

2002 Award Submission for Supply Chain Operational Excellence

The Strategic Distribution Management Initiative

Executive Summary

The Strategic Distribution Management Initiative (SDMI) is a partnership between the Defense Logistics Agency (DLA) and the United States Transportation Command (USTC) whose purpose is to optimize Department of the Defense's (DOD) global distribution/supply chain management system. Key to this optimization is SDMI's focus on three vital concepts: **Stock Positioning**, **Scheduled Service**, and **Synchronization**. The results to date have been a dramatic and quantifiable improvement evident to our customers, and a base lining of current DOD performance against leading private sector supply systems.

Stock positioning is the foundation for many process improvements in SDMI. DLA's Defense Distribution Center (DDC) repositioned 28,000 of its 80,000 highest demand items to its East and West Coast Strategic Distribution Centers. In doing so, facing fill increased from 54% to 62%. The end result was improved customer wait time (CWT), such as the reduction in CWT for Navy depot-level reparable by 9 days with the reposition of stock from San Diego to the Defense Depot San Joaquin CA.

The Military Traffic Management Command transferred the workload at four Container Freight Stations (CFS) to the DDC depots and realized over a \$10M cost avoidance. This coupled with **scheduled** transportation **service**, resulted in a worldwide CWT reduction of 5% (49 to 46 days) for surface shipments. Similar work to synchronize processes for air shipments by Air Mobility Command resulted in a reduction in overseas CWT by 20% (16 to 13 days).

Partnerships were established that permit shippers to book directly with ocean carriers. This reduced booking time from 29 hours to 10 minutes, and together with **synchronization** processes (e. g., the "floor sweep" program to move shipments from the depot-to-port-to-ship in time to meet the next vessel sailing) reduced CWT by 7-10 days.

All of these efforts combined have made noticeable improvements within various theaters: specifically CWT to Task Force Eagle in Bosnia has been reduced by 37%, down from 15 days to 9 days; CWT to Korea is down 16%; CWT to northern Europe is down 13%; and CWT to Japan is down 26%.

Operation ENDURING FREEDOM enabled the deployment and distribution community to execute SDMI processes in both peace and war. Despite competing demands, consistent distribution performance remained exceptionally high even as cargo volume to Europe and Southwest Asia increased and organic aircraft were pulled away to support the deployment of forces. Scheduled and synchronized service with Air Mobility Command's commercial augmentation contracts provided uninterrupted service during the transition from peace to war and continues to do so in support of the Global War on Terrorism. The significant improvements in the defense distribution systems that SDMI facilitated and the potential cost savings are driving revolutionary change within the DOD as this initiative is expanded to all of our customers.

Section 1 General Information and Project Complexity

- (1) **Provide the name of the submitting organization (corporation, service, etc.).**

United States Transportation Command (USTRANSCOM) and the Defense Logistics Agency (DLA), strategic partners in the Strategic Distribution Management Initiative (SDMI)

- (2) **Identify the organizational unit responding (site, function, etc.).**

USTRANSCOM's Director of Operations and Logistics (TCJ3/J4), and the Commanding General, Defense Distribution Center (DDC), SDMI co-chairs.

- (3) **Provide a brief mission description of the overall business objective, product lines, and mission of the organization.**

The overarching **goal** of SDMI is improved end-to-end distribution to sustain warfighting units. The three key targets for success are proper **Stock Positioning**, reliable **Scheduled Service**, and **Synchronization**. SDMI seeks to analyze DOD's global distribution, transportation, and supply chain management system; redesign and implement optimized processes, and provide change recommendations germane to DOD/Service policies necessary to provide the best possible support to our customers. Our focus is on improving distribution services and processes in peacetime while retaining the ability to meet the mission needs of Unified Commands in war.

Following are **overall objectives** to be accomplished in the pursuit of achieving our goal:

- *Analysis/optimization of strategic linkages with intra-theater distribution processes to facilitate an integrated supply chain management process.*
- *A comprehensive analysis of strategic distribution requirements and capacity across the full spectrum of military operations. Actions and supporting tasks required of this objective require:*
 - Identification of policy, procedure, and process impediments to optimal distribution chain performance.
 - Identification and improvement of processes in the strategic transportation and distribution system to reduce **Customer Wait Time** and ensure reliable **Time Definite Deliveries**
 - Development and implementation of a capability to ensure "**predictive delivery**" in the supply chain process.
 - **Integration of vendor and contractor shipments** into the defense global distribution system--peace and war.

- *Coordination with Services and recommendation of policy change initiatives to the Joint Staff and OSD.*

(4) Indicate the award category of submission. (Operations, Academic, Technology--winners in these categories will automatically advance to Global.)

Award for Supply Chain Operational Excellence

(5) Provide a brief description of the supply chain and the processes the submission spans (e.g., Plan, Source, Make, Deliver, Return).

The overall vision for the SDMI is to produce:

“An optimized global system providing responsive, reliable, end-to-end distribution service to our customer--both peacetime and wartime.”

The bottom line of the SDMI mission is about change management...change the way end-to-end distribution processes occur between the Services, USTRANSCOM, DLA, vendors, and customers. SDMI embraces most portions of the SCOR spectrum: The SDMI partners generated a coherent Plan, the DLA partner worked Sourcing and Making, and USTRANSCOM joined DLA to improve the Deliver process while conducted early work to examine Return. In the year 2000 the SDMI examined the DOD’s current and emerging strategic distribution (Supply Chain) processes, identified operations that could be improved or eliminated, and recommended policy changes through the Services to OSD/Joint Staff. In 2001, a more mature SDMI focused on streamlining distribution processes and improving service. “Improving service,” means increasing visibility, capacity, and control of the system by improving velocity and accuracy of cargo moving within the distribution system.

The scope of the SDMI effort in early 2001 initially included only those components of the distribution system under the immediate control and influence of the two strategic partners, DLA and USTRANSCOM. The initial analytical focus was on process activities beginning with material requisition ending at receipt of the transported material to a retail site, either in CONUS or at a theater equivalent site. By the end of 2001, the SDMI moved farther down the supply chain process by partnering with regional theater commands to synchronize theater distribution efforts in reaching the final users. The theater warfighting customers gained significant benefit through SDMI processes in 2001, with end-to-end process improvement efforts continuing into 2002.

Figures 1-1 and 1-2 below, illustrate the scope of SDMI’s vision for DOD supply chain distribution, to include a close partnership and synchronization with overseas theater distribution chains. The vision is to streamline multiple and redundant distribution systems into an integrated, global defense distribution system.

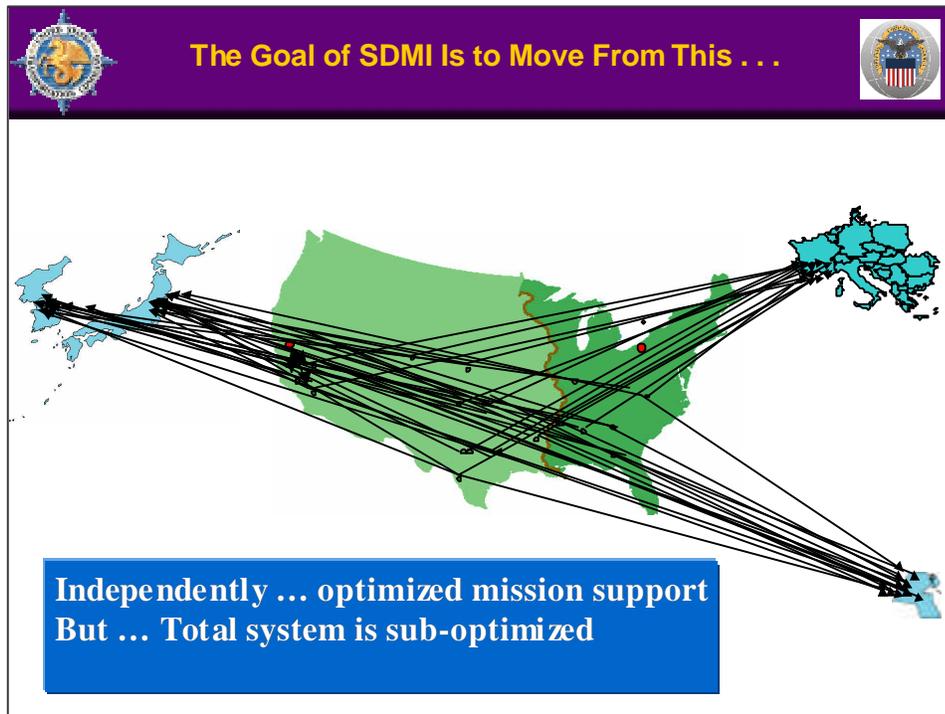


Figure 1-1. Multiple Distribution Systems—Before SDMI

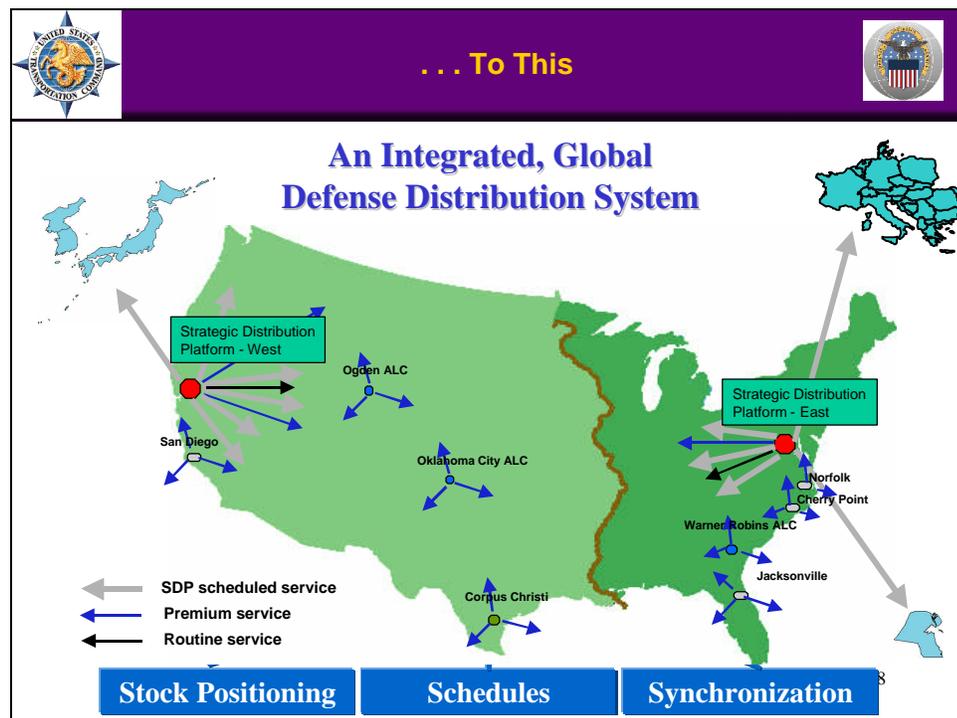


Figure 1-2. Rationally Constructed Distribution Networks—After SDMI

- (6) Provide the names of the supply chain partner organizations (external) involved in the project. Indicate the number of people involved from each partner organization and the functional category of each.

Figure 1-3 outlines the primary SDMI organization, both internal and external, as of the end of 2001.

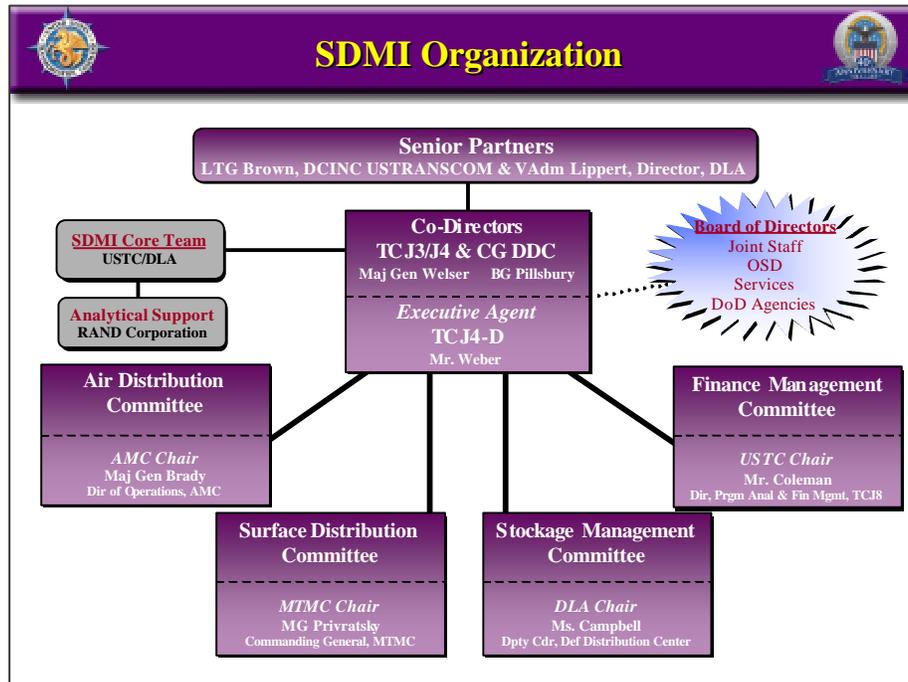


Figure 1-3. SDMI Organizational Structure

The global nature of the SDMI requires many external supply chain partners. The primary means of involving dozens of external supply chain partners and customers is through the SDMI interagency Board of Directors (BOD), ensuring key players across the DOD are involved in SDMI processes and decisions. The BOD represents literally hundreds of logistics/supply chain partners and customers. Flag-level positions from DOD organizations that comprise the SDMI BOD are as follows:

Board of Directors Co-Chairs:

**Director of Operations and Logistics, United States Transportation Command (USTRANSCOM), TCJ3/J4
Commander, Defense Distribution Center (DDC)**

Committee Chairs:

Commander, Military Traffic Management Command (MTMC) – Surface Distribution Committee

**Director of Operations, Air Mobility Command (AMC) - Air Distribution Committee
Deputy Commander, Defense Distribution Center (DDC) - Stockage Management Committee**

**Director of Program Analysis and Financial Management, USTRANSCOM/TCJ8 –
Financial Management Committee**

Executive Agent:

Deputy Director for Logistics and Business Operations, USTRANSCOM, TCJ4-D

Board Members:

Assistant Deputy Under Secretary of Defense for Transportation Policy, ADUSD(TP)

**Assistant Deputy Under Secretary of Defense for Supply Chain Integration,
ADUSD(SCI)**

Vice Director for Logistics, J-4, The Joint Staff

**Associate Director for Sustainment, Deputy Chief of Staff for Logistics,
HQ U.S. Army, DA DCSLOG/SM**

**Director for Force Projection and Distribution, Deputy Chief of Staff for Logistics,
HQ U.S. Army, DA DCSLOG/FP**

**Director for Supply, Ordnance and Logistics Operations, Office of the Chief of Naval
Operations, HQ U.S. Navy, N41**

**Vice Commander, Naval Supply Systems Command (NAVSUP), HQ U.S. Navy
Assistant Deputy Commandant, Logistics Plans, Policies, and Strategic Mobility
Division, HQ Marine Corps, CMC(LP)**

**Director of Supply, Deputy Chief of Staff for Installations and Logistics, HQ U.S.
Air Force, USAF/ILS**

**Director of Transportation, Deputy Chief of Staff for Installations and Logistics,
HQ U.S. Air Force, USAF/ILT**

Commander, Tanker Airlift Control Center, HQ Air Mobility Command, TACC/CC

**Principal Deputy Director of Operations for Transportation, HQ Air Mobility
Command, AMC/DDO**

**Deputy to the Commander, Military Traffic Management Command,
MTMC/MTDTC**

**Deputy to the Commander, U.S. Army Combined Arms Support Command
(CASCOM), CASCOM/DCG**

**Assistant Commissioner of the Office of Supply, Federal Supply Service, U.S. General
Services Administration (GSA)**

Senior Vice President, Army and Air Force Exchange Service (AAFES) Logistics

Other external partner organizations especially important to SDMI field tests during 2001 were the service components and logistics staffs of the United States European Command (USEUCOM) and United States Central Command (USCENTCOM). Dozens of supply and transportation leaders were involved with SDMI processes in each theater.

(7) Provide the names of the functional organizations (internal) involved in the project and indicate the number of people involved from each functional organization and the functional category of each.

The SDMI internal organization consists of the following organizations and support functions:

- Two Senior Partners and two Co-Directors represent joint senior leadership from USTRANSCOM's transportation and DLA's supply functional areas.
- The SDMI Core Team is led by the SDMI Executive Agent, a senior logistician. The joint Core Team of 13 members from USTRANSCOM and DLA, with contractor support from the Joint Transportation CIM Center and RAND Corporation.
- Overall analytical support to SDMI is provided by a RAND Corporation team of five experts from RAND's Military Logistics Program
- As described by the diagram above, the four SDMI committees are functionally aligned with flag-level chairs from each of the key SDMI organizations. Each committee sends representatives to all other committee sessions and all committees represent a cross section of DLA, USTRANSCOM, the Services, and DOD agency functional expertise tailored to the specific committee task. RAND assigns an analytical expert to each committee.
- The Finance Committee provides a unique support role to all committees and to the SDMI leadership, providing DOD financial expertise in streamlining complex billing and capital fund processes across the entire distribution chain.
- There are routinely between 15 and 20 members assigned to each committee.

(8) Provide a point of contact for each supply chain partner (name, mailing address, commercial telephone number, DSN, and e-mail address).

The USTRANSCOM and DLA SDMI Senior Partners are represented by:

Lt Col Tye Beasley
USTRANSCOM TCJ4-SD
508 Scott Drive
Scott AFB, IL 62225
(618) 229-1829 DSN 779-1829
tye.beasley@hq.transcom.mil

Mr. Charlie Nye
Defense Distribution Center DDC/J5
New Cumberland PA 17070
(717) 770-4114 DSN 977-4114
cnye@ddc.dla.mil

Implementation

- (1) Describe the reason that the supply chain initiative was undertaken and how it was selected.

In early 2000, the leadership of USTRANSCOM and DLA recognized the need to forge a strategic partnership for the 21st century. They stated:

“We consider the Strategic Distribution Management Initiative to be the most important logistics partnership in this first decade of the 21st Century. The defense distribution and transportation business requires more change the next ten years than it has seen in the last thirty. Department of Defense customers have come to expect new levels of improved distribution service.”

They then tasked their organizations to come together in the SDMI to build and provide these improvements via enhanced logistics processes, technology, and better business practices.

The SDMI was established because no single organization is tasked with measuring overall effectiveness, design or optimization of the DOD global distribution/transportation/ supply chain management system for the world’s largest logistics function, an \$80B annual program for the DOD. The DOD logistics community was in the midst of dynamic change as the Office of the Secretary of Defense for Logistics, and the Services recognized the need to transform the 20th century cumbersome supply and transportation processes into a ready, reliable, and effective global defense system. The environment was characterized by:

- (1) Multiple, service-centric distribution systems with varying performance
- (2) Unique, uncoordinated stocking policies
- (3) Expensive, irrational transportation networks relying on premium transportation service
- (4) The warfighting customers demanding time definite delivery standards comparable with commercial service.
- (5) The warfighting customers requiring timely, reliable asset visibility comparable to the commercial sector.
- (6) Diminishing DOD business base as customers sought and found alternative sources and methods of supply to reduce customer wait time.
- (7) Diminishing readiness of the Defense Transportation System (DTS), organic capabilities, Civil Reserve Air Fleet, Voluntary Intermodal Sealift Agreement partners as the warfighting customers moved to other transportation providers to gain time definite delivery.

Why a joint effort between USTRANSCOM and DLA? It was clear that neither Supply nor Transportation could improve the distribution pipeline alone. We needed to work together! Figure 2-1 illustrates separate supply and transportation segments in the distribution of materiel and represents the challenge and reason for teaming in the SDMI effort.

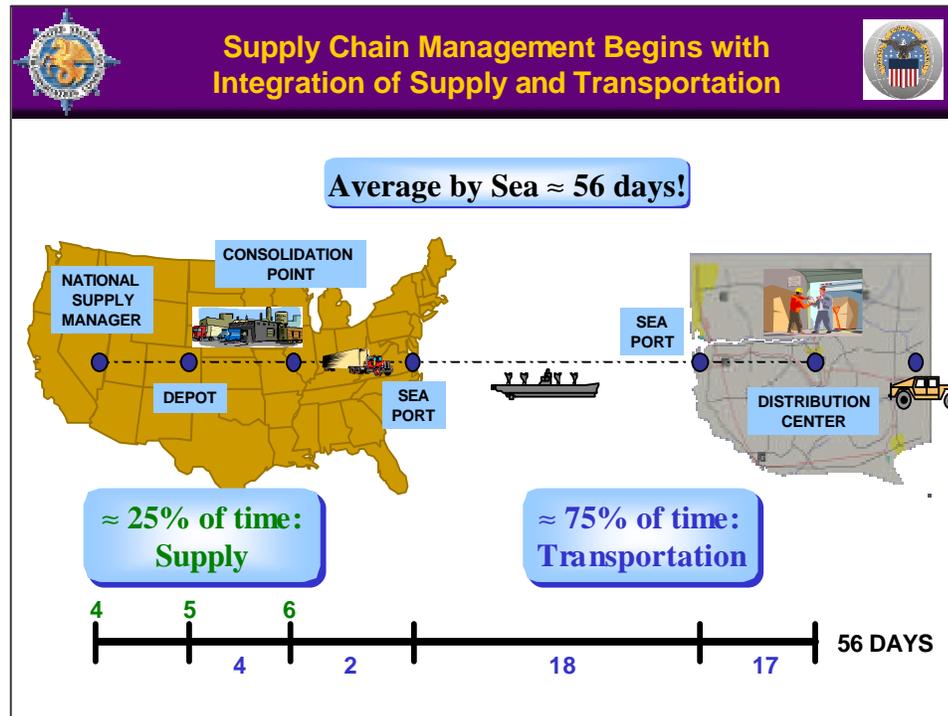


Figure 2-1. Supply and Transportation from the Distribution Chain

(2) Indicate the duration of the project. Note if the project was a pilot

that is being rolled out. Note if the project is ongoing/still in process.

The SDMI is an ongoing evolutionary process. Initial discussions and planning commenced in July 2000. Much of the remainder of the year was spent identifying the stakeholders, gaining OSD concurrence and guidance, formalizing partnerships, establishment of a Core Team to coordinate activities, gaining support/buy-in from the Services, and developing and publishing the Project Guidance and Management Plan. Efforts continued with the establishment of the Stockage, Air, and Surface Committees, and acquiring RAND support. SDMI efforts are designed to affect permanent change in end-to-end distribution.

SDMI's significance and value resulted in its identification as Strategic Issue 1.2, Distribution Management, in the USTRANSCOM Strategic Plan. Inclusion in the Strategic Plan reflects the continuing effort of SDMI through FY07.

- (3) Describe, in detail, the process used to complete the initiative.

The SDMI used the successful analytical methodology employed by organizations such as RAND and the US Army Velocity Management team. This method is termed “Define, Measure, Improve (DMI).” Succinctly stated, the DMI steps are:

- (1) Define the Process: Determine Current Processes and Issues
 - a. Determine customers, inputs, outputs, value-added
 - b. Use walk-through to achieve common understanding
- (2) Measure Current Performance: Use Metrics to Determine Baseline Performance
 - a. Define metrics and identify data
 - b. Determine baseline performance
 - c. Diagnose performance drivers
 - d. Provide reports and feedback
- (3) Improve the Process:
 - a. Establish Goals/Objectives
 - b. Design Improved Processes
 - c. Experiment and Measure
 - d. Implement

The SDMI Executive Agent published a detailed Project Management Plan (PMP) in late 2000 that specifically outlined the DMI expectations step-by-step in an integrated change management process. That project plan guided SDMI efforts throughout 2001.

- (4) Identify significant challenges encountered, the process for resolution, and the solutions. Identify best practices employed/developed.

Several challenges existed and some remain today. Some were anticipated and others were much more difficult than anticipated.

CHANGING EXPECTATIONS TOP TO BOTTOM

Prior to SDMI the DTS, strove to maximize efficiency by holding cargo movements in order to fill aircraft and containers. This objective resulted in unpredictable and extended movement times for cargo. Further complicating the issue was that AMC aircraft would be removed from their scheduled routes to support short notice contingency requirements. This contributed to a customer perception that the DTS was unreliable and resulted in the acquisition of alternate transportation providers.

Altering this mindset of the DTS operators and customers was perhaps the single biggest challenge associated with SDMI. Years of past practices striving to maximize utilization of aircraft and containers, the mindset of personnel in the

operations, logistics, and financial communities from top to bottom had to be re-programmed to focus on velocity. Simultaneously, customers accustomed to unreliable transportation service from the DTS were pleased with the service provided by commercial carriers and reluctant to consider shifting back to the DTS.

The SDMI partners using the DMI methodology baselined the existing processes and performance. Simultaneously, they initiated discussions with prospective warfighting customers to propose process change for perceived improvement. They identified regulatory guidance requiring modification/revision to permit internal customers to vary from established practices. Additionally, they initiated an internal and external marketing campaign extolling the virtues of the new properly stock positioned, synchronized, scheduled SDMI service.

FINDING PARTNERS

Years of unreliable performance combined with uncompetitive rates for less service presented a formidable challenge identifying a partner willing to embark on this journey. The USEUCOM, a large user of DLA and USTRANSCOM services supporting Bosnia from various European locations and a relatively mature theater distribution system, was approached. USEUCOM, keenly interested in increased velocity and reliability, was impressed with the preparation by the SDMI proposal and agreed to be a partner. SDMI, utilizing best business practices from industry, aligned with the USEUCOM customer to identify the unique requirements and tailored services to fulfill requirements and exceed expectations. Thus, in late 2000, the first improvement opportunity with the USEUCOM commenced synchronizing the arrival of cargo via truck from the Defense Depot Susquehanna PA (DDSP), at New Cumberland PA, with AMC aircraft departing from Dover AFB DE. Subsequently, SDMI used the same approach with a much more challenging and reluctant warfighting customer, USCENTCOM, to fulfill their requirements and exceed their expectations.

SHIFT FROM INDIVIDUAL SERVICE TO DOOR-TO-DOOR PROVIDER

Prior to SDMI the partner's roles largely operated within their respective functional areas. Further elements within the partner's organizations operated within their established borders. For example, the AMC provided service from the Aerial Port of Embarkation (APOE) to the Aerial Port of Debarkation (APOD). Movement of the shipment from the APOE was not scheduled until the shipment was received. Further, transportation for the movement of the shipment from the APOD was not requested until after the shipment was received at the APOD. Additionally, if the shipment was eligible for air movement within the destination theater, the shipment was held at the APOD until air transportation could be scheduled/arranged. Even if the shipment could be transported via surface transportation to its destination in a timelier manner the shipment was held awaiting air transportation.

SDMI utilized proper stock positioning, synchronized shipment release/movement with scheduled transportation, and utilized advance information about the movement to reduce customer wait time. In CY01, SDMI efforts reduced customer wait time

for worldwide surface movement by 5 percent (49.1 to 46.5 days) and customer wait time for all overseas air movement by 20 percent (15.9 to 12.7 days). Partnering with USEUCOM, SDMI provided advance inbound shipment information permitting USEUCOM to make transportation modal decisions and ordering transportation services to maintain velocity. In many cases this resulted in shipments arriving in Germany via airlift and transitioning to surface transportation for onward movement to the United Kingdom, Bosnia, and Italy. In a further demonstration of process maturation, AMC, in partnership with DLA and USEUCOM, provided funding to pay for the surface movement from DLA facilities to the APOE and from the APOD to destination. This resulted in door-to-door service and a single bill to the customer.

RESISTANCE TO CHANGE

The DOD like all large organizations resists change. The sheer size of the DOD with its agencies, services, commands and multitude of accompanying directives makes all significant changes a difficult challenge. Equally challenging is changing the perception of the SDMI customer. The keys to overcoming the challenge are tried and true: present and publicize previous successes at all levels of the organization(s); align with the customer, discuss and collect their requirements; baseline existing processes and performance; develop the improved process, develop a plan, market the plan to the customer; execute plan, measure results, and refine based on findings. Through this process SDMI has demonstrated a reliable DTS focused on velocity.

INSTITUTIONALIZING CHANGE

Documenting organizational and process changes presents a significant challenge to the DOD. SDMI has implemented numerous changes with tentacles into many DOD, service, and command processes. Capturing the incremental changes and documenting them while continuing to address real world events is difficult. This is compounded by the continuing refinement of changed processes and the continuing building block approach of SDMI. When a process improvement is tested and the results are favorable the improved process becomes the “as is” and the next step becomes the expansion to another destination. As such, the time and commitment required institutionalizing the change becomes critical to continued process improvement. The solution to this challenge is twofold: 1) inclusion of this requirement in the project guidance and project management plan, and 2) a commitment from SDMI senior leaders to institutionalize changes to date. Figure 2-2 illustrates efforts to institutionalize SDMI.

Publication	Synopsis of Change
JP 4-01 Joint Doctrine for the Defense Transportation System	Examination doctrinal guidance; propose changes to support SDMI
JP 4-01.4 Joint Tactics, Techniques, and Procedures for Joint Theater Distribution	Examination doctrinal guidance; propose changes to support SDMI
JP 4-09 Joint Doctrine for Global Distribution	Examination doctrinal guidance; propose changes to support SDMI
DOD 4140.1-R	UMMIPS Change submitted
DOD 4500.9R Pt II	Incorporate SDMI process changes into the DTR
EUCOM Directive 64-1, Transportation Policy and Management	Incorporate SDMI process changes
Joint Trans & TMO-Central Europe	Incorporate SDMI process changes
SDMI Pamphlet 1-1	Collaborative partner update of evolved process changes
USC03/04	Incorporate over ocean processes changes in new contracts
AMCI 24-101	Incorporate SDMI process changes

Figure 2-2. SDMI Institutionalization Efforts

(5) Indicate the metrics used to measure (a) progress and (b) success

The process and mechanism for measuring progress and success is clearly outlined in the SDMI PMP. The plan prescribes specific reporting procedures for all committees and includes a data collection and measurement appendix, DMI integration guidelines, and a prototype improved process test plan. From this guidance issued in late 2000, each functional committee developed key metrics and field test plans as needed. The RAND team performed primary supply chain trend analysis, data collection, and synchronization of metrics for the Executive Agent and Core Team. RAND’s metrics work emphasized measuring the impact of: **Stock Positioning, Scheduled Service, and Synchronization.** Recurring reviews and reports to the SDMI BOD ensured metrics and progress were evaluated.

There are two key performance measures for SDMI. The first is Wholesale Customer Wait Time minus (CWT(-)). CWT(-) measures the time from the date a customer places an order for an item to the time the item is received by the supply activity. This is depicted in Figure 2-3.

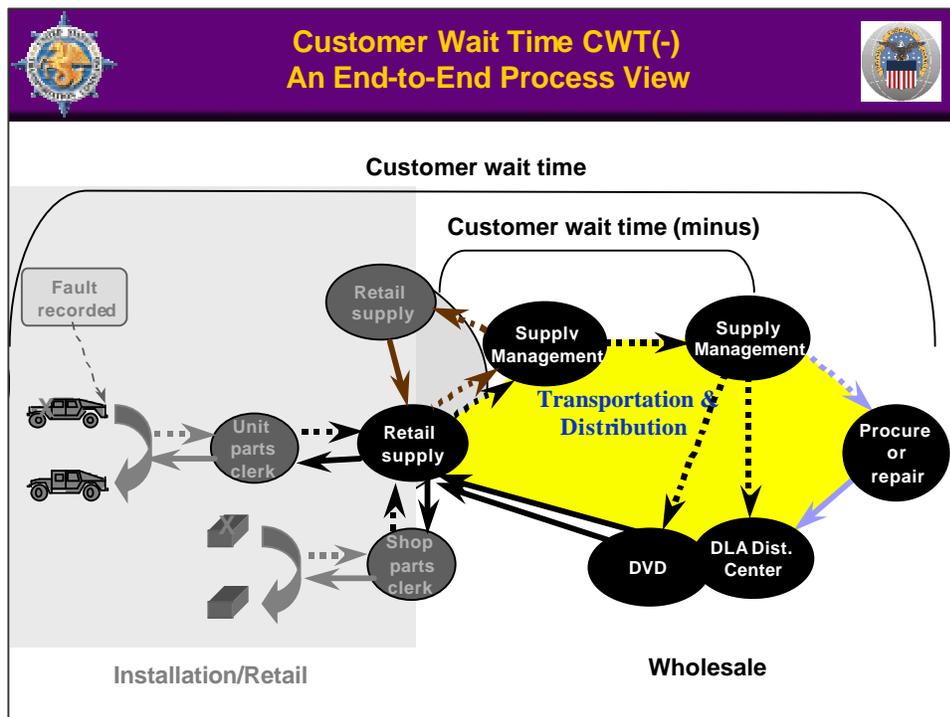


Figure 2-3. CWT(-)

The process measured by CWT(-) is further broken down into segments defined by specific time stamps that are captured by existing government standard automation systems and leave no time interval unaccounted for from beginning to end. These segments are defined in Figure 2-4.

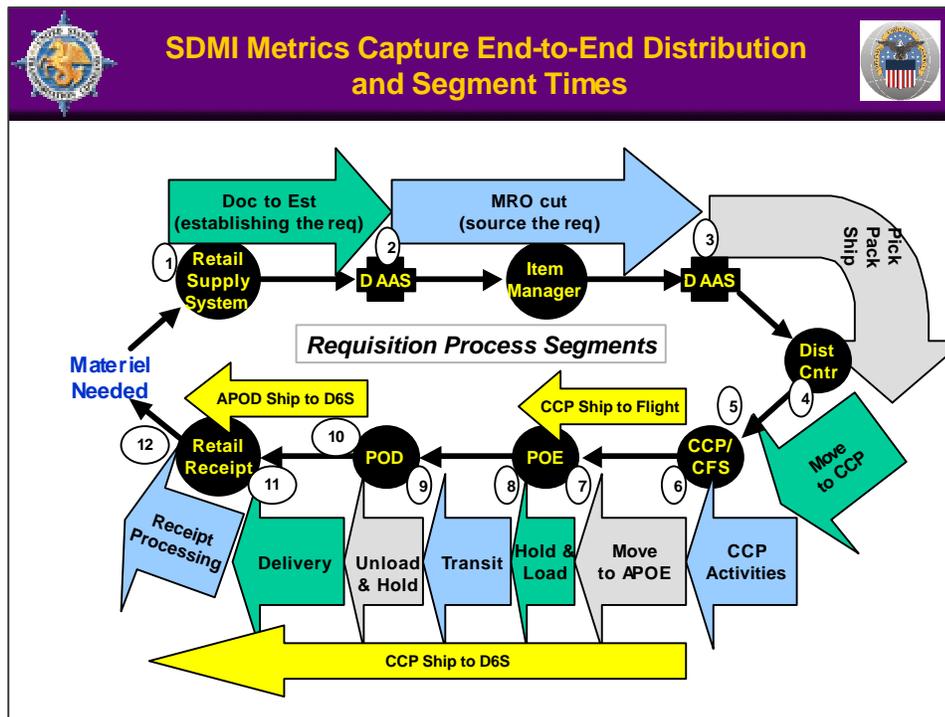


Figure 2-4. CWT (-) Segments

To measure time definite delivery, or reliability, CWT(-) metrics are presented based on the 50th, 75th, and 95th percentile which captures variability in the processes, as shown in Figure 2-5. To improve reliability in the DTS, SDMI strives to reduce the 95th and 75th percentile.

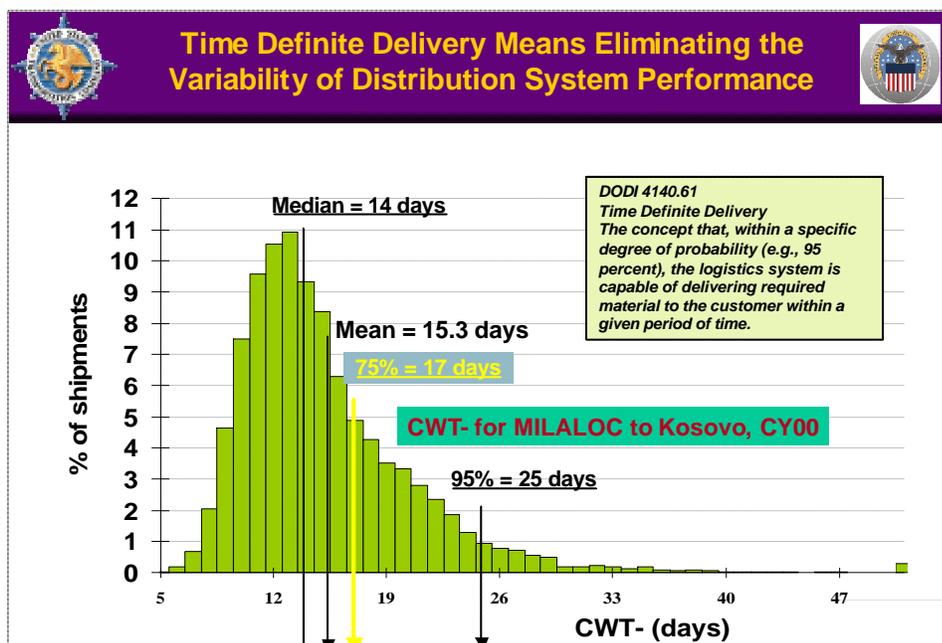


Figure 2-5. Derivation of CWT(-) Metrics

The baseline period for CWT(-) is calendar year 2000 (CY2000). As SDMI undertakes improvement to the process, the effectiveness of these improvements is measured by how much they improve CWT(-) over the baseline.

The second key performance measure for SDMI is facing fill. Facing fill is defined as the percentage of a customer’s requisitions filled by:

- a. the customer’s Strategic Distribution Platform (SDP) at DDSP or Defense Depot San Joaquin CA (DDJC) for CONUS customers,
- b. a DLA distribution center collocated with the customer (e.g., DLA stocks at an Air Logistics Center supporting a repair line), or
- c. a theater Distribution Platform for OCONUS customers (e.g., Germersheim, Germany or Yokosuka, Japan).

A higher facing fill is an “enabler” for implementing scheduled, synchronized service. Subsequent to the facing fill performance metric, we also measure the percent of shipments using scheduled transportation. This metric is illustrated in Figure 2-6.

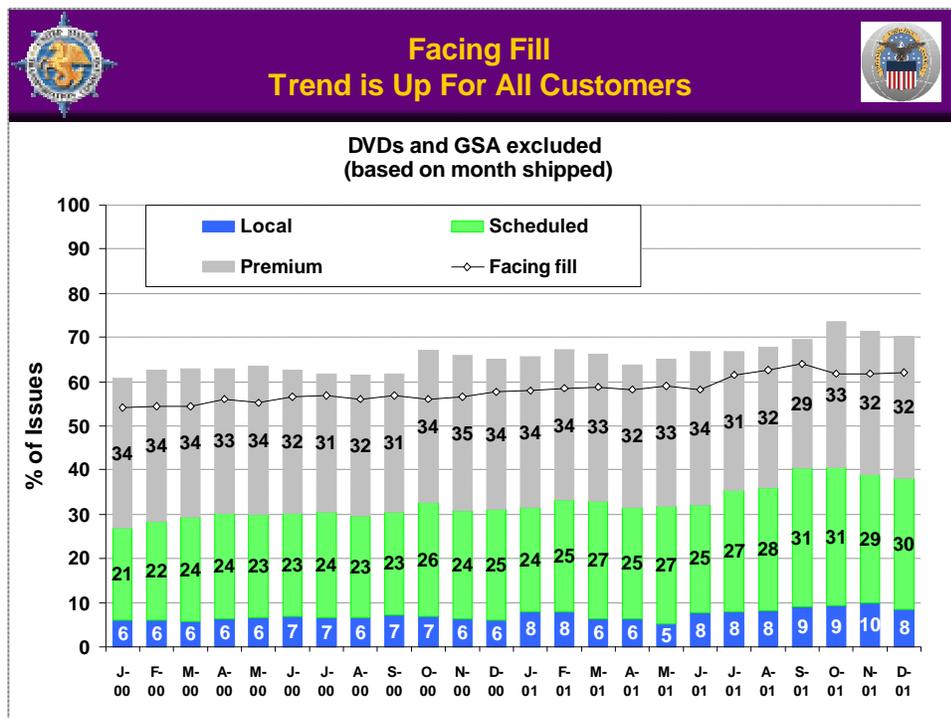


Figure 2-6. Facing Fill

- (6) Document and quantify cost and performance benefits, which should include Return on Investment of the Project and changes in the value of one or more of the SCOR Level 1 Metrics.

In CY01, SDMI efforts realized significant improvements in performance and has the potential for large cost savings within the DOD. Through stock positioning, scheduled service, and synchronized processes, the SDMI has the potential to save over \$62M in FY02/03. The most significant cost savings we anticipate by injecting reliability and responsiveness into the air transportation system. By showing customers that military airlift can provide the same level of service as commercial premium air, the DOD could save nearly \$37M. Likewise, stock positioning plays a significant role in improving velocity by minimizing “out-of-area” shipments and has the potential to save \$15M. Finally, the Surface Committee realized a savings of over \$10M when the MTMC transferred the workload at four Container Freight Stations (CFS) to the Defense Distribution Center depots. CWT(-) performance showed steady improvement throughout the year. Worldwide surface CWT(-), represented in Figure 2-7, improved by 5% over the baseline.

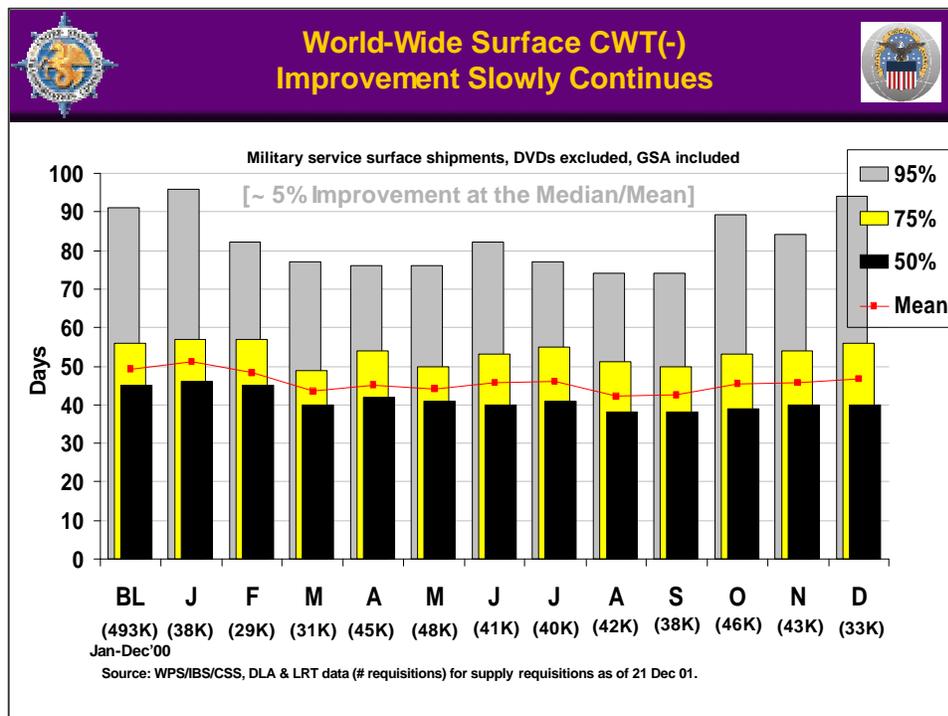


Figure 2-7. Worldwide Surface CWT(-)

Overseas air CWT(-), shown in Figure 2-8, compares the most recent three months of data to the baseline for all four modes of airlift used in our analysis. Military door-to-door service, the primary focus in air distribution, realized a 20% improvement in CWT(-) in CY01.

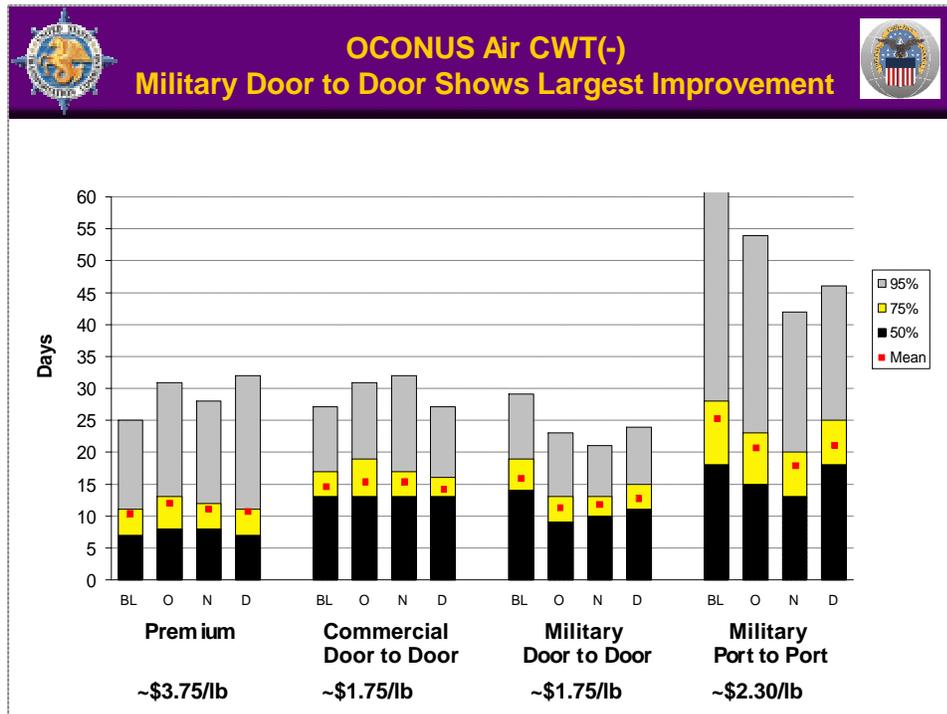


Figure 2-8. OCONUS Air Distribution CWT(-)

SCOR METRICS ALIGN WITH SDMI METRICS

SCOR Metrics	SDMI Metrics
Delivery Performance	Time Definite Delivery (95th percentile on CWT(-) metrics)
Fill Rate	Facing Fill
Supply Chain Response Time	CWT (-)

(7) Outline how the success of this effort supports the organizational objectives described in Section 1, Item 3.

In 2001 the partnership with USEUCOM, SDMI-Europe (SDMI-E) expanded to establish a TDMC to monitor inbound shipments via airlift and coordinate onward movement via air or surface transportation. Additional enhancements included initiation of door-to-door service from DDSP to numerous locations within Europe and expansion of surface transportation to locations in the United Kingdom, Italy, and Bosnia for increased velocity while reducing costs.

Also in 2001, SDMI established a partnership with USCENTCOM to improve distribution to locations in Southwest Asia. Building on the successes realized in SDMI-E, SDMI-CENTCOM (SDMI-C) established time definite door-to-door service from DDSP to locations in Kuwait and Saudi Arabia.

The Stockage Committee, meanwhile, initiated a stock positioning study to properly position stocks at the appropriate Strategic Distribution Platform (SDP), DDSP or DDJC to promulgate timely distribution to the warfighting customer. This effort resulted in the re-positioning of 28,000 stock items to position stocks in close proximity to the user. Further the committee expanded dedicated truck service between DDC and DOD installations to provide time definite deliveries.

The Surface Committee partnered with the commercial ocean carriers to establish a direct booking capability which permitted shippers to book overseas container shipments directly with the carrier. This reduced booking time from 29 hours to 10 minutes. A joint Stockage and Surface committee working group initiated a “floor sweep” program which cleared the floor of shipments destined for overseas destinations in time to depart on the next vessel sailing reducing customer wait time by 7-10 days.

The events of September 11, 2001 changed the world. It also provided the first opportunity to evaluate SDMI in a major US contingency. The withdrawal of many AMC aircraft to support the deployment of forces and equipment for the war in Afghanistan provided the first real test of the shock absorber program developed by the Air Committee. The shock absorber is a capability to provide worldwide substitution of commercial for military aircraft on channel air routes. This frees up scarce organic airlift to support deployment operations while maintaining velocity to all customers. When implemented the program worked flawlessly maintaining TDD requirements for all customers and ensuring seamless support to forward deployed forces in USCENTCOM, USEUCOM and USPACOM.

With the overall goal of improved end-to-end global distribution for DOD, the 2001 SDMI effort enjoyed measurable success, which continues into 2002. A synopsis of typical SDMI supply chain successes follows:

- To improve facing fill, the Stockage Committee relocated over 28,000 National Stock

Numbers to two SDPs, DDSP and DDJC to afford rapid entry into the distribution system

- Facing fill rose to 62% compared to a baseline of 54%.
 - With stocks repositioned, DDC was successful in reducing the use of premium transportation by establishing additional scheduled service routes.
 - The affect of facing fill on CWT (-) is demonstrated by the repositioning of Navy depot-level reparable, which reduced CWT(-) for these items by 8.6 days.
- The Surface Committee partnered with industry and streamlined processes to reduce CWT(-). The most significant change was the result of truly synchronized processes from depot-to-port-to-ship, minimizing port hold times at the surface ports and ensuring containers made the next available vessel. The impact on CWT(-) and reliability was a reduction by 7-10 days on surface shipments since containers were no longer arbitrarily waiting for a sailing sometime in the future. Surface CWT(-) for each theater is shown in Figure 2-9.

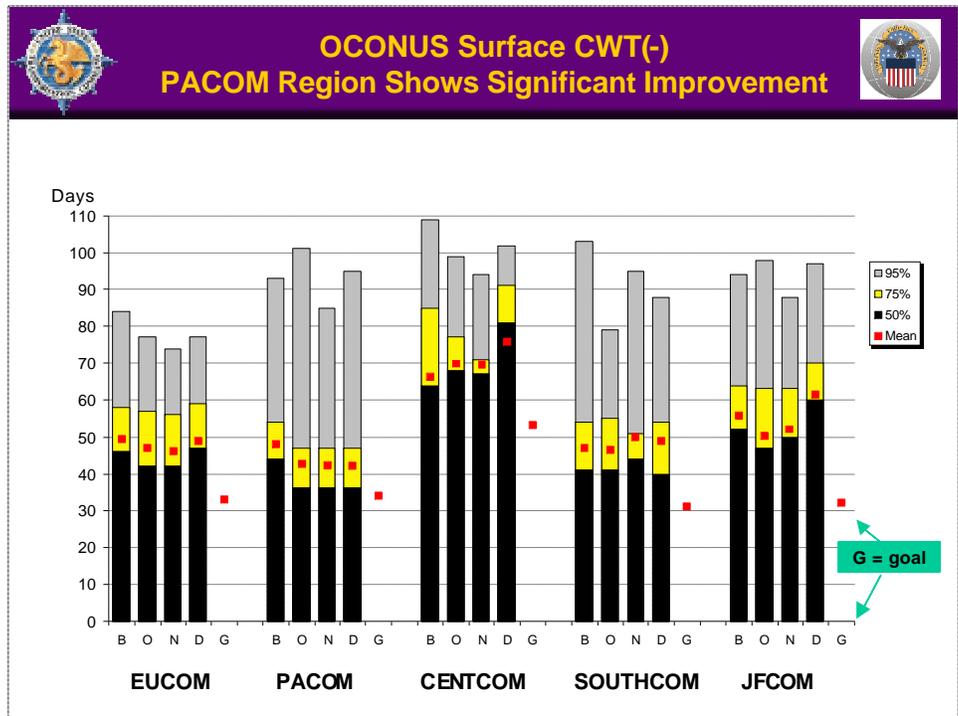


Figure 2-9. OCONUS Surface CWT(-)

- CWT (-) to PACOM down 12% (48 to 42 days)

- Individual channels realized greater improvements, illustrating that process variability can be reduced as oversight into the root causes increases. CWT (-) on key surface channels; west coast to Korea down 16%, and east coast to N. Europe down 13%
- The greatest success for OCONUS surface movement was in the west coast to Japan channel, which realized a 26% reduction in CWT(-) as shown in Figure 2-10. Figure 2-10 also illustrates how each segment of the CWT(-) process is analyzed in order to isolate areas for improvement.

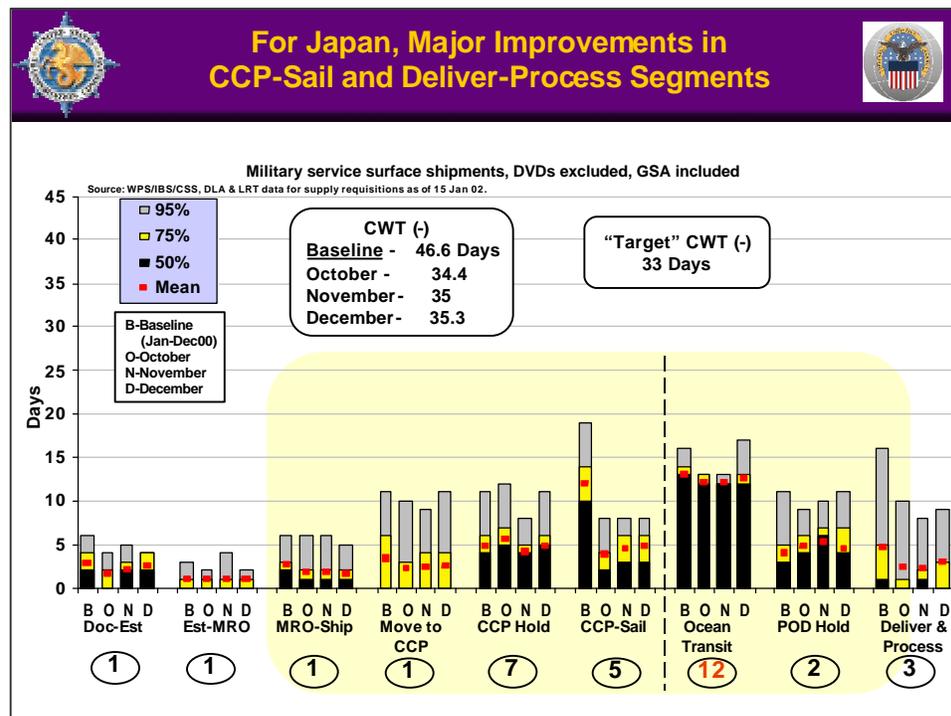


Figure 2-10. Japan Surface Channel

- The initial challenge, to prove military airlift service could provide the same level of service as commercial premium air, is best demonstrated by the success in SDMI-E. Figure 2-11 shows pre-SDMI performance and post-SDMI performance for air distribution to Europe. Applying SDMI principles (stock positioning, scheduled service, and synchronization) military door-to-door service is nearly competitive with worldwide commercial service.

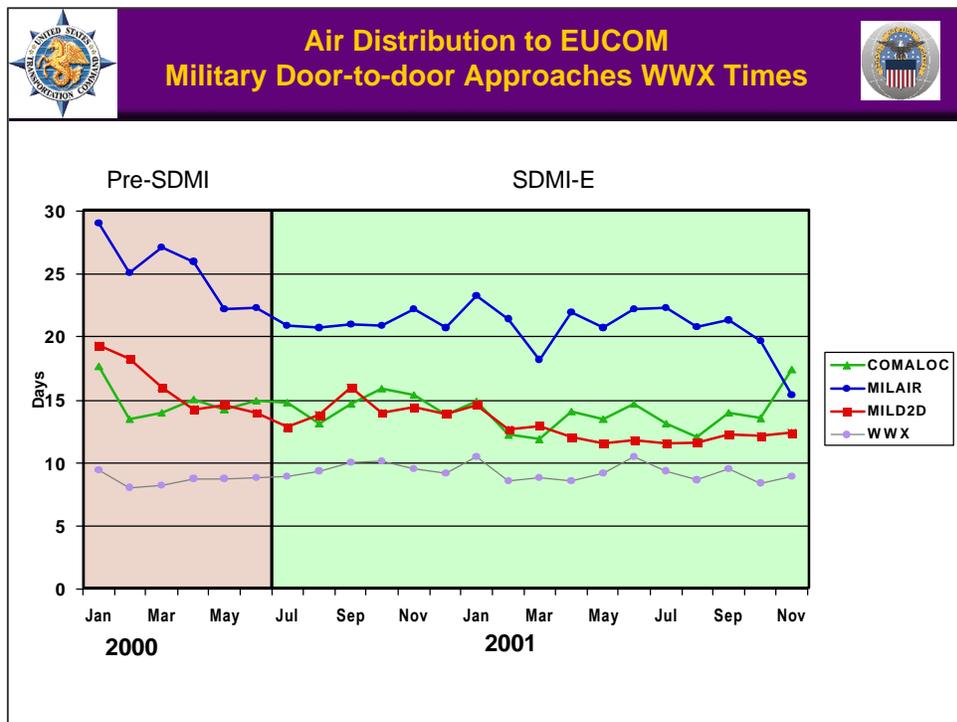


Figure 2-11. Air Distribution in Europe.

- Expanding the role of theater distribution, air pallets were expedited from DDSP to Tuzla and Tazsar by diverting air eligible cargo out of the theater airlift system and providing onward movement with lower cost truck service, while maintaining velocity. Figure 2-12 illustrates the increase in the percent of cargo moved via truck and the accompanying CWT(-).

- Reduced costs by 70% (\$3.2M) for Germany-UK and Germany-Aviano shipments with the use of trucks for intra-theater movements.
- Reduced CWT(-) to Tuzla Bosnia by 37% (15 to 9.5 days) as shown in Figure 2-13.

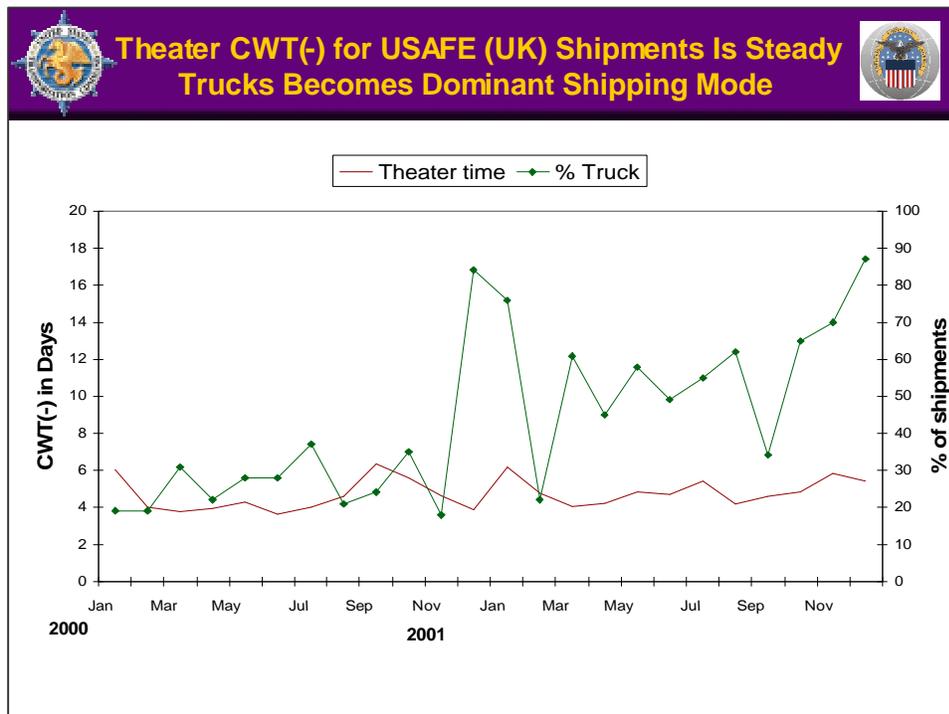


Figure 2-12. Truck shipments and CWT(-)

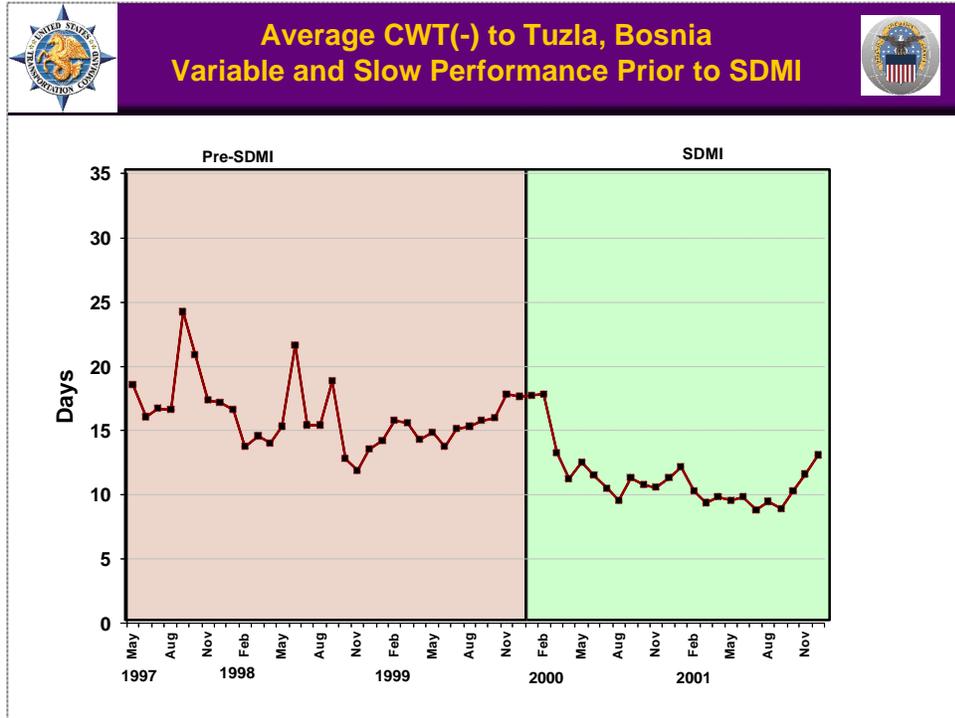
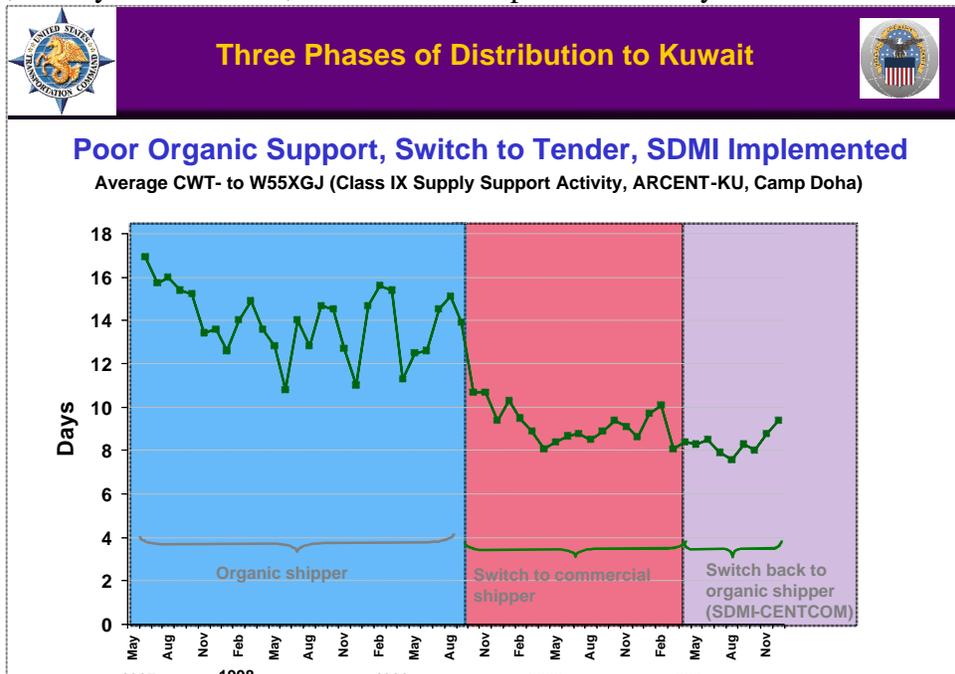


Figure 2-13. CWT(-) Tuzla, Bosnia

- Southwest Asia presented a challenge to SDMI because customers were very happy with existing service. The Army in Kuwait had turned to commercial tender service because of the unreliable service from Air Mobility Command. Figure 2-14 illustrates the high CWT(-) and extreme variability in military air service in 1997-1999 and the subsequent switch to commercial tender in Sep 99. However, after applying SDMI principles of Stock Positioning, Scheduled Service, and Synchronization, we were able to provide military service that was



competitive with commercial tender, in both cost and velocity, as shown in the third section of figure 2-14.

Figure 2-14. CWT(-) Trend in Kuwait

- CWT(-) to the Class IX Supply Support Activity in Kuwait improved 12.6 percent over the CY00 baseline (11.1 to 9.7 days) and proved faster than commercial tender service still in use by the Class II-IV Supply Support Activity as shown in figure 2-15.
- CWT(-) to Saudi Arabia improved 5% (29.3 to 27.9 days) and 17.8 percent (17.4 to 14.3 days) for the Army K Company Direct Support Unit and Army Maintenance Warehouse, respectively, as shown in figure 2-15.

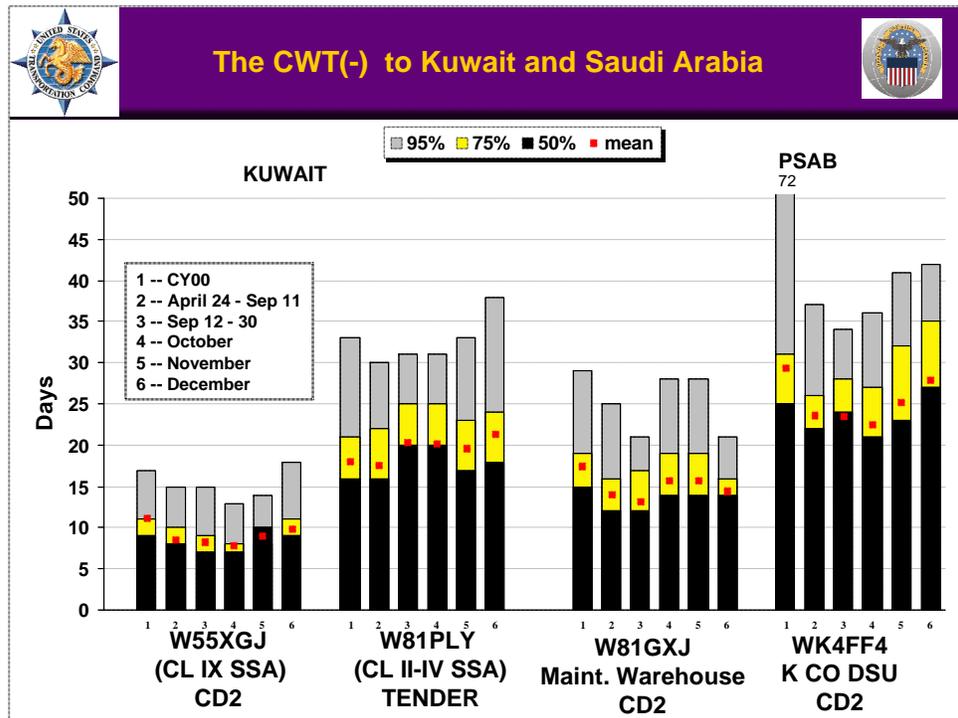


Figure 2-15. CWT(-) in Kuwait and Saudi Arabia

- Operation ENDURING FREEDOM
 - Sustainment efforts for the war clearly demonstrated that SDMI is on target

- Within 48 hours USTRANSCOM and DLA surged the military airlift system to clear cargo backlog, which resulted from the grounding of commercial and military air assets following 11 Sep 01.
- Air distribution CWT(-) performance was not significantly affected following 11 Sep 01 due to the flawless implementation of the shock absorber, which expanded capacity to meet the growing demand for airlift to all regions in support of deploying forces and sustainment.
- CWT (-) performance to USCENTCOM, as shown in Figure 2-16, continued to show military door-to-door service performed competitively with commercial premium service. We continue to monitor slight increases in November and December to ensure control over existing processes.

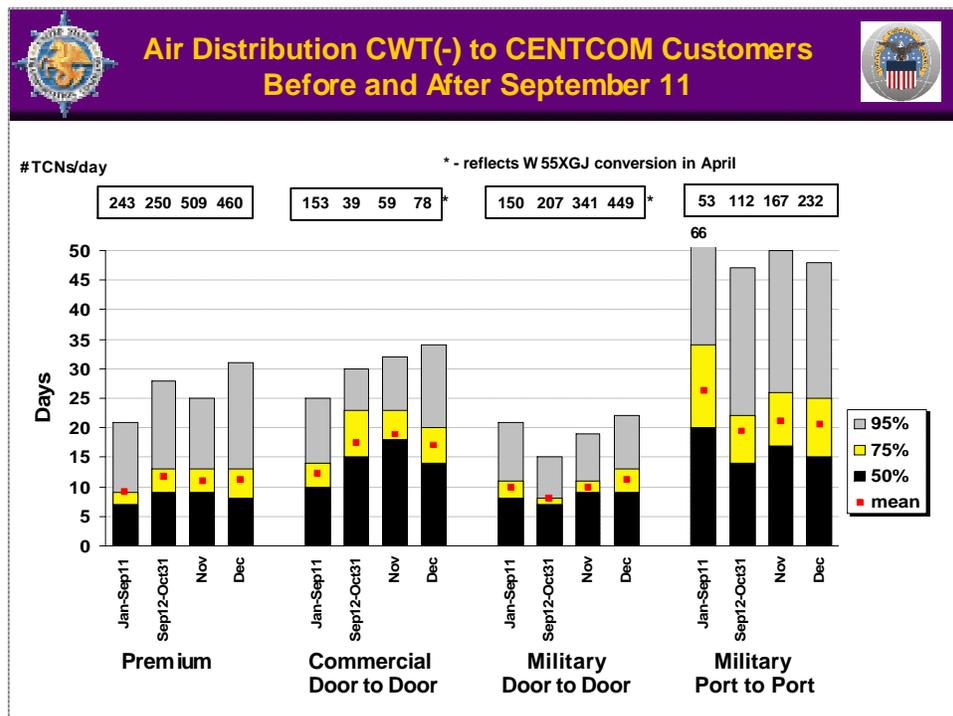


Figure 2-16. Air Distribution in CENTCOM

The bottom line for measuring SDMI success relative to the goals and objectives set by the Senior Partners in their formal guidance is that the strategy is working. The keys to success remain **Stock Positioning**, **Scheduled Service**, and **Synchronization**.

Knowledge Transfer

(1) Describe the efforts to share lessons from this effort with other internal organizations

To ensure SDMI lessons are captured and shared with both internal and external organizations, the Senior Partners and SDMI Executive Agent specifically adopted an integrated change management approach across all SDMI stakeholders. As discussed above, the heart of SDMI is teamwork, a joint effort by USTRANSCOM and DLA senior leadership, in consultation and coordination with OSD, the Services, the Joint Staff and other agencies.

To ensure seamless transference, the Senior Partners issued a signed Project Guidance document in July of 2000. Then, in late 2000, the SDMI Executive Agent issued a PMP that specifically laid out a continuous iterative process that involved all SDMI internal organizations and extended to outside organizations as well, especially through the BOD process and partnerships with overseas-unified commands. Figure 3-1 illustrates the SDMI Integrated Change Management (ICM) process. The SDMI ICM process helped define roles, responsibilities, and inter-relationships and provides a solid foundation for other organizations embarking on broad sweeping initiatives.

The ICM process diagram was created and approved for SDMI. It graphically depicts aggregate change management process activities and relationships expected in this initiative. The diagram is not a construct for command and control, but rather a visual depiction of the level of detail that guide communications, SDMI integration efforts, and management relations.

SDMI guidance is very clear and emphatic about pursuing integrated recommendations, and the need for constant coordination and work among the extended SDMI Team to establish an improved, integrated end-to-end process. The activities displayed on the ICM process diagram embraces the DMI methodology as described in Section 2 above, and also reflects the SDMI Senior Partners' guidance regarding the need for achieving integrated improvements to the current aggregate strategic distribution process. As such the ICM Process diagram follows the flow of the management activities required to execute the DMI methodology and senior-level integration guidance.

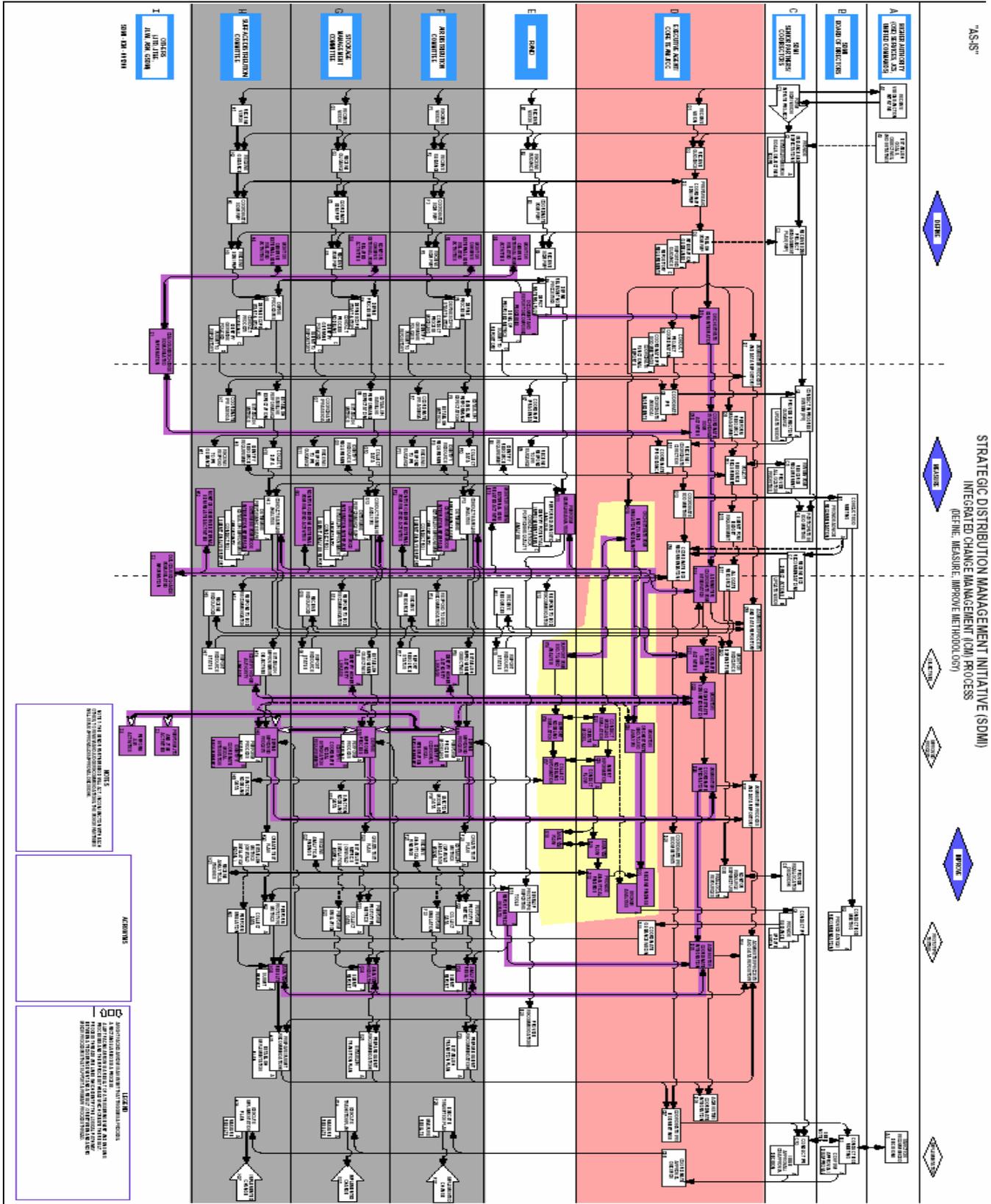


Figure 3-1. SDMI Integrated Change Management Process

