testadvance pty/ltd
ACN: 105 491 996
11 Essex St., Blackburn
3130 VIC Australia
tel: 1 300 559 376
fax: 03 8080 6621
int'l: +61 3 881903591
e-mail: sales@testadvance.com

EXCERPT: OPTIMISATION OF OPERATIONS, NATIONAL SUPPORT & MATERIEL

Operations Optimization Review: Common Test Equipment Logistics Management and Through Life Support

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Executive Summary (Directors):

- Improvements and consolidation of Regulations will provide more consistent and complete definitions and instructions and improve efficiencies and reduce costs across the entire Through-Life-Support (TLS) Cycle
- Specifically, TLS Phases, Disciplines and Competencies shall be brought in line with Business objectives
- There is a clear and quantifiable opportunity to measurably increase productivity through the alignment of works and resources with operational procedures
- Detailed analyses and findings are provided in the appropriate sections and/or supplementary documents

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1 Principle Conclusions

It is viewed that the Business and its Operations has the resources and potential to provide more effective TLS Services, faster and more efficiently to Client and can readily exceed current business measures, providing an appropriately revised regulatory framework is put in place. Thus, the focus of the optimization should be equally on Regulations and Operations within the primacy of the Client as a customer and with the aim of achieving and exceeding Business and Stakeholder objectives.

2 Principle Recommendations

To provide fully effective and efficient Through Life Support both for Client and Business, now and in the future, it is recommended to revise the TLS Regulations and the TLS Operations based on a customer focused approach and to provide a more effective implementation of a dedicated customer (Client) interface, including the provision of TLS Advice; the handling of 'TLS Requests' and Account Management practices.

It is recommended to revise the TLS Operations to provide more effective alignment of works, operational procedures and resources; improve utilization of resources and skills and provide a more effective handling of all applicable cases of requests. Further, it is recommended to improve operational measures and controls. An applicable level of guidance on the management and sustainment of TLS Business and Operations can be incorporated in the Business Rule and further defined in the Standing Instruction.

The recommended optimization measures will expedite the realization of a highly efficient operational process and structure, in turn providing for a highly effective Business Unit that exceeds stakeholder expectations. The recommendations and concepts are provided in the Optimization Solutions and Recommendations. Finally, it is recommended to utilize the efficiency gains and resource-savings made as a result of the optimization to focus on operational control and planning in line with the business opportunities as outlined above.

3 Results

3.1 Principle Areas of Improvement

The Operations Review has determined the following principle Areas of Improvement:

3.1.1 Business Through Life Support Operations

The current Business Operations for Through Life Support are not ideally suited to effective and efficient provision of TLS and optimization will include an amount of restructuring. The principle areas to benefit from a revision are:

- Customer (Client) Interface
- Structure of works functions, delineation of disciplines and roles and responsibilities
- Operational measures, controls, review and planning
- Improved utilization of resources and alignment of staff with works-functions (disciplines) within operations

3.1.2 Through Life Support Regulations

In summary, the TLS Regulations should be revised to:

- Employ a structure that better correlates to the TLS Process and reflects the objectives of stakeholders, Business and Client
- Be more consistent and minimize clauses and exclusions and specifically ensure all applicable TLS cases are defined equally
- Better support the effective and efficient operational implementation of the rules and procedures by:
    - providing more efficient process designs and ensuring these are effective and efficient

for the entities required to employ them
    - encompassing clearer operational and business objectives and measures
    - incorporating clearer and applicable business and operational control, review and planning guidelines
- More adequately define the Client - Business Interface and Interface requirements and procedures
- More adequately define and position TLS Advice services, interfaces and procedures
- Ensure regulations are more consistent, efficient and effective for the users of the manual

3.1.3 Through Life Support Process

The currently defined Process Through Life Support is not ideally suited to achieve the possible level of effectiveness and efficiency in the provision of TLS and will benefit from an optimized structure. The principle areas to benefit from a revision are::

- The process design is not as efficient and effective as possible
- The TLS Phases are not ideally defined
- The TLS Core Disciplines should include TLS (Policy) Advice
- The TLS Process design should provide more adequate control and measures

3.2 Context, Stakeholder and Business Objectives

3.2.1 Agency Business Model Update

The following is derived from the Agency Business Model Update:

"3. ….Agency be more business-like…the Agency to approach the more commercial end of a range of options for a prescribed agency. …the Agency is funded and managed on the basis of customer-supplier agreements for all services delivered and received. The primacy of Client as the customer, with responsibility for setting requirements and determining priorities within agreed funding levels, is the cornerstone of the model.

18. Agency outputs are its acquisition projects…. sustainment of Client equipment fleets (about 90 fleets) and providing policy and advice services to Client and Government.

19. There is broad agreement between Client and the central agency stakeholders that Agency should have a single Outcome and three Outputs/Programs which reflect its purpose and business operations… Output 1 – Management of Capability Acquisition, Output 2 – Capability Sustainment; and Output 3 – Policy Advice and Management Services

24. Customer Supplier agreements … at tactical level, simple agreements would detail the scope of specific products and services flowing from Agency's Outputs, including the price and time frame for the delivery of these products and services."

In summary, the following primary stakeholder objectives and statements are fundamental to the Optimization of Business Business and Operations:

- Client is viewed and serviced as a customer in a business sense.
- Agency Outputs:
    - Management of Capability Acquisition
    - Capability Sustainment; and
    - Policy Advice
- Business will need to determine price and time-frame for services provided

3.2.2 Conclusion

The increased emphasis on a customer-supplier relationship in a more commercial sense aligns very much with the findings of this Optimization Review Engagement. Specifically the interface between Client and Business (customer <> supplier) is a principle Area for Improvement, both in view of business practices and operational efficiency. This is described further in the following sections as well as in the 2.2.5 Operations Performance Report and the subsequent 3.3 Optimization Solutions and Recommendations.

3.3 Scope

The principle objective of the Operations Optimization Review was to define and address the Areas of Improvement for effective and efficient provision of Through Life Support by then current Business Operations and provide recommendations and key solution concepts for those areas. From early discussions with Business management, three elementary properties of the Business Operations were identified as in need of significant improvement:

1. Operational Performance
2. Workforce Morale
3. Internal and External Recognition

It was soon determined that the issues hindering Business to resolve the above were significantly more complex and elementary than advised and assessed during the scoping of this engagement. Given these constraints as further detailed below, it was decided to broaden the scope beyond the optimization review of Business Operations as defined in the Scope of Engagement. The decision was based upon Business's declared objectives as formulated in the Scope of Engagement.

It was thus necessary to execute the Operations Optimization Review in the context of Through Life Support itself as defined and implemented, including an in-depth analysis of the TLS Regulations under the auspices of the Agency Business Model (update). Specifically, the Agency Business Rule (TLS), Standing Instruction (TLS) et al were thoroughly analyzed as the primary guidelines for the implementation of Business TLS Operations. In line with the Business objective to achieve a highly effective and efficient Through Life Support, the individual analyses were executed on the premise of defining Areas of Improvement and subsequent recommendations for the optimization of TLS Operations and Business.

Further, emphasis was placed on leveraging the analysis effort to identify and as possible define business opportunities beyond the optimization and within the charter of Business. The recommendations and solution concepts are provided in the 3.3 Solution Recommendations and Designs. Thus it was agreed that a formal analysis of operations and processes alone would not suffice and a parallel approach would be most effective:

3.3.1 Formal Works and Process analysis

- The analysis of current Operational Performance was executed through a series of individual analyses of 'Process', 'Infrastructure' and 'Workforce', as defined in the Statement of Work, Principle Operations Analysis and Principle Performance Analysis.

3.3.2 Joint Optimization Team analysis

- The analysis of Morale and Recognition was executed with the direct participation of Business staff and management, as the issues are diverse and often hidden in the day-to-day execution of business and operations
- The TLS Business and Operations were analyzed in their entirety, employing a 'Leading the Business' approach in which Issues, Barriers and Key Success Factors are determined; surveys executed; a SWOT Analysis was undertaken and defined Action Plans created based on the findings made. The joint team approach was beneficial as it provided a subjective insight into the operations, valuable in determining the root causes of the above issues.

3.3.3 Constraints

It is understood that the TLS Process, as defined in the regulations is at this point in time not implemented in its entirety. Currently, the key areas operating are the technical definition (FPS) of the Concept Phase, the Fleet Replacement Planning of the In-Service Phase and the sub-processes of the Disposal Phase (although it is not clear to what extent). The Acquisition Phase is currently being executed on a per-request basis and without the ILSP. Hence, amendments to the currently implemented Operations will need to be made to implement the TLS Process as defined in the regulations. Further, the results of the detailed analysis of the Regulations (Operations Process Analysis) have shown that:

- the TLS Regulations; Agency Business Rule Test and Measuring Equipment Through Life Support Manual and the Agency Standing Instruction (TLS) are not ideally suited to an optimized provision of TLS
- the TLS Process as defined in the Regulations, is not ideally suited to an optimized provision of TLS and will benefit from being revised
- the current (legacy) operational process and the operational structures within Business can not be adequately determined for a quantitative analysis
- amendments to the operational process and structure will need to be made to implement the TLS Process, even as currently defined
- further amendments are recommended to achieve the full potential in operational effectiveness and efficiency, in line with recommended optimization measures

The joint Optimization Team analysis has determined that:

- the infrastructure, balance of workload and the allocation and organization of resources was not ideally suited to an optimized provision of TLS and would benefit from being better aligned with an optimized TLS Process and operational structure
- operational measures and metrics should be more fully implemented and current operational performance can not be measured in sufficient detail for a quantitative analysis
- operations will benefit from a more adequate, applicable operational charter
- beyond the optimization of operations, there are significant opportunities to improve the business results and to enhance the Through Life Support provided to Client, improving Preparedness and Capability and exceeding measures and objectives

Common to both, it was determined that the key interface Client – Business (‘customer – supplier’) was not fully defined in either an operational or business sense.

3.3.4 Conclusions

- In view of legacy issues, changing operations and the need to revise current regulations, a structured and quantitative analysis of the (TLS) Operations was not feasible
- The operational process and structure will change and thus findings and results would not be applicable to an optimized Through Life Support Process
- The analyses above would have to assume operational charter, objectives and measures, based on what would be defined for effective and efficient operations
- The improved definition of the principle business and operations interface, the customer interface, should be addressed at the business level
- It is viewed that it is not in the interest of Business to provide results that are not relevant to the achievement of Business’s combined objective of increasing effectiveness and efficiency of Through Life Support and providing best practices in customer support

Thus, the Joint Optimization Team Analysis and Works Performance Analysis were executed with a focus on achieving and as possible exceeding stakeholder and business objectives rather than quantifying the current operations:

Principle Stakeholder Objective:

- Provide Support Capability within a Support System to achieve maximum Preparedness of the Mission System

Principle Business objective:

- Effectively and efficiently provide and sustain the T&ME Fleet within a tri-service environment by providing TLS services in a cost-effective manner

3.4 Description of Performance Report

This Performance Report collates the results from the Principle Assessment, the Principle Analysis and includes applicable findings from the reviews executed in the scoping phase, prior the commencement of the engagement. Figure 1 depicts the linkage of the individual, contributing documents.

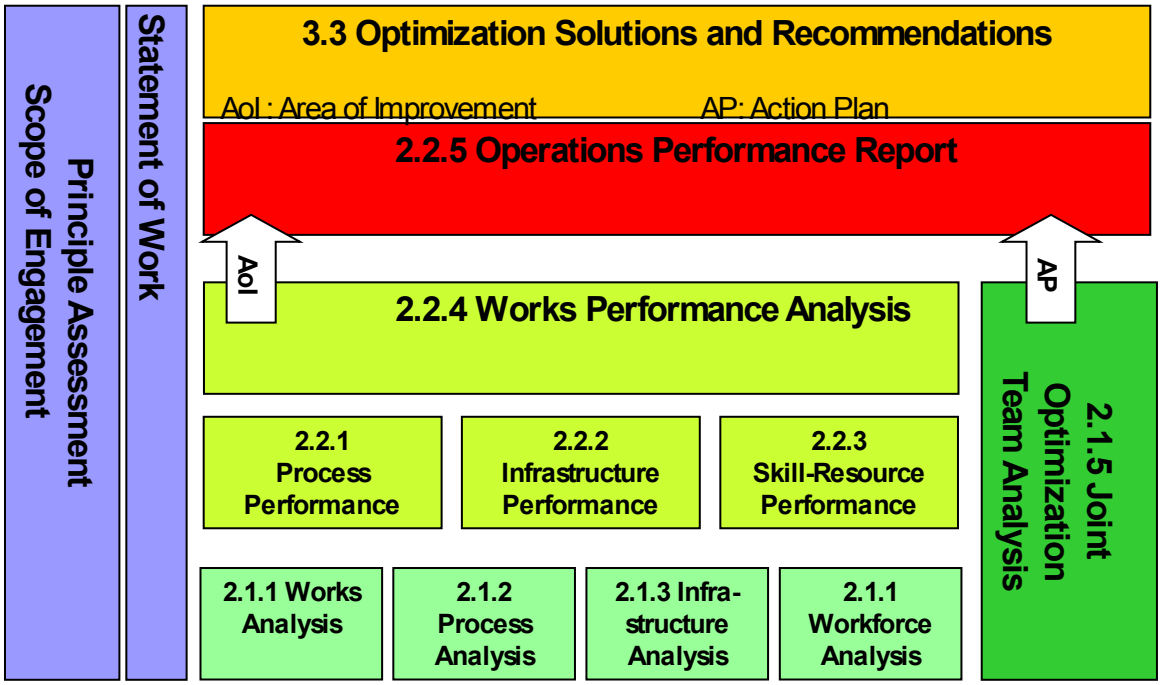

Figure 1 Analysis mapping

3.4.1 Joint Optimization Team Analysis

The Joint Optimization Team Analysis executed a qualitative analysis of Business TLS Business and Operations based on the current knowledge and expertise of the team members in regards to Business operational procedures and the understanding of Business Business and stakeholder objectives. The Joint Optimization Team analysis provided a much broader focus than the Ancillary Services originally defined in the SOW, addressing the TLS Business and Operations in whole. Further, the majority of the tasks defined in Section 8.2 of SOW are agreed to be either not possible or not feasible due to the current constraints . Nonetheless, the results from the Joint Optimization Team Analysis cover many points listed in the SOW and exceed those deviated from.

The Joint Optimization Team analysis employed a ‘Leading the Business’ approach:

- Identify all ‘issues’ as seen by the staff and organize these by key characteristics
- Prioritize issues according to impact on operation and business
- Execute Staff Surveys as required
- Execute a SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats)

- Detail and qualify the outcomes of the SWOT
- Determine Actions, Barriers and Key Success Factors
- Detail and plan actions using Action Plan format

Where applicable findings could not be provided due to the constraints of the current TLS implementation, recommended actions and/or solution concepts are provided in the Optimization Solutions and Recommendations. It should be noted that the analysis in the joint team was led by testadvance such that it conveyed the business and management practices and fundamentals of the analysis method to the team.

3.4.2 Works Performance Analysis

To provide a Works Performance Analysis for the entire TLS Operations that relates to the Business Business level, the results of the operational performance analyses (Process, Infrastructure and Workforce) shall correlate to the Business Objectives of Business Through Life Support. The correlation was achieved by mapping the results from:

1. The Process, Infrastructure and Skill-Resource Performance analyses
2. through a recommended operational charter, objectives and principle operational measures,
3. to the applicable stakeholder and business objectives and where available, specific stakeholder and business measures.

The Works Performance was qualified using the following criteria that are given through the application of sound operational and business practices (‘best practices approach’):

- Fulfilment of Objectives – Stakeholder, Business Business and Operational
- Effectiveness – Support System Capability achieved and operational utilisation of internal and external resources
- Efficiency – Customer and Business effort (time & resources) required to achieve Support System Capability
- Specific, subordinate criteria as defined in Section 6.

The Performance of Business TLS Operations could not be adequately *quantified*, as applicable operational Measures and Metrics are currently not available.

The performance analysis was executed on:

- the Works (Through Life Support) delivered
- the Target or TLS Process and the procedures and interface requirements defined in the TLS Regulations
- the operational structure of the Business Business Unit executing the current operational process, resources and infrastructure

The Works Performance Analysis collates the results and findings from the quantitative analyses executed in:

- 2.2.1 Process Performance Analysis
- 2.2.2 Infrastructure Performance Analysis
- 2.2.3 Skill-Resource Performance Analysis

These in turn are based on the qualitative analyses executed in:

- 2.1.1 Operations Works Analysis
- 2.1.2 Operations Process Analysis
- 2.1.3 Operations Infrastructure Analysis
- 2.1.4 Operations Workforce Analysis

Given the constraints as described in Section 4 Scope, a quantitative performance analysis of the current Business TLS Operations as described in the Statement of Work was not possible respectively only in a qualitative manner.

Even if assumed measures and metrics were applied, the analysis would provide findings that will become irrelevant and which negates the purpose of the principle objective of this Operations Optimization Review: To provide for the implementation of an effective and efficient Through Life Support Operation. Where applicable findings could not be provided due to the constraints of the current TLS implementation, recommended actions and/or solution concepts are provided in the Optimization Solutions and Recommendations.

3.5 Detailed Findings

3.5.1 Fulfillment of Objectives

Current ('legacy') TLS Operations

The joint team analysis identified some inconsistencies in how Business applies and utilizes resources for the execution of the mandated TLS 'Works' and procedures. Current operations are experiencing some difficulties in providing a complete, concise and effective 'package' of Through Life Support services to Client as:

- Definitions of core business competencies and disciplines are not ideal
- More applicable Business Business statements are required, to which Operational Charter, Objectives and Measures shall be linked
- A clearer and relevant Operational Charter is required
- Clearer operational Objectives with executable Measures and Metrics are required

Through Life Support Regulations

The TLS Regulations do not fully achieve the stakeholder objectives. It is viewed that the customer-supplier relationship between Client and Business should be reflected in the Business Rule and subsequently included in the ensuing operational instructions. Further, the BR TLS could better address the mandate of "Policy Advice and Policy Management". Finally, the definition of all applicable business cases is not ideally balanced, apparent in the strong focus on the standard business case of Fleet Management.

It is understood that the objective of the Support and Test Equipment Through Life Support Manual is to provide both Client units ('customer') and Agency (Business) with a clear, concise, sufficiently comprehensive and common 'user' manual for the Through Life Support process. It is viewed that the TLS Manual can be improved in this area.

The Business Mission statement and Business Charter could more accurately reflect the context of the customer – supplier environment and it is feasible to formulate the subsequent Operational Charter and Measures such that both TLS customer and staff can adequately identify with it.

It is fundamental to achieving Preparedness that the required Capability by requested, issued and maintained in a manner that is effective and efficient for the Client unit operating the Support System. The Standing Instruction (TLS) could provide more consistent, concise and sufficiently comprehensive instructions to provide TLS Advice; handling of TLS Requests and definition, integration and sustainment of Capability Solutions in an effective and efficient manner for both requestor and provider of TLS.

3.5.2 Cost effectiveness

TLS Business Rule No.1: "The materiel life-cycle of all fleets, including fleet replacement requirements, must be programmed."

A business or operational procedure for making best use of vendor's intrinsic *services*, such as application support, instrument upgrades and development could not be determined from the available documents. A substantial improvement in regards to 'Cost Effectiveness' is readily achievable, both in terms of the equipment procured as well as in operational efficiency for Client and Agency (Business). Core to achieving these improvements is to provide operational instructions, tools and procedures for the assessment, definition and implementation of Support T&ME that are more applicable to a focus on achieving best 'value for money'.

3.5.3 Effectiveness

Current ('legacy') TLS Operations

The current TLS Operational structure and TLS 'works-functions' (cells) and according procedures or sub-process could more fully realize the potential effectiveness, which is primarily due to the current TLS Process defined. The skills and resources are not ideally aligned with the TLS Works and utilization is below the potential of the expert staff. Expert resources have a high loading of ancillary tasks.

Through Life Support Regulations

The Agency Business Rule could better address issues that are pertinent to the provision of effective TLS services and solutions for Client and Business Operations, such as Account Management, unified request procedures and handling, escalation procedures, and TLS Business and Operational measures and controls.

The TLS Process defined in the BR could provide more adequate operational measures for the works and sub-procedures to support the effective management of the TLS Operation. The TLS Process at the level of the Agency SI (TLS) should provide the segmentation and milestones required to put these measures and the subordinate metrics in place.

The BR could better reflect the fact that requisition of TLS and T&ME is not a core competency of the requesting entity. Consequently, the current definition of the TLS Process can introduce delays into the processing of a TLS Request. These delays flow through to the realization of a Support capability and inhibit the current TLS process model from being fully "commensurate with the respective… operational criticality and… requirements".

3.5.4 Efficiency

Current ('legacy') TLS Operations

The current TLS Operational structure could employ more adequate TLS 'works-functions'(cells) and according procedures or sub-process, which is primarily due to the current TLS Process defined. Thus, the operational process and procedures are not ideally aligned with the TLS Works. Further, the currently implemented customer interface process leads to customer's request being dealt with across all functions within the TLS Operations.

Subsequently, operational efficiency can not achieve the full potential. Specifically, core functions such as 'Capability' and expert staff-resources in general, have a high loading of interface tasks. Finally, the current classification of managed inventory and assignment of inventory to staff could be better aligned with the actual effort required for a specific instrument category.

Through Life Support Regulations

In view of the effort currently required by both Client and Business staff to review and process requests, the currently defined procedures within the TLS manual should be revised to be more efficient.

The prescribed TLS interface requirements could be made more efficient for the Field Operations entity and the Business operation. Clear and concise rules of engagement for the issue (Client) and receipt (Business) of TLS Requests are instrumental to ensure that validation and rectification of requests occur as early as possible. The revision of exclusions and clauses in the TLS Manual can minimize inefficiencies.

It is viewed that the definitions for the TLS Process in the Agency BR and for the sub-processes in the individual TLS Phases as defined in the Standing Instruction could provide more efficient delineation and segmentation. For example, the SI requires the user to supply solution specifics within a Functional Requirement, which often results in the requestor providing the solution specifics at the cost of formulating a Functional Requirement that more accurately describes the user's operational requirements and subsequently, further effort to validate and rectify is required. In fact, previous solution specifics should be available within Business and not necessarily provided by the Client Unit.

3.5.5 Relevance

Through Life Support Regulations

The regulations focus on the provision of TLS services as based on the current Business expertise and capabilities of Fleet Management. Subsequently, the regulations could improve on how the provision of services are best executed as a business, addressing practices such as Account Management to better meet customer requirements of a tri-service and constantly changing Client environment.

It is viewed that the TLS Core Disciplines defined in the Agency BR TLS will benefit from more applicable definitions:

- LSA is included within ILS: Core Disciplines are single-level and should not be embedded (LSA would be a core disciple of ILS)
- ILS is an Output, rather than a discipline
- SE is a subordinate discipline, (similar to LSA) it's output is relevant to only a single output or phase of TLS
- Specifically the provision of TLS Advice and the handling, validity and processing of TLS Requests should be included

It is viewed that the TLS Phases, as defined in the Agency BR TLS, could be more adequately defined, structured and provide a more defined and robust process and structure for the provision of TLS Advice and the handling, validity and processing of TLS Requests.

TLS Manual

It is viewed that the TLS Manual could more adequately reflect the works and procedures required to provide the TLS services and support to the Client environment. It is viewed that the TLS manual could better articulate to Client the required operational procedures and requirements in their entirety and achieve the effectiveness and efficiency possible. Further, the regulation could more adequately recognize, refer to and align with the individual procedures and guidelines of each service.

In line with the previous comments in 2.2, regulations should provide instructions more reflective of the TLS needs of the Client environment.

3.5.6 Consistency

Through Life Support Regulations

The TLS Manual contains a multitude of clauses and exceptions and can be self-contradictory, e.g. specifying "for Business managed T&ME" and following with provisions for non-Business managed equipment and new capabilities.

It is beneficial to review the various uses of 'Capability', 'Functional Requirement' and 'Functional Specification', and how they align with the high-level definition of 'Capability'.

It should be clarified within the Agency Business Rule TLS and the TLS Manual how the DSER relates to and aligns with the Functional Performance Requirement FPR of the Concept Phase. There should be a more consistent definition of how the contents of either FPR or the DSER Statement of Requirements map to each other. The definition for the cases in which the DSER is not to be applied is at times unclear. It is viewed that the 'framework' described in the SI (TLS) Introduction should be common to both Business internal operations and Client units (customers) requiring and requesting TLS support and advice. The Concept Phase Process Model depicts the Functional Performance Requirement as the source and predecessor for both the Functional Performance Specification and the Logistics Support Concept while not all referred information that is used for the FPS and LSC resides within the FPR. Further, the Process Model does not reference the FPR within the Acquisition and In-Service phases, contrary to the FPR description in Annex A.

3.5.7 Structure

It is viewed that the current structure of the TLS Manual can be improved to better provide a tri-service TLS request and support procedure that is equally understood by all Client entities and equally efficient and effective for all possible cases of TLS Requests and services. Specifically the structuring of the manual based on current Fleet Management and the necessary variety of exceptions and clauses makes it difficult for a TLS requestor (Client entity) not involved on a regular basis, to fully utilize the regulation.

3.5.8 Transparency & Use-ability

Through Life Support Regulations

It is understood that the TLS Manual is the primary publication to communicate the interface requirements and procedures between Client and Agency. It could utilize a more user-friendly structure that is more clearly aligned with the works process and procedure the user will execute, minimizing Business effort to clarify and rectify procedures during the execution of the process. The sections and chapters of the TLS Manual as well as specific content should be found in the order they are in the process.

The Agency Standing Instruction is not ideal for an operational instruction and could provide more applicable operational procedures in a more effective manner. The SI combines largely explanatory information with unstructured lists, rather than actual instructions and clear, hierarchical data and document structures. Further, the SI could provide a more adequate reference for the process and procedures executed and in which activities, tasks, milestone and in-/outputs are more clearly organized.

Through Life Support Process

To fully achieve effective execution and efficient repeatability for both Business and Client, the current process model should be revised in the following areas:

- Follow the hierarchy of the process and the associated sub-process and procedures depicted and include just as many layers as required, e.g. Overview diagram, sub-processes, task specific, detailed processes
- Provide sufficient detail to depict tasks comprising a sub-process

The manuals will benefit from including a context diagram, depicting alignment with the associated documents and Client/Agency structures and providing a clear overview of linkages for each service and type of request. The use of Annexes and appendices may be minimized.

3.5.9 Works Performance Analysis summary

The key findings from the Works Performance Analysis are significant in that it has been clearly shown that highly effective and efficient TLS Operations can be implemented, based on revised TLS Regulations. A primary conclusion of the Works Performance Analysis is that results from a structured and quantitative analysis of current Business TLS Operations are in fact not applicable to the objective of optimized operations. Rather, the focus of the optimization must be initially on the TLS Regulations and subsequently the optimization of Through Life Support Operations.

Applying a ‘top-down’ approach, two areas provide the directions and guidelines for Business:

- Stakeholder Objectives
- TLS and other applicable Regulations

In both cases this Analysis has determined that there are areas that can be revised to enable truly effective and efficient provision of Through Life Support to Client.

Stakeholder Objectives

The Stakeholder Objectives determine the Business Business Charter, Objectives and Measures, which in turn determine the Operational Charter, Objectives and Measures. It is evident that the current Business business statements can be revised to better reflect the above and recommendations have been made. Further, Operational Charter, Objectives and Measures should be

defined for the TLS Operations. Subsequently, there is potential to improve operational control, in conjunction with clear Operational statements and measures. Improved operational control will contribute to achieving full efficiency.

At the business level, the current objectives and control could be more adequately defined, as apparent in the current customer facing processes in operation.

Testadvance acknowledges and appreciates that the Client environment is not to be mistaken for a commercial environment. Nonetheless, leveraging commercial business practices will see these 'best practices' flow through to operations.

Regulations

In summary, the TLS Regulations can be improved to:

1. Employ a structure that better correlates to TLS and better reflects the objectives of stakeholders, Business and Client as the customer
2. Be consistent and minimize clauses and exclusions and specifically for TLS ensure all applicable cases are defined equally
3. Ensure defined processes and procedures are fully effective and efficient for the entities required to employ them
4. Enable the full potential of effective and efficient operational implementation of the rules and procedures by encompassing operational and business needs such as the customer – supplier interface, measures and controls

3.5.10 Summary Agency Business Rule (TLS)

The Agency Business Rule (BR) TLS states that "Through Life Support (TLS) is the philosophy and process which enables and promotes the development, implementation and management of a Support System for a Mission System throughout the Materiel Life Cycle". The current Agency Business Rule and subsequently the TLS Process focuses on the standard case of fleet management.

Further, it is stated that the BR's aim is to "promulgate mandates that have been agreed upon"; is raised to "establish minimum document and process requirements for TLS management in Agency" and "ensure TLS alignment with Agency Business Rules and externally mandated requirements". The BR could make more mention of TLS Policy advice and include more adequate definitions of the TLS 'customer interface', particularly the handling, validation and processing of requests for TLS services. It should be said that an advisory or consultative function is valuable to the provision of a support service, especially where such complex technical and logistical issues are commonplace, as seen by the amount of advisory tasks executed by Business staff. Providing for an effective and efficient customer interface for a Support service is instrumental in achieving Capability and Preparedness in a highly efficient and effective manner. Planning TLS Advice into operations ensures efficient and effective execution.

It is understood and stated in the regulations and policies, that the following cases of TLS *Requests* are applicable to Business (It is noted that applicable does not mean that the above are required to be approved by Business):

- TLS & T&ME Advice, irrespective of 'ownership'
- Business managed T&ME inventory
- New T&ME Capability
- Transfer of existing, non-Business managed T&ME

The focus on fleet management alone can inhibit the implementation of effective and efficient operational processes and structures within the Business Business Unit. It is viewed that the Agency Business Rule should be revised and amended to:

- Better align with the actual works, processes and structures necessary at a business level for both Client and Business to acquire and provide TLS
- Provide clearer, concise and sufficiently comprehensive business rules for all applicable cases of TLS Requests
- Define a TLS Process that is equally effective and efficient for all services and Business and that includes a dedicated customer interface (sub-process)

- More adequately align the TLS Phases and Core Disciplines with the Agency Mandate and Client i.e. customer requirements
- Set out basic TLS business practices and guidelines for TLS Account Management, measures, review and planning
- Better align and be more consistent with Client regulations, Agency (TLS) regulations and the TLS Process

3.5.11 Summary T&ME 'TLS Manual'

It is apparent that the T&ME TLS Support Manual ('TLS Manual') has been designed with a focus on 'standard' Business services, i.e. fleet management for Business approved and managed T&ME. To meet actual Capability and Preparedness requirements of Client, the current TLS Manual introduces a number of clauses and exceptions, across operational levels and interfaces. Rather, the manual should provide a more concise and complete TLS Process that minimizes overhead in the operational procedures and addresses current, de-facto procedures executed to meet Client needs. In essence, the TLS Manual could be more effective and efficient in addressing stakeholder objectives and needs. It is beneficial to review and revise the TLS manual to:

- Better align with the actual works, processes and structures necessary at a operational level for both Client and Business to acquire respectively provide Through Life Support services to Client equally effective and efficient for all services and Business
- Better align with an effective and efficient (optimized) TLS Process
- More adequately define the customer – supplier relationship and interface requirements between Client and Business in a manner that provides clearer and commonly accepted rules equally for all TLS business cases and aligns the applicable tri-service regulations with the TLS regulations
- Define a single, tri-service request process, aligning with and accommodating the individual regulations of each service and positioned in a redesigned DSER process (or equivalent)
- Better align request handling, TLS Advice and DSER
- Provide a commonly accepted set of rules for the validation of TLS Requests by Business
- Set out basic operational procedures for management of TLS 'accounts'
- Set out basic operational rules on measures, review and planning
- Be composed in a way the enables a more effective and efficient understanding of the TLS Manual
- Better align the document structure with the TLS Phases and Core Disciplines, specifically arranging the sections of the manual according to the overall TLS 'life-cycle'
- Better align and be more consistent with Client regulations, Agency (TLS) regulations and the TLS Process

3.5.12 Summary DSER Process (Section 1 Chapter 2)

The DSER could more adequately define the procedures required to handle and process a TLS 'request'. The DSER is applicable to a subset of possible cases and the positioning of the DSER as the formal, standard and foremost document for requesting support equipment from Business can inhibit the effective support of a tri-service environment, where each service needs to apply its unique rules and procedures. Furthermore, Business has the opportunity to better consult on and as applicable, process requests for new capability and non-Agency managed inventory, to which the DSER is not readily applicable.

It is apparent that an effort has been made to adapt the DSER to the various cases of requests. While this is certainly commendable, the outcome can be revised to provide a standard document that is more easily communicated to the various entities with their own procedures and policies. It is viewed that it is beneficial to redesign the DSER process and document template to:

- Better integrate with a single, tri-service request process, aligning with and accommodating the individual regulations of each service

- Provide clearer, more concise and sufficiently comprehensive operational rules for all applicable cases of TLS Equipment Requests, rather than by rule of exception
- Adequately align request handling, TLS Advice and DSER
- Integrate with a commonly accepted set of rules for the validation of TLS Equipment Requests by Business
- Align with an optimized Function Performance Requirement (see comments in section 7.7 et al) and Standing Instruction TLS
- Be composed in a way the enables a more effective and efficient understanding of the DSER

3.5.13 Business (Section 2 Chapter 1)

The TLS Section 2 Chapter 1, in line with the Agency BR TLS and Agency Business Model could more appropriately describe the interface requirement for all cases, define more accurately the 'provision of specialist TLS advice' and better align with and fulfill the recommendations as stated in the previous sections.

3.5.14 Responsibilities (Section 2 Chapter 2)

TLS Advice (Consultation) is viewed as a valuable service to be provided by Business to ensure efficient realization of Through Life Support and assist Client in achieving Capability and Preparedness more effectively.

It is recommended to review and re-issue Section 2 Chapter 2 Responsibilities of the TLS Manual in as per the findings under 6.3.

The specific Responsibilities of TLS 'customers' could be aligned with recommended TLS milestones and templates respective documents used. This will provide the requesting entity a clearer insight into the procedures and effectively link the TLS operational phases to the specific procedures of their service branch.

3.5.15 Summary Agency Standing Instruction

In line with the previous findings on the Agency BR and the TLS Manual, it is viewed that the SI can be more effective and efficient in that:

- The SI is currently designed with a strong focus on Fleet Management
- It could provide better definition and instruction for the operational handling, validation and processing of TLS Request.
- Phases and Procedures could be more concise and minimize redundancies
- It could better define operational Milestones, Measures and Controls

It is viewed to revise the Standing Instruction (TLS) to:

- Design more effective and efficient sub-processes within the optimized TLS Phases for all applicable cases of TLS Requests
- Define a set of clearer and sufficiently complete operational instructions for a more effective and efficient request handling, validation and processing in line with the optimized request process
- Define operational instructions for a commonly accepted procedure for the validation of TLS Requests by Business
- Provide an optimized Function Performance Requirement process and template (see comments in section 7.7 et al)
- Define a set of clearer and sufficiently complete operational instructions for the customer interface, specifically for the provision of TLS Advice (Consultation)
- Set out basic operational instructions for management of TLS 'accounts'
- Set out basic operational instructions on measures, review and planning

- Be composed in a way the enables an effective and efficient understanding of the SI TLS
- Align and be consistent with Client regulations, Agency (TLS) regulations and the TLS Process

3.5.16 Joint team analysis summary

Significantly, the Joint Optimization Team Analysis clearly identifies 'issues' that are characteristic of possible improvement in alignment of objectives and operations:

- Workload
- Focus
- Leadership/Moral

These issues are an indication that there could be more clarity in how Business operations align resources and tasks to the mandated procedures to provide Through Life Support to Client. In other words, the operations are to some extent hindered by the current identification of, and structural alignment to the works required for the provision of Through Life Support. The two areas that should primarily provide the appropriate guidance:

- 'Organizational', which encompasses clear and achievable roles and responsibilities; effective alignment of staff with works-functions (disciplines) within operations; pertinent definitions of core business competencies and disciplines; and clear and relevant Operational Charter, Objectives and executable Measures
- 'Functional', which encompasses the efficient formulation of requirements for functions and tasks to be executed; effective and applicable definitions of procedures to execute these tasks; material definitions of the works executed; a primary (business) process; and clear and pertinent definition of interfaces, including in- and outputs. (There are certainly more points to consider, yet for the purpose of this summary the above is sufficient)

It is obvious that the staff involved in this analysis have come to similar conclusions as the further principle issues identified are:

- Process (es)
- Customer Facing
- Infrastructure

These are typical 'causes' or in this case, Areas of Improvement. (Note: Infrastructure will be addressed through implementation of optimization measures and is not viewed as an Area of Improvement in this current engagement). It is essential to understand that the above findings were determined independently of the formal Works and Process analyses. In fact, the joint analysis was as planned, completed in its majority prior to a detailed analysis of the operations, processes and regulations to ensure an unbiased joint analysis. The findings of this joint analysis show that the core or 'root causes' currently hindering Business in the implementation of highly effective and efficient TLS Operations are two-fold:

- The organization of current TLS Operations, specifically the application of stakeholder and customer objectives to Business Business and Operations
- The definition and implementation of TLS 'Works', Regulations and Processes,

The above findings correlate with the findings made in the Works Performance Analysis and the reader is kindly referred to the section 6.7 and 'Stakeholder Objectives' and 'Regulations'.

3.5.17 Issues determined

In order of priority:

1. Workload
2. Focus
3. Processes
4. Customer Facing
5. Infrastructure
6. Leadership & Moral

3.5.18 SWOT Analysis executed

Strengths

- Knowledge & experience base
- Buying power with vendors
- Tri-service integration
- Dedication & commitment of most staff

Weaknesses

- Lack of focus on outcomes, measures
- Utilization of expertise & experience
- Processes not aligned with works
- Vision, mission vs. R&R (internal and external communication)
- Organizational structure and execution inhibits leadership and ownership

Opportunities

- 'Leading the game' Field Operations Test & Support COE/ 'Up-front' engineering services
- Leverage buying power: specification assistance; capability vs. asset procurement, logistics support, etc.
- 'Key account' practices & services

Threats

- Outsourcing/downsizing
- Lack of support from executive
- Resistance to change
- Vendor /other party offer comparable (competitive) services

3.5.19 Key Success Factors determined

The key factors for the engagement to be successful:

- Executive Management Support
- Charter, Objectives, Measures
- Retain & develop core skill sets, resources and tri-service integration
- Robust Processes
- Dedicated, independent robust Quality Process
- Defined internal and external communication

3.5.20 Barriers determined

The key barriers to success:

- Negative mindset re change
- Limited customer understanding
    - Across all levels
    - "Us of them, they of us"
- Lack of insight into Agency roadmap/future

3.5.21 Action Plans defined

The below is an updated list of the Action Plans. The plans are listed in order of agreed priority, the plans listed under 'Implementation Phase' are agreed to be executed after this review and as key actions within the implementation of the optimization solutions.

AP2	Works Assessment (survey)	Survey completed and provided in 2.1.1 Works Analysis
AP1	Operational Charter & Measures	Completed and Results attached
AP3	Works Analysis	Completed and provided in 2.1.1 Works Analysis
AP4	Customers	Data provided for Implementation Phase

Implementation Phase

AP5	Leadership & Ownership
AP6	Team/Team-leader concept
AP7	Skills Assessment
AP8	Skills Analysis
AP10	Internal Recognition
AP14	Task ownership & management
AP11	External Recognition

4 Operations Works Analysis

The Works Analysis provides a baseline analysis of the Works currently executed by Business Operations for the provision of Through Life Support and associated services. The Works Analysis follows on from the Operations Assessment and incorporates applicable findings and information. The Works analysis is based on the information gathered from:

- Business business charter and applicable documentation provided by Business, collated in section 2.1 Organizational Context;
- Anecdotal evidence from discussions with the Business Optimization Engagement Team, collated in section 2.2 Optimization Team Information;
- A cross-sectional survey of Business staff, collated in section 2.3 Works Survey

This Works Analysis determines the ‘actual state’ of operations for the Optimization of the Business Through Life Support Operations as opposed to the ‘target state’ which is given by the applicable guidelines and procedures defining TLS. The Works Analysis is based on the outcome of the Principle Assessment and is executed with a focus on achieving the Objectives of Business as compiled in the Scope of Engagement:

Principle Stakeholder Objective: Provide Support Capability within a Support System to achieve maximum Preparedness of the Mission System

Principle Business objective: Effectively and efficiently provide and sustain the T&ME Fleet within a tri-service environment by providing TLS services in a cost-effective manner

The application of the above to the TLS Works in conjunction with the Works Context results in a set of Works Functions that are required to achieve these objectives:

- Technical Definition
- Fleet Interface
- Inventory Management
- TLS Advice

While it is appreciated that the terminology is not consistent with those current or within the target TLS process, these terms are used to reflect the Core Works Function which are required to achieve the above objectives in an effective and efficient manner. The Works Analysis specifically executes the below tasks:

- Determine principle work executed by Business Operations, specifically the Through Life Support works, including inputs and outputs at principle level of Business Operations

- Determine subordinate components of the works that are delivered, including inputs and outputs of subordinate works
- Create the Work Structure Diagram

The principle purpose of the Works Structure Diagram is to illustrate the Core Tasks of each Works Function - ‘cell’ - the ancillary tasks and the Works transfer between cells, with tasks grouped by similarity of execution and skill requirement.

4.1 Principle Works

4.1.1 Organizational Context

The Organizational context provides the framework for the Works analysis. Within the structure and guidelines of the Agency, Business provides the Through Life Support and services for General Purpose Electronic Test Equipment (ETE) inventory. The TLS guidelines provide the guidance and directives for the processes and structures employed by Business to provide TLS. The Agency supports Field Operations operations by purchasing, positioning and supporting the correct type and number of support systems. We ensure materiel is fit-for-purpose, sustainable and provided on time and to the correct location. Through Life Support (TLS) is an entire process by which Agency acquires from external sources the Support Systems required to support Field Operations capability and is a core business practice. Capability essentially comprises two major functional elements; Structure and Preparedness

Business is responsible for total logistics support of the Field Operations General Purpose Common Test & Measurement Equipment (CT&ME) inventory. Business consists of a team of dedicated people with the right blend of skills, expertise and commitment to provide best practice within a tri-Service environment. The Agency business units ensure that TLS core disciplines are coordinated within business units. Agency managed equipment fleets are generally acquired as part of Major Capital Equipment projects. Agency assumes responsibility for the equipments sustainment, including its replacement, for the life of type of prime equipment. TLS has been employed and structured within Agency to ensure cost-effective management of development, implementation and sustainment of required capability throughout the materiel life-cycle. Objectives of TLS:

- Identification of Support Systems necessary to deliver or support a capability
- Integration of design, development, acquisition, implementation, operation and support of Support Systems comprising the capability
- Sustainment of Support Systems throughout the lifecycle in a cost-effective manner
- Phase of TLS: Agency uses TLS phases identified in Agency capability life-cycle management including
- Concept (also referred to as requirements phase);
- Acquisition;
- In-service; and
- Disposal

4.1.2 Optimization Team information

The information gathered through discussions with the Optimization Team provides an insight into the actual works executed by and across the various cells within Business operations. While it is subjective, it does provide valuable information on the works actually executed compared to the mandated processes and procedures. Key findings:

1. The Works executed are defined by the outcomes and subordinate tasks that need to be provided throughout the TLS life-cycle:
    a) Specifications for T&ME, Fleet Replacement Plans, Logistic Support Plans, etc.
    b) Clarification of User requirements, approvals, funding, shipment etc.
2. The Works are driven in the majority by the immediate need to provide specific, individual

outcomes or execute immediate specific tasks to achieve these outcomes required to provide the requested respectively required TLS solution.

3. The Works executed are basically grouped in two key areas:
   a) Core TLS tasks as described in the AAP7001.055 TLS Manual and Agency Standing Instruction TLS
   b) Ancillary tasks that are
      - required to obtain the information, clarification and approvals from, as well as consultation with Client Units, SPO's;
      - Business internal consultation required to process TLS requests and execute a basic form of task and process management;
      - required to obtain and manage services suppliers and supporting entities with the TLS process, such as shipping, etc.

Anecdotal evidence suggests that the Core TLS tasks on average across the Business TLS Operations comprise less than 50% of the actual workload. In certain functional cells, the rate is as low as 40%.

It is understood that the TLS process as defined in the Agency BR TLS and subsequent documents is at this point in time not implemented in its entirety. Currently, the key areas operating are the technical definition (FPS) of the Concept Phase, the Fleet Replacement Planning of the In-Service Phase and the Disposal Phase (although it is not fully clear to what extent). The Acquisition Phase is currently being executed on a per-request basis and excluding the ILSP.

4.2 Works Structure

The Works Structure provides the illustration of the Works that are executed by the operations analyzed, including all relevant functions (Works Functions) and their associated principle tasks (Core Tasks). The principle tasks are determined by grouping the individual tasks by similarity of execution and skill requirements. The outcome is a clear and common understanding how the overall output of an operation is developed from the given inputs and provides a baseline analysis into how inputs, functions, tasks and outputs are executed in comparison to those specified in the applicable operational policies and guidelines.

As mentioned in section 1, Note for Readers, the Works currently executed by Business operations do not fully represent the targeted TLS process as described in Agency Business Rule TLS, TLS Manual and the Agency Standing Instruction SI (TLS). Nonetheless, the full implementation of the TLS Process is a declared objective of Business. Hence this Works Analysis is only applicable to those parts of the TLS Process that are currently executed. A further caveat is that the interdependencies between sub-process respectively functional cells in the operational structure can not be fully analyzed.

It is viewed that the approach best suited to Business's and the stakeholder objectives is to utilize the Works Structure to assess Areas of Improvement arising from the principle manner in which Works are allocated across the TLS Operations and Aeas of Improvement specific to the following Works Functions:

1. Technical Definition
2. Fleet Interface
3. Inventory Management
4. TLS Advice
5. To be implemented: Logistics Management

The Works Structure Diagram provides a graphical representation of the Works executed by the principle Works Functions. The diagram comprises the following individual diagrams

- The Works Context Diagram, which shows the organizational context in which Business operates
- The Actual Works Diagram which depicts the majority of the direct TLS works actually executed and which is based on the inputs from the Works survey

4.3 Findings

Principle Areas of Improvement have been identified from the Works Analysis and are listed below. In cases these overlap with the findings from the Issues and SWOT Analysis executed by the joint Optimization Team, e.g. Workload Balance, Focus, and Leadership. A consolidated analysis taking all findings into account is provided in the Operations Performance Report.

4.3.1 Business Operations

- No Works Function for TLS Advice, TLS Advice is undefined and highly distributed
- Multiplicity of Interface Function(s)
- Inadequate or lack of definition of the Core Tasks and TLS Works for the Interface Function. i.e. the need to receipt, validate, consult on and allocate requests is missing from the TLS Process, - Phases
- Inadequate communication of TLS Requirements and procedures to Client (‘customer’) resulting in excessive clarification and communication effort
- Inadequate alignment of TLS Works with customer requirements and operations
- Inadequate support of efficient and effective procedures and structures in TLS Works
- Insufficient separation of sub-processes respective TLS Phases
- Lack of embedded Project/Task Management, specifically Milestones
- Inadequate alignment of skills to process and Works
- Works are overly reactive, i.e. current procedures used are based on a combination of individual’s skills and expertise, the level of understanding of the customer and the TLS Process and the specific instance or request
- Lack of formal operational procedures and infrastructure to effectively utilize resources, including previous solutions and specifically utilizing experience, expert resources for leadership, review, optimization and planning
- Planning is not an integral part of the Works
- Measures are not integrated into the Works
- Workload is not balanced
- Works are not executed proactively
- Lack of clear definition and alignment of supporting Works (Admin, Engineering)

4.3.2 Works Functions

Fleet Interface (Fleet Planning): The Works Structure for the Fleet Interface is at face value, consistent with the Works required, yet in fact the current Fleet Planning Works are an inadequately defined conglomerate of tasks and functions

Technical Definition: The technical definition or ‘Capability’ is a key bottleneck as the Works are research and time intensive, yet the Works include a variety of non-Core and non-essential tasks and functions

Inventory Management: The Inventory management includes a variety of non-Core and non-essential tasks and functions

TLS Advice: Not defined as a Core Works Function and interspersed across Works Functions and tasks

Note: It is the expressed view of testadvance that Business operations are highly skilled and conscientiously executed. In fact, the lack of effective and efficient processes is balanced by the expertise, effort and motivation of the management and staff.