



TM Forum Framework 13.5 Implementation Conformance Certification Report

**TUNISIE TELECOM
GLOBAL NETWORK OPERATIONS CENTRE
(GNOC)**

**December 2014
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1 Introduction

1.1 Executive Summary

This document provides details of Tunisie Telecom's self-assessment and TM Forum's Conformance Assessment of the Tunisie Telecom GNOC processes, against the following Framework 13.5 components:

- Business Process Framework Version 13.5

The assessment included a review of:

- The methodology approach to process modeling against the TM Forum's Business Process Framework Release 13.5 according to the specific processes submitted in scope for the Assessment.

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



2 Implementation Functionality/Capability Overview

2.1 Tunisie Telecom GNOC – Implementation Overview

Tunisie Telecom, Incumbent telecom operator in Tunisia, believes that processes, information, applications and integrations are fundamental for any business transformation project. For that reason and in order to achieve any benefits by business processes, it considers that starting with a best practice framework is essential to overcome the obstacles of a silo-oriented process design. It is in this context that a Global Network Operations Center (GNOC) implementation project has been conducted by Tunisie Telecom.

The GNOC, considered as the central point of all networks, controls, coordinates and correlates all activities and problems in all networks of Tunisie Telecom. The main task of the GNOC is the monitoring 24 hours/day, 7 days/week and 365 days/year of all networks elements from Core, Access, Mobile, Data, IP, Transmission, Fixed and VAS to secure the highest network availability for the customer. The GNOC is also coordinating and tracking all major changes within the networks, by:

- Monitoring of all network events that could actually or potentially impact upon network service performance.
- Identification and prioritization of faults via Network Alarms; taking decisive steps to ensure appropriate levels of response are applied for speedy fault resolution.
- Initiation and effective management of Trouble Tickets through to closure, paying close attention to the SLA requirements and capturing all relevant details for future reference on the Trouble Ticketing system.
- Execution of regular routines and tasks supporting near real-time network performance monitoring.
- Tracking planned work to ensure start and stop times is adhered to.
- Co-operating with network specialists (Center of Competences/2nd Level Support) to ensure quick recovery from service failure.
- Cooperating with Regional Operation Center (ROC) for dispatching the regional technicians for onsite activities.
- Cooperating with Customer Care Helpdesk, Customer NOC (CNO) and Trouble Tracking Team to ensure best customer feedback.

The tasks of the GNOC are supported by state-of-the-art Operational Support Systems. They have to be reported via a GNOC dashboard and empowered by clear escalation rules.



The GNOC major advantages are:

- Higher efficiency of technical staff dramatically compared to decentralized NOC's especially during weekends and in the night shifts.
- Less effort for trouble resolution due to central control and coordination of all trouble tickets.
- Higher network transparency due to central and actual overview and information on all networks.
- Efficient alarm handling due to Umbrella Management System with alarm correlation.
- Central change management for software and hardware updates.
- Central point for disaster recovery actions and training.

However, the GNOC benefits for customers are:

- Customer care will have one Single Point of Contact (SOP) for all information concerning any outages and problems in all networks or systems.
- Customer care will be automatically informed if major outages occur in the networks or if VIP-customers are affected.
- The central change management for software and hardware will co-ordinate any customer effecting work with customer care and will take the existing SLA's with customers into account.
- The GNOC will reduce the time to solve a trouble in general, caused by the central overview and control of all networks and by the use of efficient operational support systems.

The objectives of the GNOC project are the analysis, design and implementation of GNOC end-to-end processes according to Business Process Framework (eTOM) of TM Forum in order to achieve operational excellence, to increase performance and to save cost. These structured processes based on a consistent framework result in increased efficiency, clear responsibilities, less re-work and higher quality as well as customer satisfaction.

The GNOC Process design, which is an essential part on the way to process implementation and continuous improvement, has followed a top-down approach and has been realized with reduced effort by exploiting Business Process Framework (eTOM) and Detecon's process blueprints in order to receive a TM Forum certification.



The conformance assessment is accomplished for the following Gnoc operational processes:

- Trouble Ticket to Solution
- Work Order Management
- Gnoc Security Management
- Software Change Management
- Continuity Management
- International Operator Management



3 Business Process Framework Assessment Overview

3.1 Mapping Technique Employed

Tunisie Telecom submitted their mappings to TM Forum’s Business Process Framework by using their RACI Matrix documents that capture the details of the end-to-end process flows.

Mappings were provided from perspective of Tunisie Telecom’s GNOC End-to-End business processes. The following Tunisie Telecom End-To-End processes were submitted for assessment:

- Trouble Ticket to Solution
- GNOC Security Management
- Software Change Management
- International Operator Management
- Work Order Management
- Continuity Management

For each of the above listed end-to-end processes, a RACI matrix was submitted with the Tunisie Telecom process steps mapped to Business Process framework Level 4 processes, or Level 3 processes where Level 4 processes are not defined.



3.2 Business Process Framework 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 for which a selection of underlying Level 3 processes were submitted in scope. The text callouts capture the high-level mapping to the Tunisie Telecom GNOC implementation according to GNOC's End-To-End Processes.

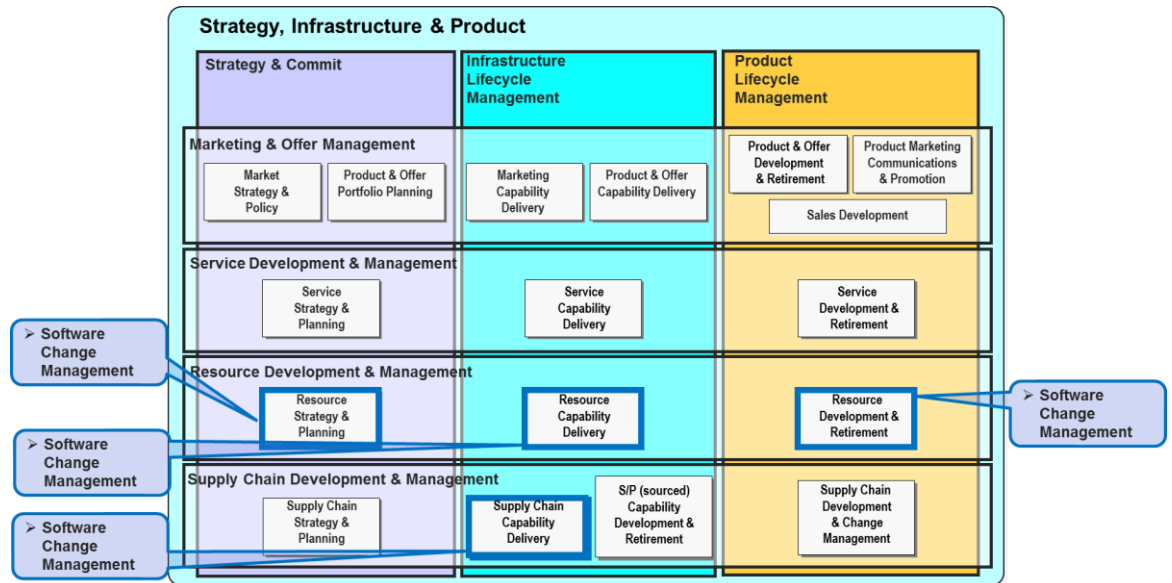


Figure 3-1 Business Process Framework Level 2 process coverage – Strategy, Infrastructure & Product.

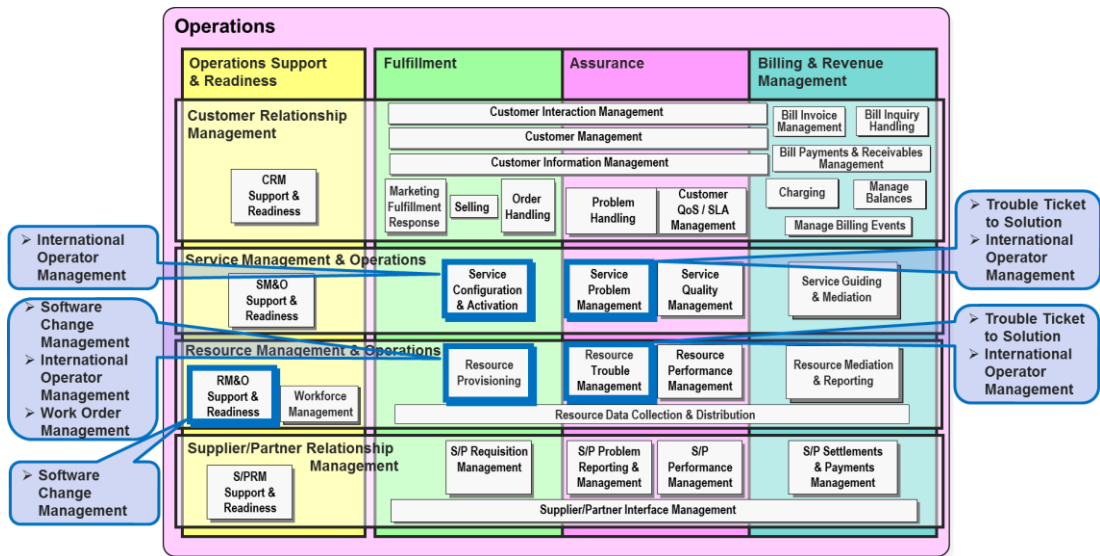


Figure 3-2 Business Process Framework Level 2 process coverage – Operations.

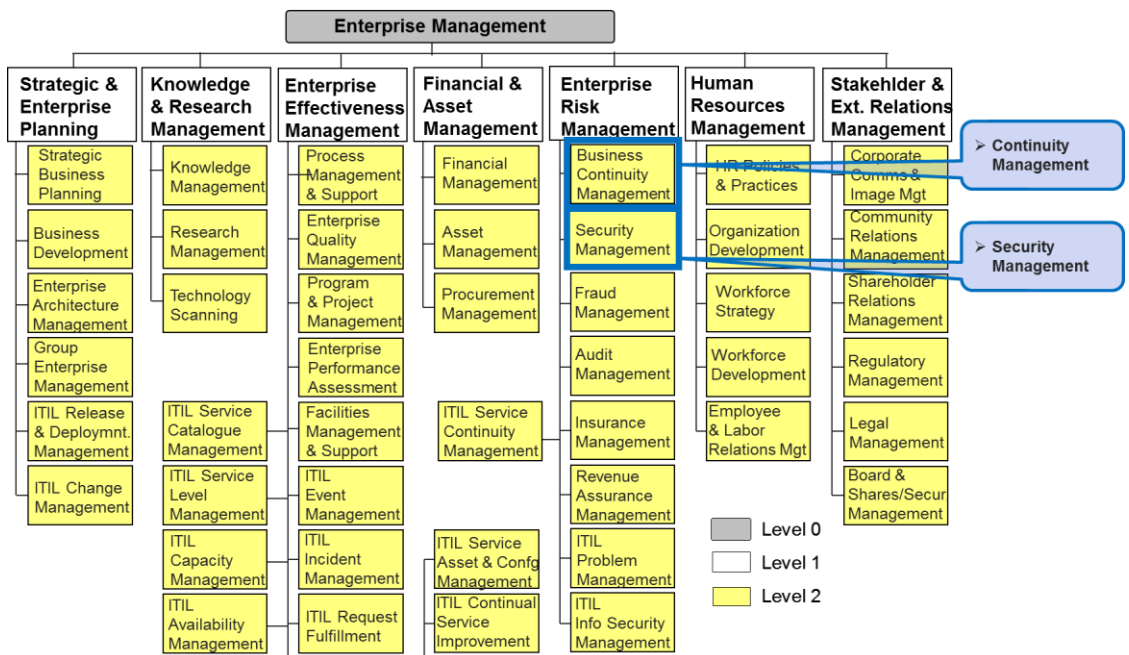


Figure 3-3 Business Process Framework Level 2 process coverage – Enterprise Management.



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.

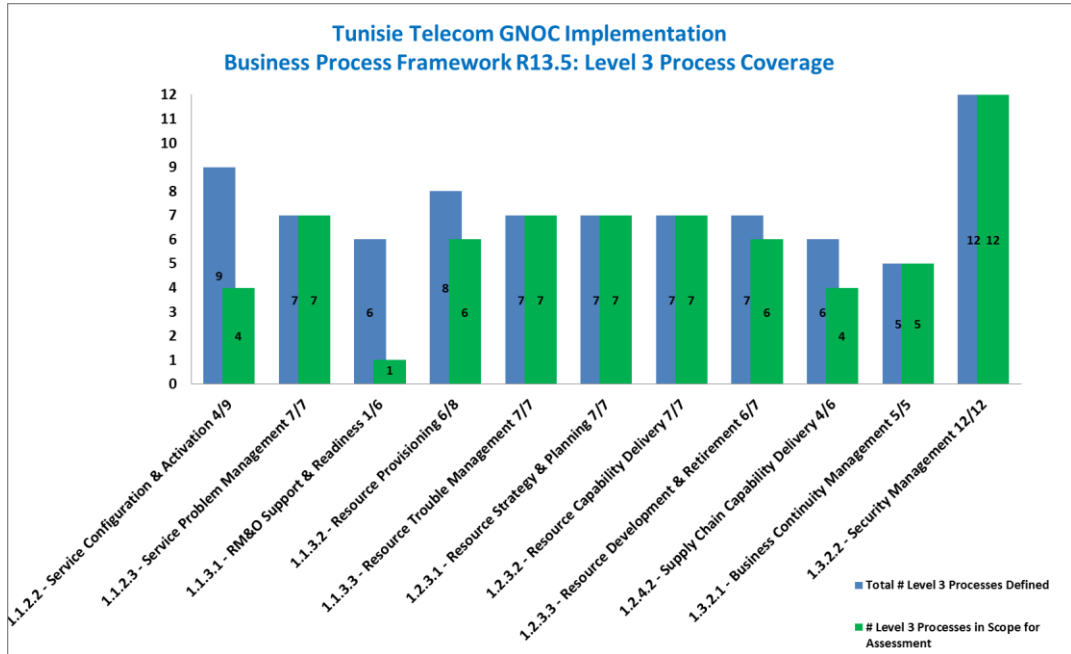


Figure 3-4 Level 3 process coverage for Tunisie Telecom GNOC Assessment



3.3 Implementation Scope

The following diagram represents the Tunisie Telecom GNOC implementation:

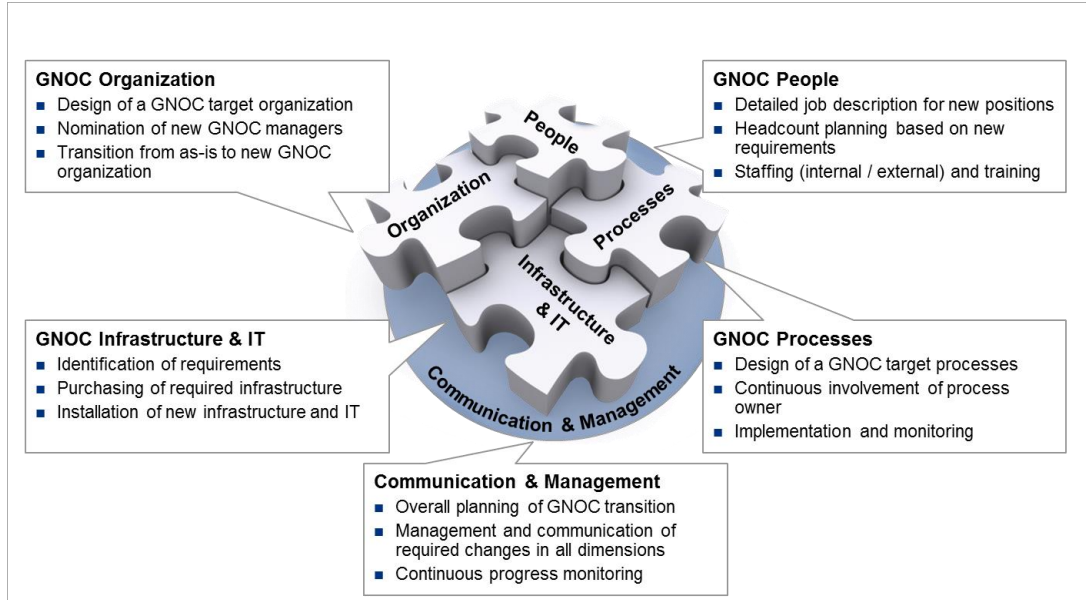


Figure 3-5 Tunisie Telecom GNOC Implementation Overview



4 Business Process Framework – Process Mapping Descriptions

This section provides links to the Process Mapping output from Tunisie Telecom’s Self-Assessment which was reviewed by a team of TM Forum Subject Matter Experts alongside supporting evidence documentation for Tunisie Telecom GNOC implementation.

Details are provided according to the Tunisie Telecom end-to-end processes that were submitted for the Framework Conformance Assessment:

- Trouble Ticket to Solution
- GNOC Security Management
- Software Change Management
- International Operator Management
- Work Order Management
- Continuity Management

TM Forum Note:

The detailed mapping information provided by Tunisie Telecom for the Framework Conformance Assessment is considered confidential information. For access to the detailed mapping information, please contact TM Forum Framework Conformance Certification authority (conformance@tmforum.org).

Alternatively, please contact Tunisie Telecom Quality Team directly:

- *Abdessattar Salhi* (Abdessattar.Salhi@tunisiatelecom.tn)
- *Youssef Said* (Youssef.Said@tunisiatelecom.tn)



4.1 Tunisie Telecom E2E Process: Trouble Ticket to Solution

4.1.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom Trouble Ticket to Solution processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27943&team_ID=338

Tunisie Telecom's E2E Trouble Ticket to Solution process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.1.2.3 - Service Problem Management
- Level 2: 1.1.3.3 - Resource Trouble Management

NOTE: For access please contact TM Forum Framework Conformance Certification authority (conformance@tmforum.org).

Alternatively, please contact Tunisie Telecom Quality Team directly:

- Abdessattar Salhi (Abdessattar.Salhi@tunisiatelecom.tn)
- Youssef Said (Youssef.Said@tunisiatelecom.tn)



4.1.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for Trouble Ticket to Solution end-to-end process flow were mapped.

Table 4-1 E2E Trouble Ticket to Solution – Service Problem Management

Tunisie Telecom E2E Process - TROUBLE TICKET TO SOLUTION	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2:1.1.2.3 - Service Problem Management	
1.1.2.3.1 - Create Service Trouble Report	5
1.1.2.3.1.1 - Generate Service Problem	100%
1.1.2.3.1.2 - Convert Report To Service Problem Format	100%
1.1.2.3.1.3 - Estimate Time For Restoring Service	100%
1.1.2.3.2 - Diagnose Service Problem	5
1.1.2.3.2.1 - Verify Service Configuration	100%
1.1.2.3.2.2 - Perform Specific Service Problem Diagnostics	100%
1.1.2.3.2.3 - Perform Specific Service Problem Tests	100%
1.1.2.3.2.4 - Schedule Routine Service Problem Tests	100%
1.1.2.3.2.5 - Stop And Start Audit On Services	100%
1.1.2.3.2.6 - Notify T&M Root Cause Service Problem	100%
1.1.2.3.2.7 - Categorize Service Problem	100%
1.1.2.3.3 - Correct & Resolve Service Problem	5
1.1.2.3.3.1 - Reassign / Reconfigure Failed Service	100%
1.1.2.3.3.2 - Manage Service Restoration	100%
1.1.2.3.3.3 - Implement Service Problem Work Arounds	100%
1.1.2.3.3.4 - Invoke Support Service Problem Management Processes	100%
1.1.2.3.3.5 - Review Major Service Problem	100%
1.1.2.3.4 - Track & Manage Service Problem	5
1.1.2.3.4.1 - Coordinate Service Problem	100%
1.1.2.3.4.2 - Perform First in Service Testing	100%
1.1.2.3.4.3 - Cancel Service Problem	100%
1.1.2.3.4.4 - Escalate Service Problem	100%
1.1.2.3.4.5 - Perform Final Service Test	100%
1.1.2.3.4.6 - Prioritize Service Problem	100%
1.1.2.3.5 - Report Service Problem	5
1.1.2.3.5.1 - Monitor Service Problem	100%
1.1.2.3.5.2 - Distribute Service Problem Notifications	100%
1.1.2.3.5.3 - Distribute Service Problem Management Reports & Summaries	100%
1.1.2.3.6 - Close Service Trouble Report	5



1.1.2.3.7 - Survey & Analyze Service Problem	5
1.1.2.3.7.1 - Manage Service Alarm Event Notifications	100%
1.1.2.3.7.2 - Filter Service Alarm Event Notifications	100%
1.1.2.3.7.3 - Correlate Service Alarm Event Notifications	100%
1.1.2.3.7.4 - Abate Service Alarm Event Records	100%
1.1.2.3.7.5 - Trigger Defined Service Alarm Action	100%
1.1.2.3.7.6 - Monitor Service Alarms Events	100%
1.1.2.3.7.7 - Categorize Service Alarm Event	100%



Table 4-2 E2E Trouble Ticket to Solution – Resource Trouble Management

Tunisie Telecom E2E Process - TROUBLE TICKET TO SOLUTION	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.3 - Resource Trouble Management	
1.1.3.3.1 - Survey & Analyze Resource Trouble	5
1.1.3.3.1.1 - Manage Resource Alarm Event Notifications	100%
1.1.3.3.1.2 - Filter Resource Alarm Event Notifications	100%
1.1.3.3.1.3 - Correlate Resource Alarm Event Notifications	100%
1.1.3.3.1.4 - Abate Alarm Event Records	100%
1.1.3.3.1.5 - Trigger Defined Action	100%
1.1.3.3.1.6 - Monitor Resource Alarms Events	100%
1.1.3.3.1.7 - Categorize Resource Alarm Event	100%
1.1.3.3.2 - Localize Resource Trouble	5
1.1.3.3.2.1 - Verify Resource Configuration	100%
1.1.3.3.2.2 - Perform Specific Resource Trouble Diagnostics	100%
1.1.3.3.2.3 - Perform Specific Resource Trouble Tests	100%
1.1.3.3.2.4 - Stop And Start Audit On Resources	100%
1.1.3.3.2.5 - Schedule Routine Resource Trouble Tests	100%
1.1.3.3.2.6 - Notify T&M Root Cause Resource Trouble	100%
1.1.3.3.2.7 - Categorize Resource Trouble	100%
1.1.3.3.3 - Correct & Resolve Resource Trouble	5
1.1.3.3.3.1 - Repair / Replace Failed Resource	100%
1.1.3.3.3.2 - Isolate Unit with Fault	100%
1.1.3.3.3.3 - Manage Standby Resource Units	100%
1.1.3.3.3.4 - Implement Resource Trouble Work Arounds	100%
1.1.3.3.3.5 - Invoke Support Resource Trouble Management Processes	100%
1.1.3.3.3.6 - Review Major Resource Trouble	100%
1.1.3.3.4 - Track & Manage Resource Trouble	5
1.1.3.3.4.1 - Coordinate Resource Trouble	100%
1.1.3.3.4.2 - Perform First in Testing	100%
1.1.3.3.4.3 - Cancel Resource Trouble	100%
1.1.3.3.4.5 - Perform Final Test	100%
1.1.3.3.4.6 - Engaging External Suppliers	100%
1.1.3.3.4.7 - Prioritize Resource Trouble	100%
1.1.3.3.5 - Report Resource Trouble	5
1.1.3.3.5.1 - Monitor Resource Trouble	100%
1.1.3.3.5.2 - Distribute Notifications	100%
1.1.3.3.5.3 - Distribute Management Reports & Summaries	100%
1.1.3.3.6 - Close Resource Trouble Report	5
1.1.3.3.7 - Create Resource Trouble Report	5
1.1.3.3.7.1 - Generate Resource Trouble	100%
1.1.3.3.7.2 - Convert Report To Resource Trouble Format	100%
1.1.3.3.7.3 - Estimate Time For Restoring Resource	100%



4.2 Tunisie Telecom E2E Process: GNOC Security Management

4.2.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom GNOC Security Management processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27945&team_ID=338

Tunisie Telecom's E2E GNOC Security Management process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.3.2.2 - Security Management

NOTE: For access please contact TM Forum Framework Conformance Certification authority

conformance@tmforum.org.

Alternatively, please contact Tunisie Telecom Quality Team directly:

- Abdessattar Salhi (Abdessattar.Salhi@tunisiatelecom.tn)
- Youssef Said (Youssef.Said@tunisiatelecom.tn)



4.2.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for GNOC Security Management end-to-end process flow were mapped.

Table 4-3 E2E GNOC Security Management – Security Management

Tunisie Telecom E2E Process - GNOC SECURITY MANAGEMENT	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2: 1.3.2.2 - Security Management	
1.3.2.2.1 - Manage Proactive Security Management	5
1.3.2.2.2 - Monitor Industry Trends for Security Management	5
1.3.2.2.3 - Define Security Management Policies & Procedures	5
1.3.2.2.4 - Assist with Security Management Deployment	5
1.3.2.2.5 - Manage Reactive Security Management	5
1.3.2.2.6 - Detect Potential Security Threats & Violations	5
1.3.2.2.7 - Investigate Potential Security Threats & Violations	5
1.3.2.2.8 - Define Security Management Prevention	5
1.3.2.2.9 - Define Monitoring to Facilitate Security Management	5
1.3.2.2.10 - Define Security Management Analysis	5
1.3.2.2.11 - Define Security Management policies & procedures to facilitate detection incidents	5
1.3.2.2.12 - Define Incident Management policies and procedures	5



4.3 Tunisie Telecom E2E Process: Software Change Management

4.3.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom Software Change Management processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27946&team_ID=338

Tunisie Telecom's E2E GNOC Software Change Management process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.1.3.1 - RM&O Support & Readiness
- Level 2: 1.1.3.2 - Resource Provisioning
- Level 2: 1.2.3.1 - Resource Strategy & Planning
- Level 2: 1.2.3.2 - Resource Capability Delivery
- Level 2: 1.2.3.3 - Resource Development & Retirement
- Level 2: 1.2.4.2 - Supply Chain Capability Delivery

NOTE: For access please contact TM Forum Framework Conformance Certification authority

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4.3.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for Software change Management end-to-end process flow were mapped.

Table 4-4 E2E Software Change Management – RM&O Support & Readiness

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.1 - RM&O Support & Readiness	
1.1.3.1.5 - Manage Resource Inventory	3.67
1.1.3.1.5.1 - Manage Resource Inventory Database and Processes	100%
1.1.3.1.5.3 - Track and Monitor Resource Repository Capabilities	0%
1.1.3.1.5.4 - Identify Repository Issues and Provide Reports and Warnings	0%

Table 4-5 E2E Software Change Management – Resource Provisioning

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.2 - Resource Provisioning	
1.1.3.2.2 - Configure & Activate Resource	5
1.1.3.2.2.1 - Configure Resource	100%
1.1.3.2.2.2 - Implement Resource	100%
1.1.3.2.2.3 - Activate Resource	100%
1.1.3.2.3 - Test Resource	5
1.1.3.2.3.1 - Test Specific Resources	100%
1.1.3.2.3.2 - Develop Test Plans	100%
1.1.3.2.3.3 - Capture Test Results	100%



Table 4-6 E2E Software Change Management – Resource Strategy & Planning

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes - Submitted & review complete by TM Forum	Conformance Score
Level 2: 1.2.3.1 - Resource Strategy & Planning	
1.2.3.1.1 - Gather & Analyze Resource Information	5
1.2.3.1.1.1 - Gather Resource Information	100%
1.2.3.1.1.2 - Analyze new resource requirements	100%
1.2.3.1.1.3 - Analyze to develop new/enhance resource requirements	100%
1.2.3.1.2 - Manage Resource Research	5
1.2.3.1.2.1 - Manage resource research investigations	100%
1.2.3.1.2.2 - Manage administration of resource research	100%
1.2.3.1.2.3 - Define Resource research assessment methodologies	100%
1.2.3.1.3 - Establish Resource Strategy & Architecture	5
1.2.3.1.3.1 - Establish Resource strategy	100%
1.2.3.1.3.2 - Develop Resource Strategy	100%
1.2.3.1.3.3 - Establish Resource delivery goals	100%
1.2.3.1.3.4 - Establish resource implementation policies	100%
1.2.3.1.4 - Define Resource Support Strategies	5
1.2.3.1.4.1 - Define Resource support Principles	100%
1.2.3.1.4.2 - Define Resource support Policies	100%
1.2.3.1.4.3 - Define Resource Support performance standards	100%
1.2.3.1.5 - Produce Resource Business Plans	5
1.2.3.1.5.1 - Develop & Deliver annual/multiyear resource business plans	100%
1.2.3.1.5.2 - Forecast high level resource demand & capture new opportunities	100%
1.2.3.1.5.3 - Asses impact of Resource Business plans	100%
1.2.3.1.5.4 - Identify timetables for new resource capability introduction	100%
1.2.3.1.5.5 - Identify logistics for new resource capability introduction	100%
1.2.3.1.6 - Develop Resource Partnership Requirements	5
1.2.3.1.6.1 - Identify the requirements for resource capabilities	100%
1.2.3.1.6.2 - Recommend Resource partnership	100%
1.2.3.1.6.3 - Determine extent of resource capabilities sourcing	100%
1.2.3.1.7 - Gain Enterprise Commitment to Resource Plans	5
1.2.3.1.7.1 - Identify Stakeholders to Resource strategy and resource plans	100%
1.2.3.1.7.2 - Gain resource strategy and resource plans Stakeholders approval	100%
1.2.3.1.7.3 - Gain Enterprise Commitment to resource strategy and resource plans	100%



Table 4-7 E2E Software Change Management – Resource Capability Delivery

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.2.3.2 - Resource Capability Delivery	
1.2.3.2.1 - Map & Analyze Resource Requirements	5
1.2.3.2.1.1 - Capture Resource Demand & Performance Requirements	100%
1.2.3.2.1.2 - Agree Resource Infrastructure Requirements	100%
1.2.3.2.2 - Capture Resource Capability Shortfalls	5
1.2.3.2.2.1 - Capture Resource Capacity Shortfalls	100%
1.2.3.2.2.2 - Capture Resource Performance Shortfalls	100%
1.2.3.2.2.3 - Capture Resource Operational Support Shortfalls	100%
1.2.3.2.3 - Gain Resource Capability Investment Approval	5
1.2.3.2.3.1 - Develop Resource Capability Investment Proposals	100%
1.2.3.2.3.2 - Approve Resource Capability Investment	100%
1.2.3.2.4 - Design Resource Capabilities	5
1.2.3.2.4.1 - Define Resource Capability Requirements	100%
1.2.3.2.4.2 - Specify Resource Capability Infrastructure	100%
1.2.3.2.4.3 - Select Resource Capability Suppliers/Partners	100%
1.2.3.2.5 - Enable Resource Support & Operations	5
1.2.3.2.5.1 - Design Resource Operational Support Process Improvements	100%
1.2.3.2.5.2 - Identify Resource Support Groups, Skills & Training	100%
1.2.3.2.5.3 - Identify Resource Support Requirements	100%
1.2.3.2.6 - Manage Resource Capability Delivery	4.75
1.2.3.2.6.1 - Co-ordinate Resource Capability Delivery	100%
1.2.3.2.6.2 - Ensure Resource Capability Quality	100%
1.2.3.2.6.3 - Manage Commissioning of New Resource Infrastructure	50%
1.2.3.2.6.4 - Establish Resource Capability Sourcing	100%
1.2.3.2.7 - Manage Handover to Resource Operations	5
1.2.3.2.7.1 - Co-ordinate Resource Operational Handover	100%
1.2.3.2.7.2 - Validate Resource Infrastructure Design	100%
1.2.3.2.7.3 - Ensure Resource Handover Support	100%



Table 4-8 E2E Software Change Management – Resource Development & Retirement

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.2.3.3 - Resource Development & Retirement	
1.2.3.3.2 - Assess Performance of Existing Resources	5
1.2.3.3.3 - Develop New Resource Business Proposal	5
1.2.3.3.3.1 - Develop Resource Business Proposal	100%
1.2.3.3.3.2 - Gain Resource Business Proposal Approval	100%
1.2.3.3.4 - Develop Detailed Resource Specifications	5
1.2.3.3.4.1 - Develop Detailed Resource Technical Specifications	100%
1.2.3.3.4.2 - Develop Detailed Resource Support Specifications	100%
1.2.3.3.4.3 - Develop Detailed Resource Operational Specifications	100%
1.2.3.3.4.4 - Develop Detailed Resource Manuals	100%
1.2.3.3.5 - Manage Resource Development	3.80
1.2.3.3.5.1 - Identify Required Processes & Procedures for Resources	0%
1.2.3.3.5.2 - Develop Required Processes & Procedures for Resources	0%
1.2.3.3.5.3 - Develop Service & Operational Agreements for Resources	100%
1.2.3.3.5.4 - Gain Service & Operational Agreements Approval for Resources	100%
1.2.3.3.5.5 - Produce Supporting Documentation & Training Packages for Resources	0%
1.2.3.3.6 - Manage Resource Deployment	4.00
1.2.3.3.6.1 - Manage Resource Process & Procedure Implementation	0%
1.2.3.3.6.2 - Manage Resource Operational Staff Training	0%
1.2.3.3.6.3 - Develop Resource Supplier/Partner Operational Support	100%
1.2.3.3.6.4 - Manage Resource Acceptance Testing	100%
1.2.3.3.7 - Manage Resource Exit	5
1.2.3.3.7.1 - Identify Unviable Resources	100%
1.2.3.3.7.2 - Identify Impacted Resource Customers	100%
1.2.3.3.7.3 - Develop Resource Transition Strategies	100%
1.2.3.3.7.4 - Manage Resource Exit Process	100%



Table 4-9 E2E Software Change Management – Supply Chain Capability Delivery

Tunisie Telecom E2E Process - SOFTWARE CHANGE MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.2.4.2 - Supply Chain Capability Delivery	
1.2.4.2.1 - Determine the Sourcing Requirements	5
1.2.4.2.1.1 - Capture Sourcing Requirements	100%
1.2.4.2.1.2 - Finalize Sourcing Requirements	100%
1.2.4.2.2 - Determine Potential Suppliers/Partners	5
1.2.4.2.2.1 - Analyze Potential Suppliers/Partners	100%
1.2.4.2.2.2 - Short List Potential Suppliers/Partners	100%
1.2.4.2.3 - Manage the Tender Process	5
1.2.4.2.3.1 - Specify the Tender Process	100%
1.2.4.2.3.2 - Administer the Tender Process	100%
1.2.4.2.4 - Gain Tender Decision Approval	5
1.2.4.2.4.1 - Provide Management Oversight on Tenders	100%
1.2.4.2.4.2 - Approve Tender Decisions	100%
1.2.4.2.5 - Negotiate Commercial Arrangements	N/A
1.2.4.2.6 - Gain Approval for Commercial Arrangements	N/A



4.4 Tunisie Telecom E2E Process: International Operator Management

4.4.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom International Operator Management processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27944&team_ID=338

Tunisie Telecom's E2E GNOC International Operator Management process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.1.2.2 - Service Configuration & Activation
- Level 2: 1.1.2.3 - Service Problem Management
- Level 2: 1.1.3.2 - Resource Provisioning
- Level 2: 1.1.3.3 - Resource Trouble Management

NOTE: For access please contact TM Forum Framework Conformance Certification authority

[\(\[conformance@tmforum.org\]\(mailto:conformance@tmforum.org\)\)](mailto:conformance@tmforum.org).

Alternatively, please contact Tunisie Telecom Quality Team directly:

- *Abdessattar Salhi* (Abdessattar.Salhi@tunisiatelecom.tn)
- *Youssef Said* (Youssef.Said@tunisiatelecom.tn)



4.4.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for International Operator Management end-to-end process flow were mapped.

Table 4-10 E2E International Operator Management – Service Configuration & Activation

Tunisie Telecom E2E Process - INTERNATIONAL OPERATOR MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.2.2 - Service Configuration & Activation	
1.1.2.2.3 - Track & Manage Service Provisioning	4.33
1.1.2.2.3.1 - Assign Service Provisioning Activity	100%
1.1.2.2.3.2 - Track Service Provisioning Activity	100%
1.1.2.2.3.3 - Manage Service Provisioning Activity	0%
1.1.2.2.7 - Issue Service Orders	4.33
1.1.2.2.7.1 - Assess Service Request	100%
1.1.2.2.7.2 - Create Service Orders	100%
1.1.2.2.7.3 - Mark Service Order for Special Handling	0%
1.1.2.2.8 - Report Service Provisioning	5.00
1.1.2.2.8.1 - Monitor Service Order Status	100%
1.1.2.2.8.2 - Distribute Service Order Notification	100%
1.1.2.2.8.3 - Distribute Service Provisioning Reports	100%
1.1.2.2.9 - Close Service Order	5



Table 4-11 E2E International Operator Management – Service Problem Management

Tunisie Telecom E2E Process - INTERNATIONAL OPERATOR MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2:1.1.2.3 - Service Problem Management	
1.1.2.3.4 - Track & Manage Service Problem	3.80
1.1.2.3.4.1 - Coordinate Service Problem	100%
1.1.2.3.4.2 - Perform First in Service Testing	100%
1.1.2.3.4.3 - Cancel Service Problem	0%
1.1.2.3.4.5 - Perform Final Service Test	0%
1.1.2.3.4.6 - Prioritize Service Problem	0%
1.1.2.3.5 - Report Service Problem	5
1.1.2.3.5.1 - Monitor Service Problem	100%
1.1.2.3.5.2 - Distribute Service Problem Notifications	100%
1.1.2.3.5.3 - Distribute Service Problem Management Reports & Summaries	100%
1.1.2.3.6 - Close Service Trouble Report	5
1.1.2.3.7 - Survey & Analyze Service Problem	4.43
1.1.2.3.7.1 - Manage Service Alarm Event Notifications	0%
1.1.2.3.7.2 - Filter Service Alarm Event Notifications	100%
1.1.2.3.7.3 - Correlate Service Alarm Event Notifications	0%
1.1.2.3.7.4 - Abate Service Alarm Event Records	100%
1.1.2.3.7.5 - Trigger Defined Service Alarm Action	100%
1.1.2.3.7.6 - Monitor Service Alarms Events	100%
1.1.2.3.7.7 - Categorize Service Alarm Event	100%



Table 4-12 E2E International Operator Management – Resource Provisioning

Tunisie Telecom E2E Process - INTERNATIONAL OPERATOR MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.2 - Resource Provisioning	
1.1.3.2.5 - Track & Manage Resource Provisioning	4.25
1.1.3.2.5.1 - Coordinate Resource Provisioning Activity	100%
1.1.3.2.5.2 - Track Resource Provisioning Activity	100%
1.1.3.2.5.3 - Manage Resource Provisioning Activity	50%
1.1.3.2.5.4 - Update Resource Repository	0%
1.1.3.2.6 - Report Resource Provisioning	5
1.1.3.2.6.1 - Monitor Resource Order Status	100%
1.1.3.2.6.2 - Distribute Resource Order Notification	100%
1.1.3.2.6.3 - Distribute Resource Provisioning Reports	100%
1.1.3.2.7 - Close Resource Order	5
1.1.3.2.8 - Issue Resource Orders	4.17
1.1.3.2.8.1 - Assess Resource Request	100%
1.1.3.2.8.2 - Create Resource Orders	75%
1.1.3.2.8.3 - Mark Resource Order for Special Handling	0%



Table 4-13 E2E International Operator Management – Resource Trouble Management

Tunisie Telecom E2E Process - INTERNATIONAL OPERATOR MANAGEMENT	
eTOM L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.3 - Resource Trouble Management	
1.1.3.3.1 - Survey & Analyze Resource Trouble	4.43
1.1.3.3.1.1 - Manage Resource Alarm Event Notifications	0%
1.1.3.3.1.2 - Filter Resource Alarm Event Notifications	100%
1.1.3.3.1.3 - Correlate Resource Alarm Event Notifications	0%
1.1.3.3.1.4 - Abate Alarm Event Records	100%
1.1.3.3.1.5 - Trigger Defined Action	100%
1.1.3.3.1.6 - Monitor Resource Alarms Events	100%
1.1.3.3.1.7 - Categorize Resource Alarm Event	100%
1.1.3.3.4 - Track & Manage Resource Trouble	3.67
1.1.3.3.4.1 - Coordinate Resource Trouble	100%
1.1.3.3.4.2 - Perform First in Testing	100%
1.1.3.3.4.3 - Cancel Resource Trouble	0%
1.1.3.3.4.5 - Perform Final Test	0%
1.1.3.3.4.6 - Engaging External Suppliers	0%
1.1.3.3.4.7 - Prioritize Resource Trouble	0%
1.1.3.3.5 - Report Resource Trouble	5
1.1.3.3.5.1 - Monitor Resource Trouble	100%
1.1.3.3.5.2 - Distribute Notifications	100%
1.1.3.3.5.3 - Distribute Management Reports & Summaries	100%
1.1.3.3.6 - Close Resource Trouble Report	5



4.5 Tunisie Telecom E2E Process: Work Order Management

4.5.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom Work Order Management processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27948&team_ID=338

Tunisie Telecom's E2E GNOC Work Order Management process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.1.3.2 - Resource Provisioning

NOTE: For access please contact TM Forum Framework Conformance Certification authority

[\(conformance@tmforum.org\)](mailto:conformance@tmforum.org).

Alternatively, please contact Tunisie Telecom Quality Team directly:

- Abdessattar Salhi (Abdessattar.Salhi@tunisiatelecom.tn)
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4.5.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for Work Order Management end-to-end process flow were mapped.

Table 4-14 E2E Work Order Management – Resource Provisioning

Tunisie Telecom E2E Process - WORK ORDER MANAGEMENT	
eTOM L2//L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.1.3.2 - Resource Provisioning	
1.1.3.2.5 - Track & Manage Resource Provisioning	4.25
1.1.3.2.5.1 - Coordinate Resource Provisioning Activity	100%
1.1.3.2.5.2 - Track Resource Provisioning Activity	100%
1.1.3.2.5.3 - Manage Resource Provisioning Activity	50%
1.1.3.2.5.4 - Update Resource Repository	0%
1.1.3.2.6 - Report Resource Provisioning	5
1.1.3.2.6.1 - Monitor Resource Order Status	100%
1.1.3.2.6.2 - Distribute Resource Order Notification	100%
1.1.3.2.6.3 - Distribute Resource Provisioning Reports	100%
1.1.3.2.7 - Close Resource Order	5
1.1.3.2.8 - Issue Resource Orders	4.17
1.1.3.2.8.1 - Assess Resource Request	100%
1.1.3.2.8.2 - Create Resource Orders	75%
1.1.3.2.8.3 - Mark Resource Order for Special Handling	0%



4.6 Tunisie Telecom E2E Process: Continuity Management

4.6.1 Mapping to Business Process Framework Processes

The following is the link to the document that provides details of the mapping of the Tunisie Telecom Continuity Management processes to the Business Process Framework (eTOM) processes:

http://www.tmforum.org/cws/helper_controls/download.aspx?ID=27947&team_ID=338

Tunisie Telecom’s E2E GNOC Continuity Management process maps to processes under the following Business Process Framework Level 2 processes:

- Level 2: 1.3.2.1 - Business Continuity Management

NOTE: For access please contact TM Forum Framework Conformance Certification authority

[\(conformance@tmforum.org\)](mailto:conformance@tmforum.org).

Alternatively, please contact Tunisie Telecom Quality Team directly:

- Abdessattar Salhi (Abdessattar.Salhi@tunisiatelecom.tn)
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4.6.2 Detailed Conformance Scores

The following table provides the detailed level of Conformance for the Business Process Framework (eTOM) Level 4 processes against which the Tunisie Telecom GNOC processes for Continuity Management end-to-end process flow were mapped.

Table 4-15 E2E Continuity Management – Business Continuity Management

Tunisie Telecom E2E Process - CONTINUITY MANAGEMENT	
eTOM L2//L3 Processes submitted & review complete by TM Forum	Conformance Score
Level 2: 1.3.2.1 - Business Continuity Management	
1.3.2.1.1 - Co-ordinate Business Continuity	5
1.3.2.1.2 - Plan Business Continuity	5
1.3.2.1.3 - Plan Infrastructure Recovery	5
1.3.2.1.4 - Plan Serious Incident Management	5
1.3.2.1.5 - Manage Business Continuity Methodologies	5



5 Information Framework Assessment Overview

5.1 Mapping Technique Employed

Not applicable for this phase of the assessment.

5.2 Information Framework Assessment - ABE Scope

Not applicable for this phase of the assessment.

5.3 Implementation Scope

Not applicable for this phase of the assessment.



6 Framework Conformance Result

This section details the Scores awarded to reflect Conformance of Tunisie Telecom GNOC Implementation to the Business Process Framework component of Framework 13.5.

6.1 Business Process Framework – Scoring Rules

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

Framework 13.5 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 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.		

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 Tunisie Telecom GNOC 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.

The Conformance scores are grouped according to the Tunisie Telecom End-To-End processes against which the process mapping was submitted.

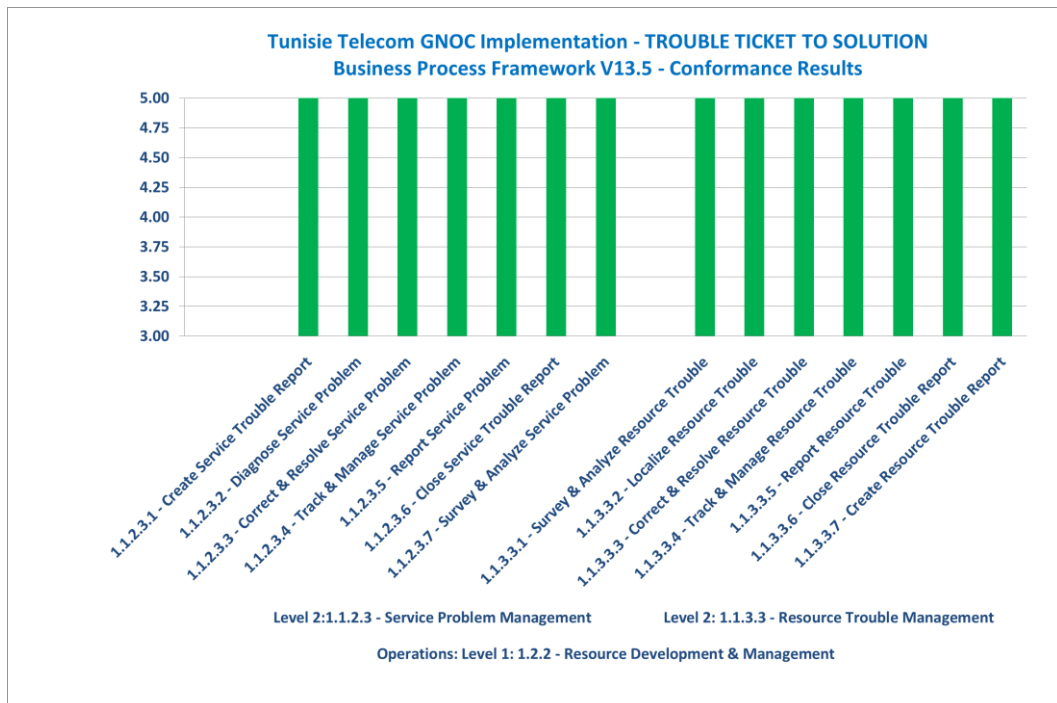


Figure 6-2 E2E Trouble Ticket to Solution - Conformance Result Summary

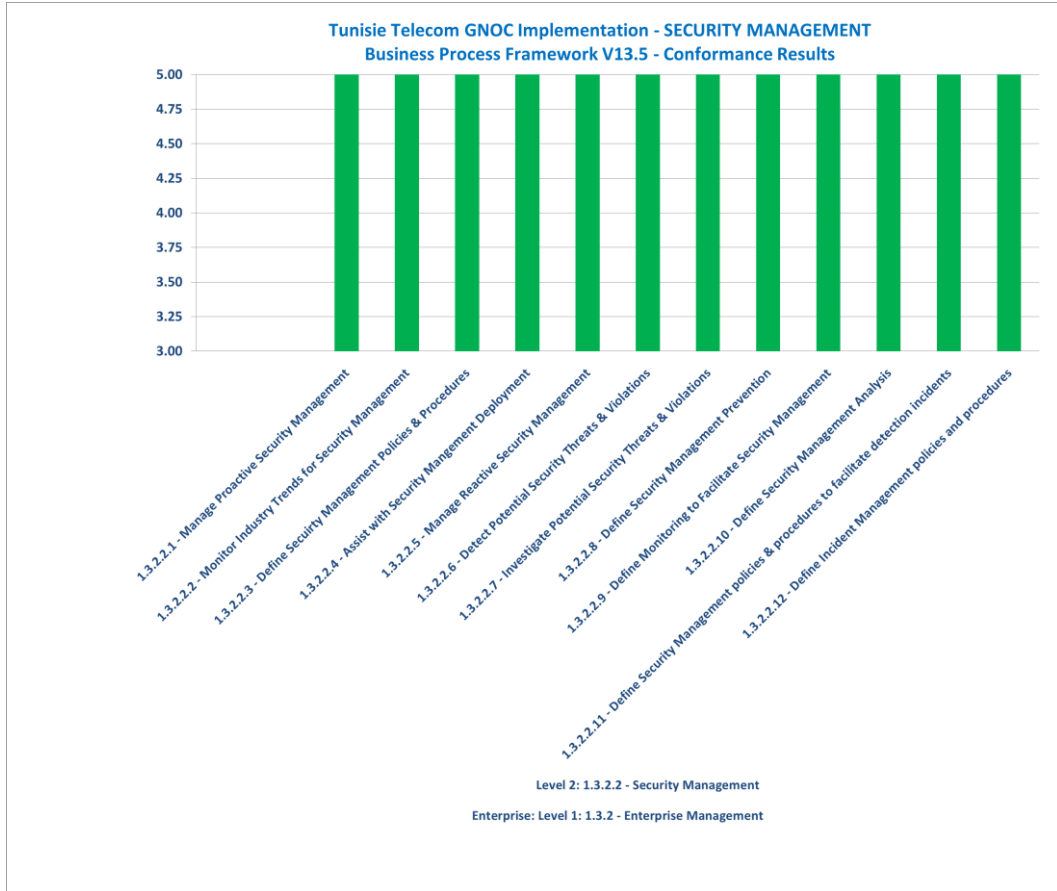


Figure 6-3 E2E GNOC Security Management - Conformance Result Summary

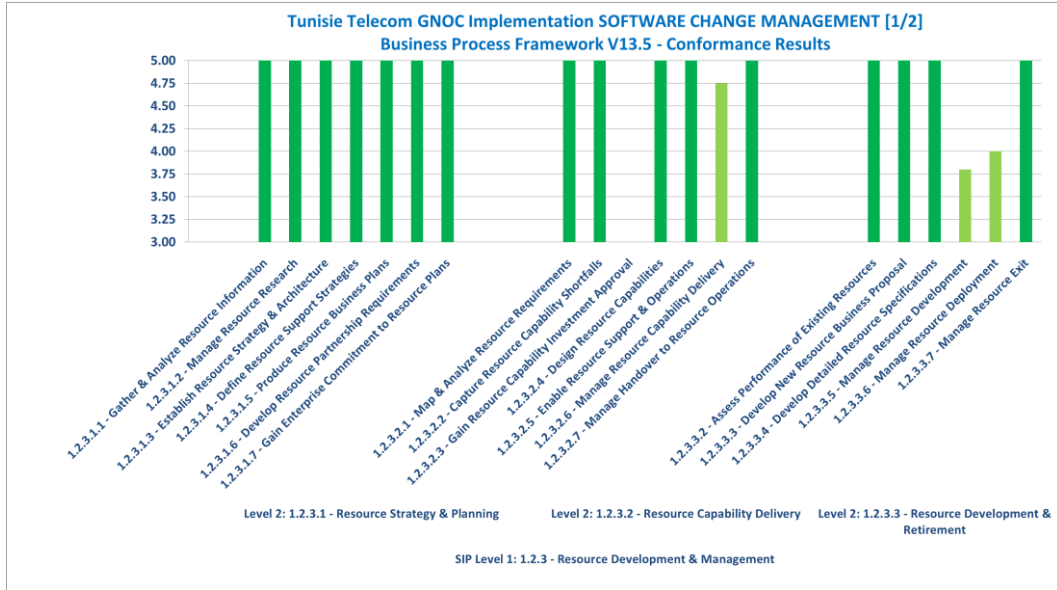


Figure 6-4 E2E Software Change Management [1/2] - Conformance Result Summary

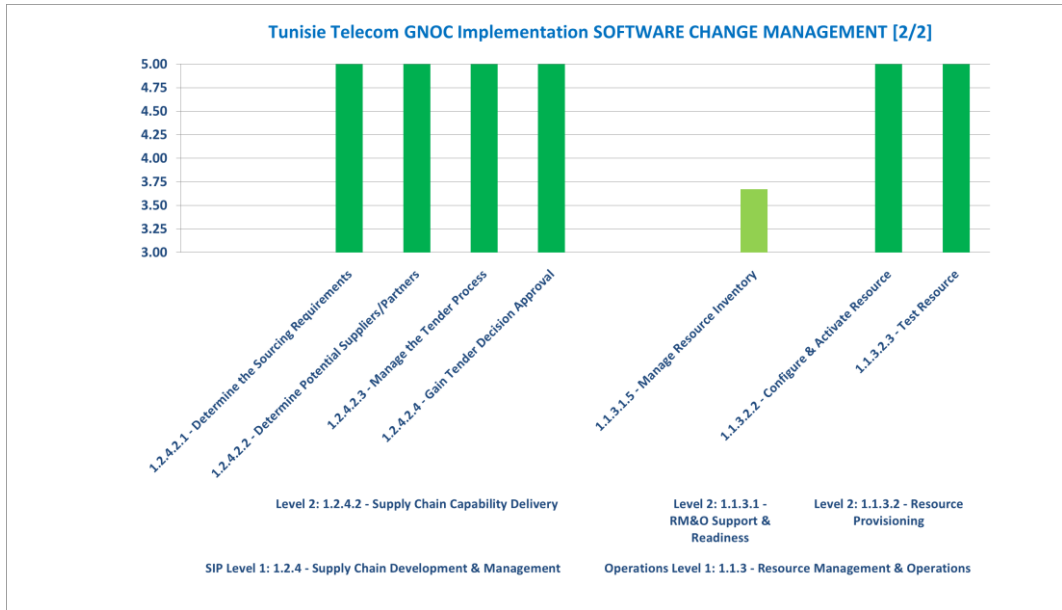


Figure 6-5 E2E Software Change Management [2/2] - Conformance Result Summary

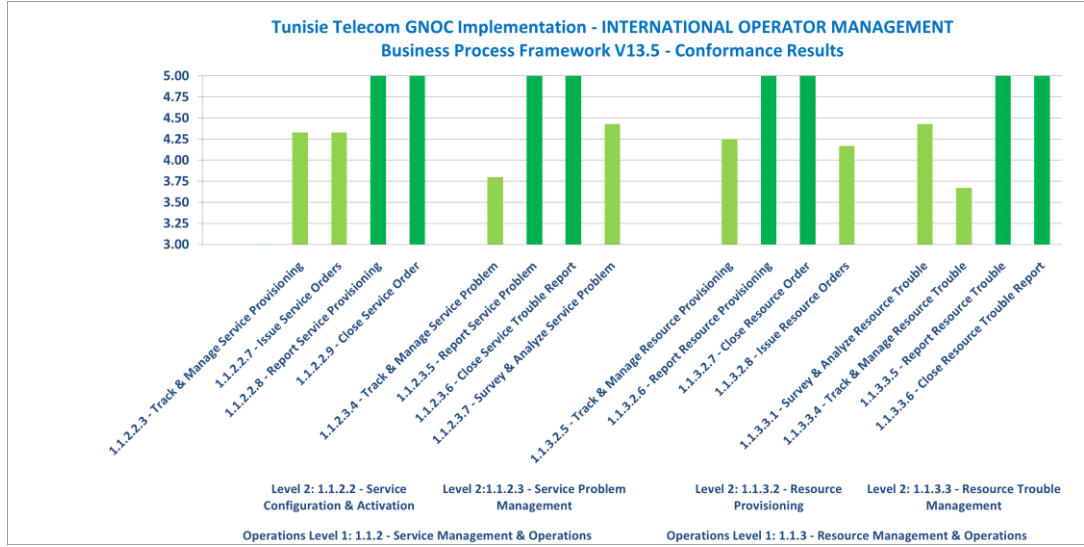


Figure 6-6 E2E International Operator Management - Conformance Result Summary

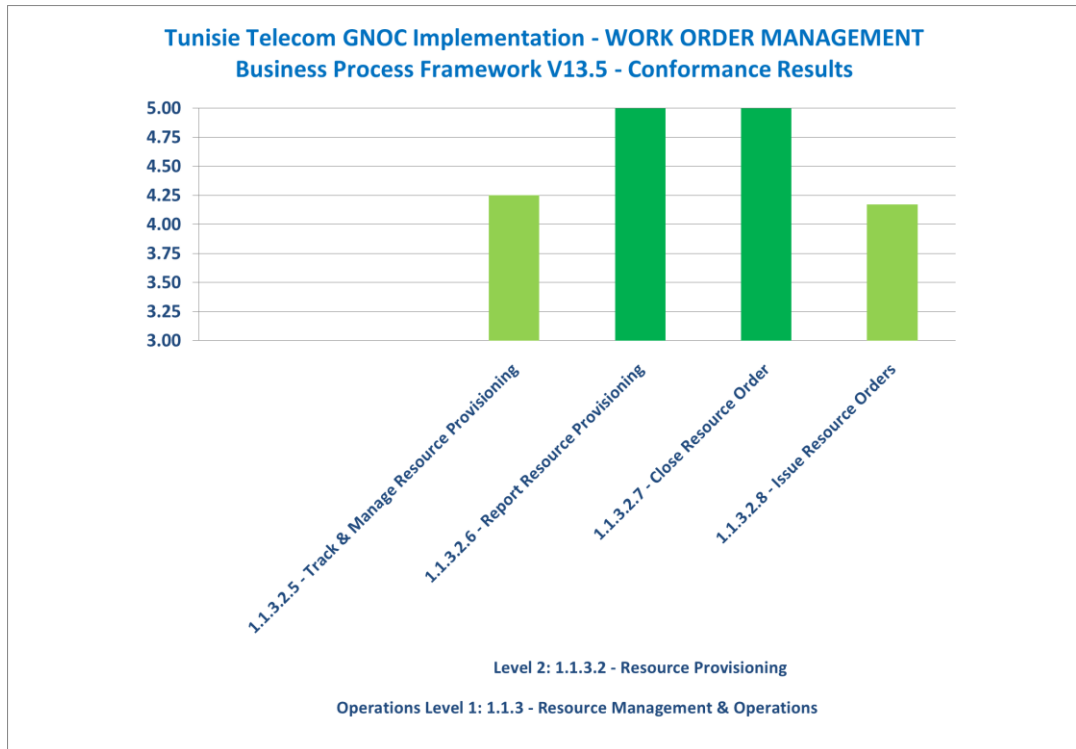


Figure 6-7 E2E Work Order Management - Conformance Result Summary

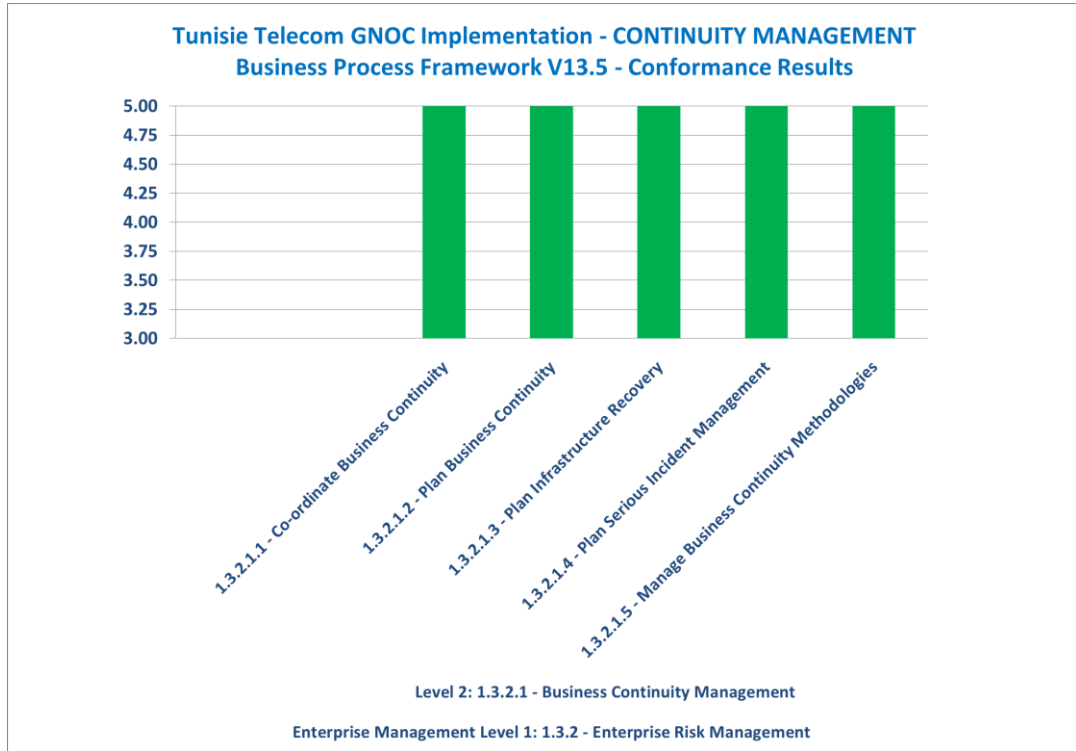


Figure 6-8 E2E Continuity Management - Conformance Result Summary



6.3 Business Process Framework – Detailed Conformance Results

The following tables provide a more detailed breakdown of the conformance scores awarded to the Business Process Framework processes submitted for assessment with some additional commentary.

Table 6-1 Level 2: 1.1.2.2 - Service Configuration & Activation

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.1.2.2 - Service Configuration & Activation			
1.1.2.2.3 - Track & Manage Service Provisioning	International Operator Management	4.33	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.1.2.2.3.3 - Manage Service Provisioning Activity
1.1.2.2.7 - Issue Service Orders	International Operator Management	4.33	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.1.2.2.7.3 - Mark Service Order for Special Handling
1.1.2.2.8 - Report Service Provisioning	International Operator Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.9 - Close Service Order	International Operator Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



Table 6-2 Level 2: 1.1.2.3 - Service Problem Management

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2:1.1.2.3 - Service Problem Management			
1.1.2.3.1 - Create Service Trouble Report	Trouble Ticket to Solution	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.3.2 - Diagnose Service Problem	Trouble Ticket to Solution	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.3.3 - Correct & Resolve Service Problem	Trouble Ticket to Solution	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.3.4 - Track & Manage Service Problem	Trouble Ticket to Solution & International Operator Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for the Trouble Ticket to Solution E2E process mapping, fulfilled alignment criteria with the standard Business Process Framework (eTOM). <i>NOTE: Supporting evidence and documentation submitted for the assessment of this process for the International Operator Management E2E process mapping, partially fulfilled alignment criteria with the standard Business Process Framework (eTOM) due to deviations with the following eTOM processes:</i> - 1.1.2.3.4.3 - Cancel Service Problem - 1.1.2.3.4.5 - Perform Final Service Test - 1.1.2.3.4.6 - Prioritize Service Problem The Conformance score obtained for this process mapping was 3.8.



1.1.2.3.5 - Report Service Problem	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes Trouble Ticket to Solution & International Operator Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.2.3.6 - Close Service Trouble Report	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes Trouble Ticket to Solution & International Operator Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.2.3.7 - Survey & Analyze Service Problem	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for the Trouble Ticket to Solution E2E process mapping, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p><i>NOTE: Supporting evidence and documentation submitted for the assessment of this process for the International Operator Management E2E process mapping, partially fulfilled alignment criteria with the standard Business Process Framework (eTOM) due to deviations with the following eTOM processes:</i></p> <ul style="list-style-type: none"> - 1.1.2.3.7.1 - Manage Service Alarm Event Notifications - 1.1.2.3.7.3 - Correlate Service Alarm Event Notifications <p><i>The Conformance score obtained for this process mapping was 4.43.</i></p>



Table 6-3 Level 2: 1.1.3.1 - RM&O Support & Readiness

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.1.3.1 - RM&O Support & Readiness			
1.1.3.1.5 - Manage Resource Inventory	Software Change Management	3.67	<p>Partial Conformance</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following:</p> <ul style="list-style-type: none"> - 1.1.3.1.5.3 - Track and Monitor Resource Repository Capabilities - 1.1.3.1.5.4 - Identify Repository Issues and Provide Reports and Warnings



Table 6-4 Level 2: 1.1.3.2 - Resource Provisioning

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.1.3.2 - Resource Provisioning			
1.1.3.2.2 - Configure & Activate Resource	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.3 - Test Resource	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.5 - Track & Manage Resource Provisioning	International Operator Management & Work Order Management	4.25	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes International Operator Management & Work Order Management, supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.1.3.2.5.3 - Manage Resource Provisioning Activity - 1.1.3.2.5.4 - Update Resource Repository
1.1.3.2.6 - Report Resource Provisioning	International Operator Management & Work Order Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes International Operator Management & Work Order Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.7 - Close Resource Order	International Operator Management & Work Order Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes International Operator Management & Work Order Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).



<p>1.1.3.2.8 - Issue Resource Orders</p>	<p>International Operator Management & Work Order Management</p>	<p>4.17</p>	<p>Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes International Operator Management & Work Order Management, supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.1.3.2.8.2 - Create Resource Orders - 1.1.3.2.8.3 - Mark Resource Order for Special Handling</p>
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Table 6-5 Level 2: 1.1.3.3 - Resource Trouble Management

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.1.3.3 - Resource Trouble Management			
1.1.3.3.1 - Survey & Analyze Resource Trouble	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for the Trouble Ticket to Solution E2E process mapping, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p><i>NOTE: Supporting evidence and documentation submitted for the assessment of this process for the International Operator Management E2E process mapping, partially fulfilled alignment criteria with the standard Business Process Framework (eTOM) due to deviations with the following eTOM processes:</i></p> <ul style="list-style-type: none"> - 1.1.3.3.1.1 - Manage Resource Alarm Event Notifications - 1.1.3.3.1.3 - Correlate Resource Alarm Event Notifications <p><i>The Conformance score obtained for this process mapping was 4.43.</i></p>
1.1.3.3.2 - Localize Resource Trouble	Trouble Ticket to Solution	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.3.3.3 - Correct & Resolve Resource Trouble	Trouble Ticket to Solution	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



1.1.3.3.4 - Track & Manage Resource Trouble	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for the Trouble Ticket to Solution E2E process mapping, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p><i>NOTE: Supporting evidence and documentation submitted for the assessment of this process for the International Operator Management E2E process mapping, partially fulfilled alignment criteria with the standard Business Process Framework (eTOM) due to deviations with the following eTOM processes:</i></p> <ul style="list-style-type: none"> - 1.1.3.3.4.3 - Cancel Resource Trouble - 1.1.3.3.4.5 - Perform Final Test - 1.1.3.3.4.6 - Engaging External Suppliers - 1.1.3.3.4.7 - Prioritize Resource Trouble <p>The Conformance score obtained for this process mapping was 3.67.</p>
1.1.3.3.5 - Report Resource Trouble	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes Trouble Ticket to Solution & International Operator Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.3.3.6 - Close Resource Trouble Report	Trouble Ticket to Solution & International Operator Management	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process for E2E processes Trouble Ticket to Solution & International Operator Management, fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
1.1.3.3.7 - Create Resource Trouble Report	Trouble Ticket to Solution	5	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>



Table 6-6 Level 2: 1.2.3.1 - Resource Strategy & Planning

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.2.3.1 - Resource Strategy & Planning			
1.2.3.1.1 - Gather & Analyze Resource Information	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.2 - Manage Resource Research	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.3 - Establish Resource Strategy & Architecture	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.4 - Define Resource Support Strategies	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.5 - Produce Resource Business Plans	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.6 - Develop Resource Partnership Requirements	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.1.7 - Gain Enterprise Commitment to Resource Plans	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



Table 6-7 Level 2: 1.2.3.2 - Resource Capability Delivery

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.2.3.2 - Resource Capability Delivery			
1.2.3.2.1 - Map & Analyze Resource Requirements	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.2.2 - Capture Resource Capability Shortfalls	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.2.3 - Gain Resource Capability Investment Approval	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.2.4 - Design Resource Capabilities	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.2.5 - Enable Resource Support & Operations	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.2.6 - Manage Resource Capability Delivery	Software Change Management	4.75	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.2.3.2.6.3 - Manage Commissioning of New Resource Infrastructure



<p>1.2.3.2.7 - Manage Handover to Resource Operations</p>	<p>Software Change Management</p>	<p>5</p>	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
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Table 6-8 Level 2: 1.2.3.3 - Resource Development & Retirement

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.2.3.3 - Resource Development & Retirement			
1.2.3.3.2 - Assess Performance of Existing Resources	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.3 - Develop New Resource Business Proposal	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.4 - Develop Detailed Resource Specifications	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.5 - Manage Resource Development	Software Change Management	3.80	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.2.3.3.5.1 - Identify Required Processes & Procedures for Resources - 1.2.3.3.5.2 - Develop Required Processes & Procedures for Resources - 1.2.3.3.5.5 - Produce Supporting Documentation & Training Packages for Resources
1.2.3.3.6 - Manage Resource Deployment	Software Change Management	4.00	Partial Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations for the following: - 1.2.3.3.6.1 - Manage Resource Process & Procedure Implementation - 1.2.3.3.6.2 - Manage Resource Operational Staff Training



<p>1.2.3.3.7 - Manage Resource Exit</p>	<p>Software Change Management</p>	<p>5</p>	<p>Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p>
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Table 6-9 Level 2: 1.2.4.2 - Supply Chain Capability Delivery

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.2.4.2 - Supply Chain Capability Delivery			
1.2.4.2.1 - Determine the Sourcing Requirements	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.4.2.2 - Determine Potential Suppliers/Partners	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.4.2.3 - Manage the Tender Process	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.4.2.4 - Gain Tender Decision Approval	Software Change Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



Table 6-10 Level 2: 1.3.2.1 - Business Continuity Management

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.3.2.1 - Business Continuity Management			
1.3.2.1.1 - Co-ordinate Business Continuity	Continuity Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.1.2 - Plan Business Continuity	Continuity Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.1.3 - Plan Infrastructure Recovery	Continuity Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.1.4 - Plan Serious Incident Management	Continuity Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.1.5 - Manage Business Continuity Methodologies	Continuity Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



Table 6-11 Level 2: 1.3.2.2 - Security Management

Tunisie Telecom Global Network Operations Centre Implementation Framework 13.5 Business Process Framework Conformance Results			
Business Process Framework L3 Process	Tunisie Telecom E2E Process	Conformance Score	Commentary
Level 2: 1.3.2.2 - Security Management			
1.3.2.2.1 - Manage Proactive Security Management	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.2 - Monitor Industry Trends for Security Management	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.3 - Define Security Management Policies & Procedures	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.4 - Assist with Security Management Deployment	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.5 - Manage Reactive Security Management	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.6 - Detect Potential Security Threats & Violations	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.7 - Investigate Potential Security Threats & Violations	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).



1.3.2.2.8 - Define Security Management Prevention	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.9 - Define Monitoring to Facilitate Security Management	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.10 - Define Security Management Analysis	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.11 - Define Security Management policies & procedures to facilitate detection incidents	GNOC Security Management	5	Full Conformance Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.3.2.2.12 - Define Incident Management policies and procedures	GNOC Security Management	5	Full Conformance 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 13.5 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 6-9 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

Not applicable for this phase of the assessment.

6.6 Information Framework – Detailed Conformance Result

Not applicable for this phase of the assessment.