

USMC INTEGRATED LOGISTICS CAPABILITY (ILC)

**SYSTEM REALIGNMENT AND
CATEGORIZATION/CONSOLIDATION (SRAC)**

SRAC GUIDE



Marine Corps Systems Command
SRAC Core Team

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Table of Contents

1.0	Introduction	1
2.0	Objectives	2
3.0	Scope	2
4.0	Principles and Assumptions	3
5.0	Organizational Responsibilities	3
6.0	The SRAC Process	5
6.1	Phase 1 – No Value AISs.....	6
6.2	Phase 2 – Low Value AISs.....	9
6.3	Phase 3 – High-Value AISs, Domain Evaluation and Cross-Domain Integration.....	13
6.3.1	Phase 3, Part 1 – AIS Categorization.....	14
6.3.2	Phase 3, Part 2 – AIS Evaluation.....	19
6.3.3	Phase 3, Part 3 – Domain Solution Evaluation.....	25
6.3.4	Phase 3, Part 4 – Cross-Domain Integration.....	28
7.0	SRAC Methods and Tools	31
7.1	SRAC Team Rooms.....	31
7.2	SRAC Phase 2 Worksheets.....	33
7.2.1	SRAC AIS Nomination Form.....	33
7.2.2	AIS General Data Worksheet.....	35
7.2.3	AIS Phase 2 Functional Coverage Worksheet.....	36
7.2.4	AIS Usage Worksheet.....	36
7.2.5	AIS Retirement Impact Worksheet.....	38
7.2.6	AIS Total Ownership Cost (TOC) Worksheet.....	41
7.2.7	SRAC Phase 2 Retirement Recommendation Form.....	44
7.3	SRAC Phase 3 Survey Forms.....	45
7.3.1	AIS Phase 3 Functional Evaluation Survey.....	45
7.3.2	AIS Provider Evaluation Survey.....	49
7.3.3	AIS Technology Evaluation Survey Forms.....	51
7.3.4	SRAC AIS Documentation Evaluation.....	58
7.4	AIS Scoring.....	63
7.5	Templates for Phase 3 Domain Solution Description.....	64
7.5.1	Domain Migration Diagram Template.....	64
7.5.2	Domain Integration Capability Templates.....	65
7.6	SRAC Data Repository.....	67
APPENDIX A – SRAC ACRONYMS		A 1
APPENDIX B - SRAC Glossary		B 1
APPENDIX C - SRAC Functional Domains		C 1
C-1	Transportation.....	C 1
C-2	Supply.....	C 2
C-3	Maintenance.....	C 3
C-4	Health Services.....	C 4

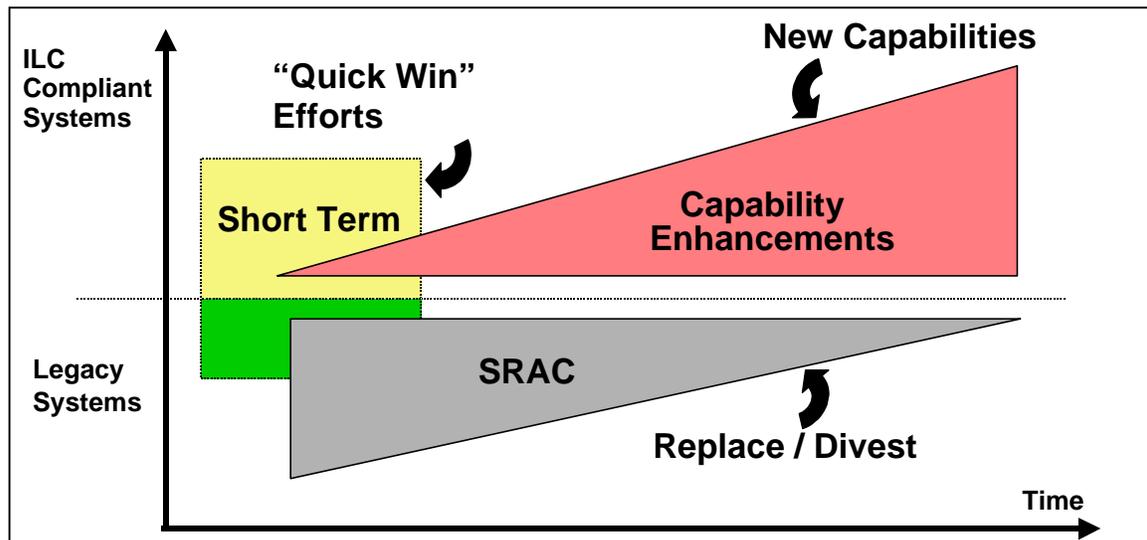
C-5 Engineering C 4
C-6 Acquisition C 5
C-7 General Services C 5
APPENDIX D – AIS Lists and AIS Mapping to SRAC Deliverables . D 1
APPENDIX E - Evaluating Alternative COTS VendorsE 1
SRAC COTS Vendor Viability WorksheetE 1

1.0 Introduction

The US Marine Corps logistics community uses over 200 Automated Information Systems (AISs) to support logistics. These systems utilize a combination of in-house developed application software, Government Off-the-Shelf (GOTS) software developed by other Services and a few Commercial-Off-the-Shelf (COTS) products. These systems have evolved over a period of time, but were never designed to work together as integrated network of systems. They were originally designed to support stove-piped logistics functions and outdated logistics processes of the 1960's. As time passed, lack of an overall development plan created multiple systems with overlapping capabilities.

The Marine Corps determined in its Integrated Logistics Capability (ILC) Initiative that it could no longer afford to maintain such a large number of AISs with overlapping functionality. ILC identified the need to reduce the number of legacy systems to make way for new capability as indicated in Figure 1.

Figure 1
ILC Information Systems Transformation



ILC proposed three programs to deal with the IT transformation. The first was a short-term initiative to identify simple and obvious decisions that would result in “quick wins”. The second, System Realignment and Categorization /Consolidation (SRAC), deals with legacy logistics systems and frees up investments for the third program, capability enhancements, including the employment of new Commercial-Off-the-Shelf (COTS) applications.

This document defines the SRAC process, methods/tools and organizational responsibilities.

2.0 Objectives

SRAC is designed to identify AISs whose operational value and quality are not sufficient to justify on-going investments.

SRAC uses a phased approach that ensures maximum participation by vested owners/users, minimum disruption to regular work schedules, and optimum value to the information technology (IT) re-engineering process.

The objectives of SRAC can be summarized as:

- Recommend which AISs should be retired, replaced and/or migrated
- Create a migration strategy for AISs
- Summarize integration capabilities for end-state migration systems

A scoring methodology specifically developed for SRAC is used to compare the relative value and quality of AISs. The measurement criteria include functional, technical, support and cost effectiveness components. The approach is designed to provide a fair, defensible scoring system based on easy to understand numerical values.

SRAC deliverables are listed in Appendix D.

3.0 Scope

SRAC applies to logistics functions (including aviation ground support) across the strategic, operational and tactical levels. It deals with IT investments supporting the following functional domains:

1. Transportation
2. Supply
3. Maintenance
4. Health Services
5. Engineering
6. Acquisition
7. General Services

The domains are listed in the order of priority for SRAC execution. Transportation, Supply and Maintenance are addressed first, followed by Health Services, Engineering and Acquisition. General Services AISs (i.e. those dealing with accounting, budgeting, manpower, contracts, publications, etc.) are considered as they are encountered within each of the other functional domains. More detailed descriptions of the scope of each domain are contained in Marines Corps Warfighting Publication (MCWP 4-1) and in Appendix C of this document.

Automated information system (AIS) lists from several references were examined to determine which applications would be considered in SRAC, including the Logistics Information Resource (LOG IR) Plan, Version 2, and the ILC Engagement 1 listing. A

SRAC AIS Composite List was developed that contained the initial systems to be considered and is maintained on an on-going basis as a summary of SRAC findings. A current version may be found in the SRAC team room. The AIS Composite List is also the basis for the Domain AIS lists dealing with AISs under active consideration, which may be accessed in the individual SRAC domain team rooms.

AISs can be added to the Master List by completing the SRAC AIS Nomination Form (see section 7.2.1). At the end of the SRAC process, any USMC-owned logistics AISs that have not been tested by the SRAC process will be retired.

Only AISs that are operational or will definitely be fielded within a 12-month period are considered for SRAC.

4.0 Principles and Assumptions

SRAC is based on the following principles and assumptions:

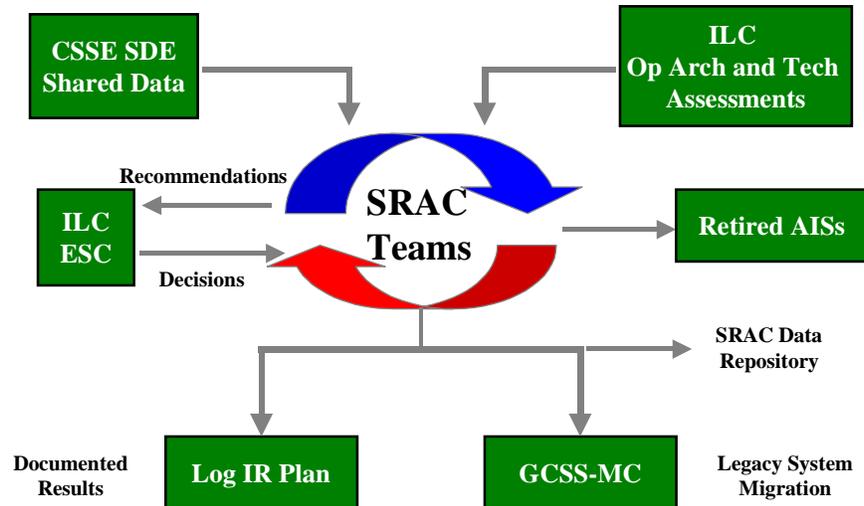
- IT investments that are not used and/or supported will be eliminated.
- The remaining IT investments will be evaluated on the basis of how they support user functions within domains as defined by the ILC Operational Architecture (OA).
- Functional breakdowns will be defined by the best current functional models that provide sufficient definition of activities and tasks in a functional domain.
- Overlapping functional capability will be a primary criterion for eliminating excess IT investments.
- SRAC will proceed by functional domains according to a pre-established priority.
- Final SRAC recommendations for high value AISs will consider technical, cost and provider criteria as well as functional evaluation.
- COTS, GOTS and USMC-owned AISs will be given equal treatment in all evaluations.

5.0 Organizational Responsibilities

Organizing to execute a complex SRAC process against over 200 AISs is a substantial challenge. Decisions to cancel programs and retire AISs can only be made at high levels of the organization. Fair and accurate evaluation of AISs can only be accomplished by end users, operational subject matter experts (SMEs) and system SMEs. At the same time, the SRAC program must dovetail with other on-going USMC and Navy programs such as development of operational architecture and technical assessments for ILC, Shared Data Environment (SDE), Navy Marine Corps Intranet (NMCI) and planning for the Global Combat Support System – Marine Corps (GCSS-MC).

The SRAC program is defined operationally in Figure 2.

Figure 2
SRAC Operational Summary



The SRAC program accepts input from on-going ILC programs including operational architecture and technical assessment initiatives and authoritative source information from the Shared Data Environment (SDE) initiative. SRAC utilizes information gathering, analysis and decision-making involving interlocking teams. In order to evaluate AISs and propose integrated solutions for each of the functional domains, six domain teams consisting of a mixture of functional experts, users and systems SMEs have been formed. After a kickoff workshop, each of these teams were assigned a Web-based team room where they have met virtually to gather categorization data, analyze systems, execute the SRAC process for their domain and formulate recommendations.

The SRAC domain teams submit recommendations for migration and retirement of logistics AISs to the SRAC Core Team, which manages the SRAC process. The core team scores the AISs based on the work of the domain teams and makes SRAC recommendations to the ILC Executive Steering Group (ESC). The ESC formulates SRAC decisions or passes its recommendations to the Combat Service Support Element (CSSE) Advocacy Board for major decisions. The ESC returns its decisions resulting in retirement of AISs. SRAC results are documented along with other USMC Logistics programs in the USMC LOG IR Plan.

AISs which survive the SRAC process are passed on to be considered for incorporation into the GCSS-MC and to a SRAC data repository for further use by SRAC and other USMC and Navy programs. The MAGTF C4I Systems /Technical Architecture & Repository (MSTAR) is currently being used as the SRAC repository. MSTAR has been reconfigured with a special SRAC database. AIS data collected by SRAC domain teams via SRAC on-line survey forms directly populates an MSTAR Oracle database. The same database is used to store the AIS scoring results from the SRAC core team. The DoN Data Management and Interoperability Repository (DMIR), which also uses an Oracle database, is being evaluated as the long-term SRAC data repository.

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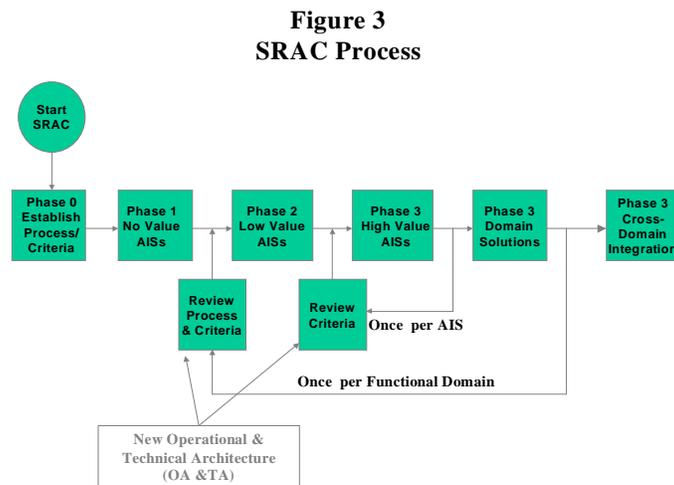
6.0 The SRAC Process

The SRAC process has four phases:

- Phase 0—Establish SRAC Process and Criteria
- Phase 1— **No-Value** AISs
- Phase 2— **Low-Value** AISs
- Phase 3 — **High-Value** AISs & Integrated Solutions

This document describes the results of Phase 0 that has been under continuous development since October 2000. It acts as a guidebook for executing SRAC Phases 1 through 3. Phase 1 occurred in December 2000. Phase 2 occurred from February until June 2001. SRAC Phase 3 began in June 2001 with the Transportation Domain. It is expected that the Phase 3 work for each domain will take approximately 3 months.

Figure 3 illustrates the SRAC process.



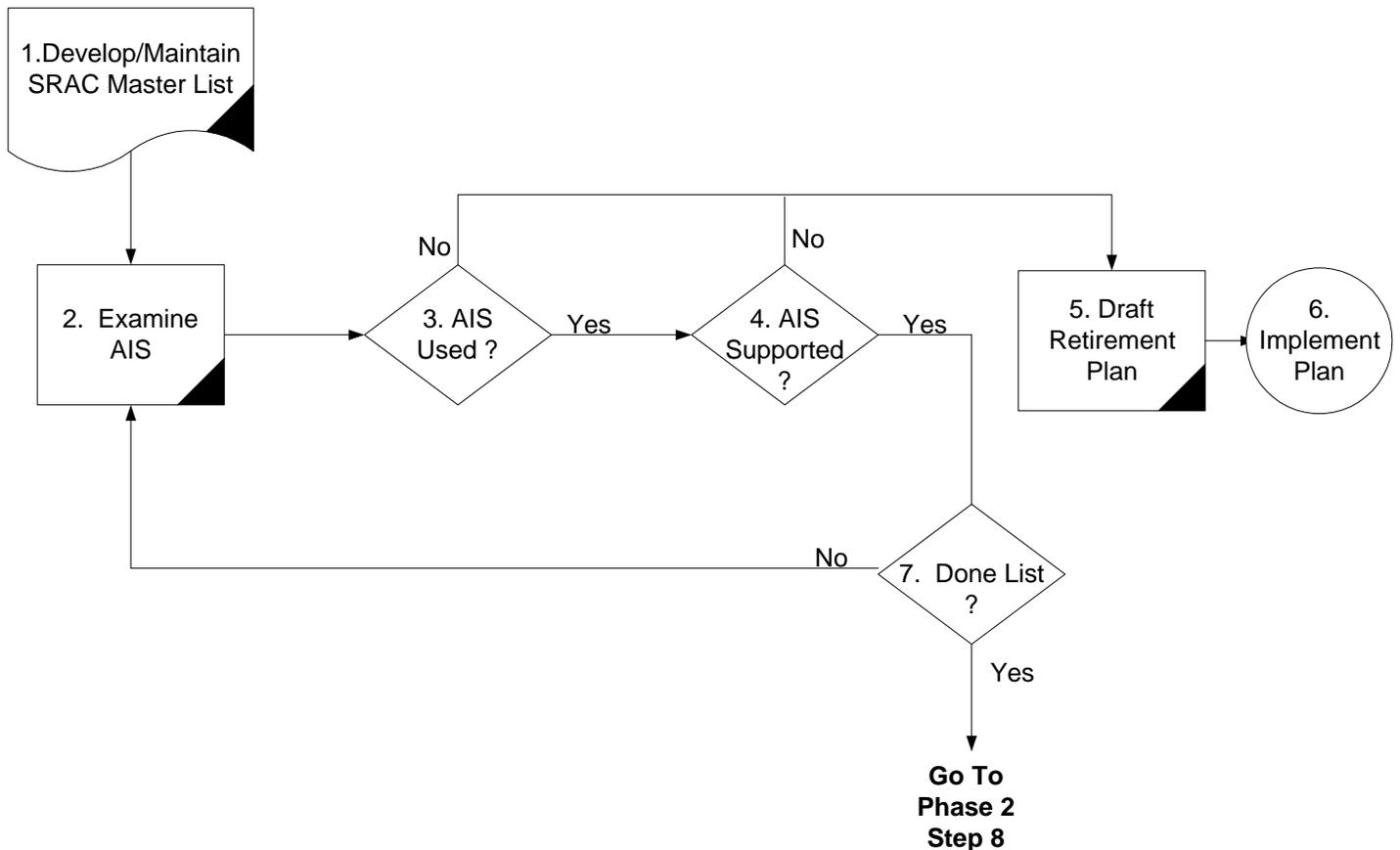
At a more detailed level, the SRAC process is made up of over 50 steps associated with SRAC Phases 1 through 3. The steps are either tasks or decisions. Tasks are represented by rectangles and decisions by diamonds in the detailed process diagrams discussed below. Arrows show the general flow of the process, although sequence of tasks and decisions may vary. As each step is discussed below, the supporting methods and tools and organizational responsibility are referenced.

6.1 Phase 1 – No Value AISs

The USMC can no longer afford to invest in logistics AISs that are not used, supported or supportable. The first pass of SRAC, or Phase 1, was applied to 10 AISs identified in the Combat Service Support Element Shared Data Environment (CSSE SDE) initiative.

Figure 4 shows the process used in SRAC Phase 1.

Figure 4
SRAC Process
Phase1 - No Value AISs



Step 1 – Develop/Maintain SRAC AIS Composite List

The scope of all SRAC actions is determined by the SRAC AIS Composite List (Master) that will be maintained over time. The composite list is also segmented into six logistics domain AIS lists. The current composite list and domain lists are maintained on the SRAC team rooms (see section 7.1). As USMC logistics AISs change status (e.g. retirement via the SRAC Phases 1 through 3), this is recorded on the SRAC Composite List and retired AISs are deleted from the domain lists. Thus, the composite list retains a history of the decisions made during the SRAC program.

The SRAC AIS lists are maintained by the SRAC core team in Excel spreadsheets to allow easy sorting and comparison of systems used to support USMC logistics.

Step 2 – Examine an AIS

Ten AISs were identified by the CSSE SDE initiative as requiring further investigation. They were evaluated as potential no-value applications. SRAC Phase 1 applied evaluation criteria to these ten applications and moved quickly into Phase 2.

The 10 selected USMC Logistics AISs considered as potential no-value AISs were:

1. Amphibious Assault Planner (AAP) – HQMC (LPO-3)
2. Ammunition Logistics System (AMMOLOGS) – SYSCOM (PMAM)
3. Knowledge Based Logistics Planning System (KBLPS) –
4. Logistics Information System (LIS) – MCLB (760)
5. Marine Corps Automated Readiness Evaluation System (MCARES) – HQMC (LPO-4)
6. Marine Corps Ammunition Requirements Management System (MCARMS) – MCCDC
7. Marine Corps Level of Repair Analysis (MCLORA) – SYSCOM
8. Principal End Item Stratification (PEI-STRAT) – MCLB
9. Prepositioning Planning and Execution AIS (PREPO AIS) – MCLB
10. Real Property Management /Family Housing System (RPM/FHS) – HQMC (LFF)

Step 3 – AIS Used?

The licensing, distribution and support records for each AIS are examined to determine if the software is being used.

If there is no reason to believe that the program is being used, communication with the POC is initiated to confirm. If no usage is encountered, or if plans are in place to cease all usage of a program, the AIS is passed to Step 5, retirement planning

If a small number of users do not justify the investments being expended, a user impact statement is developed as a guide to developing a retirement plan. In some cases where the operation of the AIS is critical, or it is the only system that performs an important function, this situation should be reflected in the impact statement. Impact statements should also capture migration recommendations for important functions not supported by other AISs.

If there is an important reason for keeping the AIS or a decision cannot be reached, the AIS is retained on the SRAC Master list and passed forward into Step 4.

Step 4 – AIS Supported?

For each AIS on the list, the support resources are determined. Supported AIS shall mean that an organization that owns the support of the AIS can be identified, that this organization has developed or is developing a support plan for the AIS and that the funding source for the support has been identified or committed. If the AIS is found to be

unsupported, plans are either put in place to correct the lack of support or this AIS is passed to Step 5, retirement planning.

If the AIS is judged to have a support plan and/or active support, the technical architecture of the AIS is examined by IT subject matter experts to determine whether the program will continue to be supportable over time. If a finding of unsupportability is reached, and no plans to re-engineer the AIS have been developed, this AIS is passed to Step 5, retirement planning.

Step 5 – Draft Retirement Plan

Retirement plans for USMC-owned AISs found to be unused, unsupported or unsupportable will be developed by MARCORSYSCOM according to DoD 5000.1 requirements and the retirement plans will be implemented.

Step 6 – Implement Plan

The retirement plan will be executed by MARCORSYSCOM in conjunction with the AIS POC and PM for USMC-owned AISs. For AISs not owned by the Marines Corps, investment and support for USMC usage will be discontinued.

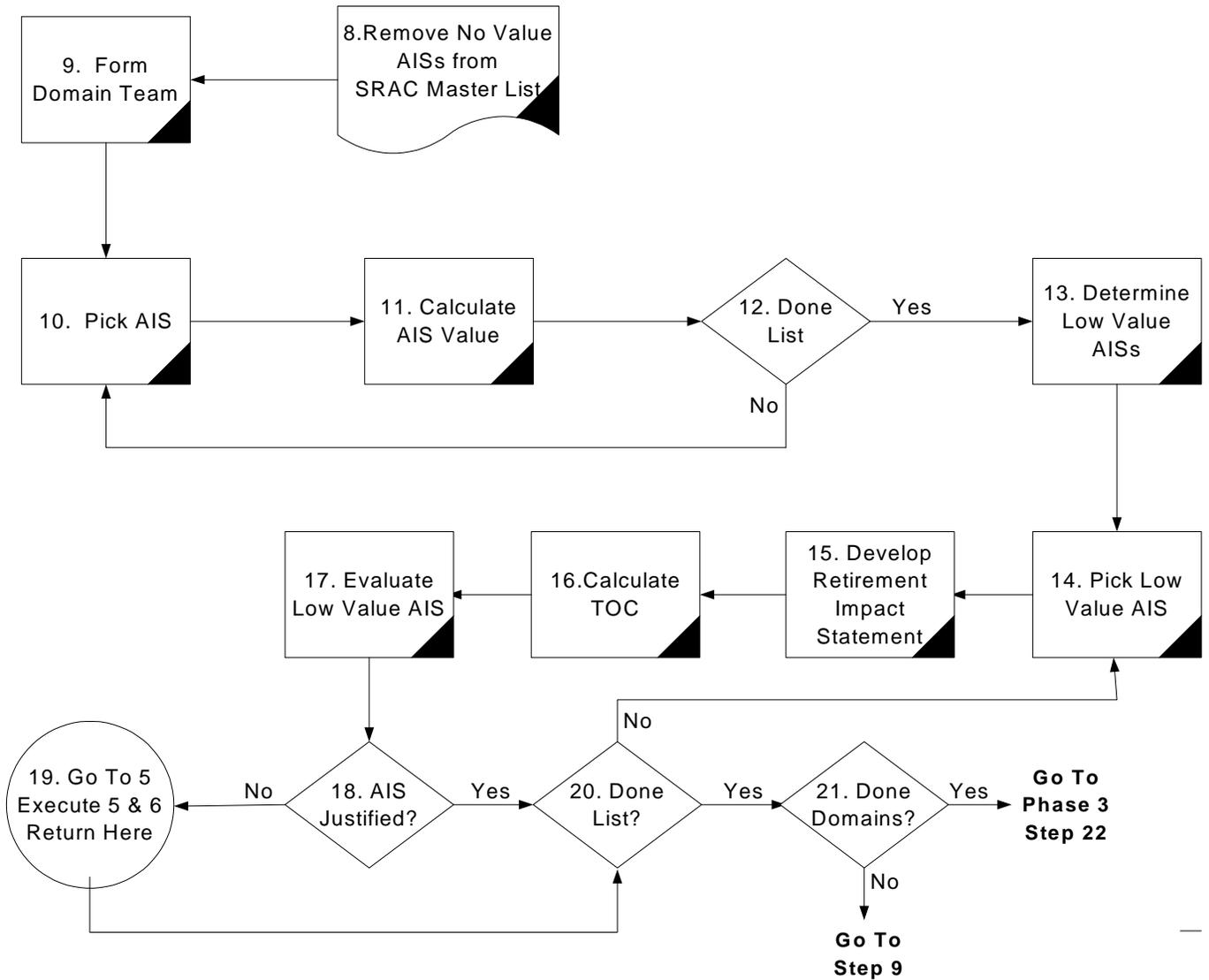
Step 7 – Done?

The examination of the AISs on the list of suspect logistics AISs continues until all unused, unsupported and unsupportable programs have been identified and appropriate retirement plans have been developed.

6.2 Phase 2 – Low Value AISs

After SRAC Phase 1 has been completed and all of the No Value AISs have been eliminated, the SRAC Phase 2 process for Low Value AISs begins. In Phase 2 of SRAC, low value AISs are identified and all of these whose value is judged not to be cost effective are recommended for retirement. Phase 2 SRAC consists of steps 8 through 21 of the SRAC process as shown in Figure 5.

**Figure 5
SRAC Process
Phase 2 - Low Value AISs**



Step 8 – Remove No Value AISs from SRAC Composite (Master) List

In this step, the SRAC core team changes the status of no value AISs identified in SRAC Phase 1 and adds comments on the SRAC Composite List. At the same time, these AISs are eliminated from the appropriate domain AIS lists that are then available to be used in SRAC Phase 2.

Step 9 – Form Domain Teams

Domain teams are formed from functional, AIS user and AIS developer SMEs for the six logistics functional domains: transportation, supply, maintenance, health services, general engineering and acquisition. Each team is assigned a list of AISs for their domain by the SRAC core team and is set up on a Web-based team room where the categorization work and team collaboration will be performed (see section 7.1 for a description of the team rooms).

The domain teams review their AIS list and establish a domain functional list at a domain team kickoff workshop. They also map functional capability of the AISs into the functional list. Team leaders for each domain are determined and training on the on-line team rooms is conducted at the domain team workshops.

Step 10 – Pick an AIS

Individuals within the domain team are assigned responsibility for categorizing the AISs in Phase 2. It is this person's responsibility to make sure that the categorization data for the AIS is collected and entered on the AIS worksheets in the domain team room. The first worksheet to be completed is the SRAC AIS General Data Worksheet (see section 7.2.2).

Step 11 – Calculate AIS Value

The SRAC Phase 2 Functional Coverage Worksheet (see section 7.2.3) is supplied to each domain team room by the SRAC core team based on data collected at the workshop. From this worksheet, the number of functions supported by the AIS in the current domain is determined. The total number of users of the AIS across domains is recorded using the SRAC AIS Usage Worksheet (see section 7.2.4). The number of functions supported is then multiplied by the number of users and the result is recorded as the AIS operational value for Phase 2.

Step 12 – Done List?

Step 11 is repeated for every AIS on the domain list until the list is completed.

Step 13 – Determine Low Value AISs

The domain AIS list is sorted by ascending AIS value and potential Low Value AISs are then selected from the top of the list.

Step 14 – Pick Low Value AIS

An AIS is selected for further investigation from the Low Value AIS list determined in Step 13.

Step 15 – Develop Retirement Impact Statement

A SRAC AIS Retirement Impact Worksheet (see section 7.2.5) is completed for the AIS selected in step 14. The statement is developed by the domain team and becomes part of the basis for the team's SRAC Phase 2 recommendations to the SRAC core team.

Step 16 – Calculate TOC

The total ownership cost (TOC) for the AIS selected in step 14 is calculated by collecting cost data via the SRAC AIS TOC Worksheet (see section 7.2.6). The costs recorded are only those absorbed by the Marine Corps. The costs may be internal expenditures, surcharge fees paid to other government organizations or license fees to contractors. The TOC includes all lifecycle costs of retaining the AIS in operation, over a 5 year period, including:

- Development/acquisition costs
- Production costs
- Operational and support costs
- Retirement costs

TOCs are calculated in Phase 2 for all systems suspected of being Low Value AISs. Optionally, the domain team may continue to collect TOC information for AISs which will pass on to Phase 3, Part 1 – High Value AISs since this information will be required in Phase 3.

At this point, the domain team passes AIS operational values and recommendations for Low Value AISs to the SRAC core team for evaluation on the SRAC Phase 2 Retirement Recommendation Form (see section 7.2.7).

Step 17 – Evaluate Low Value AISs

In this step, the SRAC core team reviews and consolidates recommendations from the six domain teams, balancing the impact of AIS retirement with the expected costs of continued operation and maintenance of the AIS. This step determines whether or not the value of the AIS and the impact of retirement justify continued investment and whether or not potential low value AISs from step 13 are truly low value. The SRAC Core Team completes the evaluation and recommends retirement of low value AISs to the ESC.

Step 18 – AIS Justified?

The ESC reviews recommendations of the SRAC core team. If it is determined that the AIS investment is justified, the AIS is passed into SRAC Phase 3. If it is determined that the investment is not justified, the AIS is moved into retirement planning.

Step 19 – Go To 5, etc.

If continued investment in the AIS is not justified, a retirement plan is developed and implemented. In some cases, the retirement plan may include recommendations for AIS

functionality to be moved to another AIS. Such recommendations will be passed on to migration strategy planning in SRAC Phase 3.

Step 20 – Done List?

Steps 14 through 18 are executed as many times as necessary to process all of the AISs for a domain through SRAC Phase 2 evaluation. When the last AIS on the domain list has been processed and retirement plans have been started for unjustifiable investments, the process moves on to the next logistics domain.

Step 21 – Done Domains?

Steps 9 through 20 are executed for each of the six domains. When all six are completed, SRAC moves on to Phase 3.

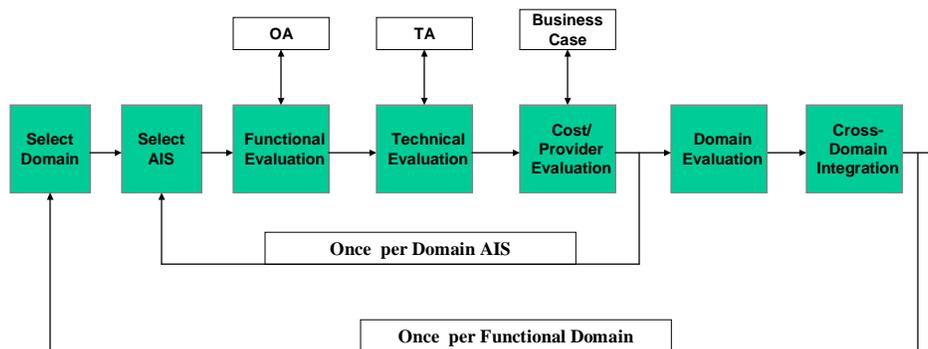
At this point MARADMINs were used to notify the Marine Corps of AIS retirements associated with SRAC Phases 1 and 2.

6.3 Phase 3 – High-Value AISs, Domain Evaluation and Cross-Domain Integration

It is assumed that any AIS which survives into SRAC Phase 3 has sufficient value that it cannot be eliminated without impact to users and Marine Corps missions and that additional removal of AISs will probably require migration of functionality to other AISs. Furthermore, the migration systems identified by the SRAC Phase 3 process will have to support the ILC Operational Architecture and eventually be well integrated in GCSS-MC.

Figure 6 shows a high level summary of the SRAC Phase 3 process.

Figure 6
SRAC Process
Phase 3 - High Value AISs



SRAC Phase 3 applies rigorous functional, technical, provider and cost analysis to the remaining AISs on the SRAC Composite List to focus the investment of the Marine Corps on a fewer number of migration systems. Domain evaluations are also accomplished in which migration strategies and assessment of legacy system integration capabilities are developed to provide input for ILC new capability acquisition and GCSS-MC planning.

Because of its complexity, SRAC Phase 3 is broken into 4 parts discussed separately:

- Part 1 – AIS Categorization
- Part 2 – AIS Evaluation
- Part 3 – Domain Evaluation
- Part 4 - Cross-domain Integration

Some corresponding elements of Parts 1& 2 will be executed concurrently.

6.3.1 Phase 3, Part 1 – AIS Categorization

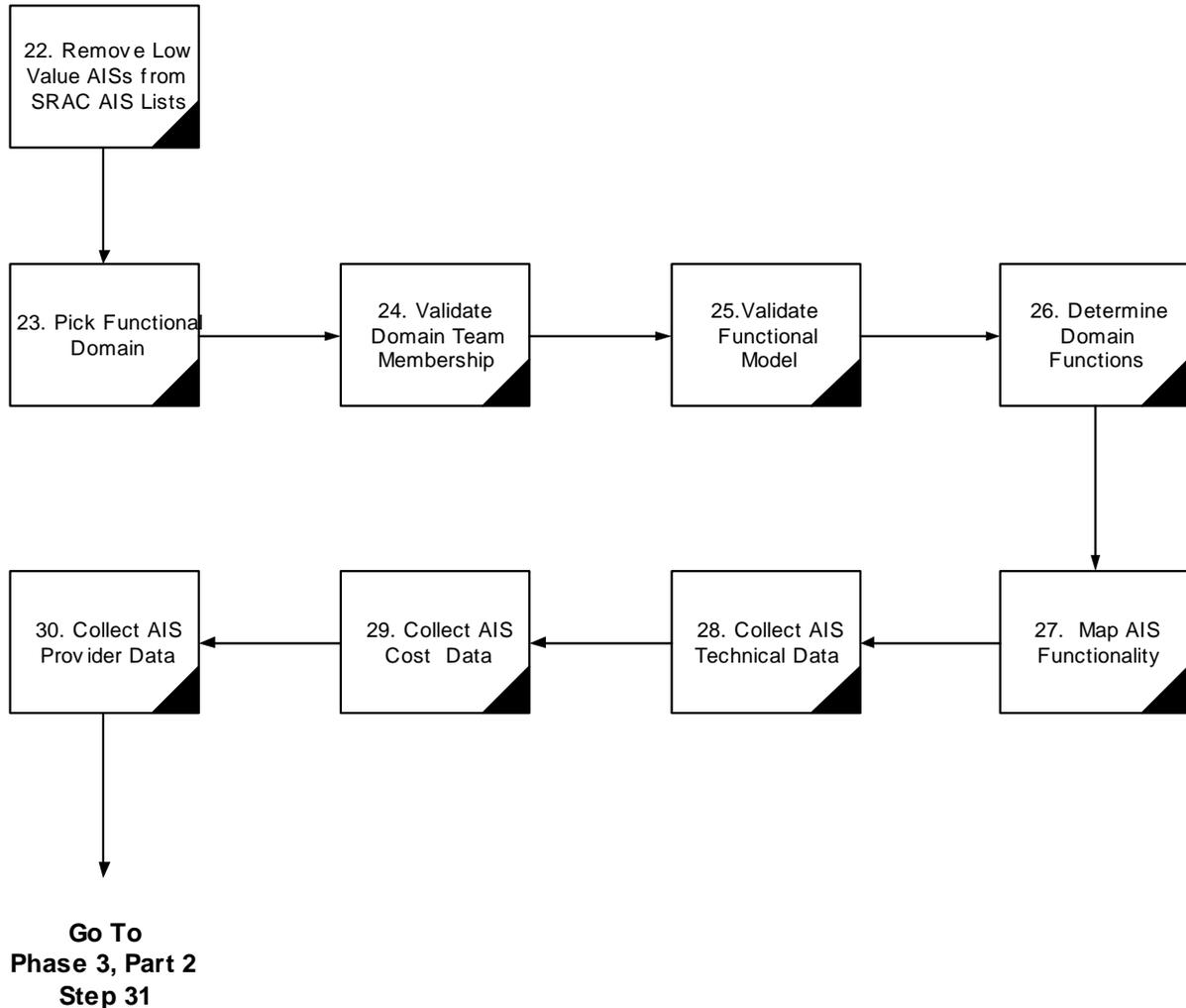
In Phase 3, Part 1, the domain team collects data and High Value AISs and AIS providers are categorized.

The SRAC High Value AIS List is created, a domain is selected and a reasonable Operational Architecture (OA) is determined for the domain. The OA is used to determine a standard set of tasks that is used to evaluate functional coverage of potential High Value AISs that support the domain. It has been determined that at least five levels of functional decomposition are required within a domain (i.e., down to the major task level) to provide a fair comparison between redundant AISs. Technical and provider data is also collected and categorized. To the extent necessary, Total Ownership Cost (TOC), usage and retirement impact data collected in SRAC Phase 2 is corrected and completed.

Phase 3, Part 1 completes all the categorization work that is needed before proceeding with High Value AIS evaluations for a logistics domain.

Figure 7 shows the process for AIS Categorization.

Figure 7
SRAC Process
Phase 3, Part 1 - High Value AIS Categorization



Step 22 – Remove Low Value AISs from SRAC AIS Lists

After Phase 2 SRAC has been completed, the low value AISs selected for retirement are noted by the SRAC core team on the SRAC AIS Composite List and new AIS lists are created for each of the six domains. What remains on the domain lists are the AISs that will be processed in SRAC Phase 3.

A detailed discussion of the contents of the AIS lists and how AISs participate in SRAC deliverables is contained in Appendix D.

Step 23 – Pick a Functional Domain

The SRAC core team selects a particular domain team (or teams) to start Phase 3 of the SRAC process. Overlap in domain team timeframes is required to speed Phase 3 completion.

The logistics functional domain teams are listed in the order in which they start the SRAC Phase 3 process:

1. Transportation
2. Maintenance
3. Supply
4. Health Services
5. General Engineering
6. Acquisition

The domain team continues to use its assigned team room on the SRAC Knowledge Center to collaborate on SRAC Phase 3 work. Phase 3 begins with a workshop where the domain team reviews/updates the domain AIS list, develops the Phase 3 functional breakdowns and definitions for the domain and maps the AIS functional support into the Phase 3 functional breakdown (see steps 24 through 27). At this workshop the domain teams are also introduced to SRAC Phase 3 and additional worksheets and tools that will be used to support the process.

Step 24 – Validate Domain Team Membership

The domain team examines its membership's skills relative to the expected work in SRAC Phase 3 and adjusts the membership accordingly. At this point it will be necessary to develop lists of contact points for AIS users capable of performing reasonable evaluations of operational functionality.

POCs for AIS program offices are also reviewed to enable access to system architects/analysts that will categorize the technology in the AISs. It may also be advisable to bring in experts who have a more detailed understanding of functional requirements, especially in areas of expected AIS overlaps.

Step 25 – Validate Functional Model

The domain team determines which functional model will be used to generate a list of "as-is" activities and tasks to be used for AIS functional evaluation. The team may decide to use new models developed by the ILC OA effort, augment the functional breakdowns used in their Phase 2 work or introduce new functional breakdowns. If ILC OA models of sufficient detail are not available for use by a domain team, mapping of AIS functionality to the ILC OA will be accomplished in Part 4 of SRAC Phase 3.

Step 26 – Determine Domain Functions

The domain team generates a functional breakdown for use in the functional evaluation of high value AISs. It is expected that five levels of functional decomposition within a domain will be required to produce a fair comparison of overlapping AISs. As the functions are decomposed through sub-functions, activities, tasks and sub-tasks, definitions are developed. Good definitions are required for the lowest levels of decomposition that will participate in the functional evaluation and scoring of the AISs.

Step 27 – Map AIS Functionality

The domain team maps the functionality of each AIS on its domain list. When all the AISs have been mapped to the Phase 3 activities and tasks, the Core Team provides the domain team with a functional mapping matrix for the entire domain. The concept of a functional mapping matrix is illustrated by the partial SRAC Phase 2 mapping matrix for the Maintenance Domain shown in Table 1.

Table 1 - Sample Functional Mapping Matrix

	Identify Resources	Develop Maintenance Plan	Identify Maintenance Requirements	Prioritize Maintenance Production	Manage Resources	Monitor Production Throughput	Direct Quality Control	Perform Preliminary Inspection	Perform Maintenance Action	Conduct Quality Control	Perform Final Inspection
AIS NAME											
ARTEMIS		X	X	X	X	X			X		
ATLASS									X		
ATLASS II	X	X	X	X	X	X	X	X	X	X	X
CAV II			X		X	X			X	X	X
CMIS								X	X	X	
DIFMS	X	X	X	X	X	X			X		X
DISMS											
ERP	X		X		X	X			X		X
FLIS/FEDLOG	X				X				X		
HICS	X				X				X		

The functional mapping matrix answers the question, "Which activities and tasks of the domain are supported by each status "A" AIS on the domain AIS list?"

Functional mapping matrices for Phase 3 are much more detailed than for Phase 2 and are used as the basis for defining the functional evaluation user survey forms used for evaluating and scoring the AISs (see section 7.3.1).

Step 28 – Collect AIS Technical Data

The domain team collects data on technical implementation of the AISs on the domain AIS list. For AISs that support multiple domains, only the primary domain team (indicated by “P” on the Composite AIS list) executes this step.

The technical categorization for an AIS contains data for criteria grouped in the following categories:

- DII/COE Compliance Level
- AIS Technology

The AIS technology is further broken down by system architecture into the following criteria for various possible software architecture types.

- Platform
- Hardware Type
- Operating System
- Data Management
- User Interface
- Application and Database Interfaces
- Middleware
- Security

The categorization data is recorded in the SRAC AIS Technology Survey Form (see section 7.3.3).

Step 29 – Collect AIS Cost Data

In this step, the domain team collects Total Ownership Cost (TOC) data for any AISs that were not completely categorized for cost in SRAC Phase 2. Only costs to the USMC are recorded. These may be internal expenditures, surcharge fees paid to other services/agencies or license and maintenance fees paid to contractors. At this time, corrections to the SRAC Phase 2 TOC data are made. For AISs that support multiple domains, only the primary domain team executes this step.

Cost elements in the TOC include:

- Development/acquisition costs
- Production costs
- Operational and support costs
- Retirement costs

The costs are collected on a SRAC AIS TOC Worksheet (see section 7.2.6).

Categorization data on the SRAC Usage and Retirement Impact worksheets should also be refined and corrected at this time.

Step 30 – Collect AIS Provider Data

“Provider” is SRAC terminology for any organization that supplies support and/or develops documentation for an AIS. In this step, the domain team collects support and documentation categorization data for AISs on their domain AIS list.

The support criteria include availability/capacity and quality for the following services:

- Technical Support
- Software Maintenance/Bug fixes
- Software Enhancements
- Training & Education
- Professional Services

Support data for AISs is collected on the SRAC AIS Provider Evaluation Survey Form (see section 7.3.2).

Documentation is categorized for the entire AIS lifecycle. Nearly all documentation for USMC AISs has been developed according to MIL STD 498, which is closely allied with the IEEE 12207.1 – 1997, the current DoD documentation standard. Documentation categorization in SRAC verifies the existence of documents or equivalent content that is specified by MIL STD 498. Categorization data for AIS documentation is collected using the SRAC AIS Documentation Rating Worksheet (see section 7.3.4).

The domain team is responsible for verifying the existence of AIS documentation and that it can be obtained (either in soft- or hard-copy format) upon demand. Categorization worksheets are completed by the domain teams and submitted to the SRAC Core Team.

Completion of Step 30 of the SRAC process completes the AIS categorization.

6.3.2 Phase 3, Part 2 – AIS Evaluation

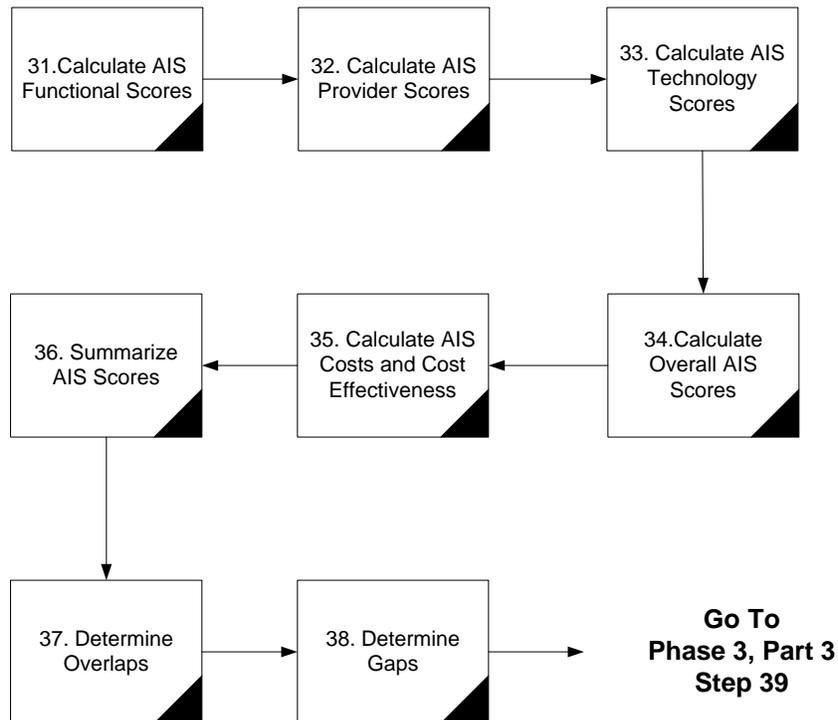
In Phase 3, Part 2 the categorization data collected in Part 1 is combined with further user evaluations and analyzed by the SRAC core team. AISs are scored on the basis of domain functional coverage, and functional overlap between AISs within a domain is also determined. Users’ functional evaluations are averaged into functional scores and gaps in functional coverage are identified.

The SRAC Core Team also receives AIS user evaluations from the domain teams and scores each AIS in technical, cost effectiveness, and provider categories. The scores are recorded, analyzed and passed on to Phase 3, Part 3 where they are used as background for understanding domain migration strategies and legacy integration capabilities.

Analysis includes the development of an overall AIS score enabling ranking of AISs and an AIS score summary for the domain.

Figure 8 describes the process for SRAC High Value AIS evaluation.

Figure 8
SRAC Process
Phase 3, Part 2 - AIS Evaluation



Step 31 – Calculate AIS Functional Scores

In this step, AIS users are asked to rate how well the AIS supports tasks categorized in step 27. This is done only for tasks where the AIS is actually used. Functional evaluations are developed for each active/direct AIS (code A on the domain AIS list).

This is accomplished by users completing an on-line SRAC AIS Functional Evaluation Survey Form (see section 7.3.1). USMC organizations are encouraged to have the survey

completed by as many AIS users as possible. The SRAC core team uses the survey data to calculate average scores for each function and an overall functional score for each AIS.

Step 32 – Calculate AIS Provider Scores

In this step, provider evaluation data collected via user survey forms in step 30 by the domain team are examined and scored by the SRAC core team. Provider scores are averaged across users and type of provider service to obtain a single provider score for each AIS.

Step 33 – Calculate AIS Technology Scores

The technology score for an AIS is a combination of scores for various technology components (e.g. user interface, operating system, database, programming language, security, etc.)

In this step, categorization worksheets completed in step 28 by the domain team are evaluated and scored by the SRAC core team based on pre-determined scoring criteria worked out in advance with USMC C4I System Engineering.

Step 34 – Calculate Overall AIS Scores

The SRAC core team combines the functional, provider and technology scores to obtain an overall score for each AIS.

Step 35 – Calculate Cost and Cost Effectiveness

In this step, cost categorization worksheets completed in SRAC Phase 2 and updated in step 29 by the domain team are evaluated and scored by the SRAC core team. An average yearly total ownership cost (TOC) is first determined for each AIS. The AIS value to the Marines Corps is calculated from the product of its functional coverage, functional evaluation score and number of users. The cost effectiveness (i.e. value divided by cost) is then determined.

Step 36 – Summarize AIS Scores

At this point all of the AIS scores from the SRAC reference database are consolidated into one composite worksheet for easy comparison as illustrated in Table 2.

Table 2 - Composite AIS Scores

	Funct Coverage (%)	Funct Score (%)	Provider Score (%)	Tech. Score (%)	Overall AIS Score (%)	Average TOC \$ (000's)	No. Users	Phase 3 Value	Cost Effect. Score
AIS									
CAEMS	27	83	78	44	68	390	1200	26765	55
CALM	32	80	83	Unk	54	0*	1200	30639	100*
MDSS II	71	85	81	44	70	584	1200	72663	100
TALPS	18	87	92	51	77	83	100	1563	15
TC-AIMS	27	77	71	44	64	584	1200	24965	34
Legend									
	Superior Performance								
	Mediocre Performance								
	Poor Performance								

The functional coverage is the percentage of the total activities and tasks performed within a domain that are supported by the AIS. Functional, provider and technical scores calculated from data on Phase 2 worksheets and Phase 3 web surveys are averaged to obtain the overall AIS score. Average TOC is the average annual total ownership cost calculated from the Phase 2 TOC worksheet data. The Phase 3 value of an AIS is the product of its functional coverage, functional score and number of users. Cost effectiveness is obtained by dividing the Phase 3 value by the average TOC and normalizing to 100.

Step 37 – Determine Overlaps

The functional mapping determined in step 27 is compared across AISs to determine where potential functional overlaps may occur. Overlap analysis in its simplest form produces a matrix as shown in Table 3.

Table 3 - SRAC Overlap Analysis

Unit Move AIS Overlap Analysis									
	AALPS	CAEMS	CALM	I-CODES	MDSS II	SCM	TALPS	TC-AIMS	TC-AIMS II
AALPS	27	74	100	74	100	4	19	56	100
CAEMS	57	35	57	80	100	6	23	63	97
CALM	100	74	27	74	100	4	19	56	100
I-CODES	71	100	71	28	100	7	29	54	96
MDSS II	34	44	34	35	79	6	10	54	97
SCM	20	40	20	40	100	5	40	40	80
TALPS	62	100	62	100	100	25	8	62	88
TC-AIMS	25	37	25	25	73	3	8	59	100
TC-AIMS II	29	37	29	29	83	4	8	63	93
Legend									
	Number of tasks supported by AIS								
	Percentage of shared tasks supported between 61 and 80 %								
	Percentage of shared tasks supported between 81 and 100 %								

The overlap matrix in Table 3 is read left to right and up as follows. “X” % of activities and tasks supported by “Row AIS” are also supported by “Column AIS” where X is the number in the cell defined by the intersecting row and column. For example, 73% of the activities and tasks supported by TC-AIMS are also supported by MDSS-II.

These tools are also instrumental in building migration strategies in SRAC Phase 3, Part 3. AISs with columns having a larger number of red cells are natural choices to be investigated as migration systems.

Overlap analysis is a primary tool for comparing redundant AISs in Phase 3 SRAC. Another tool used to analyze overlaps is Risk Optimizer™. This COTS software package selects an optimum set of migration systems based on what-if assumptions (e.g., minimum cost, percentage coverage of domain activities and tasks, selection of migrations systems with greater coverage, etc.)

Step 38 – Determine Gaps

The matrix from step 27 is examined to identify gaps in functional coverage for the AISs as a group. Table 4 shows an example of gap definition based on functions that have no AIS support within the domain.

Table 4 - AIS Gap Identification Matrix

FUNCTION	SUB-FUNCTION	ACTIVITY	TASK
Execute Move - Personal Property			
	Reconcile Payment		
		Manage local storage contracts	
			F59 Forward storage bills and supporting documents to TVCB or local base Comptroller
			F61 Authorize DFAS to pay storage bills
		Manage local non-temporary storage via IMPAC card process	
			F62 Certify monthly IMPAC card bill
			F63 Forward certified IMPAC bill to DFAS-KC for disbursement
		Manage DITY payment program	
			F72 Receive DITY paperwork from TMO and member
			F73 Compare government move cost to actual DITY move cost
			F74 Authorize DFAS to pay/collect the difference to the member
		Process servicemember claims for reimbursement of moving expenses paid from personal funds	
			F75 Settle claims from servicemembers for personal fund expenditures related to household goods movement, mobile homes, storage, and Privately Owned Vehicle (POV) storage.
		Manage excess costs	
			F76 Compute excess costs
		Perform actions to resolve indebtedness to the U.S. Government	
			F78 Initiate set-off actions against carriers indebted to the U.S. Government
			F79 Process refund checks received from carriers and service members who are indebted to the U.S. Government

Gaps are lists of tasks that are poorly served or not served at all by the total set of domain AISs. The scoring of gaps is beyond the scope of SRAC. The gap definitions and associated comments are saved for later consideration in ILC new capability development and GCSS-MC planning.

At this point all the AIS scoring and analysis information for a domain has been developed and summarized and we are ready to enter SRAC Phase 3, Part 3 – Domain Solution Evaluation.

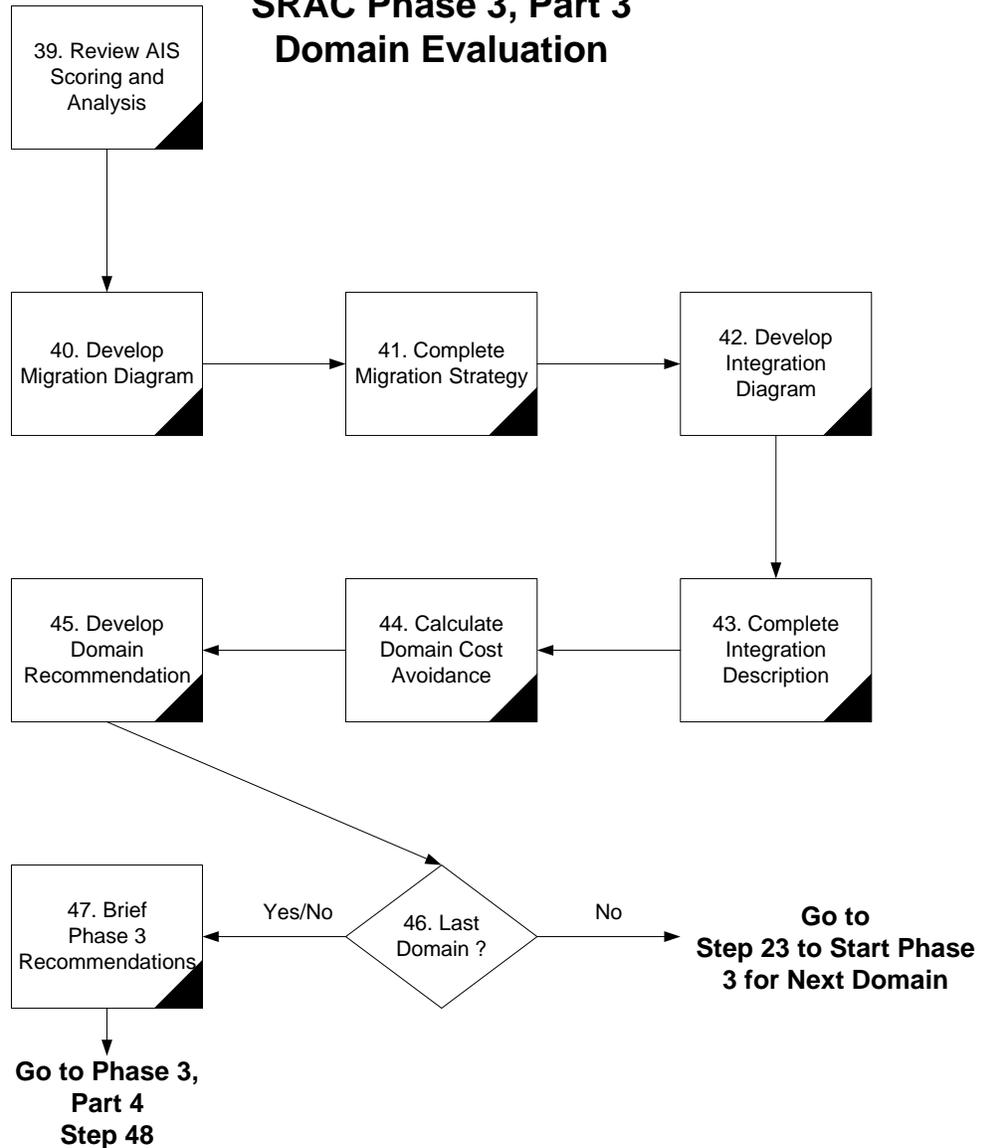
6.3.3 Phase 3, Part 3 – Domain Solution Evaluation

Up until this point, all the categorization, scoring and analysis has been done on an individual AIS basis. In SRAC Phase 3, Part 3 the emphasis shifts to the determination of integrated solutions for each domain.

The SRAC core team first provides AIS scoring and analysis information back to the domain teams. This information is used to support the development of domain migration strategies and descriptions of integration capability for domain end-state migration systems (i.e., those AISs initially recommended for retention in GCSS-MC). The migration strategies include rough schedules for migration of functionality between AISs and show replacement AISs and retirement of High Value AISs.

The process for Phase 3, Part 3 is illustrated in Figure 10.

Figure 10
SRAC Phase 3, Part 3
Domain Evaluation



Step 39 – Review AIS Scoring and Analysis

A workshop is conducted in which the SRAC core team presents the results of the High Value AIS scoring and analysis to the leadership of the SRAC domain team. The AIS scoring and overlap analysis results are reviewed in detail (see output of steps 36 and 37 above). The SRAC core team charges the domain team to develop a migration strategy and collect integration diagrams for the High Value AISs. The SRAC Phase 3, Part 3 workshop includes planning the Phase 3, Part 3 work (i.e., identifying domain team resources required for the work and laying out the responsibilities and schedule of the deliverables). For small domains, particularly those that have previously worked on detailed migration strategies, the initial development work of SRAC Phase 3, Part 3 may be addressed in one, multi-day workshop. For more complex domains with less

developed plans, two or three workshops may be required to reach a consensus on domain solutions.

Step 40 – Develop Migration Diagram

The domain team creates an initial SRAC Migration Diagram (see section 7.5.1). The diagram shows how functionality will migrate from the initial set of legacy AISs in FY02 to a final set proposed as migration systems in FY07.

The team may investigate multiple, alternative migration scenarios, but only one migration strategy will be included in the recommendation for Phase 3, Part 3.

Step 41 – Complete Migration Strategy

The domain team adds text to its preferred migration diagram to complete the migration strategy for legacy logistics systems. The text should include detailed explanations of the migration diagram including the rationale behind retirement of systems, migration of functionality to other systems and rollout of new systems. Risks and benefits from retirement impact worksheets should also be included in the migration strategy discussion.

The migration strategy must be consistent with SRAC recommendations for AIS retirement from Phase 3. This may require some iteration until all information is synchronized.

The migration strategy is reviewed with the SRAC core team until the core team obtains a migration strategy that it can support.

Step 42 – Develop Integration Diagram

The domain team collects/develops integration diagrams, otherwise known as bubble charts, for migration systems identified in the migration strategy. Migration systems are defined as those legacy AISs that will remain in Marine Corps systems portfolio in FY07. Migration systems are the AISs appearing on the right hand side of the migration diagram. The integration diagrams represent the best current knowledge of existing interfaces and interface plans.

The core team develops a SRAC Integration Capability Diagram, which is a synthesis of migration system integration diagrams across the domain (see section 7.5.2

The integration diagram should be consistent with the migration diagram and the interface data appearing on the AIS Technical Capability Worksheets (see section 7.3.2) and show links to AISs and data sources/sinks within the domain.

The integration capability diagram for the domain is reviewed with the domain team leadership and edited to reflect domain team input.

Step 43 – Complete Integration Description

The domain team and core team work together to create clarifying text for the integration diagram to complete the description of the legacy integration capability that will be available after all SRAC recommendations have been carried out.

Step 44 – Calculate Domain Cost Avoidance

The core team determines the cost avoidance for the domain based on implementation of the proposed migration strategy. Because of the difficulty in collecting TOC data for non-MC-owned AISs, allocation formulas are applied, where applicable, to surcharge fees from other DoD components. Cost avoidance may include cessation of development and operational costs for AISs planned for retirement and projections of savings in NMCI charges based on a reduced number of AISs running on Marines Corps systems.

Step 45 – Develop Domain Recommendations

The core team and the domain team leaders work together to formulate the domain team recommendation. This is accomplished by combining the migration strategy, AIS scoring, AIS overlap and gap analysis, integration capability and cost avoidance into a coherent document following the outline template in section 7.5.3.

Step 46 – Last Domain?

If there are more domains to be analyzed, the process returns to Step 23 to select another domain to begin Phase 3. To speed the SRAC process, this step has been moved up to occur after Step 42 to create more overlap of multiple team activities. The point at which this loop is executed depends on the availability of resources to support multiple, simultaneous domain teams.

When the last domain has been analyzed, the Phase 3 domain evaluations are complete.

Step 47 – Brief Phase 3 Recommendation

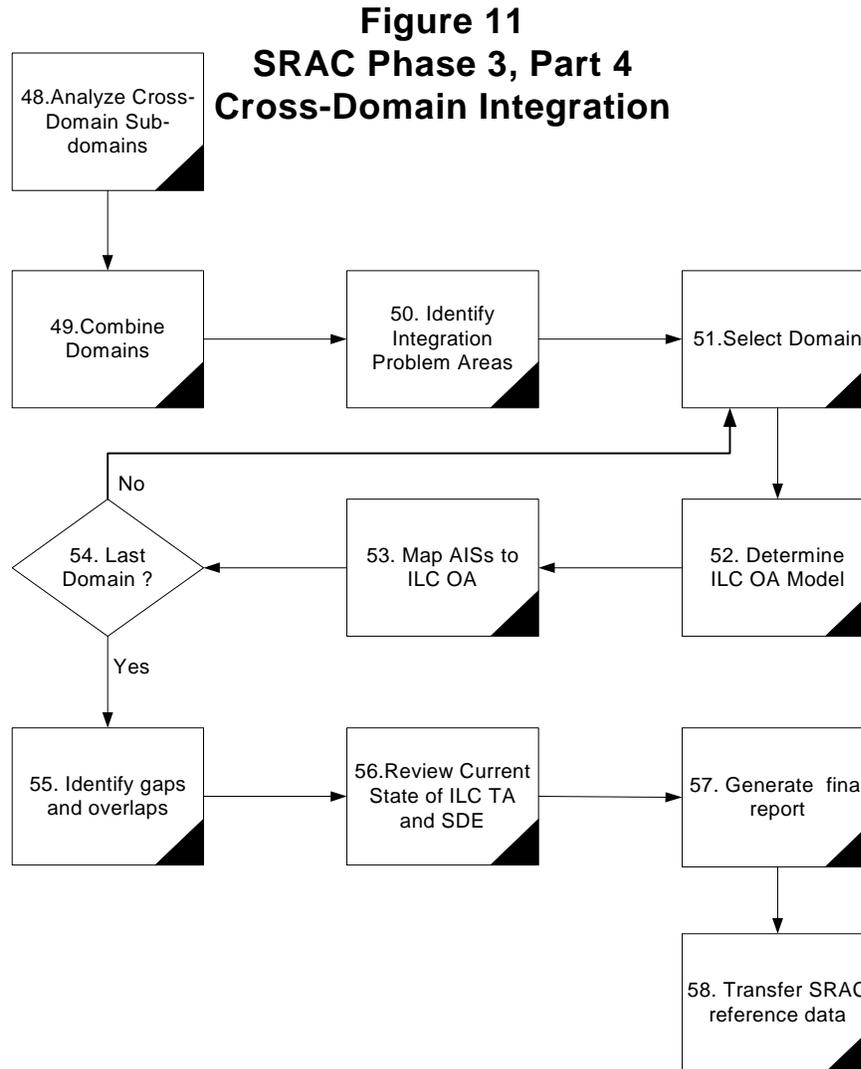
At this point, the SRAC core team summarizes the domain recommendations in a brief that is presented to the Marines Corps PM IS and the ILC ESC. When the Phase 3, Part 3 recommendations have been briefed and edited as required, the SRAC Process moves into Phase 3, Part 4 - Cross-domain Integration.

6.3.4 Phase 3, Part 4 – Cross-Domain Integration

In SRAC Phase 3, Part 3, all of the modeling and analysis was done on an individual domain basis using “as-is” functional models. In Phase 3, Part 4, the domain results are combined and harmonized to provide results for the entire scope of Marine Corps logistics. Also during Part 4, the results are re-interpreted in light of the ILC OA and coordinated with the results of other ILC programs (TA, MC Portal and SDE) and planning for the GCSS-MC. After this has been accomplished, a final report is produced

and the SRAC reference data is transferred to downstream Marine Corps and Navy programs

Figure 11 describes the process for SRAC Phase 3, Part 4.



Step 48 – Analyze Cross-Domain Sub-domains

In the process of analyzing the domains and developing migration strategies in SRAC Phase 3, Part 3, some cross-domain sub-domains will probably be identified. These sub-domains consist of groups of AISs that are fundamentally different in function from the domain AISs, are not candidates for domain consolidation and are used in multiple domains. Examples of cross-domain sub-domains include environmental systems and document retrieval and management systems.

It is assumed that most of the data for these AISs was previously collected in SRAC Phase 2 and Phase 3, Parts 1 and 2. In step 48, these sub-domains are identified, associated AIS lists are created and the Phase 3, Part 3 process (steps 39 through 47) are repeated for each sub-domain. One Phase 3 recommendation report will be created to describe the migration strategies and integration capability for each these cross-domain sub-domains.

Step 49 – Combine Domain Results

The SRAC core team works with the leadership of the domain teams to identify and resolve conflicts between the Phase 3, Part 3 domain recommendations and to combine the domain integration capability diagrams to address the whole of Marine Corps logistics. At this point, key AISs or reference databases that are outside the scope of logistics may be added to the integration capability diagram for logistics.

Step 50 – Identify Major Integration Problems

The SRAC core team works with the leadership of the domain teams to identify and model in more detail key integration problems among the SRAC migration systems that will be passed on to GCSS-MC.

Step 51 – Gather and construct SCOR Models

The SRAC core team obtains the appropriate SCOR models from the ILC OA that will be necessary for mapping functionality and AIS capability from SRAC domains. This activity continues throughout Phase 3, Part 4 as new OA models become available.

Step 52 – Select a domain

Domains will become available for Phase 3, Part 4 as they complete deliverables for Phase 3, Part 3. If the appropriate SCOR models are available for the latest domain to complete Part 3, the domain should move directly into Part 4. If not, another domain may be selected to begin Part 4.

Step 53 – Map SRAC Phase 3 results

The SRAC core team maps the tasks from the Phase 3 functional worksheets into the SCOR models for the current domain. As soon as this is completed, the AISs that support these tasks and their interfaces are also mapped into the SCOR model. The mapping is then submitted to the domain team for review, comment and verification.

Step 54 – Last Domain?

If this is the last domain, the process moves on to SCOR gap and overlap analysis. If not, another domain is selected for mapping.

Step 55 – Identify gaps and overlaps

The SRAC core team analyzes the SCOR models for gaps and overlaps in coverage and gaps/overlaps in required AIS interfaces and reviews the result with the team leaders of all the SRAC domain teams.

Step 56 – Generate Final Report

The SRAC core team creates the final report on the SRAC program, summarizing the recommendations and results from Phases 1, 2 and 3. Recommendations for handling further consolidation opportunities not addressed in the previous SRAC domain recommendations will also be included. This report is provided to the ILC ESC to support further recommendations and action.

The structure of the AIS reference data accumulated in SRAC will be detailed for use by other USMC and Navy programs.

Step 57 – Transfer SRAC reference data

The SRAC core team causes all categorization and scoring data for AISs, migration strategies, integration descriptions and OA mappings produced by the SRAC program to be stored electronically in easily retrievable formats. The core team also insures that access to this SRAC reference data is passed to ILC new capability, GCSS-MC, SDE and other downstream initiatives. This step is actually spread across all of the data collection and scoring steps of SRAC, rather than being executed only at the end of the program.

At this point, Phase 3 of SRAC is completed.

7.0 SRAC Methods and Tools

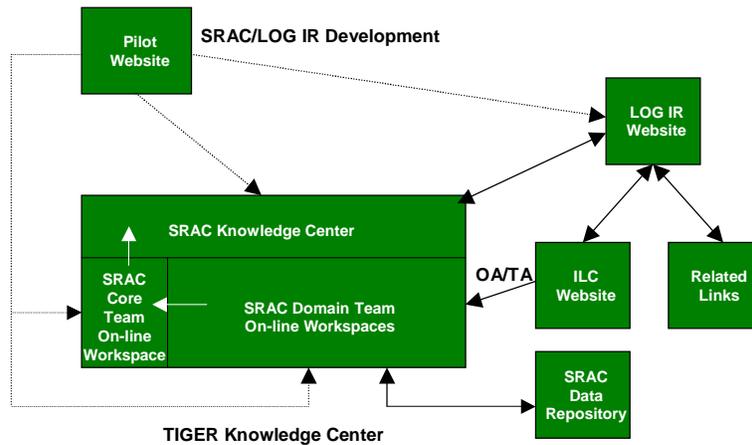
This section of the SRAC Guide contains detailed descriptions of methods and tools used in SRAC. In addition to this guide, the SRAC methods and tools include:

- SRAC Team Rooms
- LOG IR Website
- On-line Survey Forms for SRAC Phases 2 and 3
- AIS Scoring and Decision Support Tools
- Phase 3 Results Templates

7.1 SRAC Team Rooms

There are seven SRAC teams: six functional domain teams that categorize and perform functional evaluation for AISs within logistics domains; and one core team which scores AISs and consolidates SRAC recommendations for review by the ILC ESC. All seven teams have distributed members and operate virtually from team rooms on the TIGER Knowledge Center managed by MARCORSYSCOM. Figure 12 shows the networked systems used in the development and execution of SRAC.

Figure 12
SRAC Development and Execution Network



The SRAC process, methods and tools, such as this Guide, are developed and tested on an external pilot site before they are discussed and finalized in the Tiger Knowledge Center team rooms. The virtual team rooms allow team members to share documents, use team email, and have threaded chat discussions on subjects of interest. Schedule information and milestone commitments are displayed and a reference document library is provided for each logistics domain. All of this collaboration software is accessed through standard browsers over the Web.

As the SRAC domain teams complete their categorization, analysis and recommendations, information access is passed to the SRAC core team. The core team examines recommendations and proposed migration plans and integration descriptions across all logistics domains and makes recommendations to the ILC ESC. After approval, the SRAC results are Web-published on the SRAC Knowledge Center and summarized for inclusion in the LOG IR Plan. Version 3 of the LOG IR Plan will provide an interactive, Web version of the USMC's logistics vision, strategy, guiding architectures and programs.

A password is required to enter SRAC team rooms. For general SRAC team room reading capability, contact Tim Hayes, thayes@labblee.com. For domain team reading capability or to join a SRAC domain team, contact an appropriate domain team leader (see SRAC organization – section 5.0).

The SRAC team rooms are linked to the ILC Website and other reference sites to coordinate work on Marine Corps logistics transformation initiatives.

The latest version of the SRAC Phase 3 surveys have been transitioned to Web-based forms that feed the SRAC data repository directly. The SRAC data repository (see section 7.6 for details) provides persistent storage for categorization data and scoring information generated by the SRAC Program.

7.2 SRAC Phase 2 Worksheets

The categorization of low value AISs is accomplished in SRAC Phase 2 using on-line worksheets to collect data. SRAC Phase 2 worksheets include:

- AIS Nomination Form
- AIS General Information Worksheet
- Phase 2 AIS Functional Coverage Worksheet
- AIS Usage Worksheet
- AIS Retirement Impact Worksheet
- AIS Total Ownership Cost Worksheet

These worksheets are resident on the SRAC Knowledge Center. The data from the worksheets is also being made available in searchable form via the SRAC data repository.

7.2.1 SRAC AIS Nomination Form

All USMC-owned AISs that have not survived the SRAC process will be slated for retirement. As domain teams are formed and begin collecting data for AIS categorization within their domain, team members may find AISs missing from the SRAC AIS Master List that they believe should be considered during SRAC. The AIS nomination form below should be filled out for AISs falling into this category and submitted to the SRAC core team before adding them to the domain team application list. The SRAC core team will then add these AISs to the SRAC AIS Master List.

Note that most of the required data on the AIS Nomination form is the same data that is required on the SRAC General AIS Information Worksheet.

SRAC AIS Nomination Form

Domain Team = _____

AIS = _____

Required Data	Data Input
AIS/Application Type	Select One: COTS, GOTS or Legacy
Owner Agency	
Owner Agency POC	Name: Tel: email:
Vendor/Developer Organization	
Vendor/Developer POC	Name: Tel: email:
Support Organization	
Support Organization POC	Name: Tel: email:
USMC Program Manager	Name: Tel: email:
USMC Technical POC	Name: Tel: email:
Reason for adding this AIS to the SRAC Master List.	

7.2.2 AIS General Data Worksheet

For each AIS on the SRAC AIS Master List, an AIS General Data Worksheet is completed as shown below:

SRAC AIS Worksheet General Data

AIS = _____

Domain Team = _____

Required Data	Data Input
AIS/Application Type	Select One: COTS, GOTS or Legacy
Owner Agency	
Owner Agency POC	Name: Tel: email:
Vendor/Developer Organization	
Vendor/Developer POC	Name: Tel: email:
Support Organization	
Support Organization POC	Name: Tel: email:
USMC POC	Name: Tel: email:
USMC Technical POC	Name: Tel: email:

This worksheet captures the basic responsibilities and contact information for the AIS.

7.2.3 AIS Phase 2 Functional Coverage Worksheet

The functional coverage worksheet for SRAC Phase 2 is very simple. The sample table (shown below) nominally represents a 3-level functional decomposition of the domain (i.e. into functions and then sub-functions). The example shows the Phase 2 functional breakdown for the Maintenance Domain.

SRAC Phase 2 Functional Coverage Worksheet

AIS = _____

Domain = _____

Plan for Maintenance	
Identify Resources	
Develop Maintenance Plan	
Identify Maintenance Requirements	
Perform Production Control	
Prioritize Maintenance Production	
Manage Resources	
Monitor Production Throughput	
Direct Quality Control	
Execute Production	
Perform Preliminary Inspection	
Perform Maintenance Action	
Conduct Quality Control	
Perform Final Inspection	

An “X” is placed in the second column for each sub-function that is supported by the AIS. The total number of X’s for each AIS times the number of users of the AIS becomes the domain operational value for AISs in Phase 2.

Note: In Phase 3 of SRAC, a much more detailed breakdown of the functions of high value AISs is used (i.e. function, sub-function, activity, task and sub-task) and users are asked to score how well the AIS does in supporting each task or sub-task. The corresponding Phase 3 worksheet is discussed in section 7.3.1.

7.2.4 AIS Usage Worksheet

AIS usage is defined as the number of individuals actively accessing the system or the number of licensed users. Using this definition, the domain teams categorize the usage of each AIS via the following worksheet:

7.2.5 AIS Retirement Impact Worksheet

Retirement impact statements for AISs are developed in SRAC Phase 2 using the worksheet shown below.

Any requirements, risks or actions associated with a decision to retire an AIS should be captured on this worksheet.

The retirement impact and cost of continuing Marine Corps investment in the AIS are balanced against the operational value of the AIS to the USMC.

SRAC Retirement Impact Statement Worksheet

Domain = _____

AIS = _____

Impact on Users:
Impact on Development Organization (USMC or GOTS AISs only):
Impact on Support Organization (USMC or GOTS AISs only):
Required functionality and integration capability to be migrated:
Other actions required for retirement:
Benefits of retirement
Retirement risks

The terms in the above worksheet are defined as follows. Please be as specific as possible in describing impacts:

IMPACT ON USERS – The impact on users of retirement of this AIS may be positive or negative. It may vary by location. This section of the worksheet is reserved for major impacts that normally will be felt in multiple locations. For example, the users may have to use another AIS to obtain the lost functionality. This may require additional training. On the positive side, they may no longer need to use two applications and the work may proceed faster and coordination of data in two databases will no longer be required.

IMPACT ON DEVELOPMENT ORGANIZATION: - This category applies to the organization that developed (and usually maintains) the AIS through stages of its life cycle. The impact of the retirement of this AIS may include positive and negative elements. For example, budgets may be reduced to the point where it will be difficult to retain core competencies. Or, it is possible that critical development resources will be freed up to perform needed maintenance work.

IMPACT ON SUPPORT ORGANIZATION: - This category applies to the organization which supplies user and administrative support for the AIS. It may be the same organization as the development organization above. Impacts of the retirement of this AIS could be positive or negative. For example, if the support organization is understaffed/overworked, this may provide the opportunity to reduce workloads by concentrating on fewer AISs. If the support of the AIS is a large percentage of the services supplied by the organization, its reason for existence might be challenged.

REQUIRED FUNCTIONALITY AND INTEGRATION CAPABILITY TO BE MIGRATED: - This section pertains to the functionality and integration capability that needs to be retained if the AIS is retired. If there is another AIS that can provide this lost functionality, what is it? If the AIS to be retired supplies critical data to another AIS or reference database, where can the data be obtained after the retirement? Will a new interface need to be acquired for this purpose? If the functionality or integration capability is lost through retirement of the AIS, what will be the impact?

OTHER ACTIONS REQUIRED FOR RETIREMENT: - This section serves as a checklist for other actions that may be required for proper communications, coordination and smooth execution of the AIS retirement. These could include notification of user organizations in particular locations, creation of alternative work methods or work-arounds, funding considerations associated with migration, and possible retirement of hardware associated with the AIS to be retired, recommended policy changes, etc. If the AIS in question is mandated for use, this fact should be noted here along with reference to the document that mandates the requirement.

BENEFITS OF RETIREMENT: This section summarizes the positive effects of retiring the AIS. Examples include: ability to dedicate resources to another task, time savings, cost savings, reduction of complexity and confusion, etc.

RETIREMENT RISKS: This section describes risks associated with the retirement of the AIS that may lead to negative results. Some examples of questions to be considered are:

Are you, your organization or your support threatened in any way, temporarily or in the long run by this retirement? Will organizations lose effectiveness during or after retirement? If something important that is mentioned above under “actions required for retirement” does not happen, what are the possible negative outcomes? Please concentrate on items that have a reasonable probability of happening and describe the risks in as much detail as possible.

7.2.6 AIS Total Ownership Cost (TOC) Worksheet

The TOC is calculated in SRAC Phase 2 for AISs. TOC is a primary metric that is used to determine whether continued investment in an AIS is justified by its operational value to the Marine Corps. The same TOC is used to determine AIS cost effectiveness in SRAC Phase 3.

The TOC for an AIS is calculated using a simplified version of the program baseline worksheet from the TOC-R Program in MARCORSYSCOM as shown below.

SRAC TOC WORKSHEET

Projected Cost without Initiatives (Cost profiles in constant FY-XX \$K)

	PRE FY-00	FY-00	FY-01	FY-02	FY-03	FY-04
1. Development Category						
1.1. Hardware						
1.2. Software						
1.2.1 Organizational						
1.2.2 Acquisition						
1.2.3 Development						
Total Development Costs						
2. Production Category						
2.1. Hardware						
2.2. Software						
Total Production Costs						
3. Operations & Support Category						
3.1. Hardware						
3.2. Software						
3.3. Operation						
3.4. Maintenance						
3.5. Misc. Contractor Services						
3.6. Supplies/Consumables						
3.7. Formal Training						
3.8. Indirect/Infrastructure						
Total Operational & Support Costs						
4. Total Retirement Costs						
5. TOTAL COSTS						

Below are definitions for the terms in the TOC worksheet. Index numbers (which do not appear on the actual worksheets) have been added for clarity.

1. DEVELOPMENT. Development has two subcategories, hardware and software. These categories represent the costs associated with the research and development of AISs. These cost are generally associated with phases O, I, and II of the DoD 5000 Acquisition process.

1.1 Hardware. Cost of hardware purchased during the development phase of the system.

1.2 Software. All associated costs of developing software.

1.2.1 Organizational. Infrastructure needs.

1.2.2 Acquisition. Costs that include labor, printing, travel in association with a Request for Proposal (RFP) and selection of supplier.

1.2.3 Development. Labor to develop system (programmers, analysts, etc.).

2. PRODUCTION. Production has two subcategories, hardware and software. These categories represent the costs associated with the production of AISs the program has developed. If the program has only developmental cost, then there will be no production costs. In that case, place N/A in the appropriate boxes. Generally, these costs are incurred after milestone III.

2.1 Hardware. Hardware upgrades in outyears.

2.2 Software. Purchase of operating system software.

3. OPERATIONS AND SUPPORT. The total costs associated with maintaining the system throughout the life of the program.

3.1 Hardware. Hardware maintenance to include LAN and peripherals.

3.2 Software. O/S software maintenance, internet fees, PM labor and travel to User Conferences, Configuration Control Boards, etc.

3.3 Operation. DISA run time, system administration labor, help desk labor.

3.4 Maintenance. Analyst and programmer labor, software maintenance fees including COTS products.

3.5 Miscellaneous Contractor Services. The cost of contractor services providing technical services to maintenance centers.

3.6 Supplies/Consumables. A fixed rate (referenced in current Life Cycle Cost Estimates (LCCE)) times number of Full Time Equivalent (FTE) attributed to system. References supplies used in day-to-day business.

3.7 Formal Training. Training throughout the life cycle of the system.

3.8 Indirect/Infrastructure. A fixed rate (referenced in current LCCEs) times number of FTEs attributed to system. References space, furniture, utilities, etc. used in day-to-day business.

4. DISPOSAL. The costs associated with retirement of the AIS/application and any associated equipment disposal. This information may be found in the LCCE.

5.Total Costs – The total costs on a fiscal year basis obtained by adding all component costs on the TOC worksheet.

7.2.7 SRAC Phase 2 Retirement Recommendation Form

Recommendations from the SRAC domain teams to the SRAC core team for actions to be taken as a result of SRAC Phase 2 should be presented in the following format:

**SRAC Phase 2
Retirement Recommendation Form**

Domain = _____

Part A – Overall Recommendations (single page)

Recommendations of the SRAC domain team to include:

A list of low-value AISs from the domain AIS list recommended for retirement. These should include only AISs that have been used by the Marine Corps to support functions in the domain in the past.

Overall comments on Phase 2 retirement including any overarching/common reasons for removing the whole list in 1. This space can also be used to emphasize important items from the retirement details in Part B.

A list of any AISs, originally on the domain AIS list that did not belong there and the reasons why they should be removed. Possible reasons for de-listing include: Never used in this domain, not an AIS, fielding expected beyond the 12-month window, etc.)

Part B – Detailed Recommendations retirement (single page per AIS)

For each low-value AIS recommended for retirement in list 1 above:

AIS: _____

AIS Operational Value: _____

Reasons for retirement recommendation.

Expected impacts and outcomes (positive and negative) of retirement.

Recommended actions associated with retirement (migration of functionality, policy changes, establishment of alternative AISs for functional coverage, etc.).

Risks associated with retirement.

It is expected that the information provided in Part B is consistent with information contained on the SRAC AIS Usage, Functional Coverage and Retirement Impact Worksheets for the AISs discussed.

7.3 SRAC Phase 3 Survey Forms

SRAC data collected in Phase 2 will also be used in evaluation of AISs in Phase 3. This data is combined with an expanded and more rigorous set of categorization data collected on the SRAC Phase 3 survey forms. These include:

- Phase 3 AIS Functional Evaluation
- Phase 3 AIS Technology Evaluation
- Phase 3 Provider Evaluation
- Phase 3 Documentation Evaluation

For the first SRAC domain, Transportation, the Phase 3 data categorization was accomplished via Excel worksheets distributed in e-mails and on the SRAC Knowledge Center. This proved to be an awkward solution because of performance problems with the Knowledge Center for simultaneous access by a large number of users. The collection of Phase 3 categorization data for the remaining domains has been converted to Web forms that feed directly into an Oracle database (see section 7.6 for details).

The functional and provider evaluation forms are filled out by many users for each AIS in order to get a composite user view. The technology and documentation forms are filled out once per AIS, normally by a responsible program office SME.

For fielded AISs, survey forms are filled in only for the latest revision of the software.

7.3.1 AIS Phase 3 Functional Evaluation Survey

The functional evaluation survey for SRAC Phase 3 is similar to the functional coverage worksheet used in Phase 2, but it requests more information. The functions of the domain are broken down to the task or sub-task level, which corresponds to a five- or six-level functional decomposition of the domain.

The survey form example below shows a portion of the Maintenance Domain AIS list.

Functional Evaluation Domain AIS List Example



A particular AIS is first selected by clicking on the AIS list in the above menu. Once opened, the form can be saved as a draft (e.g., in the process of being filled out) or a completed form. Once completed, the form is no longer accessible to the user who has filled it out. Users may return to draft versions of the survey form as many times as necessary before registering the form as completed.

A portion of an example functional evaluation survey form is shown below.

Functional Evaluation Survey Form Example

Functional Evaluation - Microsoft Internet Explorer

Address: <https://ns01a.marcojocan.com:80/tae/>

Functional Evaluation

Click on the name of the function to get the descriptions.
Click on the SCORE to add or edit an evaluation.

Home

AIS Asset Tracking Logistics and Supply System (Phase II) Domain Maintenance

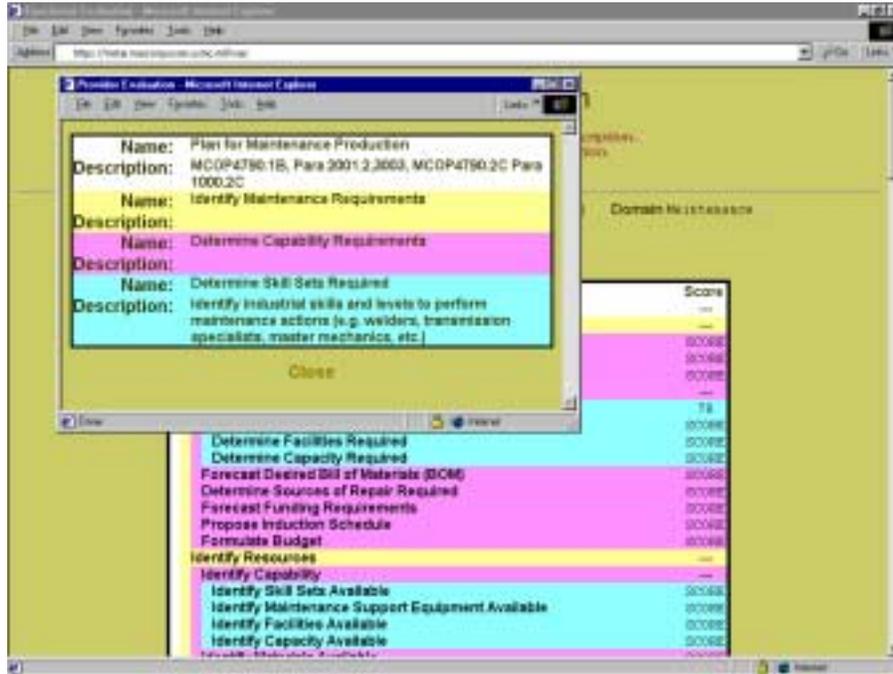
Save Data Complete Discard

Function	Score
Plan for Maintenance Production	---
Identify Maintenance Requirements	---
Review Equipment History	SCORE
Determine Equipment Density List	SCORE
Determine Table of Organization	SCORE
Determine Capability Requirements	---
Determine Skill Sets Required	78
Determine Maintenance Support Equipment Required	SCORE
Determine Facilities Required	SCORE
Determine Capacity Required	SCORE
Forecast Desired Bill of Materials (BOM)	SCORE
Determine Sources of Repair Required	SCORE
Forecast Funding Requirements	SCORE
Propose Induction Schedule	SCORE
Formulate Budget	SCORE
Identify Resources	---
Identify Capability	---
Identify Skill Sets Available	SCORE
Identify Maintenance Support Equipment Available	SCORE
Identify Facilities Available	SCORE
Identify Capacity Available	SCORE

The form uses color to establish the hierarchical context of the low-level tasks and sub-tasks being scored. The user is asked in the instructions for this form to only fill out scores for tasks and sub-tasks which he/she has experience using the AIS.

Clicking on any item in the functional breakdown produces a description of the particular task or sub-task being examined as illustrated below

Pop-up Descriptions of Tasks and Sub-tasks



The user clicks on those scores that he/she wishes to enter. At this point the system prompts the user with a screen (shown below) that defines the scoring rationale as well as provides a place to enter the score.

Score Entry for AIS Functional Evaluation



Evaluations are placed in the Score column for the task being evaluated. The user inputs an appropriate score as if he/she was grading a high school test. A column is also provided for user comments to clarify reasons for the evaluation. Comments are optional, but they may be valuable in understanding the evaluation, particularly for unusually high or low evaluations.

After each domain team has completed functional evaluations, the SRAC core team captures the data from the MSTAR Oracle database for analysis. Overall functional AIS scores are calculated which become part of the consolidated scores for the AIS.

7.3.2 AIS Provider Evaluation Survey

Categorization and evaluation data for organizations providing support for AISs on the domain AIS list are collected from users with the Web-based forms that are directly connected to the SRAC MSTAR Oracle database. In order to evaluate AIS providers, the user first accesses the domain list for AISs as illustrated below.

Provider Evaluation Domain AIS List Example



A particular AIS is first selected by clicking on the AIS list above. Once opened, the provider evaluation form can be saved as a draft (e.g., in the process of being filled out) or a completed form. Once completed, the form is no longer accessible to the user who has filled it out. Users may return to draft versions of the survey form as many times as necessary before registering the form as completed.

A sample provider evaluation survey form is shown below.

Provider Evaluation Survey Form Example

At this point the system prompts the user with a screen that defines the scoring rationale as well as provides a place to enter the score. The user inputs evaluations in the “availability/response” and “quality” columns based on the scoring rationale displayed in the legend.

The support types in the survey are defined in the instructions for filling out the form as follows:

Support Category	Category Definitions
Tech Support	Hotline and escalation support for user and administrator questions/problems
Maintenance/Bug Fixes	Identification and fixes for code bugs and improvements to application capability through patches, modifications and new releases.
Enhancements	Ability to get improvements to the software code to support changing USMC requirements.
Training/Education	On-line, CD or classroom courses for the use and administration of the AIS/application and education on related disciplines.
Professional services	Consulting and system integration services including process improvement, AIS customization and integration that are available from a support vendor.

Definitions of the support dimensions are as follows:

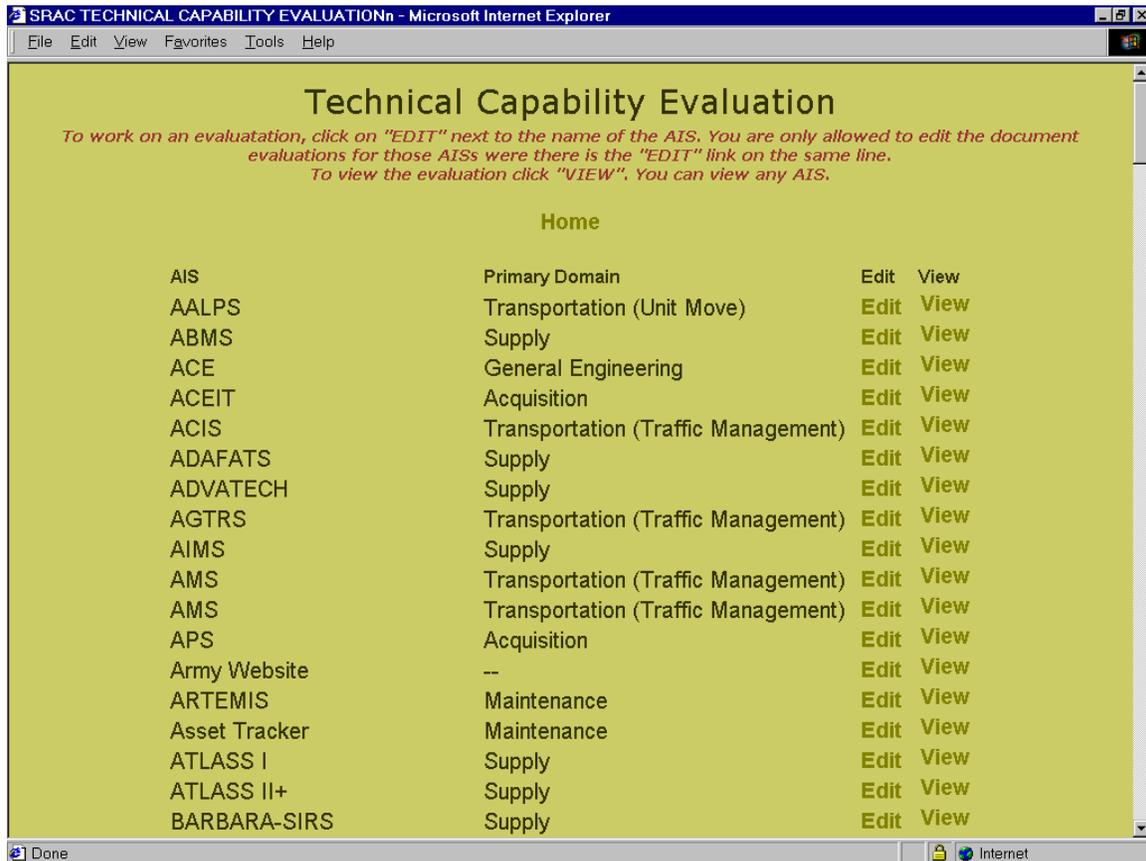
Support Dimensions	Definitions
Availability/Response	Geographic coverage, timeliness of response, and correct language in communications and support documentation.
Quality	Helpfulness of support personnel and appropriateness, completeness, and accuracy (i.e. usefulness) of the information provided.

If a user has no experience with a particular type of support, the two columns are left blank. Both columns for a particular type of support must be filled in for the evaluation to be registered.

7.3.3 AIS Technology Evaluation Survey Forms

AIS technology categorization is collected from responsible program office technical subject matter experts through Web-based forms that are directly connected to the SRAC MSTAR Oracle database. The first screen seen by the user assigned to complete the survey will ask the person to select either the Technical Evaluation Survey or the Document Evaluation Survey (see section 7.3.4).

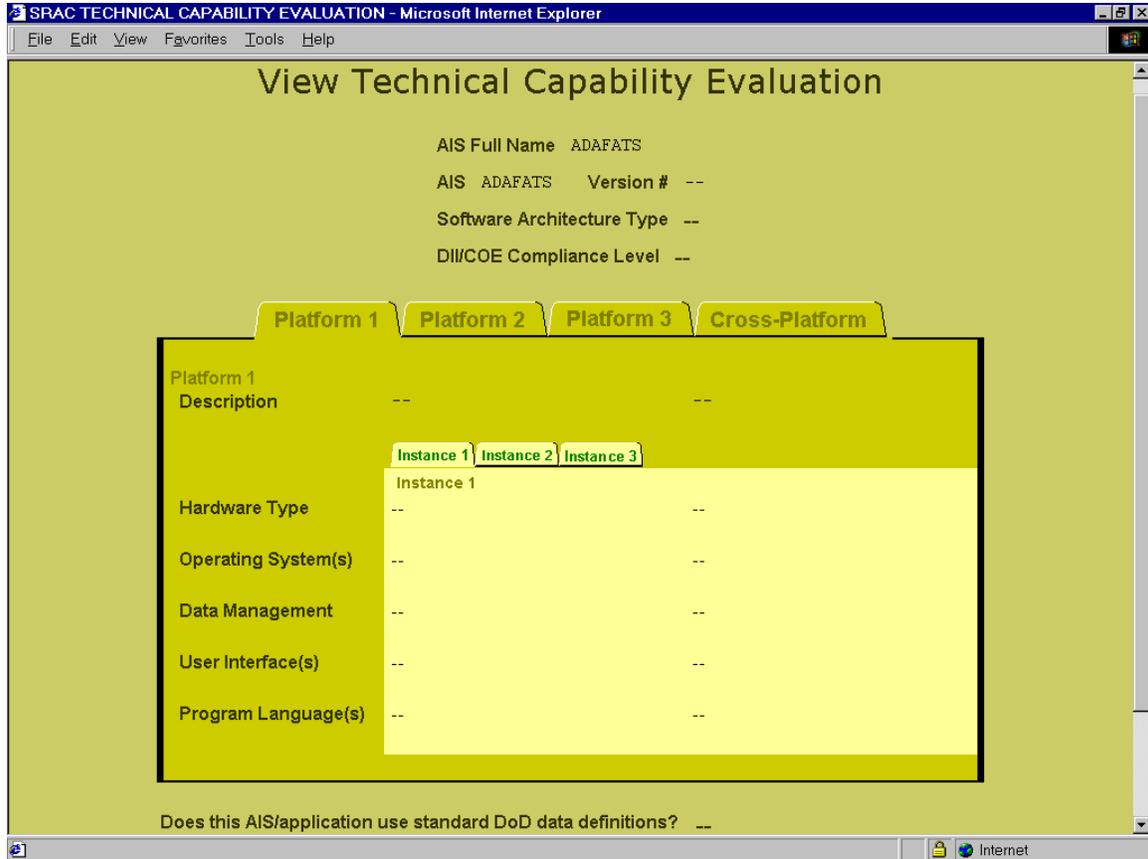
After selecting the Technical Evaluation Survey, the user then selects an AIS from the list as shown in the window below.



Technology evaluation is only done once at the direction of the primary domain team. The user can elect to either view the technical capability evaluation survey form (read-

only) or to edit it. The user can only edit AIS surveys for which they have been assigned permissions. However the user can view any available survey.

If the user selects “View”, the following window is displayed.



The user can select the applicable tabs to display the fields entered on the form. Refer to the following description of the “Edit” capability to understand the contents of each field. The user exits the document evaluation survey view screen by clicking the Cancel button.

After clicking on “Edit” in the previous screen, the technology evaluation survey form appears for the AIS selected as illustrated below.

The screenshot shows a web browser window titled "SRAC TECHNICAL CAPABILITY EVALUATION - Microsoft Internet Explorer". The main content area has a yellow background and is titled "Enter Technical Capability Evaluation".

Fields at the top include:

- AIS Full Name: ADAFATS
- AIS: ADAFATS
- Version #: [Text Input Box]
- Software Architecture Type: [Dropdown Menu]
- DIWCOE Compliance Level: [Dropdown Menu]

Below these are four tabs: Platform 1, Platform 2, Platform 3, and Cross-Platform. The Platform 1 tab is selected.

Under the Platform 1 tab, there is a "Platform 1" section with a "Description" dropdown menu and a text input box. Below this are three tabs: Instance 1, Instance 2, and Instance 3. The Instance 1 tab is selected.

Under the Instance 1 tab, there are three rows of fields:

- Hardware Type: [Dropdown Menu] and [Text Input Box]
- Operating System(s): [Dropdown Menu] and [Text Input Box]
- Data Management: [Dropdown Menu] and [Text Input Box]

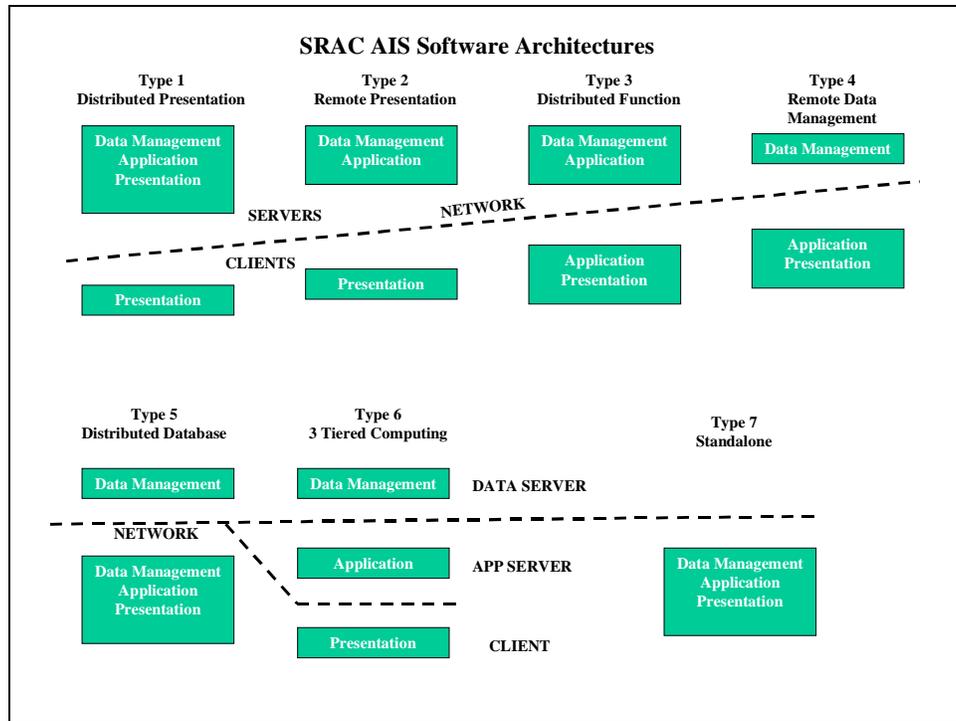
The browser's status bar at the bottom shows "Done" and "Internet".

If there are multiple versions of the AIS in use that have different technology implementations, a technology evaluation form is only required for the latest version. The version number of the AIS is entered in the first data box on the form.

7.3.3.1 Software Architecture Type

The second box on the form allows the user to select a software architecture type from a drop-down menu that is most appropriate to describe the AIS. SRAC records this information but does not use it in the SRAC scoring process. Ideally the architecture determines how many platforms are present in the architecture and what IS functions they perform (i.e. platform description).

The SRAC AIS software architecture model has seven software architecture types as shown below:



7.3.3.2 DII COE Compliance Level

The Defense Information Infrastructure Common Operating Environment (DII COE) architecture compliance level for the version of the AIS under consideration is entered in the third box (AIS Architecture Compliance) on the technology evaluation form. DII COE is a set of standards and software infrastructure that ensure that Department of Defense AISs will be able to easily interoperate and share data. Architecture compliance is measured in SRAC by the DII COE Runtime Environment compliance level as follows:

Level 1: Standards Compliance – Two capabilities share only a common set of COTS standards. Sharing of data is undisciplined and minimal software reuse exists beyond the COTS. Level 1, may, but is not guaranteed to, allow simultaneous execution of the two systems.

Level 2: Network Compliance - Two capabilities co-exist on the same LAN but on different CPUs. Limited data sharing is possible. If common user interface standards are used, applications on the LAN may have a common appearance to the user.

Level 3: Workstation Compliance - Environmental conflicts have been resolved so that two applications operating on the same LAN share data and co-exist on the same workstation as COE-based software. The kernel COE, or its equivalent must reside on the workstation. Segmenting may not have been performed, but some COE components may be reused. Applications do not use the COE services and are not necessarily interoperable.

Level 4: Bootstrap Compliance – All applications are in segment format and share the bootstrap COE. Segment formatting allows automatic checking for certain types of

application conflicts. Use of COE services is not achieved and users may require separate login accounts to switch between applications.

Level 5: Minimal DII Compliance – All segments share the same kernel COE and functionality is available via the Executive Manager. Boot, background, session and local processes are specified through the appropriate segment descriptor files. Segments adhere to the basic “look and feel” of the native GUI as defined in the Style Guide. Segments are registered and available through the on-line library. Applications appear integrated to the user, but there may be duplication of functionality and full interoperability is not guaranteed. Segments may be successively installed and removed through the COE installation tools. Database segments are identified as unique or sharable according to their potential for sharing.

Level 6: Intermediate DII Compliance – Segments utilize existing account groups and reuse one or more COE component segments. Minor documented differences may exist between the Style Guide and the segment’s GUI implementation. Use of non-standard SQL in database segments is documented and, where applicable, packaged in a separate database segment.

Level 7: Interoperable Compliance – Segments reuse COE component segments to ensure interoperability. These include COE-provided communications interfaces, message parsers, database segments, track data elements, and logistics services. All access is through published APIs with documented use of few, if any, private APIs. Segments do not duplicate any functionality obtained in COE component segments. The data objects contained within a database are standardized according to Dot 8320 guidance.

Level 8: Full DII Compliance – Proposed new functionality is completely integrated into the system (e.g. makes maximum possible use of COE services), and is available through the Executive Manager. The segment is fully compliant with the Style Guide and uses only published public APIs. The segment does not duplicate any functionality contained elsewhere in the system whether as part of the COE or as part of another mission application or database segment.

7.3.3.3 AIS Technology Categorization Data

Tabs are supplied on the AIS technology evaluation form to enter data for up to three platforms according to the software architecture type defined above. For each platform, the platform description, hardware type, operating system, data management, user interface and programming language technology is selected using dropdown menus. For each platform (e.g., application server) up to three instances can be defined. This is required if the AIS platform is supported on different hardware classifications (e.g., Server(NT/2000/XP) vs. Server(UNIX/Linux). If the AIS is implemented using a technology that isn’t explicitly defined, the user should select “Other” in the appropriate drop-down menu and then describe the technology in the comments box to the right of the associated technology box.

A tab is also supplied for cross-platform technology categorization including integration technologies, interfaced AISs and databases and security status.

Definitions for each information technology category are shown below.

Information Technology Category	Categorization Data
Platform Description ¹	Valid values include Application Server, Client, Data Server, Server, Standalone System, Web Server, Other
Hardware Type	For the specified platform, this is the type of hardware. Valid values include Any (applicable for browser based clients), Dumb Terminal(3270, X-terminal, etc), IBM Compatible PC, Macintosh, Mainframe(IBM compatible), Minicomputer(VAX, AS400, DG, HP), Server(NT/2000/XP), Server(UNIX/Linux), Workstation(non-UNIX), Workstation(UNIX), Other
Operating System	For the specified platform, this is the operating system category. Valid values include UNIX Variant, Linux, Windows 9x/ME, Windows NT/2000/XP, MS-DOS, OS2, MVS, OS/390, VMS, Other, Any (applicable for browser based clients)
Data Management	If the AIS platform supports a data management or data access mechanism, this defines the type. Valid values include Oracle 7x or <, Oracle 8I or >, Informix, Sybase, MS-Access, Adabas, DB2, WATCOM, dBase. VSAM, Flat files, Other
User Interface	For the user or presentation layer of the AIS on this platform, these are the valid values 3270 Emulation, Browser, DOS Command Line, MOTIF, PowerBuilder, Std. Windows, VBA, Xwindows, Other
Programming Language(s)	For this platform, these are the valid programming language values ADA, ALC, C, C++, Cobol, Fortran, Java, Natural/Natural2, Pascal, Perl/CGI/Other Web, PowerBuilder, Other

Selecting the cross-platform tab produces the screen shown below. This allows categorization data to be added for integration technologies, AIS and database interfaces and security.

¹ This field is required if platform information is filled out.

SRAC TECHNICAL CAPABILITY EVALUATION - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Enter Technical Capability Evaluation

AIS Full Name ADAFATS

AIS ADAFATS Version #

Software Architecture Type --

DI/COE Compliance Level --

Cross-Platform Technology

Integration Technologies

Instance 1

--

Interfaced AISs & Databases

Security

--

Does this AIS/application use standard DoD data definitions? --

Done Internet

Integration technologies refer to the capabilities implemented in the AIS to connect the different tiers of the application and/or to connect the AIS to other AISs through some predefined application programming interface. The current list of technologies includes CORBA, EDI, Java Beans/J2EE, IBM Message Q, Object-Oriented API, ODBC, RPC, SQL, XML, or Other. Tabs are also supplied on the above form for up to three instances of integration technologies. Additional technologies can be specified as a list in the comments box.

The “Interfaced AISs & Databases” field should contain a list (separated by commas) of the names of other AISs and/or reference databases to which the AIS under consideration is interfaced. This input is entered only once in the “Instance 1” box.

Security is also only defined for the “Instance 1” by selecting from a dropdown menu. The choices for AIS security relate to Dot Standard 5200.40, “Defense Information Technology Security Certification and Accreditation Process” (DITSCAP). These include; No C&A Started, C&A Submitted, C&A Waiver Granted, Draft SSAA Completed, Baseline SSAA Submitted, IATO, IATO Extension, and ATO. The Program Manager for each AIS is responsible for submitting the AIS for DITSCAP and should be aware of the current status of that submission.

Two additional questions are asked as part of the Technical Capability Evaluation form. The first one asks “ Does this AIS/application use standard Dot data definitions? “ with either a Y(es) or N(o) response. If the database utilized by the AIS was defined using Dot approved data definitions (i.e., from the DISA Defense Data Dictionary System –

DDDS), then the response should be Y(es). If the answer is N(o), the following question “ If the answer is NO to the above questions, does a data map exist between this AIS/application and the Dot DDDS? “ should be answered with a Y(es) or N(o) response.

When the user has completed the form, the “Enter Data and Close” button should be selected. If the user wants to abort any changes made to the form during this session, then the “Cancel” button should be selected. The user may partially complete a form during a session and then complete the form during subsequent sessions.

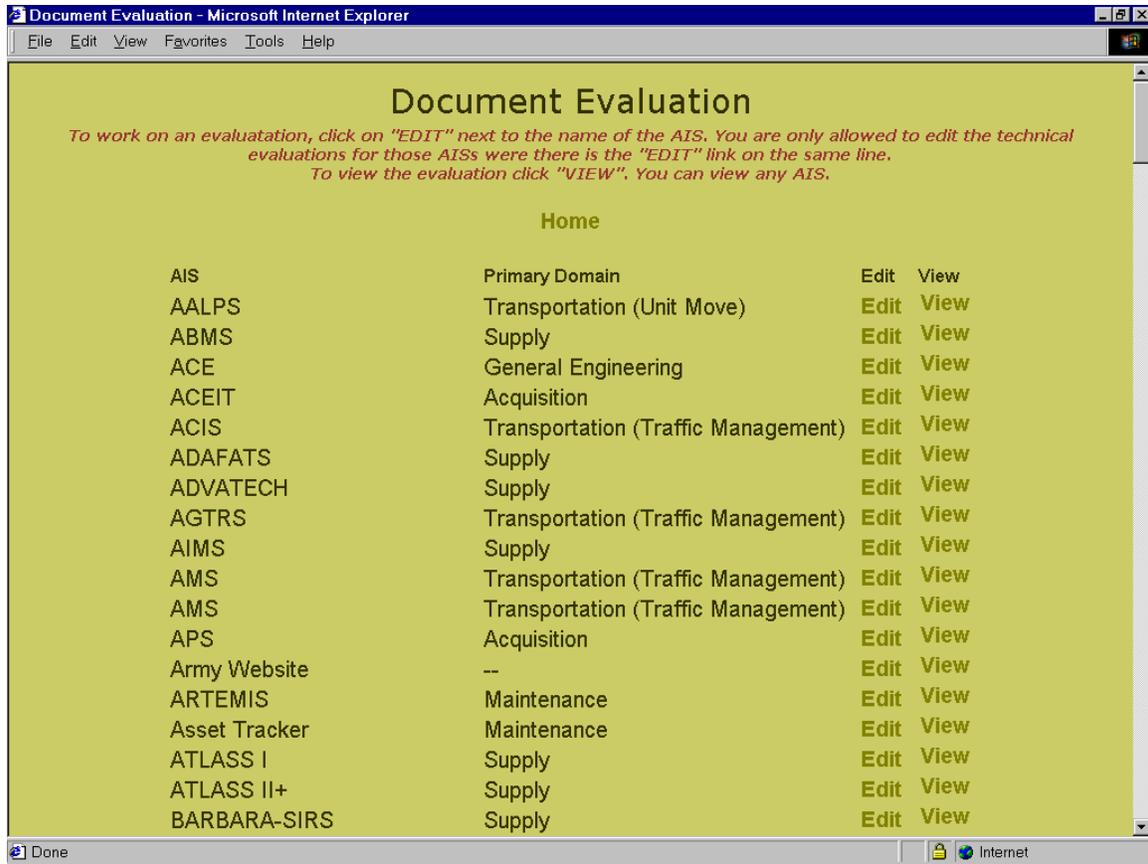
In completing this form, the user should enter only the AIS technology that is actually fielded for Marine Corps.

7.3.4 SRAC AIS Documentation Evaluation

Most documentation for DoD or Marine Corps developed legacy AISs has been generated according to MIL STD 498 that is closely allied with the IEEE 12207.1 - 1997 documentation standard. The two standards represent the old and the new DoD documentation standards, respectively. SRAC documentation evaluation is organized around MIL STD 498. It simply records the existence or non-existence of documents required by the standard.

The number of existing documents in life-cycle categories specified by MIL STD 498 (i.e., concept and operational requirements, development, quality assurance, and transition/installation) is collected from program office SMEs through Web-based forms that are directly connected to the SRAC MSTAR Oracle database. The first screen seen by the user assigned to complete the survey will ask the person to select either the Technical Evaluation Survey (see section 7.5.3) or the Document Evaluation Survey.

After selecting the Document Evaluation Survey, the user then selects an AIS from the list as shown in the window below.



Documentation evaluation is only done once at the direction of the primary domain team listed on the above screen. The user can elect to either view the document evaluation survey form (read-only) or to edit it. A user can only edit AIS surveys for which he/she has been assigned permissions. However, all users can view any available survey.

If the user selects "View", the following window is displayed. The user exits the window by selecting the "Return" button. Refer to the following description of the "Edit" capability to understand the contents of each field.

Enter Document Evaluation

Click on the number of standard documents to see the list of the standard documents.

AIS AGTRS **Primary Domain** Transportation (Traffic Management)

AIS Full Name Automated Government Transportation Request System

Document Type	(2 std)	Number of Documents Available	Comments
Concept and operational Requirements	(2 std)	6	1-IRS SRS, SPS, SDD, DBDD, SSDD, IDD
Development	(12 std)		
Quality Assurance	(3 std)	2	STP, STD
Transition and Installation	(2 std)	1	SIP
Operation	(3 std)	0	

After selecting “Edit” on the previous screen, the document evaluation survey form appears for the AIS selected as illustrated below.

Enter Document Evaluation

Click on the number of standard documents to see the list of the standard documents.

AIS ATLASS II+ Primary Domain Supply

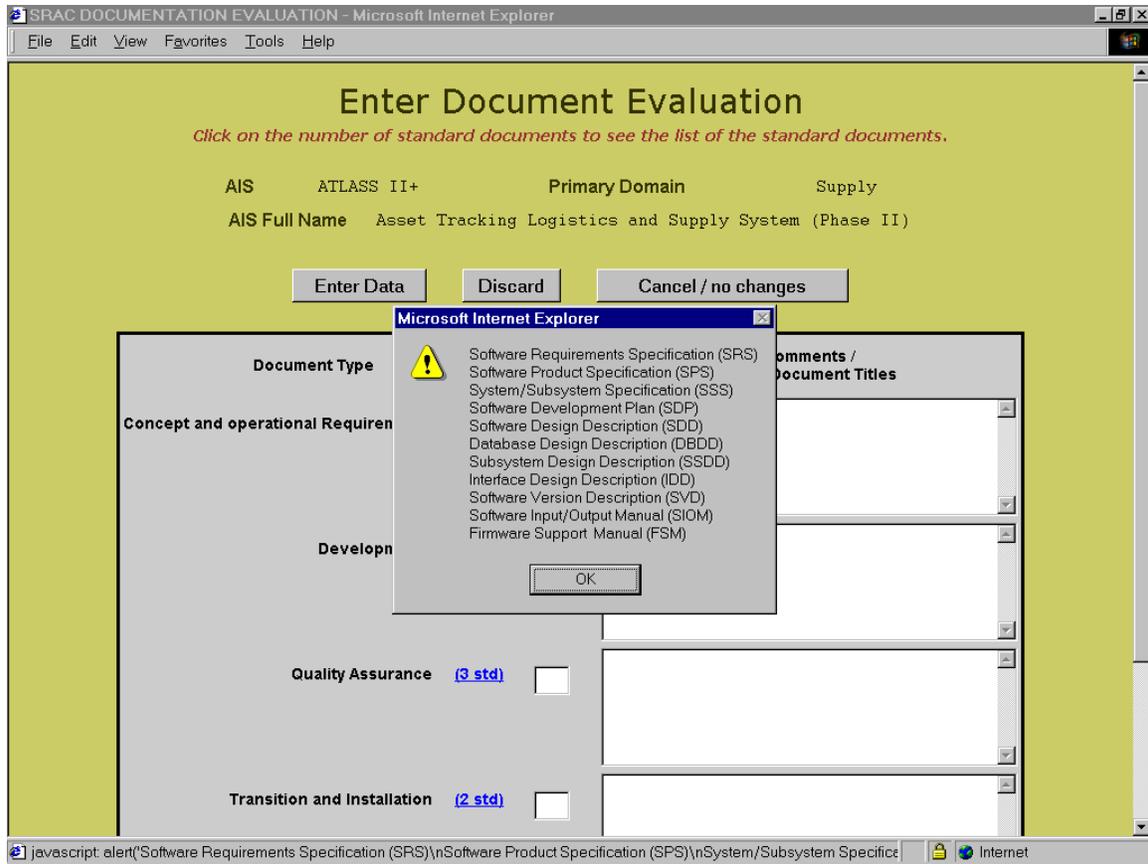
AIS Full Name Asset Tracking Logistics and Supply System (Phase II)

Enter Data Discard Cancel / no changes

Document Type	Number of Documents Available	Comments / Other Document Titles
Concept and operational Requirements	(2 std) <input type="checkbox"/>	
Development	(12 std) <input type="checkbox"/>	
Quality Assurance	(3 std) <input type="checkbox"/>	
Transition and Installation	(2 std) <input type="checkbox"/>	

When editing, the user is asked to enter the number of standard, or equivalent, documents available for the AIS in each category. If documents with equivalent content are counted, their titles may be listed in the comments block to the right. General comments are also encouraged regarding the existence/ availability of documents and their conformance to MIL STD 498. If an entry in the comments field exceeds the maximum length of 500 characters, an error message will be displayed to the user.

If the user is not familiar with MIL STD 498 required document types, these may be retrieved by clicking-on the highlighted (blue) text for each category. This produces a pop-up window listing the relevant document titles as illustrated in the screen below:



A full list of MIL STD 498 documents which support each of the lifecycle steps are listed below. The required contents of these documents are outlined in the Document Information Definition Standard (DIDS) section of MIL STD 498.

Concept and Operational Requirements (2 documents total)

Operational Concept Description (OCD) –linked to ORD
Interface Requirement Specification (IRS)

Development (12 documents total)

Software Requirements Specification (SRS)
Software Product Specification (SPS)
System/Subsystem Specification (SSS)
Software Development Plan (SDP)
Software Design Description (SDD)
Database Design Description (DBDD)
Subsystem Design Description (SSDD)
Interface Design Description (IDD)
Software Version Description (SVD)
Software Input/Output Manual (SIOM)
Firmware Support Manual (FSM)
Computer Programming Manual (CPM)

Quality Assurance (3 documents total)

Software Test Plan (STP)
Software Test Description (STD)
Software Test Report (STR)

Transition and Installation (2 documents total)

Software Transition Plan (STrP)
Software Installation Plan (SIP)

Operation (3 documents total)

Software User Manual (SUM)
Computer Operation Manual (COM)
Software Center Operator Manual (SCOM)

The user can submit the current data on the form by selecting the "Enter Data" button. To discard any data currently on the form (reset the fields to all blanks), the user can select the "Discard" button. To abort any changes made to the form during this session, the user can select the "Cancel/no changes" button. The user may partially complete a form during one session and then complete the form during subsequent sessions.

7.4 AIS Scoring

SRAC Phase 2 contains very simple scoring consisting of operational value determined by $(\#users) \times (\#functions)$. The AIS value is then compared with the cost of continuing the development and support of the AIS and the potential impact of retirement to determine whether the investment is justified. This is adequate for the objective of SRAC Phase 2 (i.e. to turn the spotlight on suspects and eliminate whatever AISs do not appear to be justified from a value vice investment perspective).

In SRAC Phase 3, the operational value of the AIS is recalculated using a finer, more accurate functional breakdown and evaluation of functional coverage by users. It is determined from the product of functional coverage, functional evaluation scores from user surveys and number of users. In Phase 3, new criteria categories (i.e. technology, provider evaluation, and cost effectiveness) are added and a more rigorous scoring scheme is employed. Documentation categorization data collected as discussed in section 7.3.4 is not used in AIS scoring.

In SRAC Phase 3, the raw SRAC categorization and evaluation data assembled by the domain teams for AISs is averaged and consolidated into overall AIS scores. The consolidated scores are expressed in absolute terms (e.g. as collected) and relative to the highest scores attained by an AIS within a domain.

The rationale behind the scoring and its details was worked out in cooperation with the ILC, SE&I, and NMCI programs. Scoring details are contained in the SRAC Phase 3 Scoring document. See section 6.3.2 of this Guide for examples of AIS composite scoring.

Excel spreadsheets are used to automatically calculate composite AIS scores based on survey input as extracted from the SRAC Reference (Oracle) database.

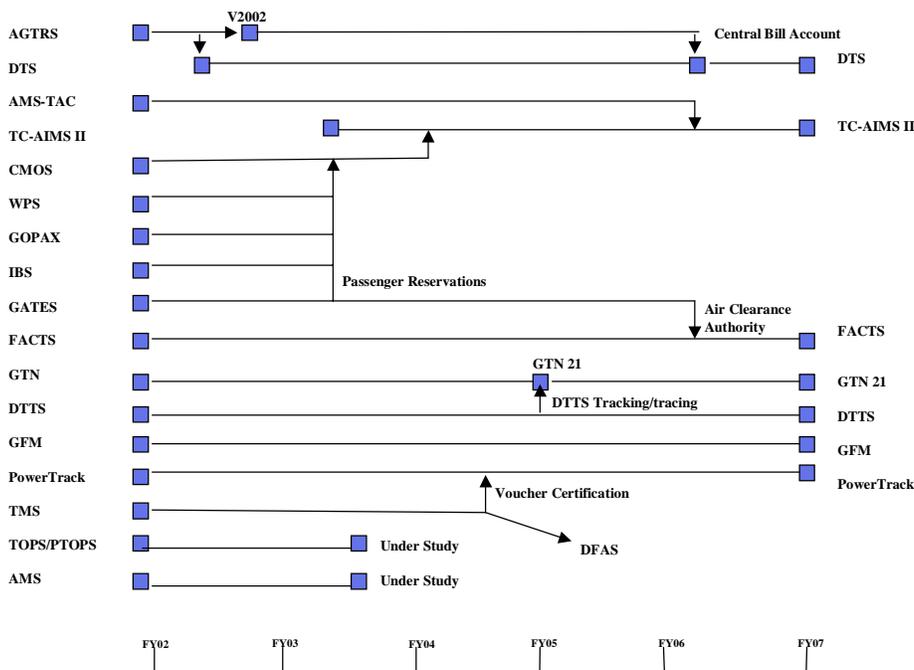
7.5 Templates for Phase 3 Domain Solution Description

Once the domain AISs have all been evaluated individually, they are discussed together in migration strategies and integration capability descriptions. These descriptions define migration systems and interfaces that will survive SRAC that form a baseline for designing the legacy systems component of GCSS-MC.

The migration strategies and integration descriptions for AISs utilize diagrams with accompanying narrative text. For domains with large numbers of AISs, it may be necessary to use multiple migration and integration diagrams to handle the complexity. In order to later combine the results in cross-domain solutions (SRAC Phase 3, Part 4), standard diagram formats, or templates, are used for all domains.

7.5.1 Domain Migration Diagram Template

The migration diagram captures information regarding the transition from the initial list of domain AISs to a reduced set of migration systems. The migration diagram template is illustrated by the example shown below.



The time span for each migration diagram is FY02 to FY07. The diagram represents the domain team’s expectation of how functional capability will migrate between AISs and how AISs will be consolidated or retired over time. Migration systems for a domain are defined as those that appear at the right hand side of the migration diagram (i.e. are still

expected to be active in FY07). Text associated with vertical arrows indicates the functionality that is migrating between AISs.

Migration diagrams do not capture the exact timing of migration events. The actual timing may be affected by further investments in new capabilities that are not considered in SRAC. It is important to capture the order in which legacy AISs will consolidate, however, because they will join newer systems in initial implementations of GCSS-MC.

The narrative that accompanies the migration diagram, adds context to what is shown in the diagram, including:

- Major functionality migrating between AISs
- Timing of AIS retirements
- Roll-out of committed enhanced and new systems
- Impacts, risks and benefits associated with AIS consolidation and retirement
- Major actions required by migration (e.g. organizational, policy, training, funding, etc.)

The strategy must be consistent with the data collected and the scoring created for the AIS under consideration in SRAC Phase 3. This may require updating of some categorization data, particularly number of users, TOC data and retirement impact statements recorded on SRAC Phase 2 worksheets.

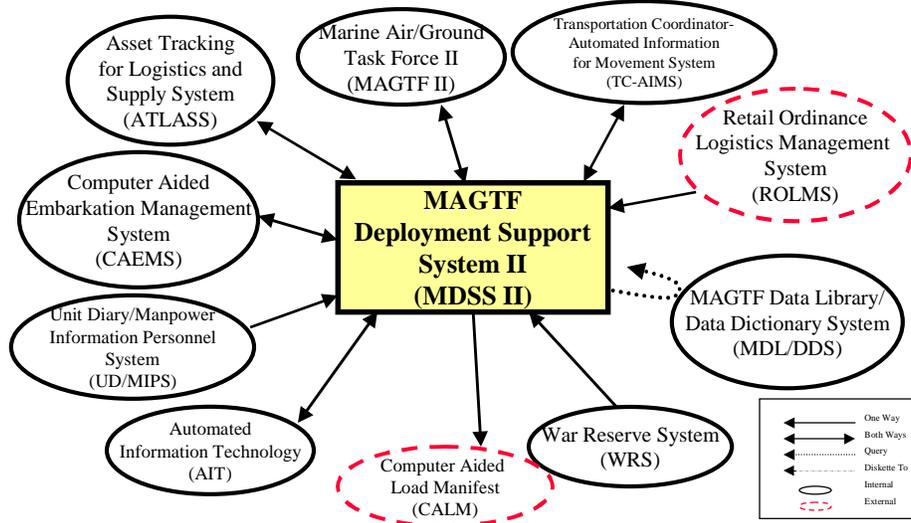
7.5.2 Domain Integration Capability Templates

After the migration systems for a domain have been identified (i.e. those AISs that are still expected to be active in FY07) the current integration capability associated with these systems is documented. This is accomplished in four steps:

- Collect/create integration diagrams for individual migration systems.
- Validate that the set of integration diagrams for a domain are consistent.
- Create a domain-level integration diagram from the above information.
- Document important aspects of domain integration picture in accompanying narrative.

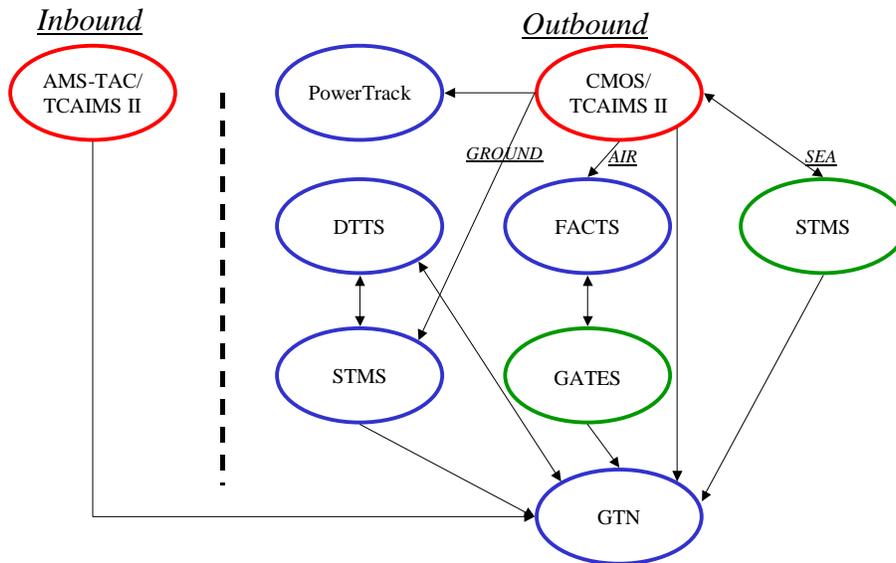
A sample integration diagram (also known as a bubble chart) is illustrated by the example shown below. Bubble charts are a visual depiction of the Interface Exchange Requirements (IERs) for a single AIS.

MAGTF Deployment Support System II MDSS II Interfaces



Single AIS integration diagrams show the interface capabilities between a SRAC migration system, shown in the box at the center of the diagram, and other AISs and reference databases within the domain. The diagram should be consistent with, interface categorization for AISs captured on the technology evaluation form for the AIS (see section 7.3.3) plus any new interfaces committed for development.

The collection of AIS integration diagrams for the domain are abstracted into domain-level integration capability diagrams by the SRAC core team for inclusion in SRAC domain solution recommendations. One or more of these diagrams is required for each SRAC domain. A sub-domain integration diagram template is illustrated below.



The integration capability diagrams should indicate direction of flow of data at a high level that should be consistent with authoritative source information obtained from the Marine Corps SDE program.

7.6 SRAC Data Repository

Data collected from the SRAC program is being loaded along with calculated SRAC scores into an Oracle database. The SRAC data will be available for future reference and further evaluation by ILC, GCSS-MC, NMCI and other USMC and Navy programs subsequent to the completion of SRAC. At the time of this writing, the older SRAC Phase 3 worksheets are being re-implemented as Web forms that will act as a front-end collection mechanism for this repository (see section 7.3). The SRAC core team will populate the database with previously collected SRAC Phase 2 data and scoring information that has been calculated based on Phase 2 and Phase 3 data.

APPENDIX A – SRAC ACRONYMS

Acronym	Translation	Description
AIS	Automated Information System	Application software and hardware used to support particular functional work that has been selected by DoD Services
C & A	Certification and Accreditation	Associated with the Information Technology Security Certification and Accreditation Process
COM	Computer Operations Manual	The documentation that explains the operational requirements of the system. Usually contains information regarding the interface systems, data files interface requirements, input files, output files, and disposition of output
COTS	Commercial off-the-shelf software	Applications that may be purchased from commercial software vendors that are offered to the marketplace as a standard, packaged product
CPM	Computer Programming Manual	The documentation that indicates the coding language used, information as to the library where the application programs are cataloged, and normally includes the hierarchical flowcharts depicting the flow of data and processes
CPU	Central Processing Unit	The part of the computer that performs movement and calculations of data
CRM	Customer relationship management	Applications used to support customers including call center management
DBDD	Database Design Description	The documentation that describes the logical and physical schemas associated with the structures of the database files
DDDS	Defense Data Dictionary Standards	The Department of Defense's list of standardized data elements
DII COE	Defense Information Infrastructure/ Common Operating Environment	A DoD set of standards and software infrastructure that ensure DoD AISs will be able to easily interoperate and share data
DoD	Department of Defense	
FSM	Firmware Support Manual	The manual used to describe the kind and names of special programming functions implemented through a small special purpose memory unit
GAMS		General Algebraic Mathematical Solutions
Gaps		Areas of functional domains that are poorly supported by AISs.
GOTS	Government off-the-shelf software	Package applications available from other Government sources.
GUI	Graphical User Interface	The graphical interface to an AIS that is accessed by its user.
IDD	Interface Design Description	
IER	Information Exchange Requirement	The requirement for data interfaces between AISs.
ILC	Integrated Logistics Capability	An initiative of the USMC to improve logistic operations to support Operational Maneuver from the Sea
ILC IPT	ILC Integrated Planning Team	The team that has the responsibility for planning ILC programs including SRAC.
IRS	Interface	The documentation required to define the software and hardware

	Requirement Specification	interfaces associated with an Automated Information System
IS	Information Systems	An automated and executable set of programmable instructions that are used to query, create, modify, update, or eliminate data to achieve an end customer product
LAN	Local Area Network	That part of the network normally associated with the internal network of a company or organization
MARCORSYS COM	Marine Corps System Command	Also known as MCSC
MCLB-A	Marine Corps Logistics Base – Albany, GA	
MDL		MAGTF Data Library
OA	Operational Architecture	A document that establishes the functional requirements for an integrated set of applications covering a functional domain. OAs contain functional models and data flow diagrams.
OCD	Operational Concept Description	
ORD	Operational Requirements Document	A document created at the beginning of a Life Cycle Management Development used to define the user and system requirements.
POC	Point of contact	The responsible person to contact to obtain information regarding an AIS.
QIR		Quality Inspection Report
SA	System Architecture	The collection of preferred technology selections that satisfy the requirements of the technology architecture.
SCOM	Software Center Operator Manual	
SDD	Software Design Description	
SDP	Software Development Plan	
SIP	Software Installation Plan	The document that describes the locations and schedule of implementation normally of an AIS or modifications to an AIS. This plan addresses the resources (personnel, dollars, classroom space for user training, etc.) required for a successful implementation.
SIOM	Software Input/Output Manual	
SMEs	Subject matter experts	Members of SRAC domain teams with functional, user and development/support knowledge of an AIS/application.
SPS	Software Product Specification	
SQL	Standard Query Language	
SSDD	Subsystem Design Description	The document that describes the design of the subsystem to include flowcharts or hierarchical flows of data and/or transactions. This is the document that is forwarded to the programmer for coding.
SSS	System/Subsystem Specification	
SRAC	Software Realignment and Categorization/	Created by the ILC, SRAC is a program to reduce the IT investment and overlap in legacy applications supporting USMC logistics.

	Consolidation	
STP	Software Test Plan	The documentation that describes the types of tests that must be performed in order to achieve an approval of the system. Each test is described in detail giving the inputs, outputs, and the expected results of the test. From these results, the Software Test Report is created.
STrP	Software Transition Plan	
STR	Software Test Report	The documentation associated closely with the Software Test Plan. The test report records the outcome of the executed test
SUM	Software User Manual	The document that is used by the AIS user for the successful completion of the task. It normally addresses and explains each of the applications within an AIS, any user input required for that particular application dependant upon the user's expected output, and the distribution of that output.
SVD	Software Version Description	That information usually associated with quality assurance used to record and track modifications made to the existing systems application code. This information usually lists the new version number and the types of modifications made to version
TA	Technical Architecture	The USMC technical architecture for Logistics systems as defined by ILC. TA is also used in SRAC to describe the technical assessment work that will be done by the ILC IPT.
TOC	Total Ownership Cost	The total cost of continued development, maintenance and support for an AIS through its lifecycle including retirement.

APPENDIX B - SRAC Glossary

Acronym	Description
Acquisition Strategy	A detailed plan for acquiring a Logistics domain solution. SRAC recommends components for an acquisition strategy but the development and execution of these strategies is beyond the scope of SRAC.
Application	Shorthand for application software. Software that is designed to support particular functional work. Consists of AIS software plus potential software from other sources (e.g. COTS)
Application Evaluation	The evaluation of data obtained in categorization of AISs/applications and subsequent scoring for comparison purposes. Domain teams perform functional evaluation and the SRAC Core Team performs technical evaluation of applications.
Application Technology Rating	A numerical score calculated by examining the technology components of the application system.
Applications Scorecard	A visual representation of the overall score for a SRAC high-value application and all of the score's components.
Categorization	Collection of data associated with SRAC AISs/Applications and domains according to pre-defined data fields contained in SRAC data collection worksheets. Categorization is performed by domain teams.
CSSE Advocacy Board	The Combat Support Services Element Advocacy Board is the senior decision-making body for USMC logistics decisions and the final authority for approval of major SRAC recommendations.
Domain Functional Score	The AIS overall functional score for a particular domain.
Domain Portals	Meeting places on the Web where domain teams will collect data and do their SRAC work.
Domain Solution	The integrated collection of application systems and reference databases that optimally supports the operation of a Logistics domain including required links to applications and data sources/sinks outside the domain.
Domain Solution Scenario	A specific instantiation of an alternative domain solution that picks specific application systems as part of the solution.
Domain Teams	Teams of subject matter experts on the functional operation of, and applications used in, individual logistics domains.
Evaluation	SRAC evaluation consists of categorization plus scoring. Categorization is performed by the SRAC domain teams. Scoring is performed by the SRAC Core Team based on categorization data.
Functional Domains	Collections of functions and constituent tasks within a prescribed boundary
Gap-filling Score	The score that measures an application's ability to fill gaps in coverage of Logistics functions.
High-Value AISs	AISs that have been judged in SRAC to be essential for the efficient performance of USMC Logistics.
Integration Capability	A pictorial and narrative description of the current interface information for migration systems for a domain.
Logistics	Logistics with a "Big L". Includes all supporting functions such as services, engineering and acquisition support as defined by MCWP 4-1.
Low-Value AISs	AISs that have been judged in SRAC to have low usage and functional coverage and whose functionality may be supplied by alternative AISs/applications..
Migration Diagram	A visual map showing the existing AISs in a Logistics domain and how they are planned to migrate to a set of migration systems over a five-year time frame.
Migration Strategy	A narrative description of how legacy AISs for a domain will migrate to

	migration systems.
Migration Systems	Those high-value AISs that are planned for active use in 2004. Migration systems can be existing AISs that will continue to be supported/modified or new applications introduced before 2004.
No-Value AISs	AISs that have been judged in SRAC to have no-users, no support, or are unsupported.
Overall Functional Score	The score that measures an application's relative ability to support all the functions of USMC Logistics.
Overlap Score	The score that measures an application's ability to provide functional support in identified areas of functional overlap between applications.
Retired	The state of an AIS which has been recommended for retirement by SRAC, planned for and announced for retirement according to the policy and procedures outlined in DoD 5000.1.
Score	A numerical value given to a SRAC categorization criteria for a particular application or domain scenario that enables comparisons across potential applications and domain solutions.
Software Architecture	A classification of AISs based on the distribution of software components across networks and distributed hardware platforms.
SRAC Core Team	The team responsible for evaluating the categorization of AIS, migration and integration strategies and making SRAC recommendations to the ILC IPT.
Supportable	AISs that have been judged to be capable of being supported now and in the foreseeable future. Unsupported AISs contain obsolete and/or retired technologies and/or programming languages.
Supported	AISs that have designated/funded support groups that are currently in operation and supplying adequate support.
Total Functional Score	The AIS functional score across all USMC functional domains. This score is calculated by the SRAC Core Team for AISs supporting multiple domains.
Used	AISs that have registered users that are actively using the software in performing their work.
Users	The number of individuals actively accessing an AIS or the number of licensed users.
Weighting	Applying weighting factors to individual criteria or criteria category scores to indicate their relative importance in an overall application score.

APPENDIX C - SRAC Functional Domains

SRAC Phases 2 and 3 will be applied to AISs by functional domain as listed below in the priority order of SRAC execution:

1. Transportation
2. Supply
3. Maintenance
4. Health Services
5. Engineering
6. Acquisition

General services applications (i.e. finance, human resources, legal, etc.) will be considered in terms of the support which they supply to these 6 logistics functional domains.

The scope of the functional domains is defined in MCWP 4-1 and repeated here for clarification.

C-1 Transportation

Transportation and distribution consists of moving containers, supply items, materials and people from one location to another using highways, railroads, waterways, pipelines, oceans or air. For a MAGTF, this function includes that support needed to put sustainability assets personnel and materiel) in the correct location at the proper time in order to start and maintain operations.

The transportation and distribution system that supports an expeditionary MAGTF not only includes the means of transportation but also the methods to control and manage those transportation means.

The functions within the Transportation and Distribution functional domain include:

- Embarkation
- Landing support
- Motor transport
- Port and terminal operations
- Air delivery
- Material handling equipment
- Freight or passenger transportation

C-2 Supply

Supply is separated into ten general classes based on physical characteristics or purpose of supply items as defined in Table B-1.

Table C-1: Classes of Supply

Class of Supply	Description
I	Subsistence which includes gratuitous health and welfare items and rations.
II	Clothing, individual equipment, tentage, organizational tool sets and tool kits, hand tools, administrative and housekeeping supplies, and equipment.
III	Petroleum, oils, and lubricants (POL), which consist of petroleum fuels, lubricants, hydraulic and insulating oils, liquid and compressed gases, bulk chemical products, coolants, de-icing and antifreeze compounds, preservatives together with components and additives of such products, and coal.
IV	Construction, which includes all construction material, installed equipment, and all fortification, barrier, and bridging materials.
V	Ammunition of all types, which includes, but is not limited to, chemical, radiological, special weapons, bombs, explosives, mines, detonators, pyrotechnics, missiles, rockets, propellants, and fuzes.
VI	Personal demand items or nonmilitary sales items.
VII	Major end items, which are the combination of end products assembled and configured in their intended form and ready for use (e.g. launchers, tanks, mobile machine shops, vehicles, etc.).
VIII	Medical/dental material that includes medical-unique repair parts, blood and blood products, and medical and dental material.
IX	Repair parts (less Class VIII), including components, kits, assemblies, and subassemblies (reparable and nonreparable), required for maintenance support of all equipment.
X	Material to support nonmilitary requirements and programs that are not included in Classes I through IX. For example, materials needed for agricultural and economic development.

In ILC, the classes of supply are mapped into four quadrants as shown in Table B-2.

**Table C-2
USMC ILC Quadrant Model**

High ↑ UNIQUENESS/RISK ↓ Low	<u>Bottleneck</u> One or more restricted sources Few options Low volume Low market capacity Low value	<u>Critical</u> Few selected sources Few options Low volume Low market capacity High value
	<u>Routine</u> Many sources Many options High volume Large market capacity Low value	<u>Leveraged</u> Many sources Many options High volume Large market capacity High value
	Low ← VALUE → High	

The quadrants determine the business rules and processes that are used to handle supply items in the supply chain. Supply items are classified for each type of Marines Corps mission by their characteristics as shown in Table B-2.

The functions of the supply domain are –

- Requirements determination (routine, pre-planned, or long range)
- Procurement
- Distribution
- Disposal
- Storage
- Salvage

C-3 Maintenance

Maintenance includes those actions taken to retain or restore materiel to serviceable condition. The Marines Corps has developed distinct applications for the support of ground-common and aviation-unique equipment.

The maintenance domain consists of the following functions:

- Inspection and classification
- Servicing, adjusting, and tuning
- Testing and calibration
- Repair

- Modification
- Rebuilding and overhaul
- Reclamation
- Recovery and evacuation

There are three levels of maintenance; Organizational, Intermediate and Depot. Within ground equipment maintenance, the maintenance levels are further divided into five echelons. The location of echelons of maintenance may be changed by ILC to enable the objectives of industrial best practices for maintenance.

C-4 Health Services

Health Services involves a proactive and preventive medical program and a phased/leveled health care system that extends from actions taken at the point of wounding, injury or illness through evacuation to a medical treatment facility that provides more definitive treatment.

The functions of the health services domain are –

- Health maintenance – routine sick call, physical examination, preventive medicine, dental maintenance, record maintenance and report submission.
- Casualty collection – selection of and manning locations where casualties are assembled, triaged, treated, protected from further injury and evacuated.
- Casualty treatment – triage and treatment (self-aid, buddy aid, and initial resuscitative care)
- Temporary casualty holding – facilities and services to hold sick, wounded and injured personnel for a limited time (usually not to exceed 72 hours).
- Casualty evacuation – movement and on-going treatment of the sick, wounded or injured while in transit to medical treatment facilities by ground, sea or air.

C-5 Engineering

The engineering functional domain involves a wide range of tasks performed in the rear area that serve to sustain forward combat operations. Engineering includes the following functions:

- Engineer reconnaissance
- Horizontal and vertical construction
- Facility maintenance
- Demolition and obstacle removal
- Explosive ordinance removal

C-6 Acquisition

This functional domain includes actions necessary to introduce weapon systems, equipment and AISs to the Marines Corps inventory. The acquisition domain contains the following functions:

- Generate Marines Corps Program Decision Memorandum (Uses a Mission Needs Statement to assign a Program Manager, conduct an Analysis of Alternatives and establish an Integrated Product Team. These actions are documented in the MCPDM or an APB for a logistics AIS.)
- Demonstrate/Validate System (Prototypes, demonstrations, and early operational assessments are considered to manage risk. Technology, manufacturing, support, lifecycle cost, tradeoffs, interoperability and acquisition strategy are considered to select the best prototype which becomes the engineering basic design.
- Develop System (The product and manufacturing process is designed, logistics support is developed and the engineering prototype is tested)
- Deploy system (This includes producing the system, issuing the system, issuing initial spares for hardware, and issuing initial publications.)

C-7 General Services

This functional domain includes a variety of non-materiel and support activities. These activities are executed in varying degrees by each of the military Services, the Marine Corps supporting establishment, and the MAGTF.

For example, within the Marine expeditionary Force (MEF), the FSSG provides the following services:

- Disbursing
- Postal
- Legal
- Security support
- Exchange
- Civil affairs
- Graves registration

APPENDIX D – AIS Lists and AIS Mapping to SRAC Deliverables

AIS lists contain important reference information for the SRAC program maintained over time as Excel spreadsheets. The latest versions of these lists are published on the SRAC teamrooms (see section ----). There are two types of SRAC AIS lists; the Composite (or Master) AIS list and the domain AIS lists.

The Composite (or Master) SRAC AIS List contains the following information:

- AIS owner organization name
- AIS acronym
- AIS name
- AIS mapping to domains
- AIS domain count
- AIS status
- Number of AIS users
- USMC POC contact info
- Domain POCs contact info
- Comments regarding AIS

The Composite AIS List performs a historical tracing function for the SRAC program. As information is gathered and status changes occur for AISs, this information is recorded on the list.

Six domain AIS lists are extracted from the composite list. These contain only the domain-specific information from the composite list.

Domain mapping codes in the AIS lists are X and P. X indicates that an AIS is used in a domain. P indicates that the AIS is used in the domain and the domain has primary responsibility for the AIS. Primary responsibility includes responsibility for collecting all domain-independent categorization data for the AIS (e.g., general, TOC, technology and documentation data). The AIS domain count is the number of domains in which each AIS is used.

AIS Status codes include:

- A= Active & direct – application software that directly supports logistics functions within the SRAC scope.
- I = Indirect – application software that supports functions which are outside the SRAC scope (i.e., finance, manpower, weapons systems development, etc.).

- D = Data – a reference database such as FEDLOG or application software whose only function is data access from a reference database or other application software.
- U = Unused – Not currently used by the Marine Corps.
- R = Retired – Previously retired or designated for retirement by an official SRAC recommendation.
- Q = Unknown status – this is a temporary status assigned to new AISs to the AIS lists until the proper status can be assigned.

In addition to the AIS lists and other program documentation, the SRAC program produces the following deliverables:

- Functional decompositions and definitions for each logistics domain based on the “as-is” business process.
- Functional mapping to determine business activities and tasks supported by each AIS.
- AIS categorization data – this includes general, usage, technology, cost, provider evaluation and functional mapping and evaluation data. All AIS categorization data is stored in the SRAC Reference Database.
- AIS scores – this includes functional coverage and score, value, technology, provider support, overall and cost effectiveness scores. All AIS categorization data is stored in the SRAC Reference Database.
- Mapping of ILC “to-be” Operational Architecture functions to the as-is functional breakdowns developed in SRAC.
- Migration diagrams and strategies for legacy systems used in each logistics domain.
- Functional overlap analyses for AISs in each domain.
- Gap analyses for each domain indicating activities and tasks not served by AISs and reasons for the gaps.
- Integration capability diagrams for migration systems that are recommended for retention as part of the GCSS-MC.
- Analysis of critical interfacing problems for cross-domain integration.

- Recommendations for AIS disposition based on all of the above deliverables.

These deliverables are all accessible through either the SRAC team rooms or the SRAC Data Repository.

The following discussion describes how various AISs participate in the SRAC deliverables:

“A” status AISs receive a full spectrum analysis in SRAC. They are categorized and scored on the basis of functionality, provider support, technology, cost and documentation. They also are analyzed for functional overlap with other AISs.

“D” status AISs are categorized and scored based on technology and documentation only. Overall AIS scores are not calculated and these AISs do not appear in the AIS score summaries for a domain. They may appear in domain or cross-domain integration capability diagrams but are not the subject of overlap or gap analysis.

“I” status AISs are not categorized and scored in SRAC. They do not appear in any domain analyses, but may appear in cross-domain integration capability diagrams if important in illustrating cross-domain integration problems.

Only “A” status AISs participate in domain migration strategies (see SRAC Phase 3, Part 3)

U, R and Q status AISs do not participate in SRAC scoring and analysis. They are retained in the SRAC Composite List for historical and reference purposes only.

Table D-1 summarizes the participation of AISs of various status in SRAC deliverables:

Table D-1
AIS - SRAC Deliverable Relationships

AIS Status SRAC Deliverable	A (Active & Direct)	D (Data)	I (Indirect)	U(Unused) R(Retired) Q(Questionable)
As-is Funct. Map	Y			
As-is Funct. Eval.	Y			
Functional Scoring	Y			
Provider Categ.	Y			
Provider Scoring	Y			
Tech. Categorization	Y	Y		
Tech. Scoring	Y	Y		
Doc. Categorization	Y	Y		
Overall AIS Scoring	Y			
TOC Categorization	Y			
Cost Effect. Scoring	Y			
Migration Strategy	Y			
Overlap Analysis	Y			
Gap Analysis	Y			
Domain Integ. Capability	Y	Optional		
ILC OA Mapping	Y			
Cross-domain Integ. Capability		Optional	Optional	

APPENDIX E - Evaluating Alternative COTS Vendors

In some cases, where multiple COTS software packages appear as alternative solutions, the information below may be used to score and evaluate alternative vendors.^{E-1} This evaluation would be in addition to AIS evaluations based on functional coverage, cost effectiveness, technical capability and vendor support and documentation. This may require surveying commercial users of COTS packages as well as the vendor.

SRAC COTS Vendor Viability Worksheet

The SRAC COTS vendor worksheet is used to assess a COTS vendor's business success, stability and viability in its primary commercial markets. It is the responsibility of the primary domain team to get this worksheet filled out for high value COTS applications evaluated in the SRAC process.

The worksheet used to categorize and evaluate COTS vendors is shown below:

^{E-1} This Appendix was added to the SRAC Guide at the beginning of the development of the SRAC process. It was then decided that evaluation of new COTS AISs would not be included in the scope of SRAC and that analysis of legacy COTS AISs would be given the same treatment as GOTS, USMC, Joint and other Service-owned systems in the LOG IR portfolio (i.e. no viability analysis of the AIS suppliers would be performed).

The approach discussed here should be revisited and modified if SRAC were to be used to perform viability analysis for potential COTS vendors. In that case, key performance indicators (KPIs) should be reexamined, business profit measures added and KPIs designed to measure vendor performance relative to the average market performance of the COTS market segment be considered.

It has also been suggested that since COTS vendor analysis is a complicated and specialized activity usually performed by market research firms, SRAC viability analysis should be limited to a relatively small number of KPIs whose purpose would be to flag potential problems with vendor viability. These situations would then be discussed with the consulting arm of an appropriate market research firm to determine vendor viability and program risk.

SRAC COTS Vendor Worksheet

Vendor = _____ COTS Application(s) = _____

Vendor Longevity = _____ years Application Longevity = _____ years

Calendar Year	Software Revenues	Revenue Per Employee	Revenue Growth (%)	Market Share	R&D Intensity	New Product Cycle Time
1997						
1998						
1999						
2000						
2001						

Geographic Coverage (% software revenues per geographic segments)

Calendar Year	North America	Latin America	Europe	Mid-East/Africa	Asia/Pacific	ROW
1997						
1998						
1999						
2000						
2001						

Customer Portfolio (% software revenues by industry segment)

Calendar Year	Comm. Segment 1	Comm Segment 2	Comm Segment 3	Gov't	Education	Other
1997						
1998						
1999						
2000						
2001						

Total number of production users = _____

Essay Questions – Future Business Model and Strategy

Describe the vendor's future business and channel strategies. On which applications will the company focus? In what geographies? Through what business models, channels and types of partners?

Below are definitions of terms used in the SRAC COTS Vendor Worksheet.

Software revenues- The sum of revenues for application software licenses and maintenance fees collected by the vendor, resellers and distributors in a calendar year

Revenues per employee- The vendor's total revenues divided by the number of employees at the end of the same calendar year

Revenue Growth- The difference between the current and last year's software revenues divided by last year's revenues expressed as a percentage

Market share- The vendor's software revenues for this application divided by the total software revenues of the market segment in which the application participates.

R&D Intensity- The amount spent on software research and development divided by the software revenues for the same year.

New Product Cycle Time- the average number of months between major new releases of the application.

Geographic Coverage- The geographic regions in which the vendor has existing sales and support resources (may be supplied by VARS or distributors)

ROW- rest of world

Commercial industry segments- Clusters of industries (discrete manufacturing, process manufacturing, financial services, retail businesses, etc.) that apply to the vendors business

In some cases, where the large vendors have software in multiple segments it will be necessary to fractionate the software revenues from annual reports to look at trends in software revenues in market segments related to the COTS application under consideration as well as to look at the total software revenue picture. The splits over time will indicate the combined strategic thrust/sales effectiveness of the vendor in various software markets.

If the vendor has a large professional services (software customization/consulting) organization the trends in the split between professional services and software revenues will also be important in understanding the vendor's commitment to the two business models. If the Marine Corps should elect to contract professional services directly from the COTS software vendor rather than a system integrator, a similar analysis of the business trends in the professional services side of the business would be important.

The essay questions at the end of the worksheet allow the Marine Corps to assess the strategy and business model of the vendor going forward to see if this is consistent with

USMC strategy for logistics systems, AIS requirements, acquisition strategy and geographic requirements for support.

Below are the definitions for the above worksheet.