

Does CIM Stand for Consider It Mañana?
Federal Sources Executive Breakfast –September 22, 1992

Director of Defense Information

Does CIM Stand for
Consider It Mañana?

Federal Sources Executive Breakfast
Falls Church, Virginia, September 22, 1992

by Paul A. Strassmann

ASD(C3I), Director of Defense Information, 9/19/92, T#618

Slide 1

The ECONOMIST's Ten Most "Interesting" Jobs in the World

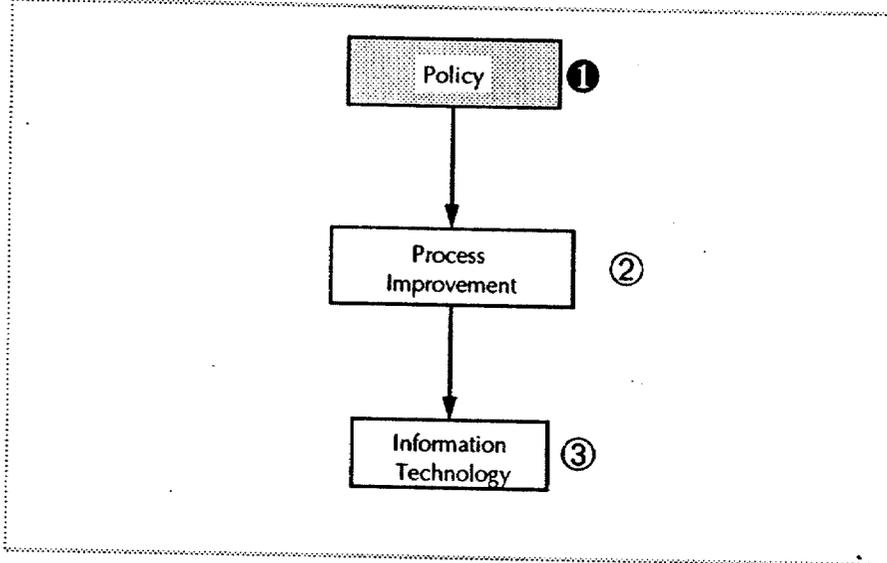
- Palermo : Mafia Prosecutor
 - Warsaw: Finance Minister
 - Moscow: Agriculture Secretary
 - Belgrade: Head, Press Relations
 - Windsor Castle: Princess
 - Medellin: Chief Justice
 - Detroit: Vice President, Industrial Relations, General Motors
 - New York: Compliance Officer, Salomon Brothers
 - Baghdad: Air Force Chief of Staff
- Just nominated: on account of DMRD 918:*
- Washington: Director of Defense Information Infrastructure

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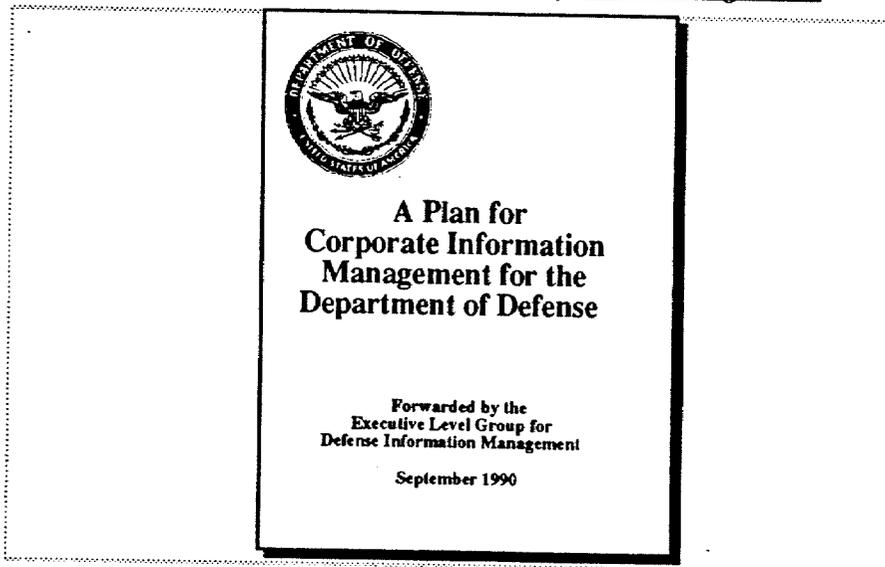
CIM Approach: The Primacy of Policy over Politics



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Defined Principles and Policies for Corporate Management

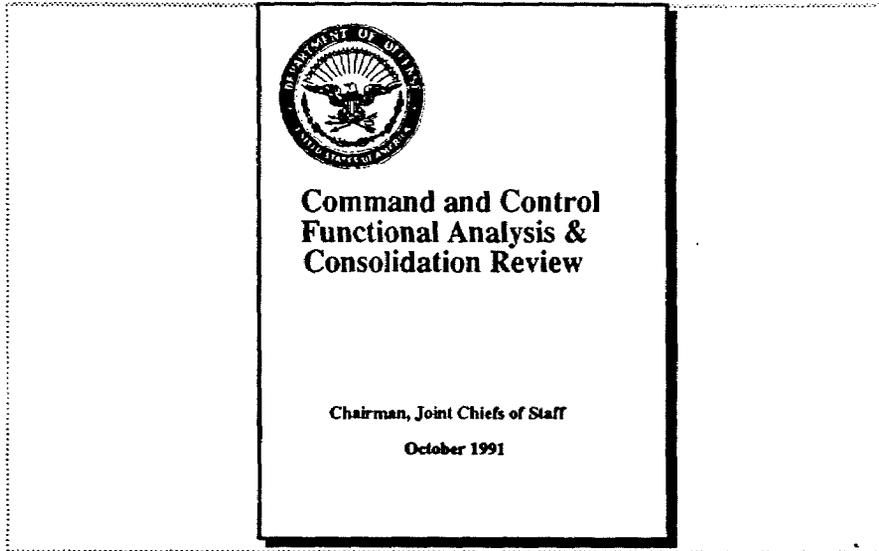


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Doctrine and Requirements for Command and Control Systems



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Long-Term CIM Objective: Small Forces Command & Control

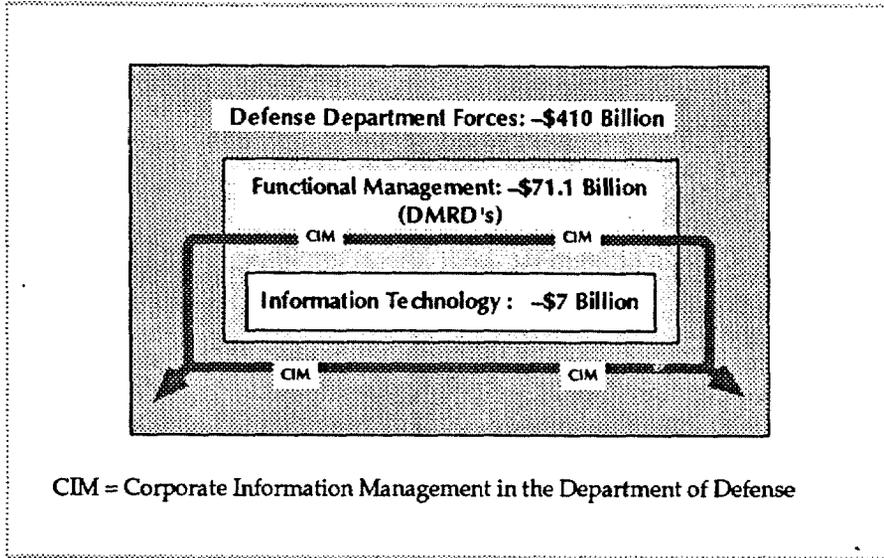
- The needs of small, mobile, rapidly deployed and locally managed forces shall be the priority C4I requirement.
- The C4I capabilities of the small forces shall be the same as currently possessed by large commands.

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The Context For Today's Discussion: Tasks for 1990-97



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Defense Functional Tasks for 1990-1997 (\$ Billions)

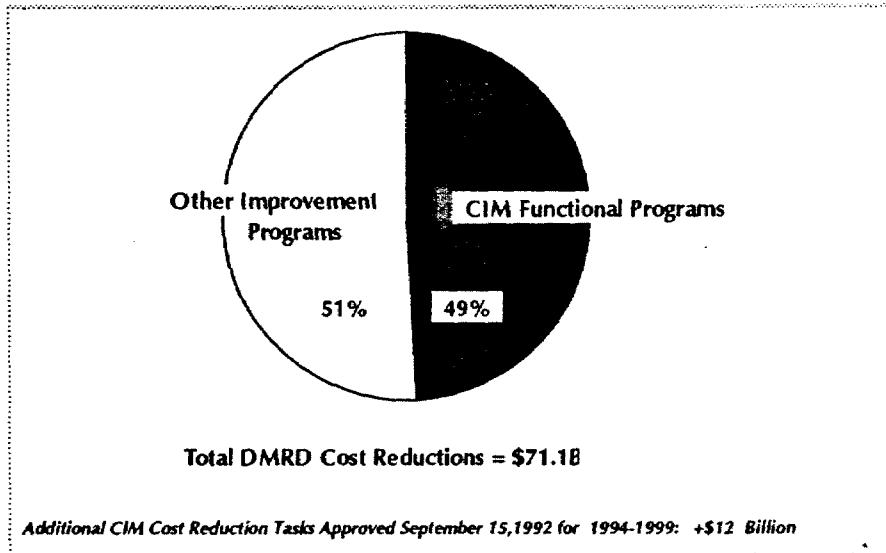
<u>Functional Category</u>	<u>Target Savings</u>	<u>%</u>
Materials and Logistics	\$46.7	66
General Administration	9.8	14
Automated Support and Systems	6.9	9
Finance, Procurement and Contracts	5.6	8
Base Operations, Facility Management	<u>2.1</u>	<u>3</u>
Total Savings (\$ billions)	\$71.1	100

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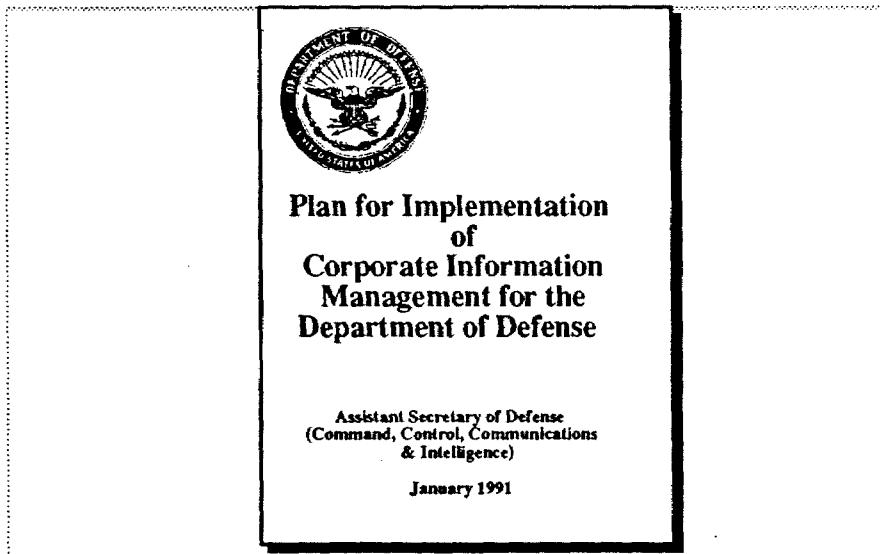
Estimated Contribution of CIM to Functional Programs



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Proposed Implementation for Corporate Management



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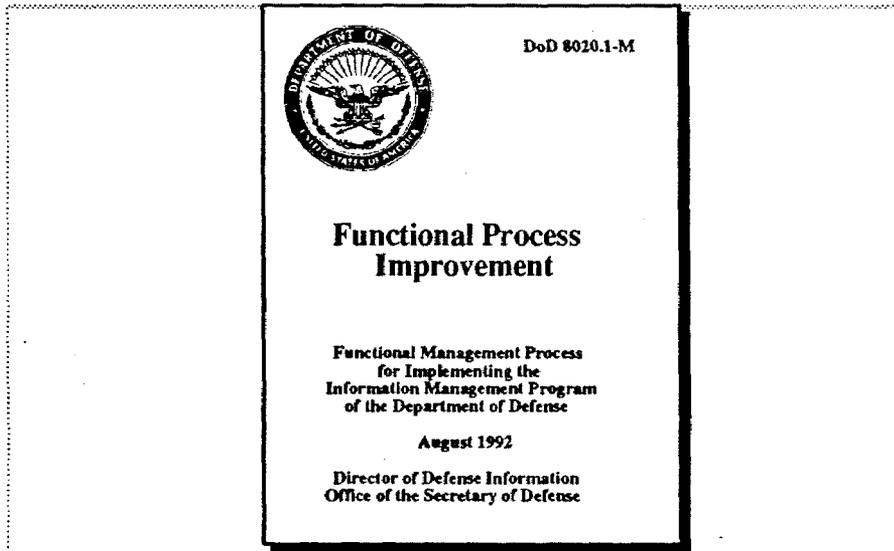
CIM Defense Policies

- DoD Directive on Defense Information Management
- DoD Instructions on Defense Information Management Program Policies & Procedures
- DoD Directive on Information Technology Policy
- DoD Instructions on Open Systems Architecture
- DoD Policy on Life Cycle Management
- DoD Data Administration Policy and Manual

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Defined Functional Improvement Process



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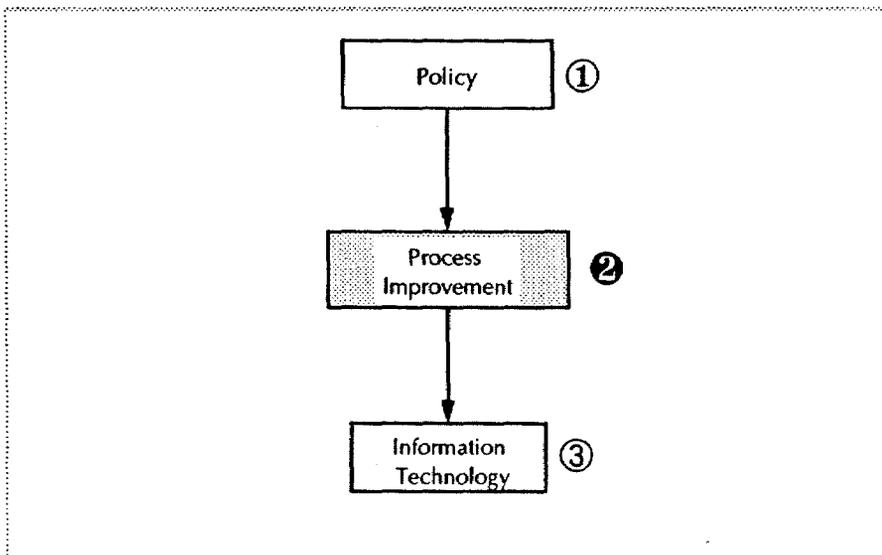
Defined Steps in Functional Process Improvement

- #1: Establish Process and Data Baselines
- #2: Establish Information System Baseline
- #3: Perform Activity Modeling
- #4: Perform Data Modeling
- #5: Select Improvement Alternatives
- #6: Prepare Functional Economic Analysis
- #7: Prepare Data Management Plan
- #8: Prepare Technical Management Plan
- #9: Execute Approved Process Changes
- #10: Develop Information Systems

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CIM Approach: The Precedence of Process over Technology



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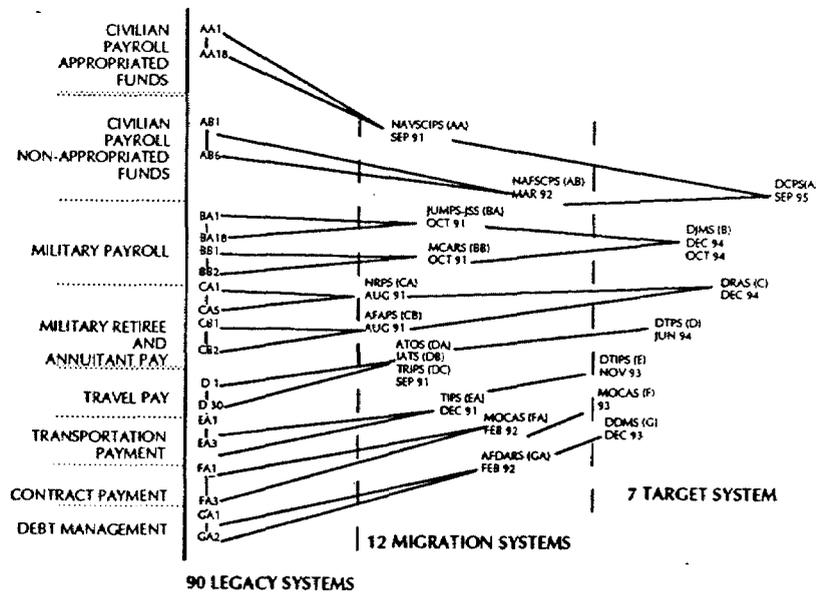
Progress on Business Process Improvement Program

- Projects: Led by CIM Staff=18; Contractors=82
- Training: 1350
- Functional economic analyses: 78
- COTS tools, 7 vendors
- Contractor developed manuals, distributed over 5,000
- CIM staff= 5

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How to Simplify: Consolidation of Finance & Accounting Systems



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Business Process Improvement Projects - for C3I

- Tactical Fire Support Interoperability Study
- C4I Data Interoperability Study- NORAD/US Space Command Operations
- DoD Spectrum Management
- U.S. Transportation Command
- Hardcopy Intelligence Dissemination - Intelligence Product Support Group
- Defense Investigative Services - Security Clearance Administrative Process
- Defense Investigative Services - Central Adjudication Facilities Consolidation
- Security Clearance Administrative & Adjudication Processes Integration
- Theater Missile Defense Systems Simulation
- Weather Interoperability

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Business Process Improvement - Health

- CHAMPUS
- Casualty Administration Support
- Coordinated Care Program (CCP)
- Ambulatory Baseline
- Enrollment-ID Card Processing
- Medical & Reserve Affairs - Entitlements-Eligibility Tracking

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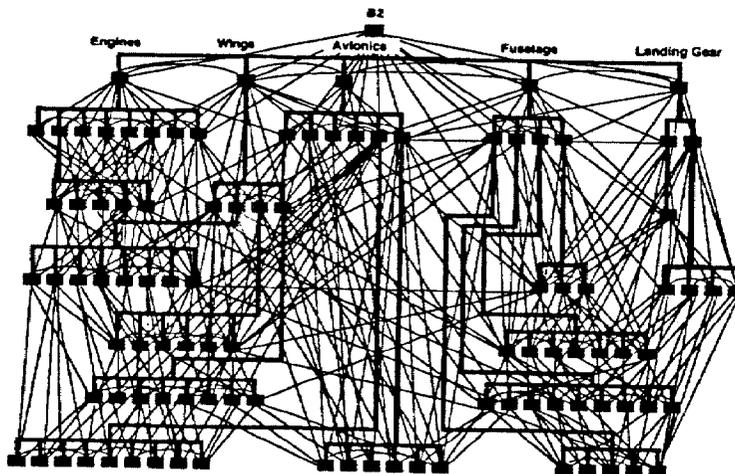
Business Process Improvement - Material, Logistics

- Joint Logistics Systems Center (Multiple Projects)
- CIM Procurement Group
- Integrated Technical Application Processes (DLA)
- DLA Industrial Preparedness Group
- DLA Consumables
- Depot Maintenance

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Business Process View of CALS Transactions



SOURCE: D.S.Appleton, Building a Business Case for CITIS, CALS Journal, Spring 1992, p.39

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Business Process Improvement - Service Specific

- U.S. Army Reserve Command
- U.S. Army Reserve Command Independent Commission
- U.S. Army Reserve Integration
- Army Mobilization (Reserve)
- Army Reserve Personnel Center
- 125th Army Reserve Command
- CONUSA - Headquarters First U.S. Army
- Reserve Component Automation System (RCAS)
- Office, Chief of Army Reserves (OCAR)
- Military Entrance Processing (MEP)
- Civilian Personnel Enterprise Model
- Civilian Personnel Career Management Process
- Civilian Personnel Retirement Analysis
- Military Personnel Enterprise Model
- Military Personnel Data Model
- Military Personnel Tracking Process Work Measurement

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Business Process Improvement Projects - Service Specific

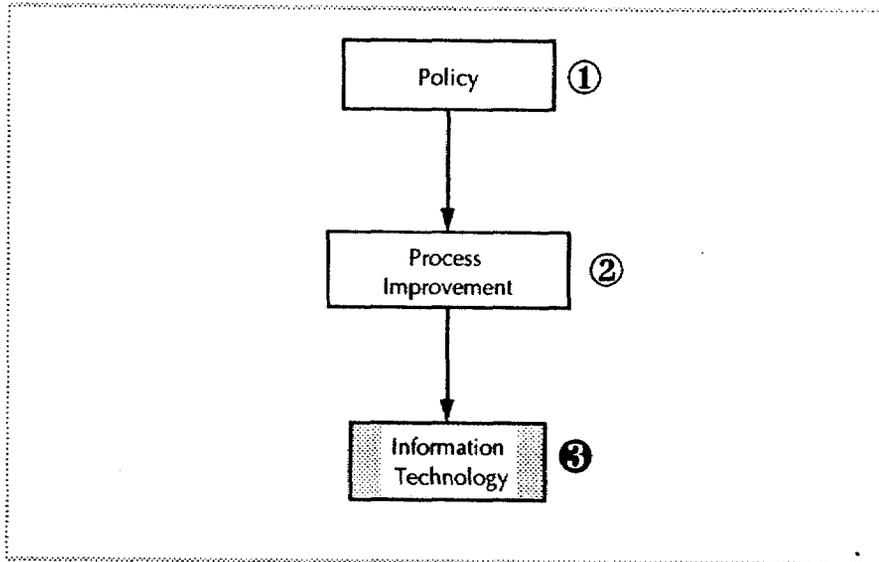
- Pacific Missile Range Facility - Range Upgrade Planning
- Fleet Intermediate Maintenance
- Civilian Personnel Training Office - Customer Interface
- Laboratory Funds Control
- Aircraft Maintenance
- David Taylor Model Basin Lab - Ship Design
- Best Business Practices (Naval Post Graduate School)
- U.S. Army Staff Data Modeling Initiative
- Ft. Sill - Facilities Management - Public Works Centers
- Ft. Eustis - Facilities Management - Public Works Centers

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CIM Approach: Technology Modernization



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First Wave of Data Center Consolidations - 1991-1997 (\$ Millions)

Component	# Data Centers		Going Rate in 1997		
	Before	After	Base Line	Savings*	%
Army	59	9	\$266	\$79	30
Navy	69	11	981	218	22
Air Force	137	18	313	119	38
DLA	<u>23</u>	<u>4</u>	<u>374</u>	<u>91</u>	<u>24</u>
Totals	288	42	\$1,934	\$507	26%

Cumulative total savings 1991-1997 = \$1,359 million

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Savings of CIM ADP Initiatives to Date (\$ Millions)

		<u>FY 1991</u>	<u>FY 1992</u>	<u>Projected FY 91/97</u>
Standard Systems Plan	Plan	\$398	\$463	\$2,827
	Actual	\$378	\$482	\$3,446
DP Center Consolidations	Plan	(\$96)	(\$135)	\$1,191
	Actual	(\$30)	(\$91)	\$1,287
Total Savings		\$348	\$391	\$4,733
Gain		+16%	+19%	+18%

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Defense Information Technology Services Organization in Place

Data Processing Installations:

<u>Location</u>	<u># Personnel</u>	<u>#Mainframes</u>	<u>#Terminals</u>	<u>M\$/Year</u>
Cleveland	251	4	3,751	\$18
Columbus	329	5	5,728	\$23
Denver	230	6	2,886	\$24
Indianapolis	261	7	13,375	\$26
Totals	1,071	22	25,740	\$93

Central Design Activities:

<u>Locations</u>	<u>#Personnel</u>	<u>Principal Applications</u>	<u>M\$/Year</u>
5	1,424	50	\$113

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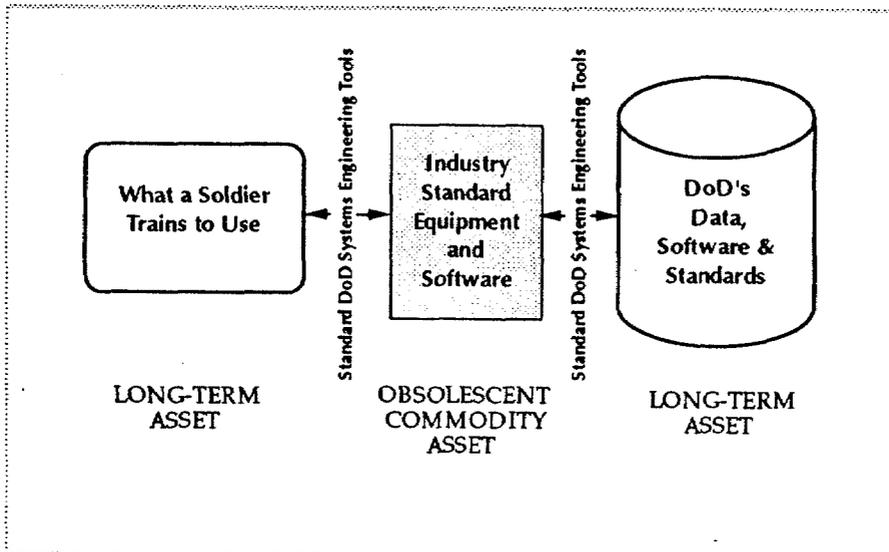
Data Center Rate Reductions from DoD "Utility"

	<u>FY 93 Rates</u>	<u>FY 94 Rates</u>	<u>% Reduction</u>
CPU Hour	83.793	64.787	22.7%
Input/Output	0.240	0.181	24.6%
Tape Mounts	4.284	3.356	21.7%
Tape Storage	0.149	0.116	22.1%
Printed Page	0.061	0.048	21.3%
Optical Character Recgn	0.275	0.216	21.5%
Microfiche	0.354	0.279	21.2%
Cards Read	0.021	0.017	19.0%
Support Services	39.930	30.498	23.6%

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Shifting the Focus of the Defense Information Infrastructure

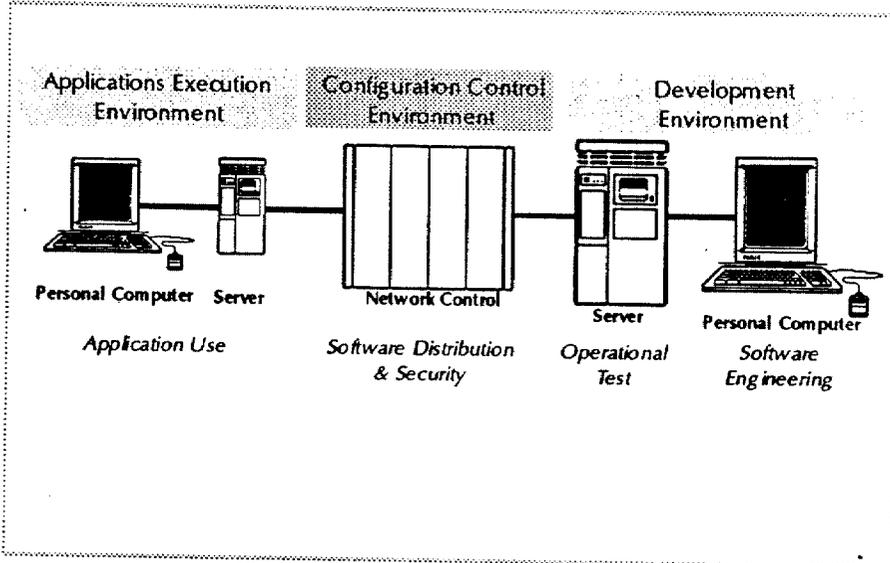


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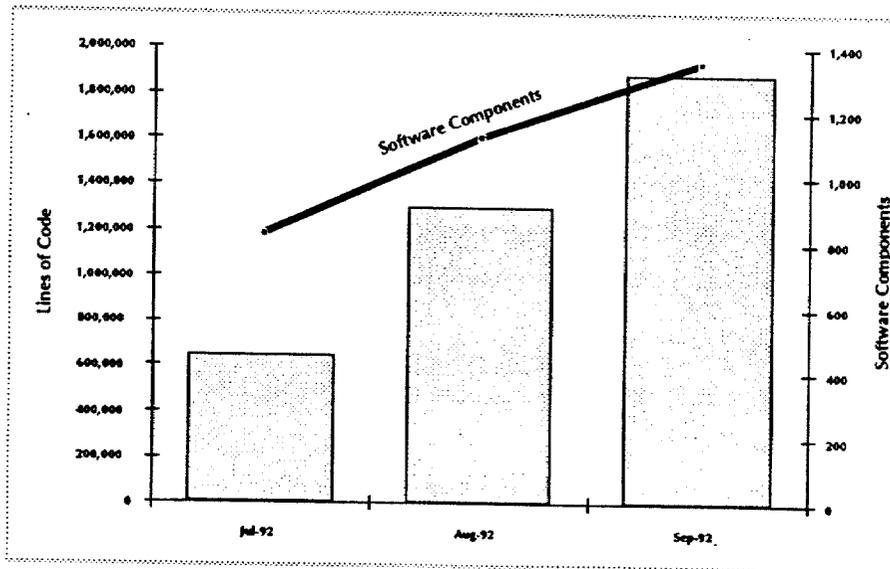
Integrated Computer-Aided Systems Engineering Environments



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Growth in Central Software Repository



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Ada Software Component Reuse at Gunter AFB

<u>Application</u>	<u>Lines of Code</u>	<u># of Reusable Components</u>	<u>% of Code Reused</u>
Inventory Control - LOGMARS II	18,673	10	64%
Inventory Control - LABELS *	8,846	7	73%
Stock Fund - MAJCOM	20,529	10	65%
Repairable Support	15,355	10	66%

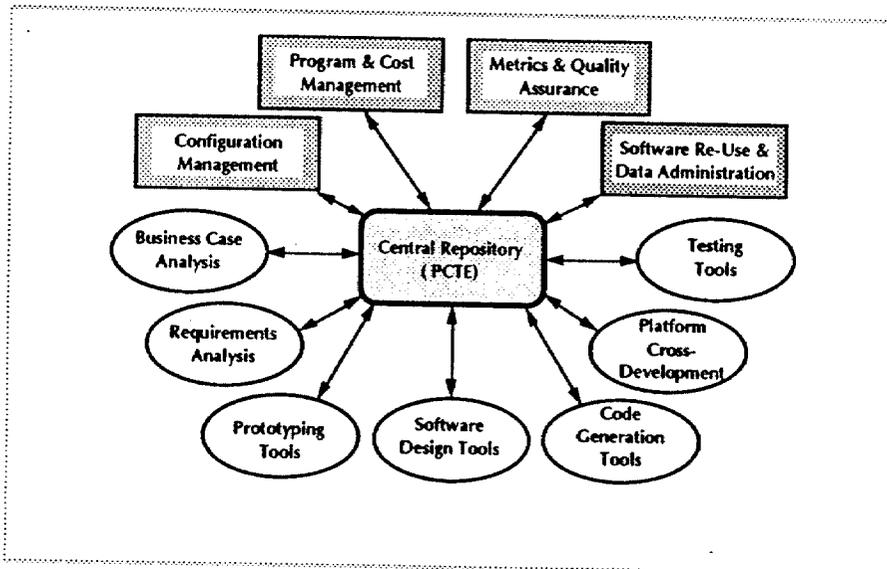
NOTE: Written by three programmers in three days, or 983 lines of code/programmer/day. Estimated productivity gain over 1,000%.

SOURCE: Memorandum from Lloyd Mosemann, 19 June 92, report by Capt. Brown/LGSXD

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I-CASE Tools and Repository

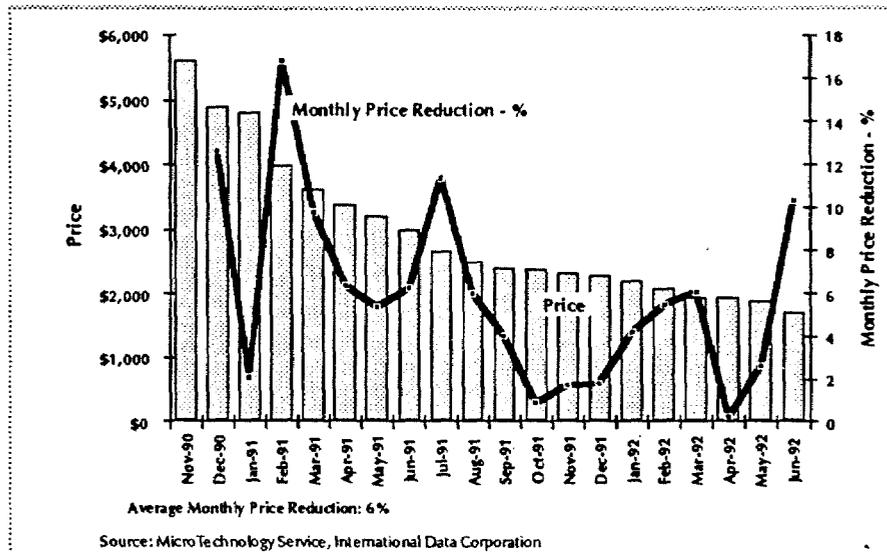


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Prices and Price Changes of 486/33 Microcomputers



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ASDCR, Director of Defense Information | 9190 - Rev 7-90-33

Information Technology Re-use Organization

- Purchase only as needed, on short-term contracts
- Maintain existing inventory in DoD depots
- Reduce security risks from on-site maintenance
- Unbundle hardware from software
- Upgrade software through DoD network
- Provide protection against software intrusion
- Offer short term "leases" based on fee for service
- Maintain control of DoD microcomputer assets

Information Technology Acquisition Bulletin Board System

- Bids requested on 14 microcomputer configurations;
- Streamlined acquisition process -Inquiry-Quote-Order (IQO);
- Bids of standard configurations on public bulletin board;
- Awards electronically transmitted;
- Vendors working on integration of IQO into own order entry system;
- "I do not see any reason to do business with the federal government any other way. It will save the government money overall, and it should also reduce the vendors' cost of doing business." [A vendor comment];
- Bulletin Board first step in transformation of the Defense Communications Office to EDI;

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Growth in Data Standardization

- 38,000 data elements submitted for de-conflicting and standardization.
- Found over 150 aliases in one instance
- Data administration programs now for every DoD function
- Major gain: start of data standardization effort for Intelligence.

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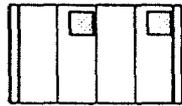
DoD Information Management Doctrine - Management

- Establish technical systems integration capabilities as a core Defense capability
- Replace current over-emphasis on technology acquisition by life-cycle management of upgradeable products
- Apply business re-engineering as a continuous, incremental and evolutionary productivity-enhancement process
- Benchmark transaction costs against commercial services
- Define organizing principles for centralized direction and decentralized implementation

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Current Defense Information Infrastructure - Data Processing



1,700 Data Processing Installations

- Average age over 11 years;
- Labor-intensive. Insufficient automation;
- Inadequate protection against deliberate attack;
- Do not share workloads and cannot act as back-up.



38 Major Central Design Organizations

- Excessive maintenance; long development cycles;
- Labor-intensive and non-standard development;
- Software maturity levels less than 1.



650,000+ Workstations and Terminals

- Growth chaotic and costly;
- A security exposure; lack of interoperability;
- Improvised applications, incompatible data-bases;
- High training and support costs.

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Forming the Defense Information Infrastructure

- Appoints a single manager for technical control and configuration management;
- Establishes a single manager for centralized acquisition and education;
- Assures interoperability, standards enforcement, and security;
- Provides large investments for modernization, security and base level infrastructure;
- Assigns infrastructure above tactical level to DISA while Components retain about 65% of personnel;
- Allows local commanders to own/lease/operate base level computing systems under central technical control;
- Reduces costs by 25%. Initial estimates are \$12B savings 1994-1999 with savings of over \$4B annually thereafter;
- Frees resources for warfighting.

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Concept of Operations for the Defense Information Infrastructure

- Controls networks and computer processing all the way to the individual keyboard.
- Assures interoperability, standards enforcement, security survivability. Deals with vulnerability to terrorist attack.
- Creates a \$5 billion+ computer services enterprise.
- Technology assets on base owned by DISA and leased to local command for local control and operation.
- Applications to move from mainframes to distributed low-cost computers. Mainframes housed in about 25 megacenters for network and archival control.
- Outsourcing for "reconstitution" capacity.

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About Bureaucratic Emphasis on Oversight and Control

- Waste originates not only from inadequate controls. It comes from removing the capacity of the people close enough to a problem to be able to do something about it.
- The pace of technology makes it difficult and costly to prevent Systems Chaos through total centralization of all systems controls.

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Solution: How to Achieve Integration

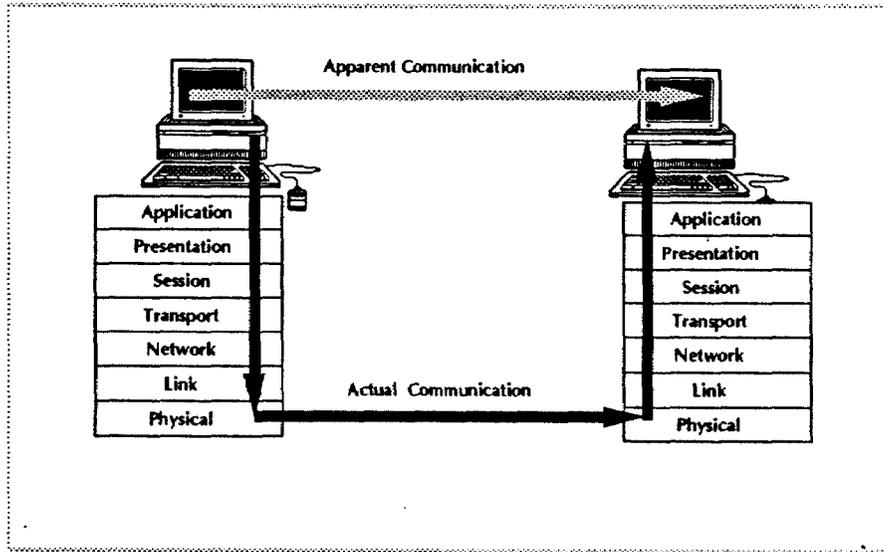
- Define a realistic DoD framework for Systems Governance.
- Create institutions for the governance of rapidly proliferating low-cost technologies. Current technologies favor costly local and narrow solutions.

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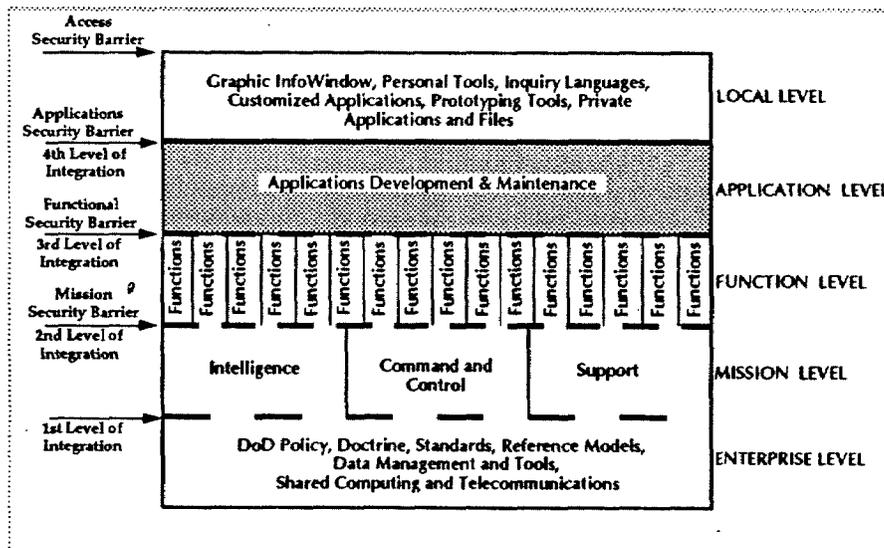
The "Open Systems" Approach to Systems Governance



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Levels of DoD Systems Integration

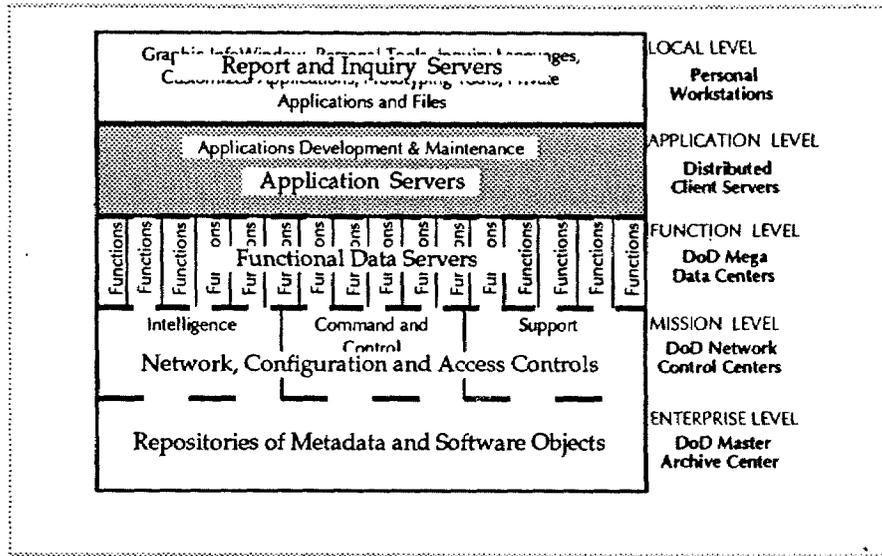


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Schema for Distribution of DoD Computing Resources



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Summary

- CIM is largest information technology program ever.
- CIM is subordinate to DoD policy, in a rapidly changing environment.
- CIM commitment to enhance information warfare capabilities: centrally managed infrastructure, decentralized operations.
- Key to CIM: schedule, schedule, schedule. \$ will come.
- CIM strategy: sink deep foundations, go for structural change, not cost reduction
- Latest technology is best and least expensive
- Not doing as good as we should, doing better than expected
- CIM is *Ahora Mismo* [just now], not *Mañana*!

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