessment.

The scope assessed and covered in this report is a subset of the overall support for Framework within the CBIo offering. The remaining support is planned for a follow-up assessment.



2 Product Functionality/Capability Overview

2.1 Ericsson CBiO – Product Overview

Ericsson Charging & Billing in One is Ericsson's end-to-end real-time convergent business support system that allows communication service providers (CSPs) to support a full range of charging and billing needs for all market segments: retail, wholesale, residential and corporate subscribers in a streamlined, convergent process. It covers prepaid and postpaid, voice and data, and fixed and mobile accounts, to support each CSP's specific objectives for convergence.

Charging and Billing in One brings together the capabilities of Ericsson's market-leading real-time Charging System product with the billing experience from Ericsson BSCS iX, combining prepaid and postpaid technical and market experience in one solution. The Charging & Billing in One solution covers all subscribers and all services, including the full range of customer, product and order management, real-time rating, discount and promotion handling, balance management, billing, finance and partner settlements

Charging & Billing in One allows CSPs to handle all customers, partners and services in a streamlined, convergent process, covering pre-paid and post-paid, voice and data, fixed and mobile, retail and wholesale. It handles all forms of payment and billing. It provides the flexibility to configure a wide range of marketing initiatives, such as the use of differentiated tariffs, promotions, discounts, incentive programs, targeted campaigns and cross-service bundles.

Charging & Billing in One includes a flexible, easily managed and configurable rating engine, making it possible for CSP staff to quickly set different tariffs for different customers and partners. This provides not only speed to market, but the ability to target specific customers with more personalized offerings and promotions, resulting in much greater marketing power.

By bringing all relevant customer data together, Charging & Billing in One allows customer care staff to quickly resolve issues while avoiding endless rounds of questions that alienate customers. At the same time, self-care support gives customers a simple and convenient way of handling their own accounts, including all products, services, and billing/payment options.

The customer can choose to get a single invoice, delivered as an e-mail, SMS, traditional paper bill, or multiple invoices allowing, for instance, their business expenses to go directly to their employer. This approach gives the customer a personalized experience that creates customer intimacy, leading to greater loyalty.



Charging & Billing in One uses leading real-time technology, ensuring real-time end-to-end functionality. As it is based on telecom-grade systems, the solution ensures the accuracy and reliability that are crucial when it comes to people’s money. Real-time spending control, combined with real-time information, such as cost and balance notifications, builds trust and leads to greater customer comfort, which encourages greater usage and service uptake.

Charging and Billing in One offers a flexible evolution path to convergence, enabling CSPs to move to fully convergent BSS environment in a step wise fashion in-line with their specific business priorities and starting point, in terms of their existing IT environment.

The following diagram outlines Ericsson’s CBIO Solution Scope to their major e2e process groupings:

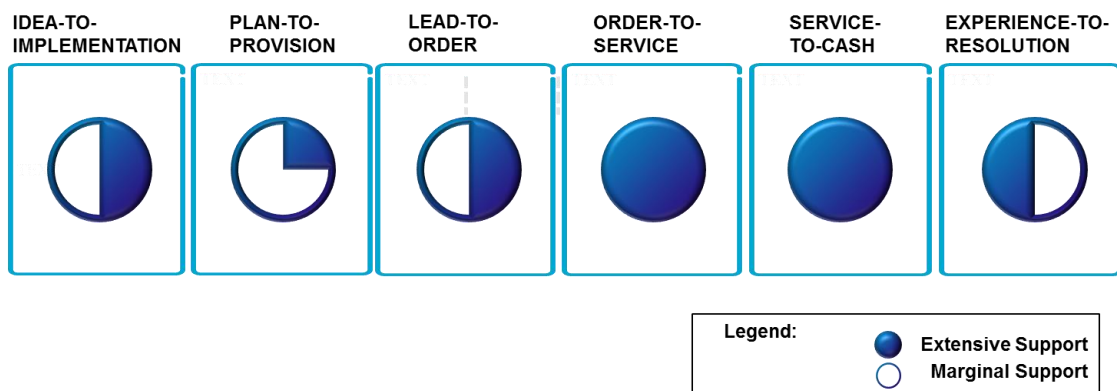


Figure 2-1 Ericsson CBIO Solution Scope to major e2e process groupings



3 Business Process Framework Assessment Overview

3.1 Mapping Technique Employed

Business Process Framework Level 4 descriptions are analyzed by looking for implied tasks. (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.

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 provided against the text in the “Mandatory” field for the process. In the event of the Mandatory field not being used, the process mappings are in that case provided against the Level 4 Brief/Extended descriptions.

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 (Brief & Extended).

TM Forum Note 3: Note, that due to the extent of the Framework scope covered in the assessment, and the corresponding level of documentation from Ericsson for their mapping support, the mapping information is available in separate Mapping documents, available to download from the same TM Forum web page as this Certification Report (Ref: <http://www.tmforum.org/BusinessProcessFramework/16205/home.html>). The corresponding urls for the mapping documents are provided within this document in Chapter 4 Business Process Framework – Process Mapping Descriptions.



3.2 Business Process Framework Level 2 Process Scope

The following figures represent the Business Process Framework Level 2 processes (high-lighted in blue) that were presented in scope for the assessment and that were assessed and support the corresponding Business Process Framework processes according to the results in Chapter 6 Framework Conformance. For additional reference, additional processes supported by CBiO are high-lighted in orange, these processes were not part of the assessment covered by this Certification Report.

Business Process Framework Level 2 Processes (SIP) - Ericsson CBiO Support

Strategy, Infrastructure & Product					
Strategy & Commit		Infrastructure Lifecycle Management		Product Lifecycle Management	
Marketing & Offer Management					
Market Strategy & Policy	Product & Offer Portfolio Planning	Marketing Capability Delivery	Product & Offer Capability Delivery	Product & Offer Development & Retirement	Product Marketing Communications & Promotion
				Sales Development	
Service Development & Management					
Service Strategy & Planning		Service Capability Delivery		Service Development & Retirement	
Resource Development & Management					
Resource Strategy & Planning		Resource Capability Delivery		Resource Development & Retirement	
Supply Chain Development & Management					
Supply Chain Strategy & Planning		Supply Chain Capability Delivery	S/P (sourced) Capability Development & Retirement	Supply Chain Development & Change Management	

Figure 3-1 SIP Level 2 process coverage for Ericsson' CBiO Assessment



Business Process Framework Level 2 Processes (OPS) -Ericsson CBiO 3

Operations					
Operations Support & Readiness	Customer Management			Revenue Management	
Operations Support & Readiness	Fulfillment	Assurance		Billing & Revenue Management	
Customer Relationship Management CRM Support & Readiness	Customer Interaction Management			Bill Invoice Management	Bill Inquiry Handling
	Customer Management			Bill Payments & Receivables Management	
	Customer Information Management			Charging	Manage Balances
	Marketing Fulfillment Response	Selling	Order Handling	Problem Handling	Customer QoS / SLA Management
Manage Billing Events					
Service Management & Operations SM&O Support & Readiness	Service Configuration & Activation		Service Problem Management	Service Quality Management	
	Service Guiding & Mediation				
Resource Management & Operations RM&O Support & Readiness Workforce Management	Resource Provisioning		Resource Trouble Management	Resource Performance Management	
	Resource Mediation & Reporting		Resource Data Collection & Distribution		
Supplier/Partner Relationship Management S/PRM Support & Readiness	S/P Requisition Management		S/P Problem Reporting & Management	S/P Performance Management	
	S/P Settlements & Payments Management		Supplier/Partner Interface Management		

Figure 3-2 Operations Level 2 process coverage & assessment scope for Ericsson' CBiO Assessment



The following diagram identifies the number of Level 3 processes that were submitted for assessment, for each Level 2 process that was submitted in scope for the Assessment.

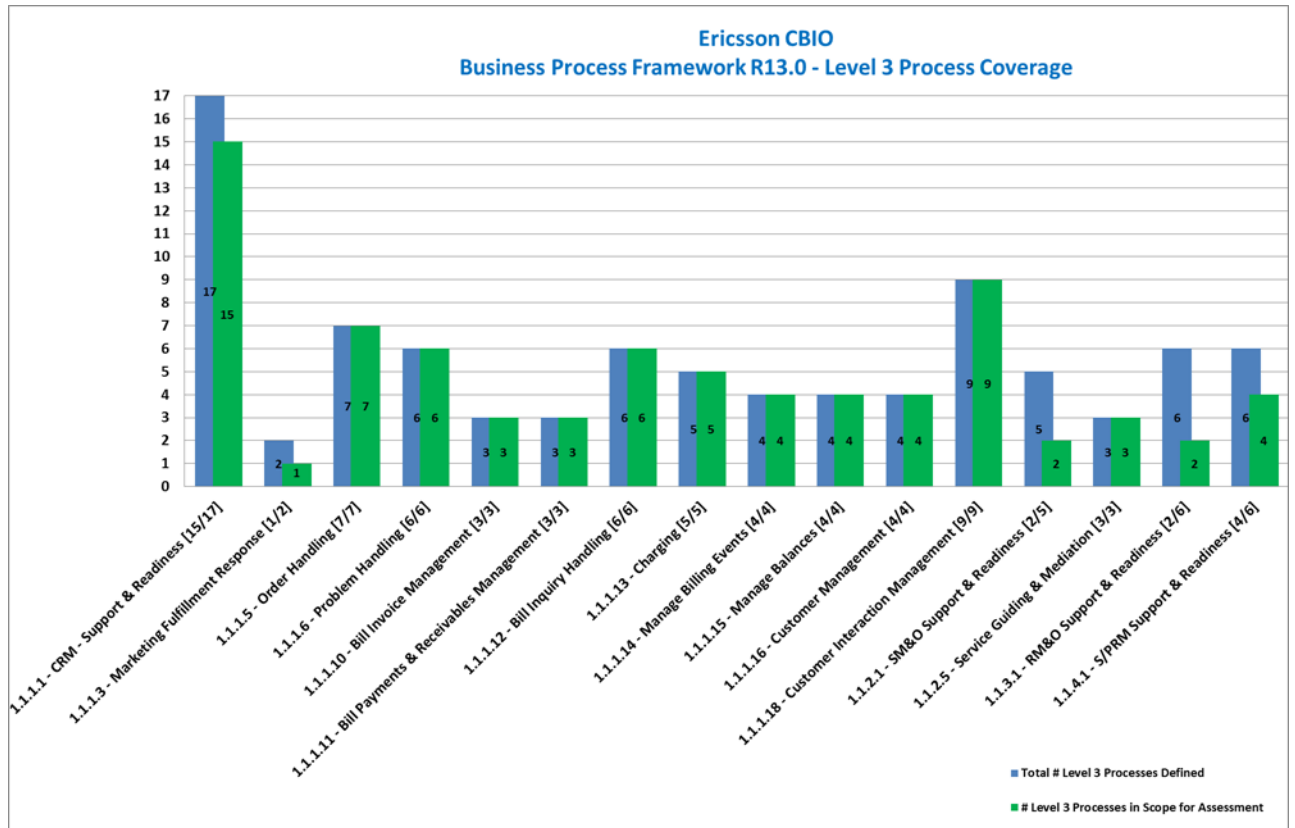


Figure 3-3 Level 3 process coverage for Ericsson CBiO Assessment



3.3 Product Scope

Ericsson does not have an appropriate diagram for the CBIo solution that was assessed. Please refer to the textual overview in Chapter 2 Ericsson CBIo – Product Overview.



4 Business Process Framework – Process Mapping Descriptions

This section provides the Process Mapping output from Ericsson’s Self-Assessment which was reviewed by TM Forum Subject Matter Experts alongside supporting documentation for Ericsson CBI.

4.1 Level 1: 1.1.1 Customer Relationship Management

The documented mapping information for all Level 3/Level 4 processes in scope for Level 1 process Customer Relationship Management is available from the following link:

<http://www.tmforum.org/browse.aspx?catID=16205&linkID=54865&docID=21984>

- L2: 1.1.1.1 – CRM Support & Readiness
- L2: 1.1.1.3 - Marketing Fulfillment Response
- L2: 1.1.1.5 - Order Handling
- L2: 1.1.1.6 - Problem Handling
- L2: 1.1.1.10 - Bill Invoice Management
- L2: 1.1.1.11 - Bill Payments & Receivables Management
- L2: 1.1.1.12 - Bill Inquiry Handling
- L2: 1.1.1.13 - Charging
- L2: 1.1.1.14 - Manage Billing Events
- L2: 1.1.1.15 - Manage Balances
- L2: 1.1.1.16 - Customer Management
- L2: 1.1.1.18 - Customer Interaction Management

4.2 Level 1: 1.1.2 – Service Management & Operations

The documented mapping information for all Level 3/Level 4 processes in scope for Level 1 process Service Management & Operations is available from the following link:

<http://www.tmforum.org/browse.aspx?catID=16205&linkID=54865&docID=21985>

- L2: 1.1.2.1 - SM&O Support & Readiness
- L2: 1.1.2.5 - Service Guiding & Mediation

4.3 Level 1: 1.1.3 – Resource Management & Operations

The documented mapping information for all Level 3/Level 4 processes in scope for Level 1 process Resource Management & Operations is available from the following link:

<http://www.tmforum.org/browse.aspx?catID=16205&linkID=54865&docID=21986>

- L2: 1.1.3.1 - RM&O Support & Readiness



4.4 Level 1: 1.1.4 - Supplier/Partner Relationship Management

Link to mapping document for the following Supplier Partner Relationship Management processes in scope for the assessment:

<http://www.tmforum.org/browse.aspx?catID=16205&linkID=54865&docID=21987>

- L2: 1.1.4.1 - S/PRM Support & Readiness



5 Information Framework Assessment Overview

5.1 Mapping Technique Employed

The certification scope defines the list of ABEs (Aggregate Business Entities) to be addressed during the assessment. The entities, association classes and dependent entities for each ABE in scope are also included in the assessment.

The mapping technique used was based on the analysis of the SID model files and addendum specifications for the entities and association classes in scope and their related attributes. The role of each entity, association class or attribute is then interpreted and mapped into the CBiO information model related element. This will clearly state how the SID model is supported by CBiO.

5.2 Information Framework Assessment - ABE Scope

The diagram in Figure 5-1 illustrates the Information Framework Level 1 ABEs (as highlighted in blue) that were presented in scope for the Assessment.

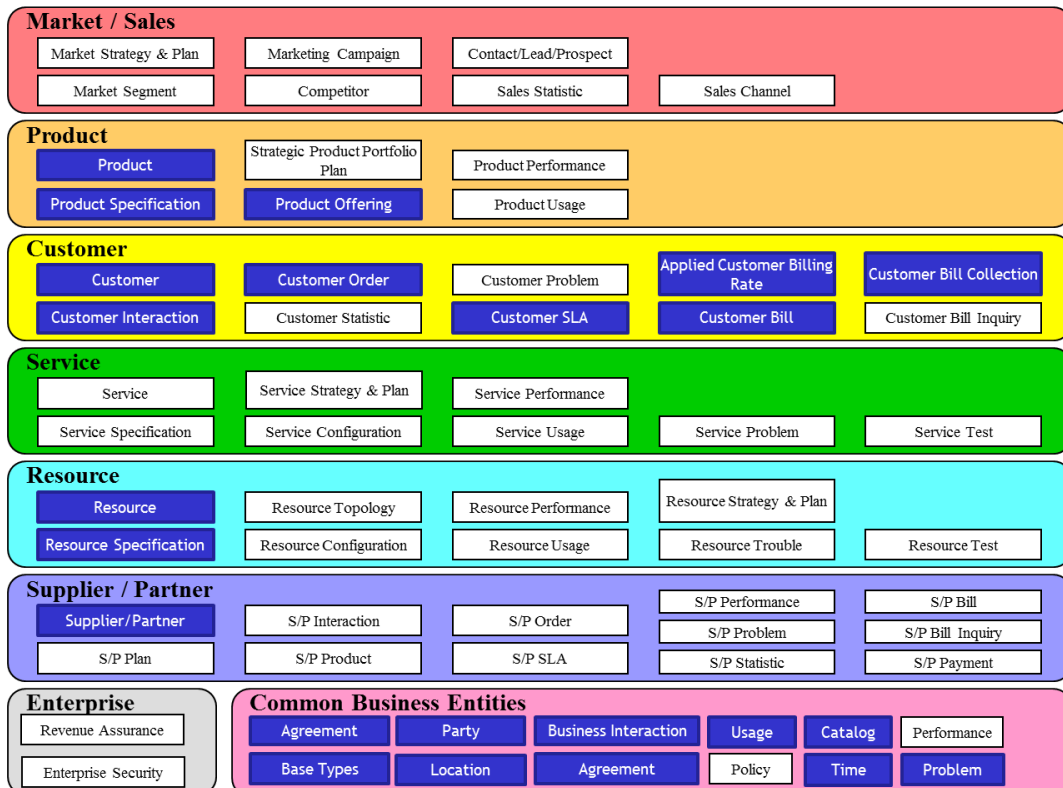


Figure 5-1 Level 1 ABEs in scope for Ericsson' CBiO Assessment



5.3 Product Scope

Ericsson does not have an appropriate diagram for the CBiO solution that was assessed. Please refer to the textual overview in Chapter 2 Ericsson CBiO – Product Overview.



6 Frameworkx Conformance Result

This section details the Scores awarded to reflect Conformance of Ericsson' CBIo to the Business Process Framework & Information Framework components of Frameworkx 13.0.

6.1 Business Process Framework – Scoring Rules

The conformance scores granted were based on the following TM Forum scoring rules:

Frameworkx 13.0 Conformance Certification (Product/Solution/Implementation)		
Business Process Framework (eTOM) - Conformance Score 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 Frameworkx 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.

Figure 6-1 TM Forum Business Process Framework: Conformance Scoring Rules



6.2 Business Process Framework – Conformance Result Summary

The graphs in this section provide an overview of the conformance levels granted to the Level 3 Processes presented in scope for the Ericsson CBiO Assessment. Each Level 3 process was measured using a Business Process Framework (eTOM) conformance score according to level of Conformance – Full Conformance or Partial Conformance as described in section 6.1 Business Process Framework – Scoring Rules.

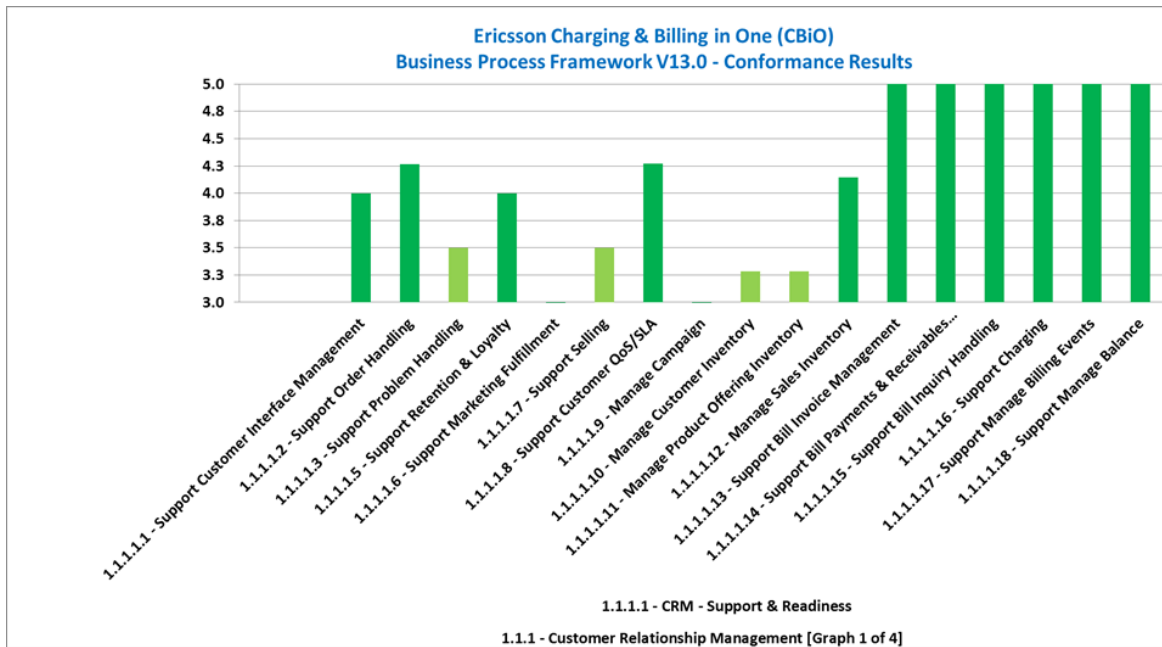


Figure 6-2 Business Process Framework: Conformance Result Summary [1/5]

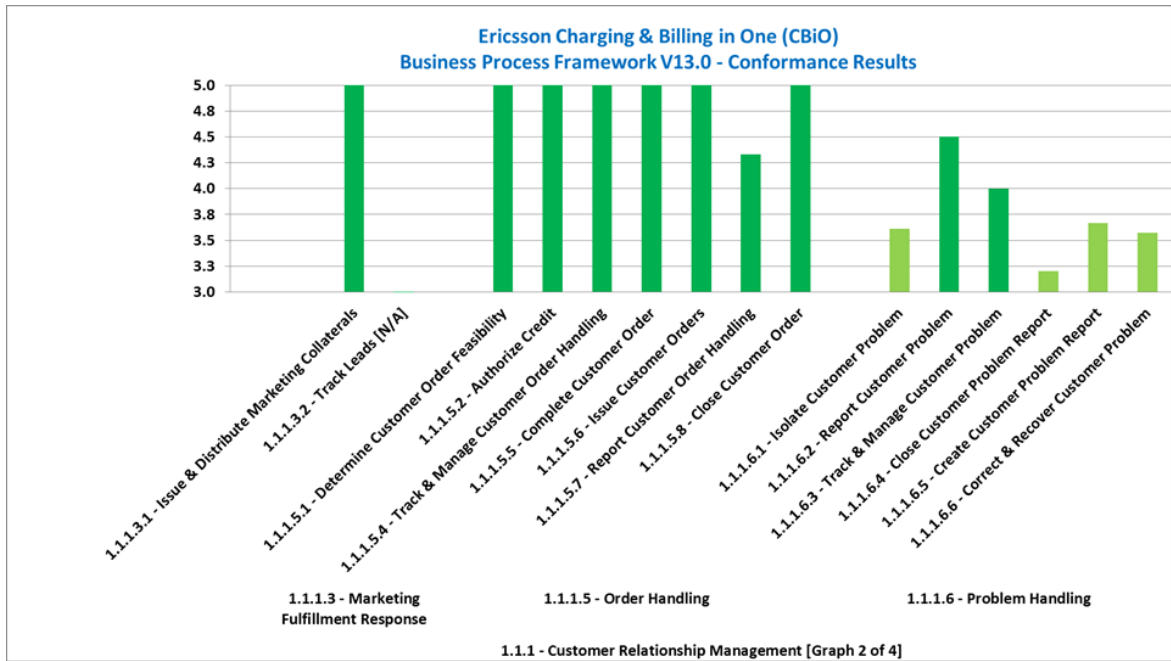


Figure 6-3 Business Process Framework: Conformance Result Summary [2/5]

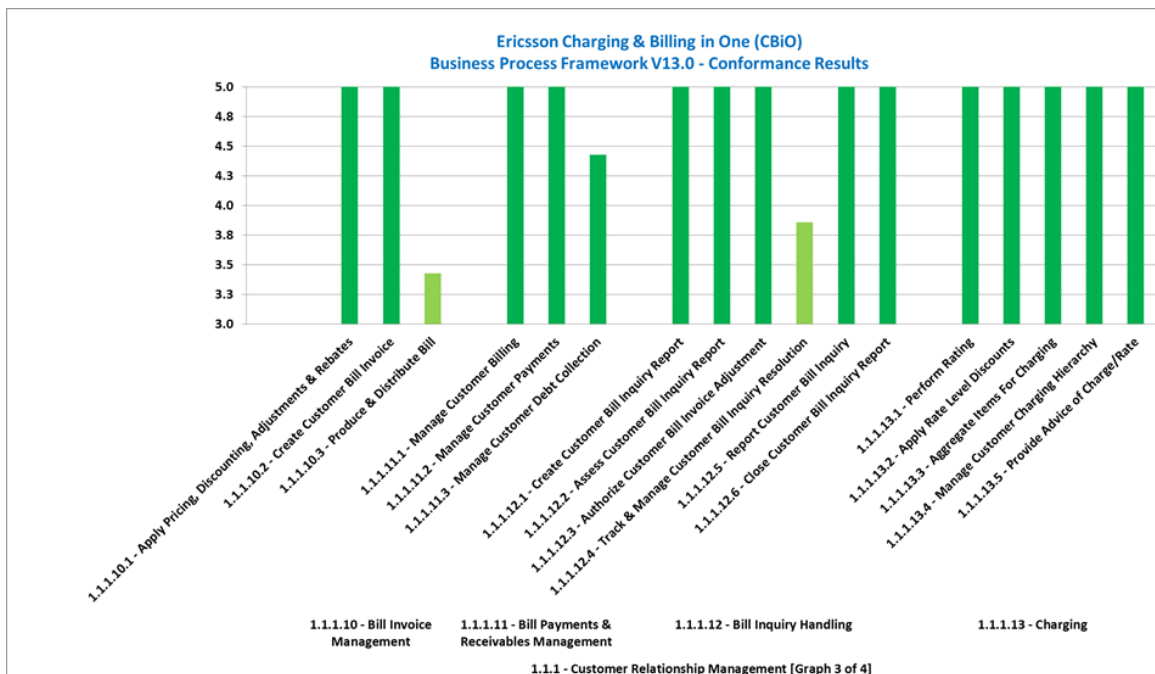


Figure 6-4 Business Process Framework: Conformance Result Summary [3/5]

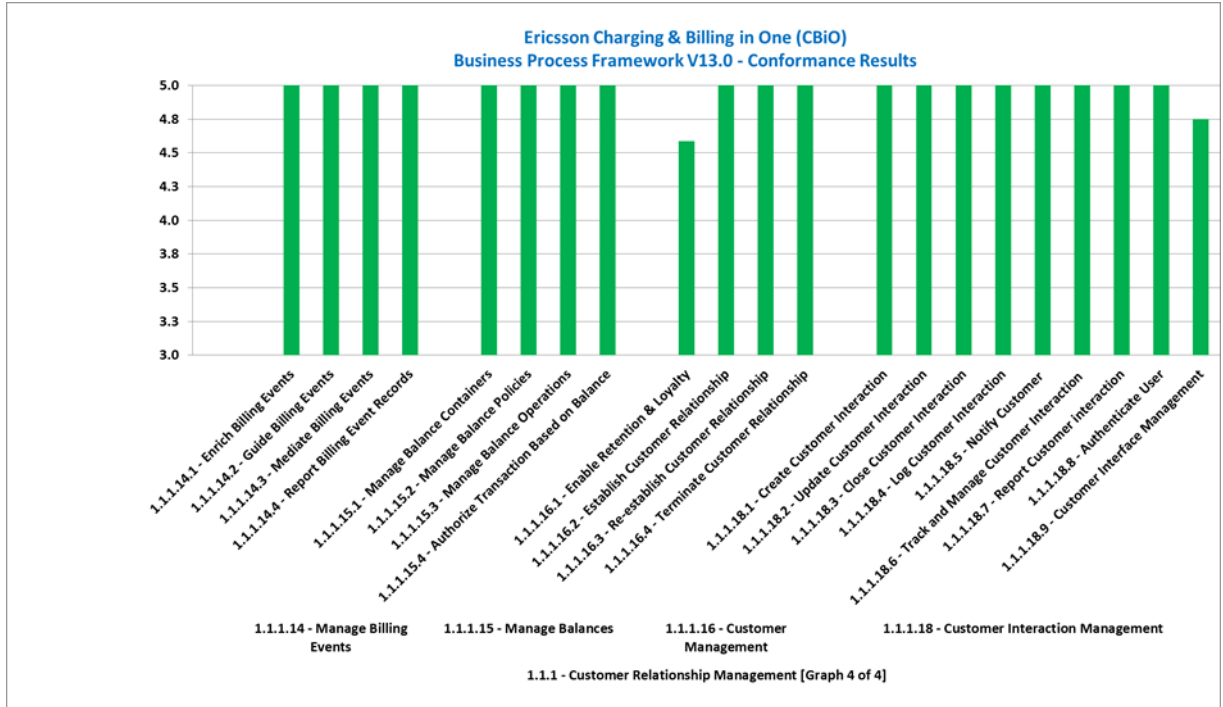


Figure 6-5 Business Process Framework: Conformance Result Summary [4/5]

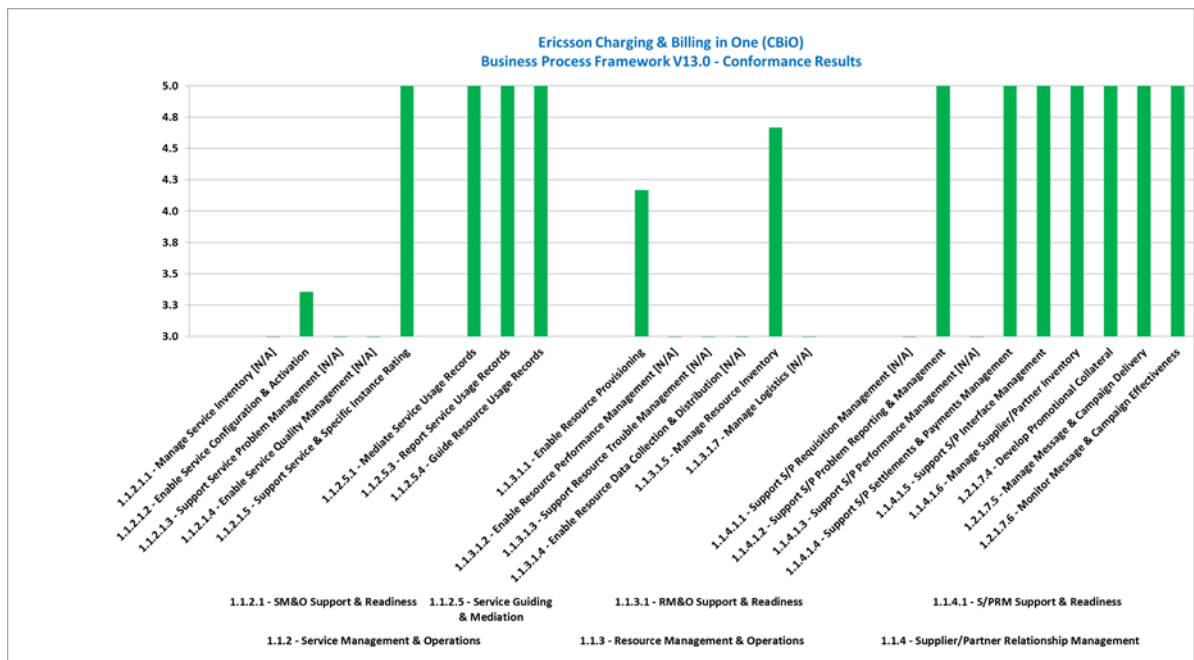


Figure 6-6 Business Process Framework: Conformance Result Summary [5/5]



6.3 Business Process Framework – Detailed Conformance Results

The following table provides a more detailed breakdown of the scores awarded with some additional commentary.

Table 6-1 Business Process Framework: Detailed Conformance Results

Ericsson CBIO Framework 13.0 Business Process Framework Conformance Scores		
Process	Conformance Score	Comments
1.1.1.1 - CRM - Support & Readiness		
1.1.1.1.1 - Support Customer Interface Management	4.0	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.2 - Support Order Handling	4.3	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.3 - Support Problem Handling	3.5	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.5 - Support Retention & Loyalty	4.0	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.



1.1.1.1.6 - Support Marketing Fulfillment	N/A	<i>This process was not submitted for assessment.</i>
1.1.1.1.7 - Support Selling	3.5	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.8 - Support Customer QoS/SLA	4.3	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.9 - Manage Campaign	N/A	<i>This process was not submitted for assessment.</i>
1.1.1.1.10 - Manage Customer Inventory	3.3	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.11 - Manage Product Offering Inventory	3.3	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.1.12 - Manage Sales Inventory	4.1	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.



<p>1.1.1.1.13 - Support Bill Invoice Management</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.1.14 - Support Bill Payments & Receivables Management</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.1.15 - Support Bill Inquiry Handling</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.1.16 - Support Charging</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.1.17 - Support Manage Billing Events</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.1.18 - Support Manage Balance</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



1.1.1.3 - Marketing Fulfillment Response		
1.1.1.3.1 - Issue & Distribute Marketing Collaterals	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
<i>1.1.1.3.2 - Track Leads</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>
1.1.1.5 - Order Handling		
1.1.1.5.1 - Determine Customer Order Feasibility	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.5.2 - Authorize Credit	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.5.4 - Track & Manage Customer Order Handling	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.5.5 - Complete Customer Order	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



<p>1.1.1.5.6 - Issue Customer Orders</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.5.7 - Report Customer Order Handling</p>	<p>4.3</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.5.8 - Close Customer Order</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.6 - Problem Handling		
<p>1.1.1.6.1 - Isolate Customer Problem</p>	<p>3.6</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.6.2 - Report Customer Problem</p>	<p>4.5</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>



<p>1.1.1.6.3 - Track & Manage Customer Problem</p>	<p>4.0</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.6.4 - Close Customer Problem Report</p>	<p>3.2</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.6.5 - Create Customer Problem Report</p>	<p>3.7</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.6.6 - Correct & Recover Customer Problem</p>	<p>3.6</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
1.1.1.10 - Bill Invoice Management		
<p>1.1.1.10.1 - Apply Pricing, Discounting, Adjustments & Rebates</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



1.1.1.10.2 - Create Customer Bill Invoice	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.10.3 - Produce & Distribute Bill	3.4	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.11 - Bill Payments & Receivables Management		
1.1.1.11.1 - Manage Customer Billing	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.11.2 - Manage Customer Payments	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.11.3 - Manage Customer Debt Collection	4.4	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.



1.1.1.12 - Bill Inquiry Handling		
1.1.1.12.1 - Create Customer Bill Inquiry Report	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.12.2 - Assess Customer Bill Inquiry Report	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.12.3 - Authorize Customer Bill Invoice Adjustment	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.12.4 - Track & Manage Customer Bill Inquiry Resolution	3.9	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.1.12.5 - Report Customer Bill Inquiry	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.12.6 - Close Customer Bill Inquiry Report	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



1.1.1.13 - Charging		
1.1.1.13.1 - Perform Rating	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.13.2 - Apply Rate Level Discounts	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.13.3 - Aggregate Items For Charging	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.13.4 - Manage Customer Charging Hierarchy	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.13.5 - Provide Advice of Charge/Rate	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



1.1.1.14 - Manage Billing Events		
1.1.1.14.1 - Enrich Billing Events	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.14.2 - Guide Billing Events	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.14.3 - Mediate Billing Events	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.14.4 - Report Billing Event Records	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.1.15 - Manage Balances		
1.1.1.15.1 - Manage Balance Containers	5	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



<p>1.1.1.15.2 - Manage Balance Policies</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.15.3 - Manage Balance Operations</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.15.4 - Authorize Transaction Based on Balance</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.16 - Customer Management</p>		
<p>1.1.1.16.1 - Enable Retention & Loyalty</p>	<p>4.6</p>	<p>Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.</p>
<p>1.1.1.16.2 - Establish Customer Relationship</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.16.3 - Re-establish Customer Relationship</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



<p>1.1.1.16.4 - Terminate Customer Relationship</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.18 - Customer Interaction Management</p>		
<p>1.1.1.18.1 - Create Customer Interaction</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.18.2 - Update Customer Interaction</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.18.3 - Close Customer Interaction</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.18.4 - Log Customer Interaction</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
<p>1.1.1.18.5 - Notify Customer</p>	<p>5</p>	<p>Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



1.1.1.18.6 - Track and Manage Customer Interaction	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.18.7 - Report Customer interaction	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.18.8 - Authenticate User	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.18.9 - Customer Interface Management	4.8	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.2.1 - SM&O Support & Readiness		
<i>1.1.2.1.1 - Manage Service Inventory</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>
1.1.2.1.2 - Enable Service Configuration & Activation	3.4	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
<i>1.1.2.1.3 - Support Service Problem Management</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>
<i>1.1.2.1.4 - Enable Service Quality Management</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>



1.1.2.1.5 - Support Service & Specific Instance Rating	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.5 - Service Guiding & Mediation		
1.1.2.5.1 - Mediate Service Usage Records	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.5.3 - Report Service Usage Records	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.5.4 - Guide Resource Usage Records	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.1 - RM&O Support & Readiness		
1.1.3.1.1 - Enable Resource Provisioning	4.2	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
<i>1.1.3.1.2 - Enable Resource Performance Management</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>
<i>1.1.3.1.3 - Support Resource Trouble Management</i>	<i>N/A</i>	<i>This process was not submitted for assessment.</i>



1.1.3.1.4 - Enable Resource Data Collection & Distribution	N/A	<i>This process was not submitted for assessment.</i>
1.1.3.1.5 - Manage Resource Inventory	4.7	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM) but with some deviations. See Mapping Table for more details.
1.1.3.1.7 - Manage Logistics	N/A	<i>This process was not submitted for assessment.</i>
1.1.4.1 - S/PRM Support & Readiness		
1.1.4.1.1 - Support S/P Requisition Management	N/A	<i>This process was not submitted for assessment.</i>
1.1.4.1.2 - Support S/P Problem Reporting & Management	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.4.1.3 - Support S/P Performance Management	N/A	<i>This process was not submitted for assessment.</i>
1.1.4.1.4 - Support S/P Settlements & Payments Management	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.4.1.5 - Support S/P Interface Management	5	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



**1.1.4.1.6 - Manage
Supplier/Partner Inventory**

5

Fully Conformant

Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



6.4 Information Framework – Scoring Rules

The conformance scores granted were based on the following TM Forum scoring rules:

Framework 13.0 Conformance Certification (Product/Solution/Implementation)	
Information Framework (SID) - Conformance Score Descriptions	
Conformance Score	Qualifier
Non Conformance [Score = 1]	The content of the model is compatible with a subset of the Information Framework (SID) ABEs that define its domain coverage. This provides two interacting components/solutions with a common vocabulary and model structure. The subset represents the scope of the model, expressed in Information Framework (SID) domains and ABEs.
Non Conformance [Score = 2]	The model has passed level 1 conformance and the content of the ABE, part of the domain coverage and defined in the model, contains the ABE's core business entity or entities. A core business entity is an entity upon which other entities within the ABE are dependent. e.g. Service in the Service ABE. A core entity is also an entity whose absence in the ABE would make the ABE incomplete.
Very Low Conformance [2.0 < Score <= 3.0]	The model has passed level 2 conformance and <u>*a percentage of the required attributes of the ABE's core entity or entities</u> are defined in the model.
Low Conformance [3.0 < Score <= 4.0]	The model has passed level 3 conformance and <u>*a percentage of the dependent entities</u> within the ABE are defined in the model. 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.
Medium Conformance [4.0 < Score <= 5.0]	The model has passed level 4 conformance and <u>*a percentage of the required attributes</u> of the ABE's dependent entities are defined in the model.
High Conformance [5.0 < Score <= 6.0]	The model has passed level 5 conformance and <u>*a percentage of all attributes</u> of the ABE's core entities are defined in the model.
Very High Conformance [6.0 < Score < 7.0]	The model has passed level 6 conformance and <u>*a percentage of all attributes</u> of the ABE's dependent entities are defined in the model.
Full Conformance [Score = 7.0]	The model has achieved Level 7 conformance (Full Conformance) and <u>all</u> attributes of the ABE's core & dependent entities are defined in the model.
* 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).	

Figure 6-7 TM Forum Information Framework: Conformance Scoring Rules

Notes:

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.

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.



6.5 Information Framework – Conformance Result Summary

The following graphs provide an overview of the conformance levels granted to the ABEs presented in scope for the Ericsson CBiO Information Framework Assessment. Each ABE was measured using an Information Framework (SID) conformance scale of 1–7 as described in section 0.

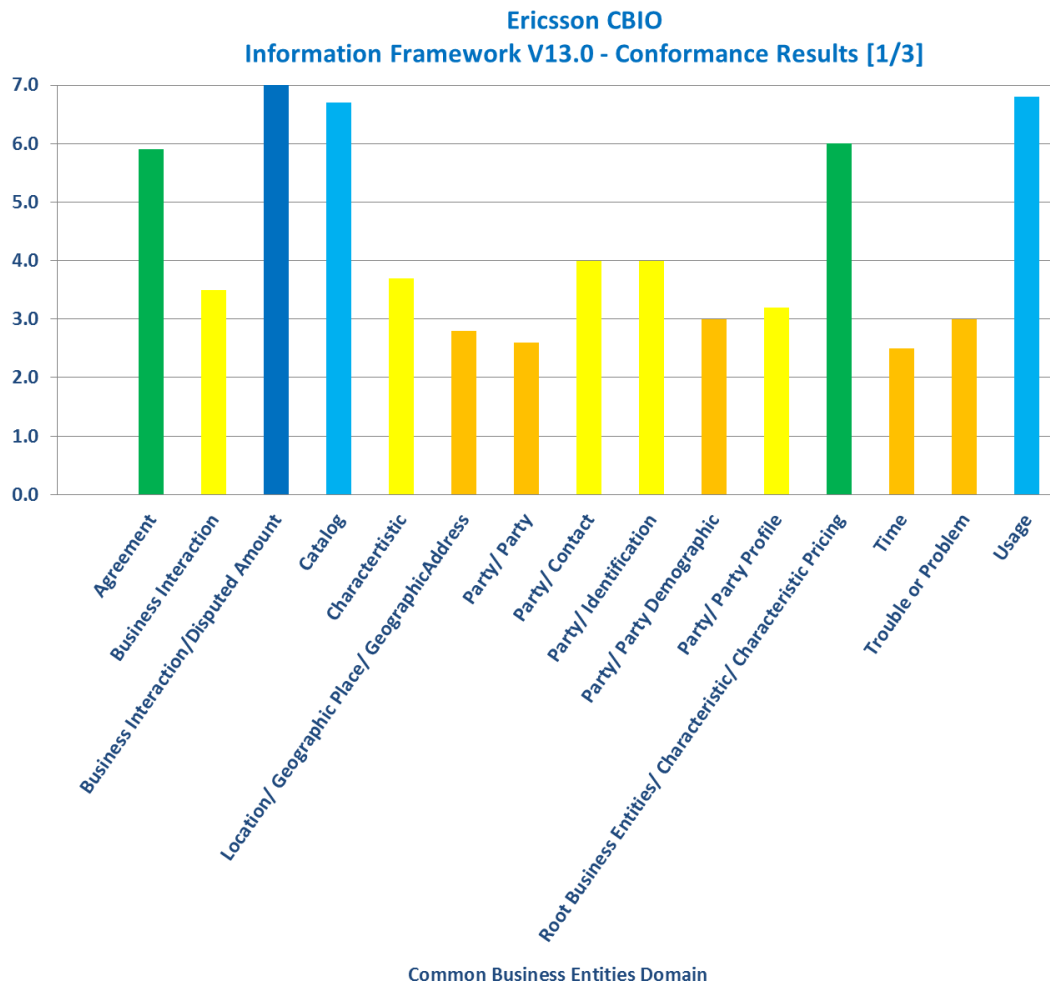


Figure 6-8 Conformance Result Summary [1/3] - Common Business Entities Domain

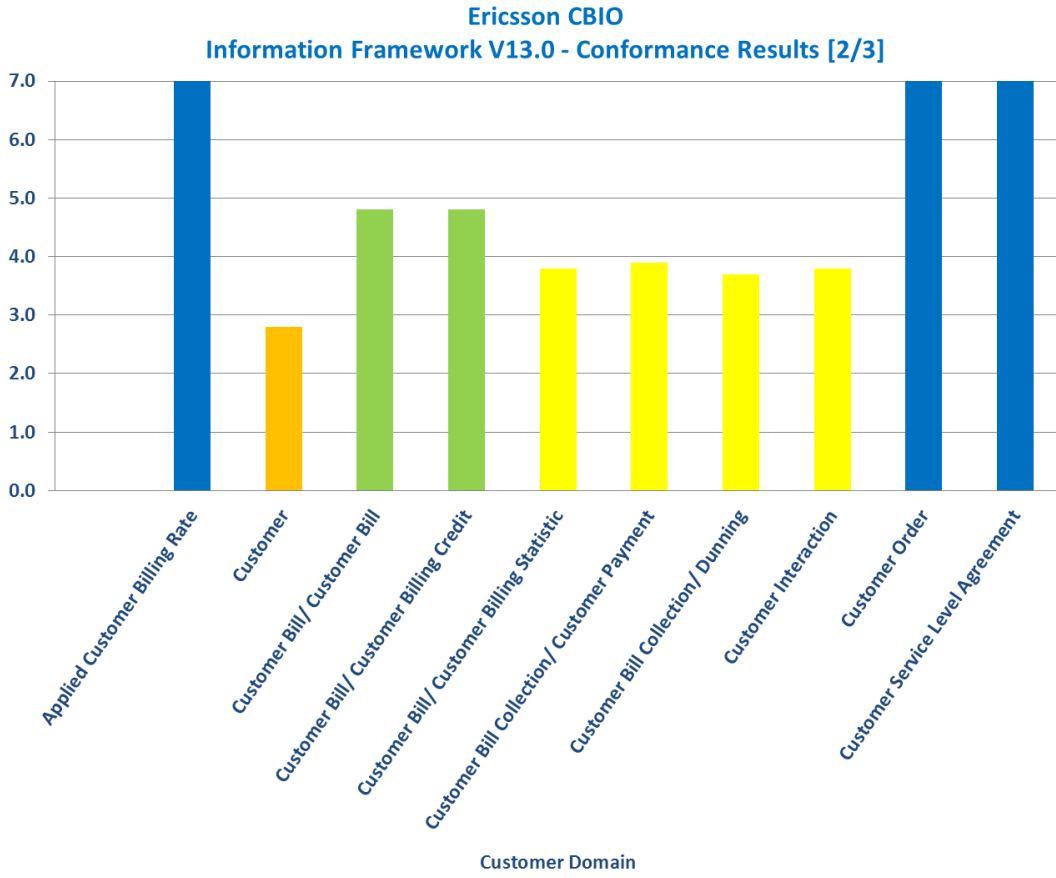


Figure 6-9 Conformance Result Summary [2/3] - Customer Domain



**Ericsson CBIO
Information Framework V13.0 - Conformance Results [3/3]**

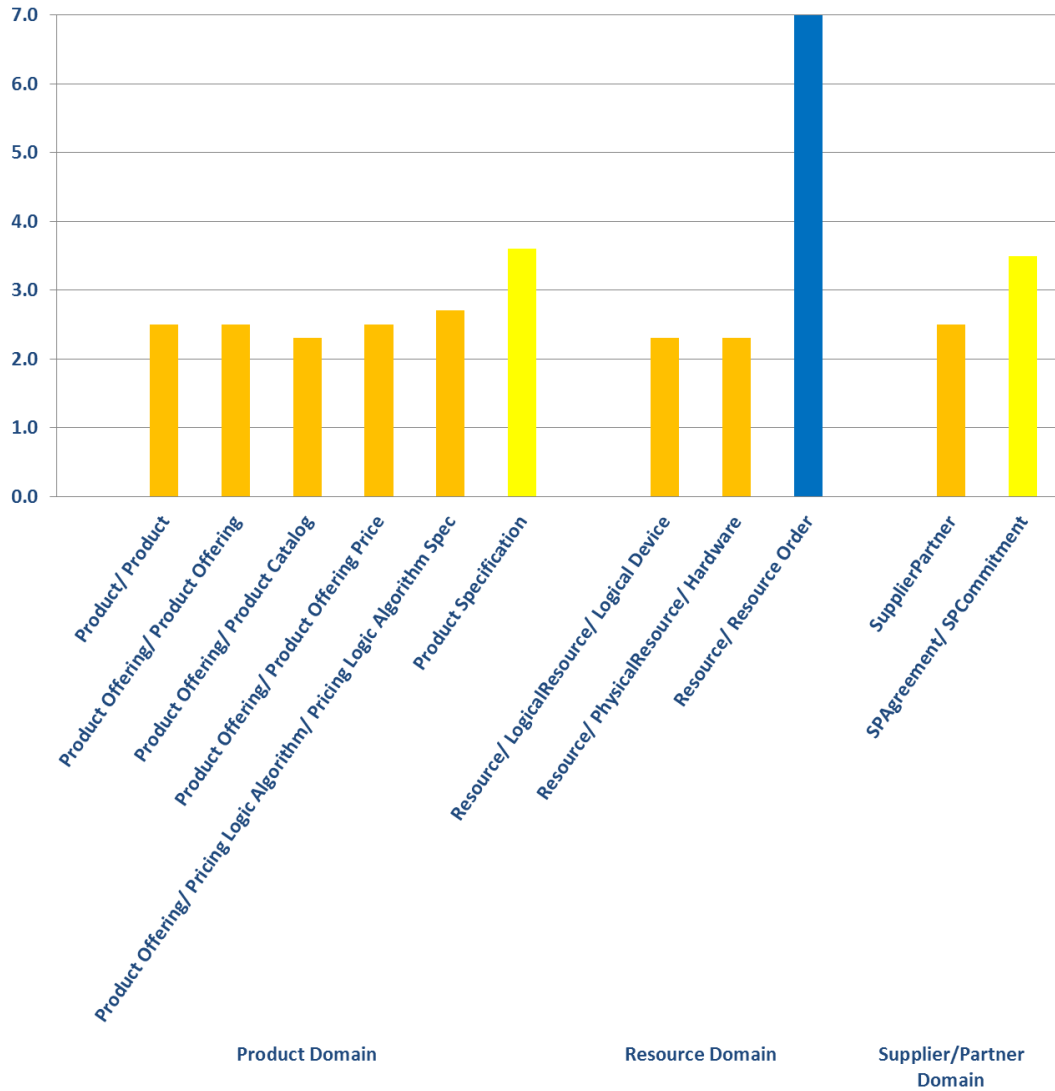


Figure 6-10 Conformance Result Summary [3/3] – Product, Resource & Supplier/Partner Domains



6.6 Information Framework – Detailed Conformance Result

The following table provides a more detailed breakdown of the scores awarded with some additional commentary.

Table 6-2 Information Framework: Detailed Conformance Result

Ericsson CBIO Framework 13.0 Information Framework (SID) Conformance Scores		
Aggregate Business Entity (ABE)	Conformance Score	Additional Comments
Common Business Entities Domain		
<i>Agreement</i>	5.9	14/15 required attributes of dependent entities supported
<i>Business Interaction</i>	3.5	6/12 dependent entities supported
<i>Business Interaction/Disputed Amount</i>	7	Full conformance
<i>Catalog</i>	6.7	2/3 optional attributes of dependent entities supported
<i>Characteristic</i>	3.7	5/7 dependent entities supported
<i>Location/ Geographic Place/ GeographicAddress</i>	2.8	3/4 required attributes of core entity supported
<i>Party/ Party</i>	2.6	3/5 required attributes of core entities (Party and PartyRole)
<i>Party/ Contact</i>	4	0/4 required attributes of dependent entities supported
<i>Party/ Identification</i>	4	0/10 required attributes of dependent entities supported
<i>Party/ Party Demographic</i>	3	0/7 dependent entities supported
<i>Party/ Party Profile</i>	3.2	1/5 dependent entities supported
<i>Root Business Entities/ Characteristic/ Characteristic Pricing</i>	6	0/1 optional attributes of dependent entity supported
<i>Time</i>	2.5	1/2 required attributes of core entity supported
<i>Trouble or Problem</i>	3	0/2 dependent entities supported
<i>Usage</i>	6.8	4/5 optional attributes of dependent entities supported



Customer Domain		
<i>Applied Customer Billing Rate</i>	7	<i>Full conformance</i>
<i>Customer</i>	2.8	<i>4/5 required attributes of core entity supported</i>
<i>Customer Bill/ Customer Bill</i>	4.8	<i>15/18 required attributes of dependent entities supported</i>
<i>Customer Bill/ Customer Billing Credit</i>	4.8	<i>6/8 required attributes of dependent entities supported</i>
<i>Customer Bill/ Customer Billing Statistic</i>	3.8	<i>9/11 dependent entities supported</i>
<i>Customer Bill Collection/ Customer Payment</i>	3.9	<i>6/7 dependent entities supported</i>
<i>Customer Bill Collection/ Dunning</i>	3.7	<i>5/7 dependent entities supported</i>
<i>Customer Interaction</i>	3.8	<i>4/5 dependent entities supported</i>
<i>Customer Order</i>	7	<i>Full conformance</i>
<i>Customer Service Level Agreement</i>	7	<i>Full conformance</i>
Product Domain (9 ABEs)		
<i>Product/ Product</i>	2.5	<i>1/2 required attributes of core entity supported</i>
<i>Product Offering/ Product Offering</i>	2.5	<i>2/4 required attributes of core entity</i>
<i>Product Offering/ Pricing Logic Algorithm/ Pricing Logic Algorithm</i>	2.7	<i>2/3 required attributes of core entity supported</i>
<i>Product Offering/ Product Catalog</i>	2.3	<i>1/3 required attributes of core entity</i>
<i>Product Offering/ Product Offering Price</i>	2.5	<i>1/2 required attributes of core entity supported</i>
<i>Product Specification</i>	3.6	<i>9/15 dependent entities supported</i>
Resource Domain (3 ABEs)		
<i>Resource/ LogicalResource/ Logical Device</i>	2.3	<i>2/7 required attributes of core entity supported</i>
<i>Resource/ PhysicalResource/ Hardware</i>	2.3	<i>2/7 required attributes of core entity supported</i>



<i>Resource/ Resource Order</i>	7	<i>Full conformance</i>
Supplier/Partner Domain (2 ABEs)		
<i>SupplierPartner</i>	2.5	<i>3/6 required attributes of core entities (Supplier and Partner) supported</i>
<i>SPAgreement/ SPCommitment</i>	3.5	<i>2/4 dependent entities supported</i>