tmforum

Frameworx 11 Certification Report
Business Process Framework
Release 9.0

cVidya
MoneyMap®
Release 6.5

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1   Introduction

1.1   Executive Summary

This document provides details of cVidya's self-assessment and TM Forum's certification of cVidya's MoneyMap®, Release 6.5 including the methodology approach to product modeling and Product Lifecycle Management (PLM) against the TM Forum's Business Process Framework Release 9.0.

1.2   Representation of cVidya MoneyMap® Functionality/Capability

cVidya's MoneyMap® solution is based on two pillars: Market leading products and methodology based on industry standards and best practices such as the TM Forum.

cVidya MoneyMap®/Suite of products implement Revenue Assurance functionality, covering a broad spectrum of products, services, technologies and requirements. In addition, they are robust, scalable and secure. cVidya's unique methodology relies on the experience and expertise of its personnel and leadership of the Revenue Assurance group within the TM Forum. This methodology is one of the distinguishing features of cVidya, as well as a major ingredient in the success of our projects.

cVidya developed MoneyMap® to answer current and future Revenue Assurance challenges that service providers are facing. Based on the holistic Revenue Assurance approach, MoneyMap®/Suite encompasses the entire revenue chain. It enables Service Providers, including Mobile, Fixed, NG, VoIP, IPTV, Gaming, Content and value added services to monitor the revenue chain, gain insight into underlying business processes, identifies revenue exposure points, stop and reclaim revenue leakage.

MoneyMap® is a complete, end-to-end, carrier grade Revenue Assurance suite of products, developed to address all potential revenue leakage issues and is comprised of the following three main products:

- **MoneyMap® Configuration** – identifies mismatches between static data coming from the different systems used along the carrier's revenue chain.
- **MoneyMap® Usage** – Identifies leakage along the Network-to-Bill route utilizing usage (xDRs) data.
- **MoneyMap® Rating & Billing Verification** – independent audit and verification of the rating and billing processes to identify mismatches and errors.

All three products utilize **MoneyMap's platform**, a software infrastructure that provides the following services:

- **ETL and Sampling** – including out-of-the-box support for a wide variety of systems, network elements and vendors.
- **Management** - Unified management of KPIs, Alarms, Rules and Cases.
- **Data Analytics** – Advanced Revenue Assurance practices and methodology, embedded in predefined, customizable reports and dashboards.
- **Administration** – A single point of monitoring and management of all modules and processes.
- **Security** – Defining users, roles and granular permissions; auditing user and system actions.
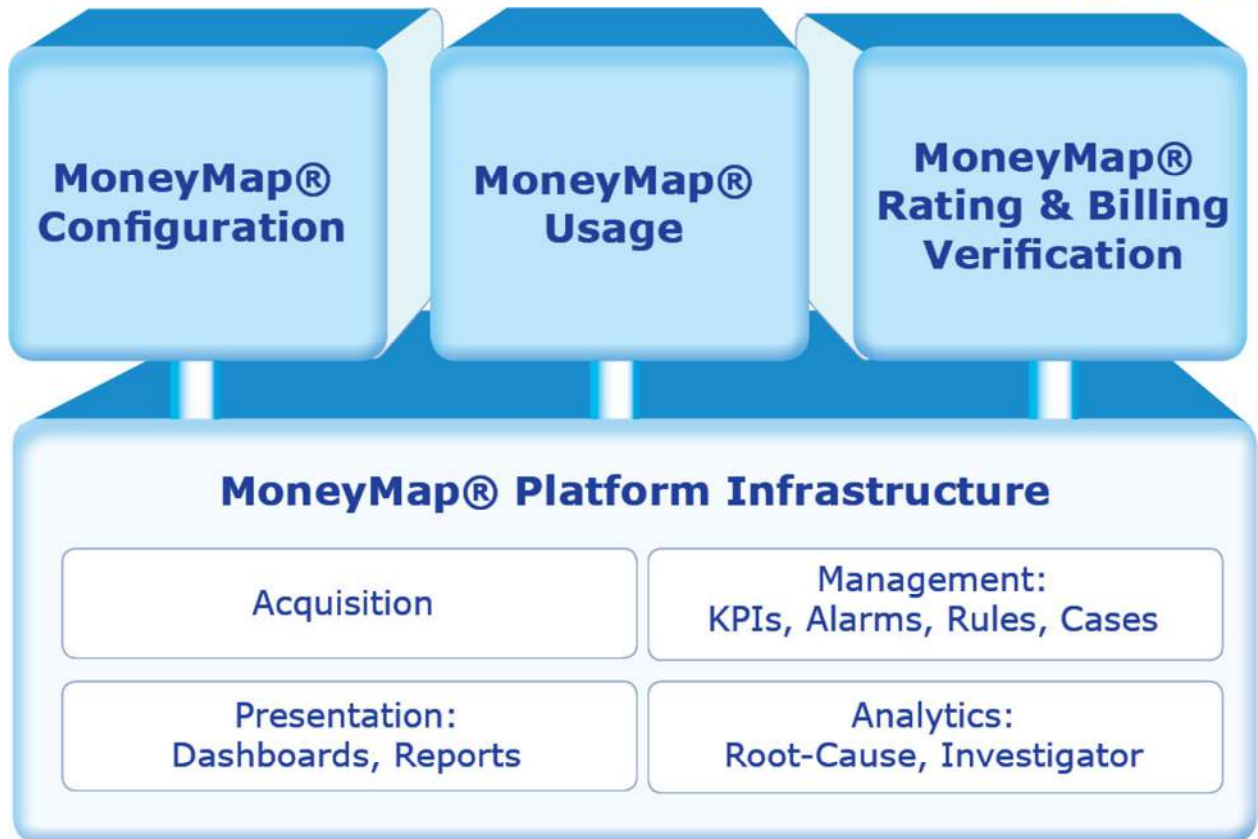
Figure 1.1 cVidya MonayMap® Modules Diagram

cVidya MoneyMap® helps telecom, media, entertainment and utilities service providers to better ensure that network assets are optimally utilized, immediately become aware of exceptions and their sources, actual revenue streams match the forecast, and the actual partners costs matches the expected ones.

1.3 Mapping Technique Employed

Business Process Framework L3 descriptions are analyzed by looking for implied tasks. (This is similar to how process decomposition can use Semantic Analysis). Each eTOM 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.

The eTOM L3 descriptions are analyzed by looking for implied tasks. 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 3 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).

2 Assessment Scope

2.1 Business Process Framework Level 2 Scope

Figure 2.1 represents Business Process Framework Level 2 processes that were presented in scope for the assessment, and the textual callouts represent the modules of the cVidya MoneyMap® Product that were assessed and support the corresponding eTOM processes.
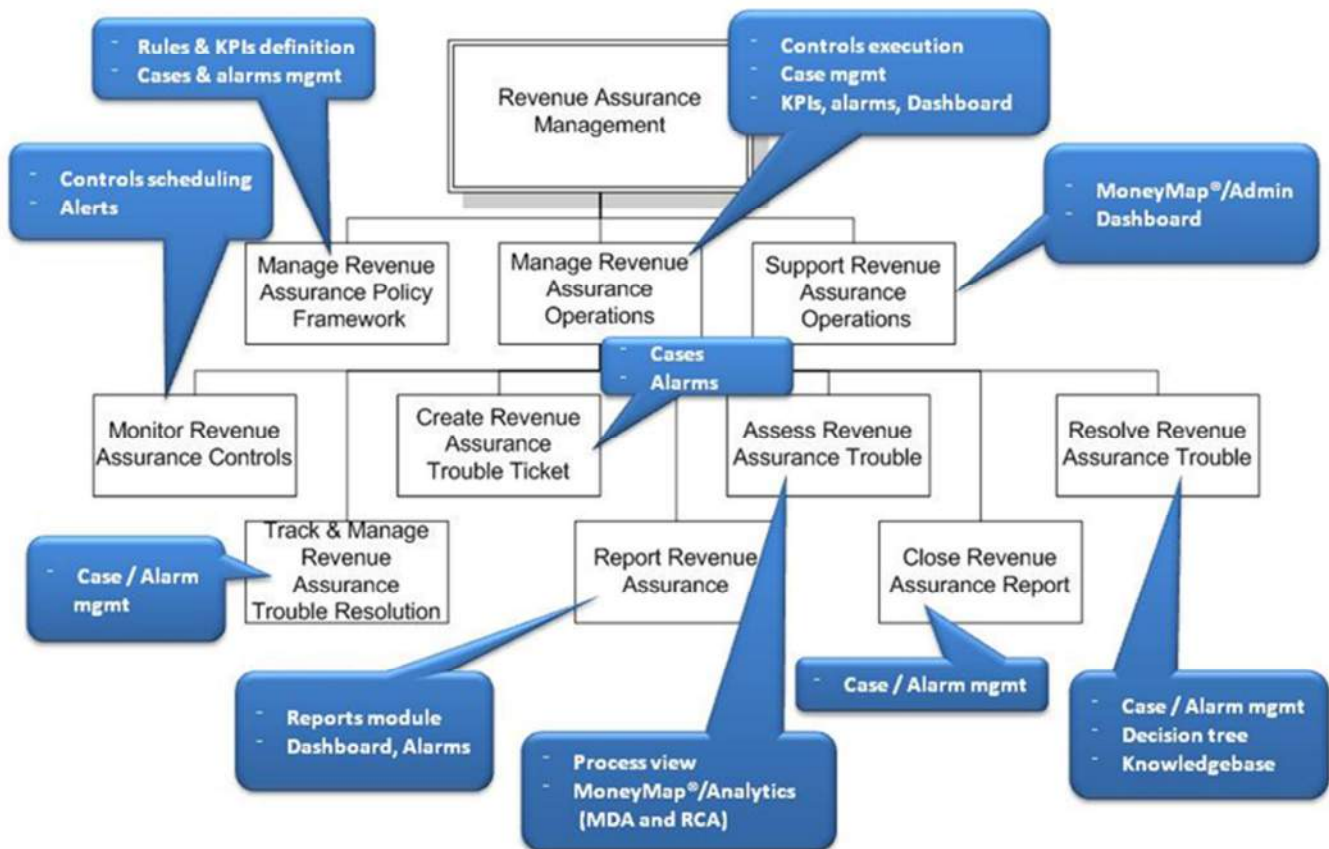
Figure 2.1 Business Process Framework Level 2 Scope

2.2   Product Scope

Figure 2-2

Figure 2.1represents the cVidya MoneyMap®, Release 6.5 modules that were presented in scope for the Assessment. The textual callouts represent the TM Forum Business Process Framework Level 2 processes that were assessed and that are supported by cVidya's MoneyMap® product according to the Conformance Results in Chapter 4.
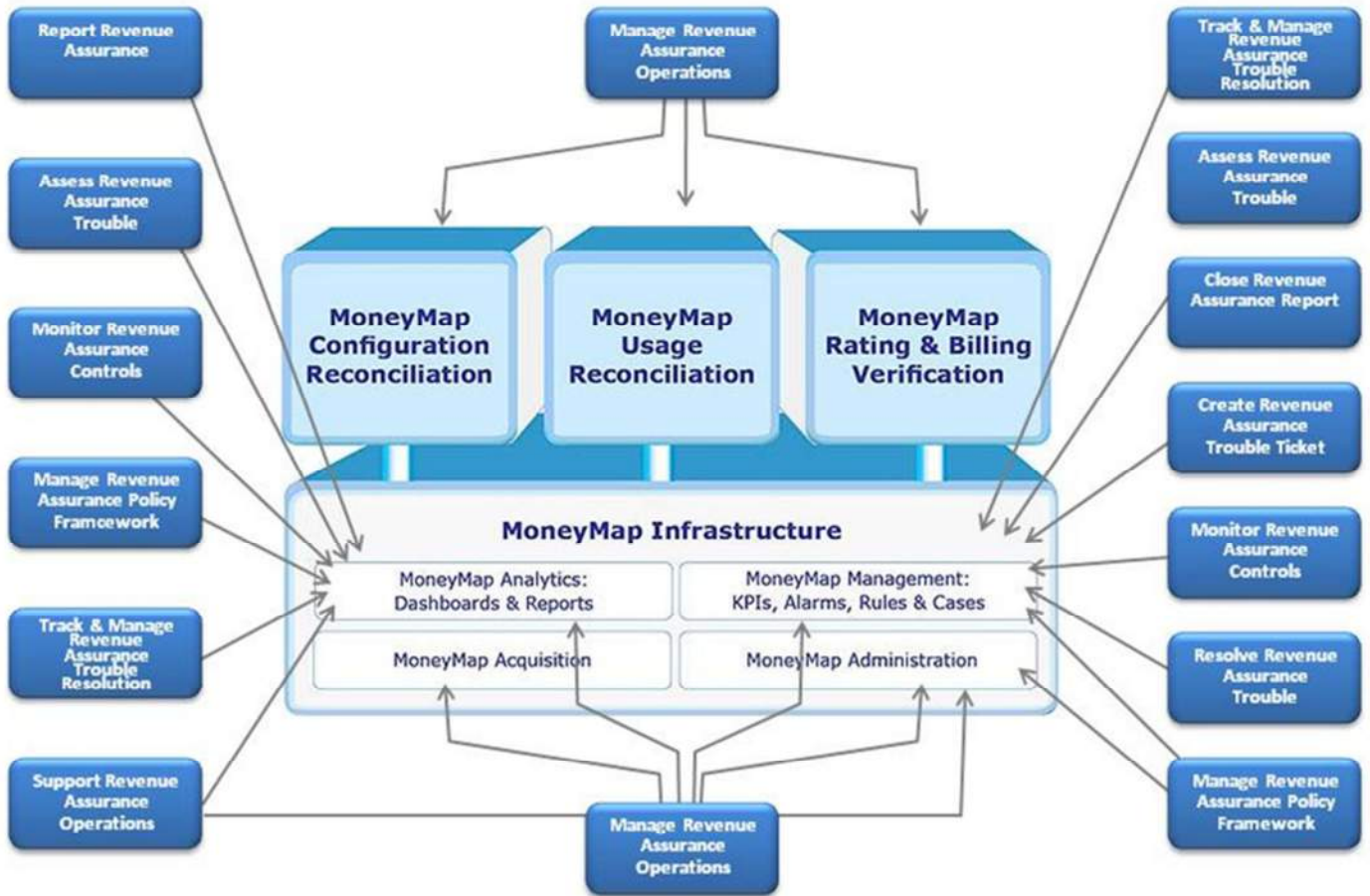

Figure 2.2 cVidya MoneyMap® – Product Scope

3 Self-Assessment – Process Mapping Descriptions

3.1 Enterprise Domain: Enterprise Risk Management [1.3.2]

3.1.1 Revenue Assurance Management [1.3.2.6] Process Mapping

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain. The process establishes an enterprise-wide revenue assurance policy framework, and an associated operational capability aimed at minimizing revenue leakage within the enterprise, without influencing demand.

The objective of the Revenue Assurance Management processes is to establish an enterprise-wide revenue assurance policy framework, and an associated operational capability to resolve any detected revenue assurance degradations and violations. Revenue Assurance Management processes identify areas of revenue leakage risk within the enterprise, and monitor industry trends and best practice approaches to ensure that the enterprise remains at the forefront of revenue leakage minimization. These processes support the categorization and prioritization of areas of revenue leakage risk. To achieve this, these processes define the policies, guidelines, practices and procedures to be followed and provide assistance to the enterprise operational areas to deploy appropriate procedures and monitoring capabilities.

Revenue Assurance Management processes deal with the establishment of tools and data collection capabilities to capture details of operation activity, analysis of monitored activity to detect and correct actual revenue leakage. These processes work in conjunction with operational and other process elements to guide them in supporting the specific needs of Revenue Assurance Management. Where appropriate, Revenue Assurance Management processes supplement the capabilities of these other process elements, to control and analyze the enterprise behavior relevant to Revenue Assurance needs,

The responsibilities of these processes include, but are not limited to:

- Establishing and managing a revenue assurance policy framework, including identification of controls and measures
- Establishing and managing an operational process capability able to detect and resolve revenue assurance degradations and violations
- Establishing and managing a capacity to regularly review the revenue assurance policy framework to ensure it meets the enterprise's changing objectives.

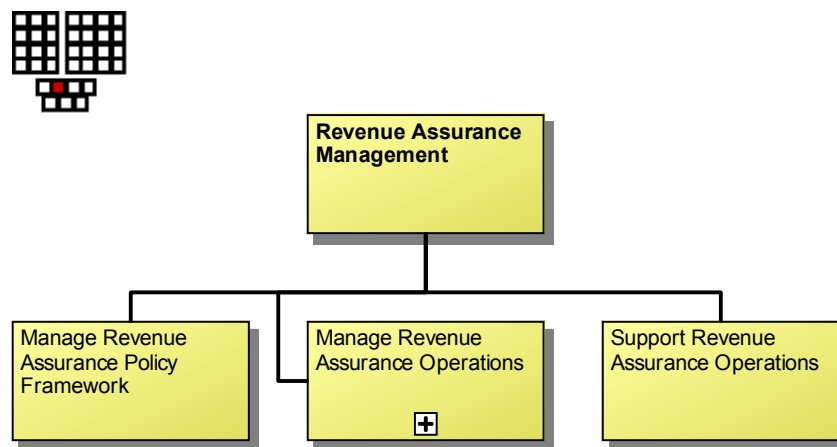### 3.1.2 Manage Revenue Assurance Policy Framework Process Mapping [1.3.2.6.1]

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

The Process establishes and manages a framework of policies and measurable controls that are used to manage the risk associated with revenue assurance

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
1.3.2.6.1 Revenue Assurance Policy Framework	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** The Process establishes and manages a framework of policies and measurable controls that are used to manage the risk associated with revenue assurance **Extended description** The objective of the Manage Revenue Assurance Framework process is to establish and manage a framework of policies and measurable controls that are used to manage the risk associated with revenue assurance, and to optimize the enterprise's appetite for revenue assurance risk. These processes are responsible for, but not limited to: Establishing and managing a revenue assurance policy framework which is aligned with the overall enterprise goals and objectives; AM [*MoneyMap Product Description:* MoneyMap Configuration reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6] [*MoneyMap User Guide:* Case Management – pp 20 Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163] Developing a framework of controls and KPIs which achieves the defined revenue assurance goals and objectives AM [*MoneyMap Product Description:* MoneyMap Configuration reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6] [*MoneyMap User Guide:* Case management – pp20 Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163] Gaining enterprise-wide commitment to and knowledge of the framework; AM [*MoneyMap Product Description:*

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		MoneyMap Dashboards - pr 4.1 Key Performance Indicators – pr4.2 MoneyMap Configuration Reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6 MoneyMap Rating and Billing Reconciliation – pr 7] [*MoneyMap User Guide:* Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163 Reports - pp 219] and Regularly reviewing the revenue assurance framework to ensure that its outcomes remain aligned with the enterprise's objectives. AM [*MoneyMap Product Description:* MoneyMap Dashboards - pr 4.1 Key Performance Indicators – pr4.2 MoneyMap Configuration Reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6 MoneyMap Rating and Billing Reconciliation – pr 7] [*MoneyMap User Guide:* Dashboard – pp 13 Case management – pp20 Alarm management - pp 213 Reports – pp 219] The Manage Revenue Assurance Framework process has a specific responsibility in developing and defining controls and Key Performance Indicators (KPIs) used for RA, in conjunction with operational and other processes elsewhere in the enterprise. AM [MoneyMap User Guide: Reconciliation Rules Management/Creating a Rule Using the Rule Wizard –pp 81-113 Managing Usage Rules/Creating a New Usage Rule Template - pp 128-141 Key Performance Indicators / Adding KPIs - pp 167-182] Where processes elsewhere in the enterprise have an intrinsic

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		capability to instrument their own performance and behavior (as an aspect of operating effectively within the business), the Manage Revenue Assurance Framework process makes use of this capability, but can also provide guidance to these processes in the form of modified, or additional, KPIs, required to support the overall role of Revenue Assurance Management. This can involve individual process elements throughout the enterprise (as appropriate for the various aspects of Revenue Assurance Management that apply), or may involve co-ordination across a number of process elements where Revenue Assurance Management acts to provide an integrated or coordinated view of the overall situation. AM

[MoneyMap User Guide: Key Performance Indicators / Adding KPIs - pp 167-182]

With regard to KPI definition, the Manage Revenue Assurance Framework process establishes the objectives used to identify the minimum level of satisfactory performance required for a given control point or a process from an RA perspective, and works with other process element in the enterprise to effect this. AM

[**MoneyMap Product Description:** MoneyMap Configuration Reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6 MoneyMap Rating and Billing Reconciliation – pr 7]

[**MoneyMap User Guide:** Case management – pp 20 Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163 Alarm management - pp 213 Reports – pp 219 Rating & Billing Verification Module - pp 251]

With regard to development of Revenue Assurance controls, the Manage Revenue Assurance Framework process applies policy-based rules that represent the logical definition of comparisons performed on entities, such as bills and call detail records. These are used together with Revenue Assurance KPIs, to identify discrepancies from an RA perspective. A |

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		[*MoneyMap Product Description:* MoneyMap Dashboards - pr 4.1 Key Performance Indicators – pr4.2 MoneyMap Configuration Reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6 MoneyMap Rating and Billing Reconciliation – pr 7] [*MoneyMap User Guide:* Case management – pp 20 Knowledge base – pp 56 Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163 Alarm management - pp 213 Reports – pp 219 Rating & Billing Verification Module - pp 251 Management – pp282]

3.1.3 Manage Revenue Assurance Operations Process Mapping [1.3.2.6.2]

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.
The process Measures the actual revenue assurance performance at defined control points against the expected performance, report anomalies and manage resolution.

Manage Revenue Assurance Operations processes measure the actual revenue assurance performance at defined control points against the expected performance, report anomalies and manage resolution.
Manage Revenue Assurance Operations processes encompass managing, tracking, monitoring, analyzing, controlling and reporting on revenue assurance performance as determined by assessing defined KPIs measured against revenue assurance control points.

If the analysis identifies that a revenue assurance KPI violation has occurred, this causes a Revenue Assurance violation to be raised, that may in turn raise a Revenue Assurance Trouble Report. Following on from this, processes are put in place to manage the resolution of the performance violation
The Manage Revenue Assurance Operations processes will continue to track the revenue assurance trouble report, ensuring that performance is restored to a level required as defined by the acceptable range for the KPIs.

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
1.3.2.6.2 - Manage Revenue Assurance Operations	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** Measure the actual revenue assurance performance at defined control points against the expected performance, report anomalies and manage resolution. **Extended description** Manage Revenue Assurance Operations processes measure the actual revenue assurance performance at defined control points against the expected performance, report anomalies and manage resolution. A [*MoneyMap Product Description:* MoneyMap Dashboards - pr 4.1 Key Performance Indicators – pr4.2 MoneyMap Configuration Reconciliation – pr 5 MoneyMap Usage Reconciliation – pr 6 MoneyMap Rating and Billing Reconciliation – pr 7] [*MoneyMap User Guide:* Reconciliation Rules management - pp 81 Usage (XDRs) Reconciliation Rules – pp 123 Key Performance Indicators - pp 163 Alarms management – pp 213 Rating & Billing Verification Module - pp 251] Manage Revenue Assurance Operations processes encompass managing, tracking, monitoring, analyzing, controlling and reporting on revenue assurance performance as determined by assessing defined KPIs measured against revenue assurance control points. A [*MoneyMap Product Description:* MoneyMap Architecture – pr 3 MoneyMap Platform – pr 4] [*MoneyMap User Guide:* Case management – pp 20 Dashboard – pp 13 Alarm management - pp 213 Reports – pp 219 Rating & Billing Verification Module - pp 251] If the analysis identifies that a revenue assurance KPI violation has occurred, this causes a Revenue Assurance violation to be

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		raised, that may in turn raise a Revenue Assurance Trouble Report. Following on from this, processes are put in place to manage the resolution of the performance violation A

[*MoneyMap User Guide:*
Case management – pp 20
Alarm management - pp 213
Reports – pp 219]

The Manage Revenue Assurance Operations processes will continue to track the revenue assurance trouble report, ensuring that performance is restored to a level required as defined by the acceptable range for the KPIs. A

[*MoneyMap User Guide:*
Case management – pp 20
Key Performance Indicators – pp 163
Reports – pp 219] |
| **1.3.2.6.2.1 Monitor Revenue Assurance Controls** | **MoneyMap Product Description**

MoneyMap User Guide | **Brief description**
Monitor defined revenue assurance control points and undertakes first-in detection of any violations or degradations of KPIs associated with the control points.

Extended description
The objective of the Monitor Revenue Assurance Controls processes is to monitor defined revenue assurance control points and undertake first-in detection of any violations or degradations of KPIs associated with the control points.
The responsibilities of the processes include, but are not limited to:

Undertake the role of first in detection by monitoring the defined revenue assurance control points; A

[*MoneyMap User Guide:*
Analyzing Results / Results – page 147
Key Performance Indicators - pp 163 2^(nd) Paragraph]

Comparing the received specific revenue assurance related data received from the control points to the KPIs associated with the control points; A |

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		[*MoneyMap User Guide:* Key Performance Indicators / Setting Parameters in the Threshold Tab- pp 171-182]
		Assessing and recording received specific revenue assurance related data received from the control points which is within tolerance limits for the KPIs associated with the control points, and for which continuous monitoring and measuring of specific revenue assurance tolerances is required; A
		[*MoneyMap User Guide:* Key Performance Indicators /process view - pp 205-211]
		Prioritize revenue assurance KPI violations on what's considered the most critical function of the system from a data integrity and revenue assurance perspective in circumstances where multiple revenue assurance violations are detected; A
		[*MoneyMap User Guide:* Key Performance Indicators / threshold tab - pp 176-177 Reconciliation Rules Management pp. 82-82
		Recording the results of the continuous monitoring for reporting through the Report Revenue Assurance processes; A
		[*MoneyMap User Guide:* Case Management – pp 20 Reconciliation Rules management / Output Tab - pp 96-101 Usage (XDRs) Reconciliation Rules / Results – pp 147-152 Key Performance Indicators - pp 163 Rating & Billing Verification Module - pp 261-262]
		Detecting revenue assurance threshold violations which represent specific revenue assurance failures due to abnormal performance; A
		[*MoneyMap User Guide:* Alarm Management - pp 213-219 KPIs / Threshold Tab - pp 171-182]
		Detecting KPI degradation for specific revenue assurance control points which provide early warning of potential issues; A

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		[***MoneyMap Product Description:*** KPI Trends and History – pp 19-21] [***MoneyMap User Guide:*** Key Performance Indicators - pp 185-190 Alarms Management – pp 213-217] Creating and forwarding event notifications for detected degradations and violations to the Create Revenue Assurance Trouble Report processes; A [***MoneyMap Product Description:*** Alarms – pp 23 [***MoneyMap User Guide:*** Reconciliation Rules Management/Assignment Tab – pp 11-113 Key Performance Indicators - pp 171-177 and Logging specific revenue assurance performance degradation and violation details to ensure historical records are available to support the needs of other processes. A [***MoneyMap Product Description:*** Alarms – pp 23 MoneyMap Usage – Schematic flow – pp 56-58] [***MoneyMap User Guide:*** Key Performance Indicators - pp 163 Reconciliation Rules Management/ Output Tab 96-106 Rating & Billing Verification Module / Viewing Previous RBV Results - pp 265-267 Management/ Cycle Log – pp 329-331] Note that the focus of the Monitor Revenue Assurance Controls is usually cross-process, as it supplements the process monitoring capabilities already established elsewhere within the eTOM business process framework.
1.3.2.6.2.2 **Create Revenue Assurance trouble report**	**MoneyMap Product Description**	<u>**Brief description**</u> Create a new revenue assurance trouble report.

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
	MoneyMap User Guide	<u>**Extended description**</u> The objective of the Create Revenue Assurance Trouble Report process is to create a new revenue assurance trouble report, and based on requests from other processes, either create and forward modification requests for existing revenue assurance trouble reports or create and forward cancellation requests for existing revenue assurance trouble reports. A new revenue assurance trouble report may be created as a result of event notifications forwarded by the Monitor Revenue Assurance Controls process, or by requests arriving from other processes which have detected performance or fault conditions which may give rise to a revenue assurance leakage. A [*MoneyMap User Guide:* Alarm Management 213-219 Reconciliation Rules Management / output tab - pp 96-106] If the revenue assurance trouble report is created, the Create Revenue Assurance Trouble Report processes are responsible for converting the received information into a form suitable for the Revenue Assurance processes, and for requesting additional information if required. Each revenue assurance trouble report should contain knowledge about the originator, the perceived severity level, the type of revenue assurance performance issue, any associated data on the revenue assurance performance issue, associated data on the possible cause and due date. A [*MoneyMap User Guide:* Reconciliation Rules Management / Creating a Rule Using the Rule Wizard - pp 88-115 Case Management / Case Properties Dialog 37-44]
1.3.2.6.2.3 **Assess Revenue Assurance Trouble**	**MoneyMap Product Description** **MoneyMap User Guide**	<u>**Brief description**</u> Analyze the information received to determine the nature and the root cause of the revenue assurance violation or degradation. [*MoneyMap User Guide:* Decision Tree - pp 62-71

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		Knowledge Base – pp 56-62] *[MoneyMap Product Description:* Robust Analysis Capabilities - pp 62-64 Process View - pp 205 - 212] **Extended description** The objective of the Assess Revenue Trouble processes is to analyze the information received to determine the nature and the root cause of the revenue assurance violation or degradation. [*MoneyMap User Guide:* Decision Tree - pp 62-71 Knowledge Base – pp 56-62] *[MoneyMap Product Description:* Robust Analysis Capabilities - pp 62-64 Process View - pp 205 - 212] The responsibilities of the processes include, but are not limited to: Undertaking analysis as required on specific revenue assurance violation/degradation information received; AM [*MoneyMap User Guide:* Decision Tree 62] Developing and undertaking specific detailed analysis to discover the root cause. AM [[*MoneyMap User Guide:* Decision Tree - pp 62-71 Knowledge Base – pp 56-62] *[MoneyMap Product Description:* Robust Analysis Capabilities - pp 62-64 Process View - pp 205 - 212] Comparing the data received to baseline and historical data, including data associated with other open or historical revenue assurance trouble tickets; A [[*MoneyMap User Guide:* Key Performance Indicators (KPIs) 163 - 211] Initiating, modifying and cancelling revenue assurance data collection as required to further analyze the revenue assurance degradation or violation; A

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		[*MoneyMap User Guide:* MoneyMap Transformer - pp 366] Determining the root causes of the revenue assurance degradations and violations; A [*MoneyMap User Guide:* Decision Tree - pp 62-71 Knowledge Base – pp 56-62] *[MoneyMap Product Description:* Robust Analysis Capabilities - pp 62-64 Process View - pp 205 - 212] Recording the results of the analysis and intermediate updates for historical analysis and for use as required by other processes; A [*MoneyMap User Guide:* Case management / Manual Opening of Cases – pp 51-52 Decision Tree - pp 62-71] and Updating the results of the analysis, together with any recommendations as to further action, in the revenue assurance trouble report. A [*MoneyMap User Guide:* Case management / Knowledge-Base - pp 56 - 62 Case management / Decision Tree - pp 62 - 71]
1.3.2.6.2.4 Resolve Revenue Assurance Trouble	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** Undertake actions as directed to resolve detected revenue assurance violations and degradations. **Extended description** The objective of the Resolve Revenue Assurance Trouble processes is to undertake actions as directed to resolve detected revenue assurance violations and degradations. These processes undertake resolution activities within the bounds of the organizational capability associated with revenue assurance. The resolution activities are likely to lead to process and/or procedural changes which can be managed to fruition by these processes. AM

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	Alignment	Mapping Comment
		[**MoneyMap Product Description:** [**MoneyMap User Guide:** Case management / Knowledge-Base - pp 56 - 62 Case management / Decision Tree - pp 62 - 71] Where the analysis has indicated that resolution requires changes to specific resource and/or service configurations, these later resolution activities are managed by the specific resolution processes associated these resources and services. They are outside of the scope of this Resolve Revenue Assurance Trouble process. AM [**MoneyMap User Guide:** Case management/Manual Opening of Cases – pp 51-52 Case management / Knowledge-Base - pp 56 - 62 Case management / Decision Tree - pp 62 - 71 Reports – pp 219]

1.3.2.6.2.5 **Track & Manage Revenue Assurance Trouble resolution**	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** Efficiently assign, coordinate and track specific revenue assurance trouble analysis, and resolution, and to manage escalation (functional or hierarchical) as required to resolve an open revenue assurance trouble report. [***MoneyMap Product Description:*** Case Management - pp 45-49] [***MoneyMap User Guide:*** Case management – pp 20-81] **Extended description** The objective of the Track & Manage Revenue Assurance Trouble Resolution processes is to efficiently assign, coordinate and track specific revenue assurance trouble analysis, and resolution, and to manage escalation (functional or hierarchical) as required to resolve an open revenue assurance trouble report. To the extent that jeopardy management is associated with open revenue assurance trouble report, the Track & Manage Revenue Assurance Trouble Resolution process is responsible for detecting and escalating jeopardy conditions. [***MoneyMap Product Description:*** Case Management - pp 45-49] [***MoneyMap User Guide:*** Case management – pp 20-81] Responsibilities of these processes include, but are not limited to: Scheduling, assigning and coordinating analysis and specific revenue assurance trouble resolution activities, including further analysis/reviews to ensure the success of the resolution activity; A [***MoneyMap User Guide:*** Case management / Cases Escalation– pp 72-74 Reconciliation Rules Management / Assignment Tab - pp111-113] Modifying the revenue assurance trouble report status A ***MoneyMap Product Description:*** Case Management - pp 45-46] Associating a money value to a RA trouble, when possible, in order to better understand its revenue impact A

		[*MoneyMap User Guide:* [Reconciliation Rules Management / Money Value Tab - pp 109-111] Canceling a revenue assurance trouble report when analysis indicates that the revenue assurance trouble report has been unnecessarily created; A [*MoneyMap Product Description:* Case Management - pp 45-46] and Monitoring the status of open revenue assurance trouble reports, and escalating revenue assurance trouble reports (either functionally or hierarchically) as necessary. Note that some specific product and/or service components may be owned and managed by suppliers/partners. In these cases the Track & Manage Revenue Assurance Trouble Resolution process is responsible for initiating requests, through - S/P Performance Management for resolution by the supplier/partner of the specific revenue assurance leakage aspects attributed to the supplier/partner. A [*MoneyMap User Guide:* Case management / Cases Escalation - pp 72-74 Reconciliation Rules Management / Priority Tab - pp 111] These processes will co-ordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence. The Track & Manage Revenue Assurance Trouble Resolution processes will also inform the Close Revenue Assurance Trouble Report processes by modifying the revenue assurance trouble report status to cleared when the issues leading to the detected revenue leakage have been resolved. AM [*MoneyMap Product Description:* Case Management - pp 45-46] [*MoneyMap User Guide:* Case management / Cases Escalation - pp 72-74]
1.3.2.6.2.6 Report Revenue Assurance	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** Monitor and report on the status of continuous monitoring of revenue assurance control point performance, of revenue assurance trouble reports, to provide notifications of any changes and provide management reports.

		[*MoneyMap User Guide:* Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219] **Extended description** The objective of the Report Revenue Assurance processes is to monitor and report on the status of continuous monitoring of revenue assurance control point performance, of revenue assurance trouble reports, to provide notifications of any changes and provide management reports. [*MoneyMap User Guide:* Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219] These processes are responsible for continuously monitoring the status of revenue assurance trouble reports and managing notifications to other processes and to other parties registered to receive notifications of any status changes. Notification lists are managed and maintained by the Support Revenue Assurance Operations processes. A [[*MoneyMap User Guide:* Key Performance Indicators (KPIs) 163 – 211 Key Performance Indicators (KPIs) / Frequency Tab - pp 182-183 Alarm Management 213-219]] These processes record, analyze and assess the revenue assurance trouble report status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Manage Revenue Assurance Operations processes. These specialized summaries could be specific reports required by A [*MoneyMap User Guide:* Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219]
1.3.2.6.2.7 **Close Revenue Assurance Trouble Report**	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** Close a revenue assurance trouble report when the issues leading to the revenue leakage have been resolved. *[MoneyMap Product Description:* Case Management - pp 45-46] **Extended description** The objective of the Close Revenue Assurance Trouble Report processes is to close a revenue assurance trouble report when

		the issues leading to the revenue leakage have been resolved. *[MoneyMap Product Description:* Case Management - pp 45-46]
		These processes monitor the status of all open revenue assurance trouble reports, and recognize that a revenue assurance trouble report is ready to be closed when the status is changed to cleared. A
		[MoneyMap Product Description: Case Management - pp 45-46]

3.1.4   Support Revenue Assurance Operations Process Mapping [1.3.2.6.3]

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

The process supports the Manage Revenue Assurance Operations processes by managing requirements for infrastructure to support the operational processes, and monitoring, managing and reporting on the capability of the Manage Revenue Assurance Operations processes.

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
1.3.2.6.3 Support Revenue Assurance Operations	**MoneyMap Product Description** **MoneyMap User Guide**	**Brief description** The process supports the Manage Revenue Assurance Operations processes by managing requirements for infrastructure to support the operational processes, and monitoring, managing and reporting on the capability of the Manage Revenue Assurance Operations processes. [***MoneyMap User Guide:*** Cycle Log 329-331 System Audit 331-332 Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219] **Extended description** The objectives of the Support Revenue Assurance Operations processes are twofold: support the Manage Revenue Assurance Operations processes by managing requirements for infrastructure to support the operational processes, AM [***MoneyMap User Guide:*** Cycle Log 329-331 System Audit 331-332 Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219] and monitoring, managing and reporting on the capability of the Manage Revenue Assurance Operations processes. A [***MoneyMap User Guide:*** Cycle Log 329-331 System Audit 331-332 Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219]

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		The responsibilities of the processes include, but are not limited to:
		Developing and maintaining a repository of revenue assurance KPIs to support the Manage Revenue Assurance Operations processes; AM
		[**MoneyMap User Guide:** Key Performance Indicators (KPIs) 163 - 211]
		Monitoring and analyzing the report produced by Operations processes to identify potential revenue assurance problems that may be arising across operational processes as a whole; AM
		[**MoneyMap User Guide:** Cycle Log 329-331 System Audit 331-332 Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219]
		Establishing and managing revenue assurance data collection schedules, including managing the collection of the necessary information from the Resource Data Collection & Distribution processes, to support proactive monitoring and analysis activity, and requests from Manage Revenue Assurance Operations processes for additional data to support revenue assurance performance analysis; A [**MoneyMap Product Description:** Layer 1 ETL – pp. 13]
		[**MoneyMap User Guide:** Transformer - pp 366]
		Monitoring of the Manage Revenue Assurance Operations processes and associated costs (including where the processes extend to infrastructure deployed and managed by third parties), and reporting on the capability of the Manage Revenue Assurance Operations processes; A [**MoneyMap User Guide:** Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219]
		Establishing and managing resource performance notification facilities and lists to support the Manage Revenue Assurance

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		Operations notification and reporting processes; A [*MoneyMap User Guide:* Cycle Log 329-331 System Audit 331-332 Key Performance Indicators (KPIs) / Viewing 185 - 190 Alarm Management 213-219] [*MoneyMap Product Description:* Appendix C – Monitored entities pp. 78-79] Creating, deploying, modifying and/or upgrading of revenue assurance infrastructure deployment support tools and processes for new and/or modified revenue assurance infrastructure AM [*MoneyMap Product Description:* MoneyMap Platform – pr 4] [*MoneyMap User Guide:* Management – pp 282 Dashboard – pp 13 Key Performance Indicators – pp 163] Authoring, reviewing and approving operational procedures developed by Resource Development & Management processes prior to resource infrastructure deployment; AM [*MoneyMap Product Description:* **full document**] Testing and acceptance of new and/or modified revenue assurance infrastructure support tools as part of the handover procedure from the Resource Development & Management processes; AM [*MoneyMap Product Description:* **full document**] and Detecting revenue assurance infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Resource Development & Management processes; AM [*MoneyMap User Guide:* Cycle Log 329-331

eTOM process element	Software Vendor Mapping	
Revenue Assurance Management	**Alignment**	**Mapping Comment**
		System Audit 331-332 Key Performance Indicators (KPIs) 163 - 211 Alarm Management 213-219 Monitoring 343-344] [***MoneyMap Product Description:*** Appendix C – Monitored entities pp. 78-79]

4 Process Conformance

4.1 Business Process Framework – Process Conformance Summary

| 0 - Not in Scope |
| 1 - Not used |
| 2 - Level 2 Partially Conformant |
| 3 - Level 2 Fully Conformant |
| 4 - Level 3 Partially Conformant |
| 5 - Level 3 Fully Conformant |

cVidya MoneyMap® Release 6.5
Business Process Framework Release 9.0 - Product Conformance Result
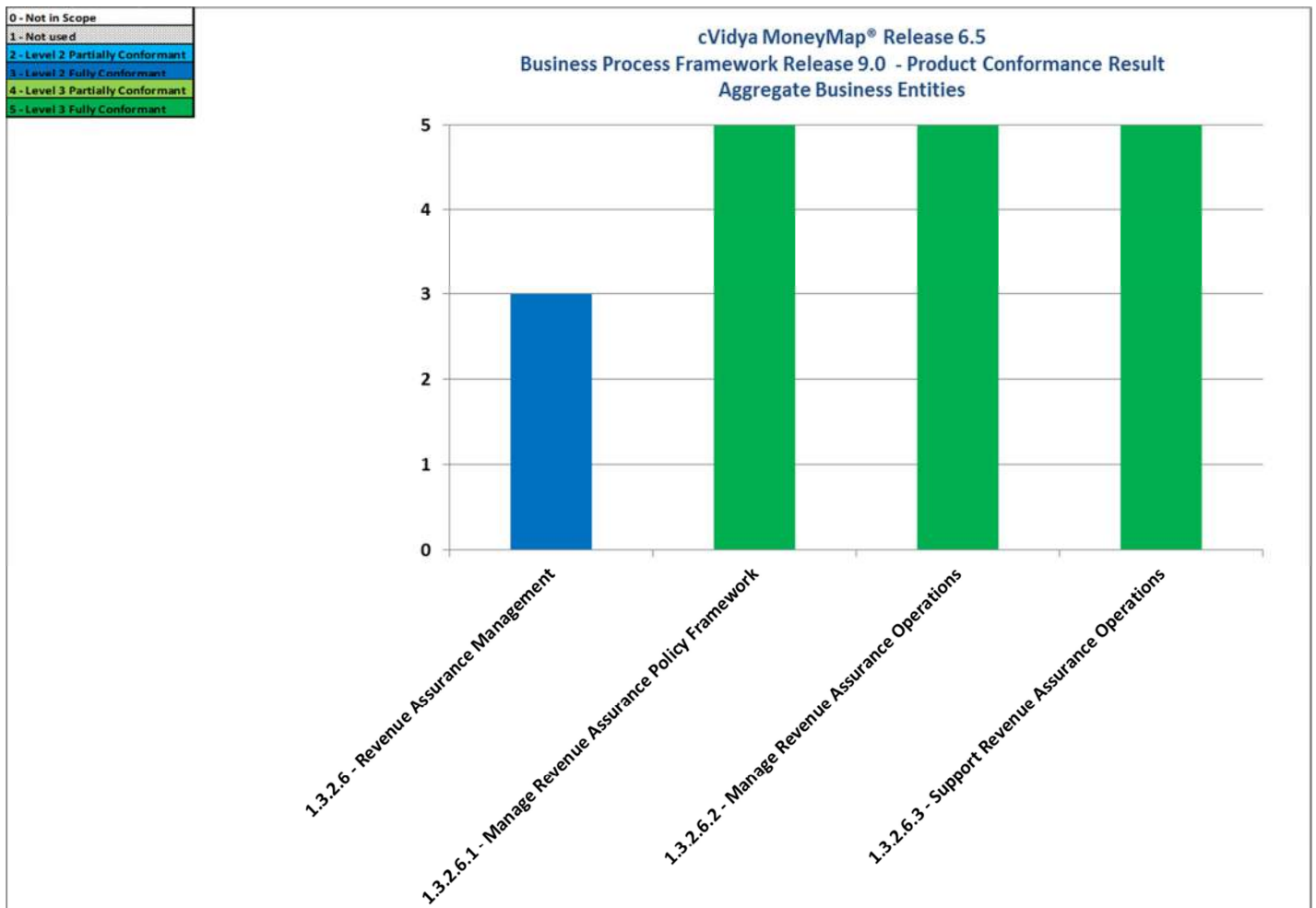Aggregate Business Entities

Figure 4.1 cVidya MoneyMap® Product – Conformance Result Summary

4.2 Business Process Framework – Process Conformance Detailed

Table 4.1 cVidya MoneyMap® Product – Detailed Conformance Result

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Score**	**Comment**
Within Level 1: 1.3.2 - Enterprise Risk Management	Enterprise	*N/A* *(Level 1 Processes are not assessed)*	The following Level 2 process elements were submitted in scope for this Level 1 process: **1.3.2.6 - Revenue Assurance Management**
Within Level 2: 1.3.2.6 - Revenue Assurance Management	Enterprise	**Scope Fully Conformant (3)**	The following Level 3 process elements representing the full set of level 3 "children" processes under Revenue Assurance Management were assessed for conformance: **1.3.2.6.1 - Manage Revenue Assurance Policy Framework** **1.3.2.6.2 - Manage Revenue Assurance Operations** **1.3.2.6.3 - Support Revenue Assurance Operations** Detailed assessment of these level 3 processes did not reveal any particular deviations against the Business Process Framework (eTOM) standard. Supporting evidence provided for the level 3 "Manage Revenue Assurance Policy Framework" process is realized through the MoneyMap application mostly by means of partially automated capabilities ("AM"), with a few features being fully automated ("A"). For the level 3 process: "1.3.2.6.2 - Manage Revenue Assurance Operations", most of the supporting capabilities are fully automated ("A") and finally for the process "1.3.2.6.3 - Support Revenue Assurance Operations", supporting capabilities are split between fully automated ("A") and partially automated ("AM"). The details of these capabilities are described in the following paragraphs.
1.3.2.6.1 - Manage Revenue Assurance Policy Framework	Enterprise	**Scope Fully Conformant (5)**	**Conformant** Establishing and managing a revenue assurance policy framework is a combination of automated and manual processes; for example for configuration reconciliation, based upon analysis results, the operator can take the data bits from various repositories and compare them to each other in the relevant context and timing in order to identify revenue affecting discrepancies. Also in Case Management and Reconciliation Rules Management, there appears to be significant interaction with the operator of the application; these are the most significant examples where manual support is required to support this process; most other features and functional requirements stated in the eTOM process descriptions are supported in fully automated mode by MoneyMap.

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Score**	**Comment**
1.3.2.6.2 - Manage Revenue Assurance Operations	**Enterprise**	Scope **Fully Conformant (5)**	**Conformant** Configuration of most elements in this process requires user interaction – but on using the configured elements, namely the use of KPIs (once configured) for doing the activities mentioned is fully automated.
1.3.2.6.3 - Support Revenue Assurance Operations	**Enterprise**	**Scope Fully Conformant (5)**	**Conformant** Some specific parts of the product deal with managing and tracking the operation and infrastructure, such as the Cycle Log, and System Audit; on top of that all the infrastructure and process behavior, including resources, costs (when information is available) is logged in the data base, and ultimately converted to OLAP cubes. This permits to use several "general" parts of the application to support and monitor these activities: KPIs, Alarms, Reports, MDA, etc. This is done partly in fully automated mode and partly through partially automated capabilities with some human intervention. Furthermore, MoneyMap in general does not calculate costs; it monitors, and/or aggregates them, and/or compares them with thresholds, e.g. budget.