



# DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY



## FLIS Transformation

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# Federal Logistics Information System (FLIS)

- Primary component of Federal Catalog System mandated by Public Law 82-436.
- Provides comprehensive view of all items of supply available for purchase throughout Department of Defense (DoD) logistics systems.
- Assigns and manages National Stock Number (NSN) information including all descriptive, reference and management data.



# Why transform?

- FLIS is becoming more difficult to support
  - Components (software and IT) are becoming unsupported and require upgrades to sustain system
  - New requirements (PBL, ERP) misaligned with traditional supply chain cataloging model
  - Time to implement changes is lengthy based on code complexity
  - Loss of FLIS knowledge



# Incremental Transformation Plan

- Stage 1: Streamlining and consolidation of internal systems for efficiencies
- Stage 2: True FLIS Transformation
  - Zero based requirements
    - Packaging
    - Characteristics
  - Elimination of 80 card column data exchange (L-DIC, K-DIC)
- Stage 3: Production Sustainment

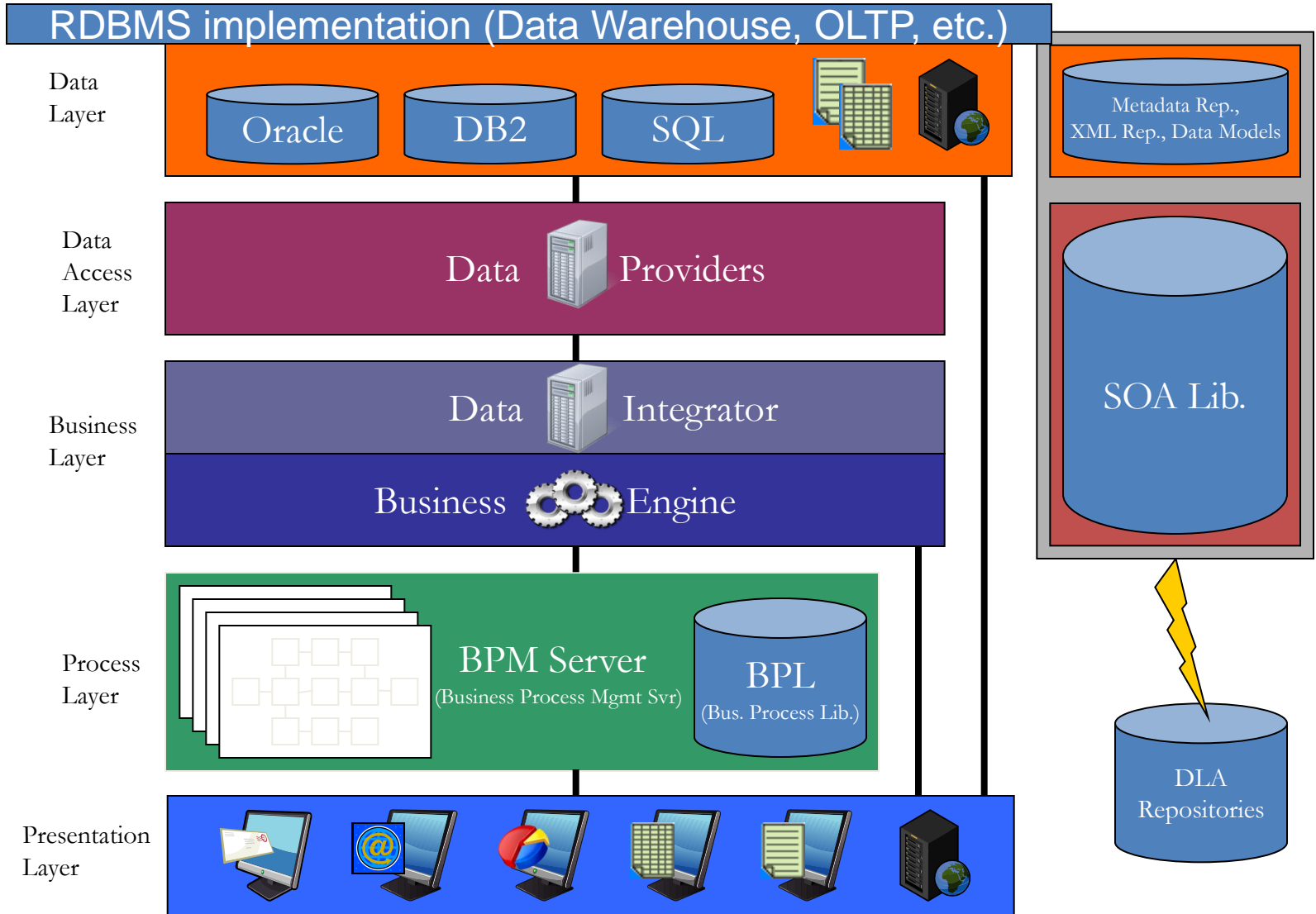


# Agenda

- Service Oriented Architecture
- Inbound Data Exchange
- Workflow Tool and Catalog Input Tool
- Characteristics Re-design



# DLIS/FLIS Enterprise Architecture





# Inbound Data Exchange

- LDIC data exchange is outdated, inflexible, complex and hard to interpret
- New standard for data exchange between DLIS and non-industry customers developed using Extensible Markup Language (XML)
  - Easily modifiable and readable
  - Standardized yet flexible
  - Industry supported



# Inbound Data Exchange

- Benefits to new standard
  - Data driven not transaction driven
  - All transactions mapped to single schema
  - Customers merely submit data element adds, changes, deletes
  - Complex cataloging knowledge not required
  - Incorporates data relationships
  - Allows for cursory edits and/or validations
  - Can allow for data not currently in L-DIC transactions



# Inbound Data Exchange Usage

- The customer (Cataloger, Item Manager, Equipment Specialist, Product Specialist) will not use the schema directly
- The customer will initiate a price change in the logistics system
- The customer system will generate the XML schema to FLIS
- FLIS will compare data in schema to data recorded in FLIS and generate data update



# Workflow Tool

- Selected webMethods suite of tools
  - Business Process Management Suite
  - Consolidation of ten applications to a single tool
- Parsing module determines if data in schema is converted to a transaction or routed to cataloger for review
- Workflow tool is comprised of ‘buckets’
- Work requests are assigned to buckets based on commodity



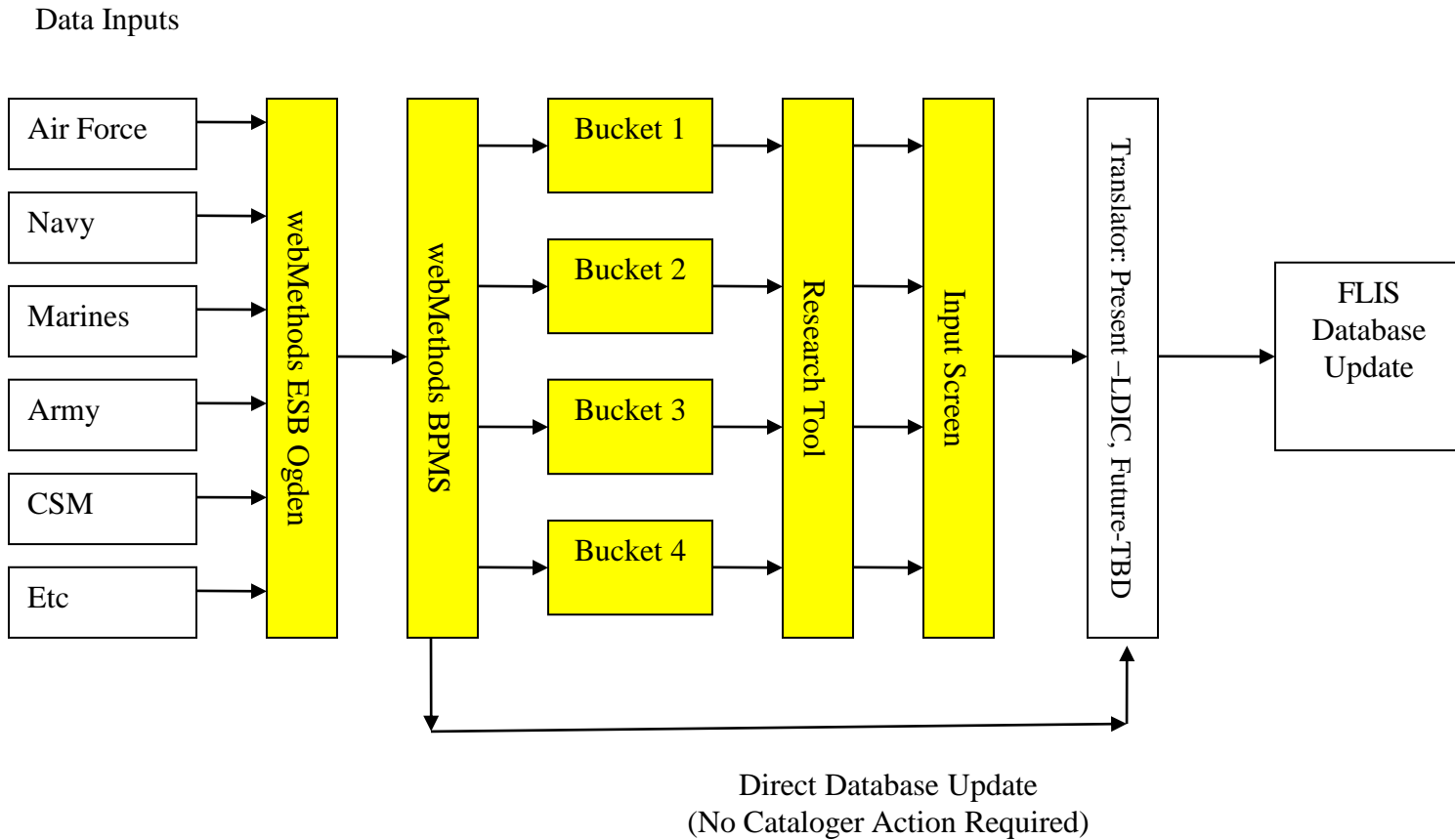
# Workflow Tool

- Tool will push or pull work requests from buckets to catalogers
- Catalogers will review requests in a research tool
- From research tool, cataloger can launch into input tool to submit data changes to FLIS
- Input tool will generate 'data file' to the FLIS mainframe for conversion to transaction



# High Level Workflow View

## High Level Concept



ESB – Enterprise Service Bus  
BPMS – Business Process Management Suite



# Notional Research Tool

**Defense Logistics Information Service**  
"A Defense Logistics Agency Activity"

My webMethods Administrator My Profile Help About Logout

Monitoring System-Wide Business Integration Reports  
Process Analytics Business Overview Process Instances Tasks  
Lookup Tech Data My Inbox Task List Management Task Charts

Details  
Data View Details View Audit View

**TASK BUSINESS DATA**

SSR Management:

Incoming Request:

ACF: BF  
DOR: 9267  
PCC: SAG  
ISN: 1526016  
RetailQuantity: 50  
Mfg Part Num: 98743-3434  
ItemName: Screws  
FSC:   
Acq. Advice Cd:

Comments:

This is a New request. Please expedite, we urgently need this material.

Decision:

Decision:  Reject

CAGE Code Info:

CAGEC: 95542 Link: <http://www.teseco.it>

FLIS Data:

FSG: IIN:  
FSC: Item  
Entry Cd: StdCd:

Search Links:

[McMaster-Car](#) [Google.com](#)  
[ISO Standards](#) [Yahoo.com](#)  
[Raytheon](#)

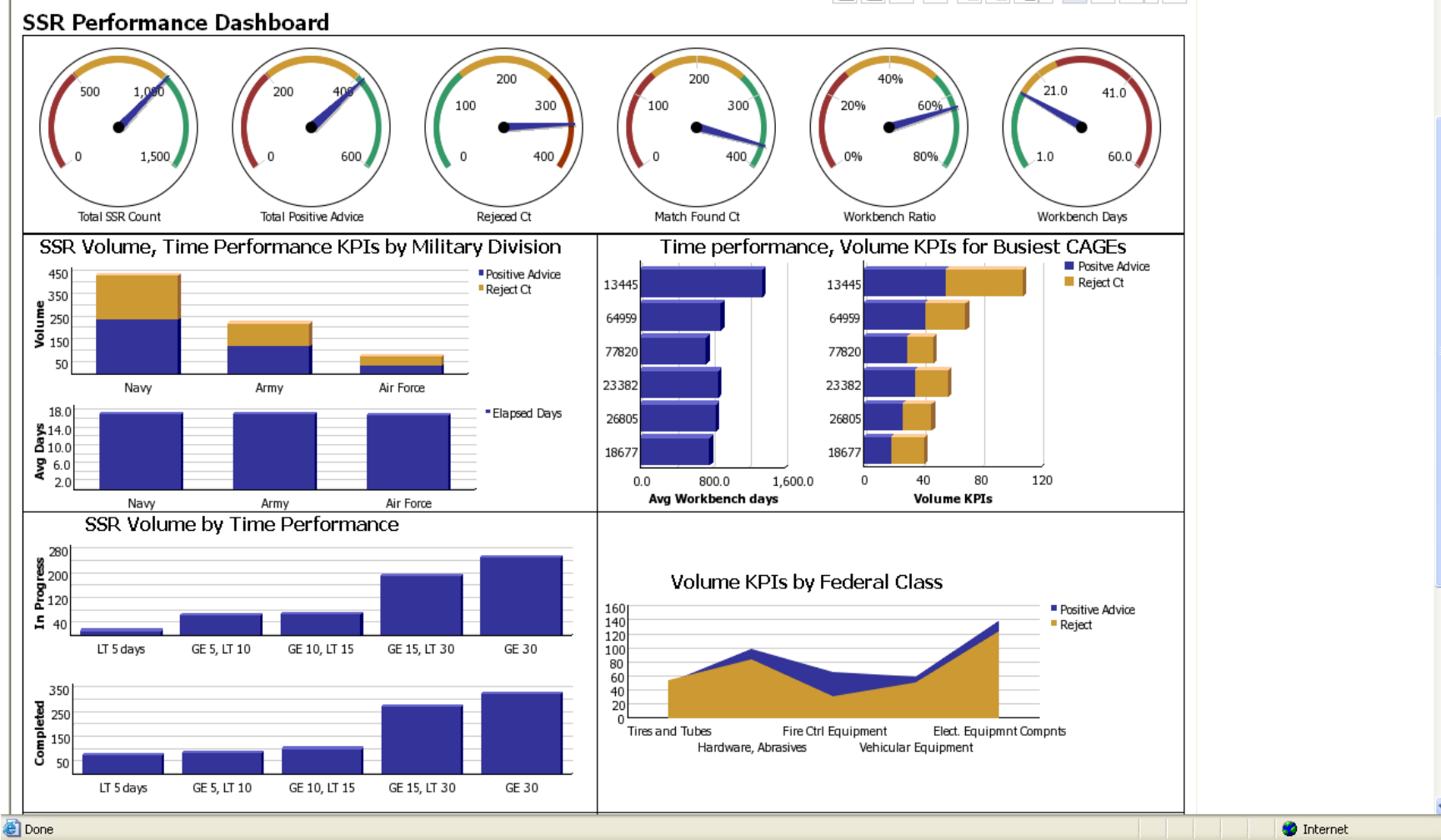
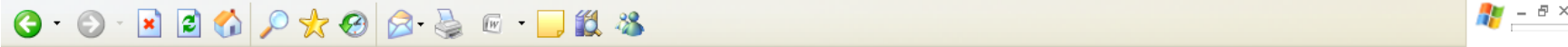
Medals Lookup - Search:

Location: PIN  
Document CAGE:  
#: Title:  
CAGE: Type:  
Lvl:

Attachments:



# Reports and Measurement





# Characteristics Re-design

- DLIS Goal: 90% fully described NSNs
- Challenges to goal achievement
  - Must have technical data packages
  - Characteristics data is difficult to enter and hard to interpret
  - Master Requirements Data consistency
  - Accuracy of MRCs in FIIGs
  - No easy method to determine the ‘quality’ of the item description
  - Collaboration process for INCs and FIIGs
  - Limited ability for characteristics search



# Characteristics Re-tooling

- Edit Guide becomes the authoritative source of characteristics data
  - Establishes the INC as the primary key
  - Eliminates the need for a FIIG number
  - Edit Guide will systemically generate a IIG (Item Identification Guide)
- NSN data is systemically updated when the Edit Guide change occurs



# New Taxonomy

- A new classification (taxonomy) system is being developed for identification of like items focused on the characteristics of a single Item Name Code
- New taxonomy principles:
  - Address what is meant by a “fully described” item
  - Commodity-driven: Determine the appropriate level of detail for different commodities (simplify the system and edits when applicable)



# New Taxonomy

- New taxonomy principles (continued):
  - Aligned with industry standards and item descriptions
  - Hierarchical Structure: Describe different groups of items more extensively
  - Flexibility: more flexibility in answering MRCs (open up the Master Requirement Directory)
  - Move to primary and secondary MRCs as opposed to mandatory and optional MRCs
  - Map current taxonomy structure into new taxonomy structure



# Future Characteristics Focus Areas

- Identify MRCs as stand-alone data elements
- Develop an amazon.com like characteristics search capability
  - Detailed search capability
  - Offering of 'like' items
- Expand colloquial and nomenclature usage
- Incorporate data mining results into cataloging business processes
- Implement data exchange with private industry using ISO22745 and ISO8000



# Questions?

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# Additional Slides



# XML Schema Layout: Header

KEY	Data Element Description	M <sup>1</sup>	XML Element Name	R <sup>2</sup>	Format <sup>3</sup>	Notes
1	Transaction Header	M	TransactionHeader_XXXX	R50		
1.01	Multiple NIIN Request Indicator	M	Mult_NIIN_Req_Ind_XXXX		00001S	AA
1.02	Transaction Header Total Counter	M	TranHdrTotalCtr_XXXX		00002I	AK
1.03	Transaction Header Current Counter	M	TranHdrCurrCtr_XXXX		00002I	AK
1.04	Request Type	M	RequestType_XXXX		00004S	AL
1.05	Submitting Activity Code	M	SUBMG_ACTY_CD_3720		00002S	
1.06	Originating Activity Code	M	ORIG_ACTY_CD_4210		00002S	
1.07	Transaction Date	M	TransactionDate_XXXX		00010D	AF
1.08	Document Number	M	DocumentNumber_XXXX		00014S	
1.09	Federal Stock Class	M	FSC_3990		00004I	AJ
1.10	National Codification Bureau Code	O	NCB_CD_4130		00002I	
1.11	Item Identification Number	O	I_I_NBR_4131		00007I	
1.12	Date, Effective, Logistics Action	O	EffectiveDate_XXXX		00010D	AF
1.13	Gaining Item Manager (GIM)	O	GIM_ACTY_CD_5086		00002S	
1.14	Profit Center	O	ProfitCenter_XXXX		00010I	
1.15	Supplemental Request Information	O	SuppReqInfo_XXXX	R4		
1.15.01	Contact Name	M	ContactName_XXXX		00050S	
1.15.02	Service Name	M	ServiceName_XXXX		00050S	
1.15.03	Organization Name	M	OrgName_XXXX		00100S	
1.15.04	Contact Phone Number	M	ContactPhNumber_XXXX		00015S	
1.15.05	Contact Email	M	ContactEmail_XXXX		00100S	
1.15.06	Web Address	O	Web Address_XXXX		01000S	

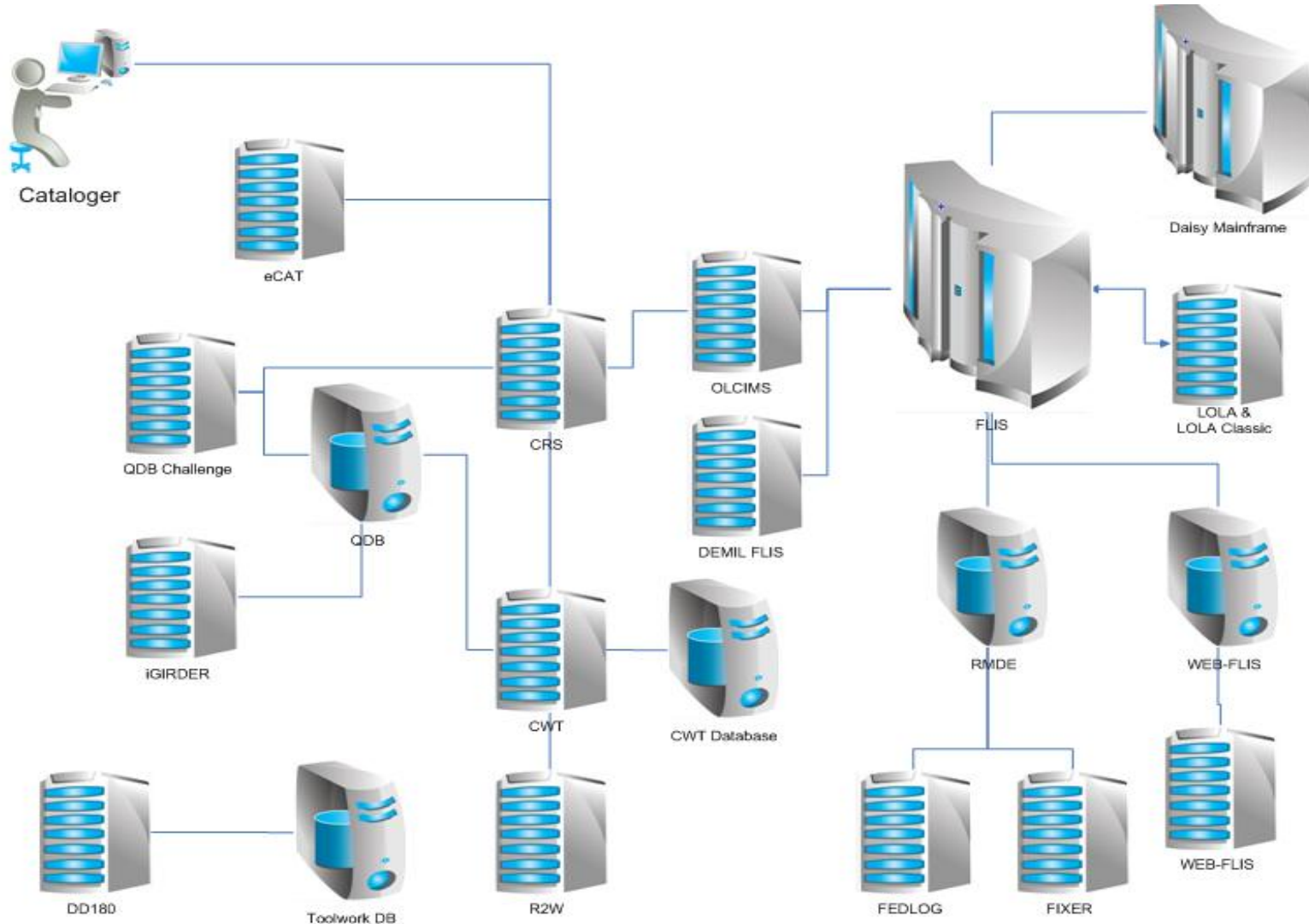


# XML Schema Layout: Item ID

1	Request Detail	M	RequestDetail_XXXX			
1.2	Cancellation Reason Code	0	DELT_RSN_CD_4540		00001S	
1.2.01	Replacement National Stock Number, Cancellation	0	RPLM_NSN_CANC_8875		00013I	
1.3	New Federal Stock Class	0	NEWFSC_XXXX		00004S	AH
1.4	Precious Metals Indicator Code	0	PMIC_0802		00001S	
1.5	FIIG	0	FIIG_4065		00006S	
1.6	Item Name Code	0	INC_4080		00005I	
1.7	RPDMRC	0	RPDMRC_4765		00001I	
1.8	Demilitarization Code	0	DEMIL_CD_0167		00001S	
1.9	Criticality Data Section	0	CritDataSec_XXXX			
1.9.01	Delete Crit Code Indicator	0	DelCritCDInd_XXXX		00001S	AA
1.9.02	Criticality Code	0	CRITL_CD_FIIG_3843		00001S	
1.9.02.01	Flight Safety Indicator	0	FSI_3961		00001S	AA
1.9.02.02	Nuclear Hardness Indicator	0	NucHardInd_XXXX		00001S	AA
1.9.02.03	Aircraft Launch/Recovery Indicator	0	ALRE_Ind_XXXX		00001S	AA
1.9.02.04	Individual Repair Parts Ordering Data Indicator	0	IRPOD_Ind_XXXX		00001S	AA
1.9.02.05	Navy Critical Sensitive Item Indicator	0	NavyCSI_Ind_XXXX		00001S	AA
1.9.02.06	Army Critical Sensitive Item Indicator	0	ARMYCSI_Ind_XXXX		00001S	AA
1.9.02.07	Air Force Critical Sensitive Item Indicator	0	AFCSI_Ind_XXXX		00001S	AA
1.10	Item Name	0	ItemName_XXXX		00019S	
1.11	ESD Data Section	0	ESDData_XXXX			
1.11.01	Delete ESD Code Indicator	0	DelEsdInd_XXXX		00001S	AB
1.11.02	ESD Code	0	ESD_EMI_CD_2043		00001S	
1.12	ADPEC Data Section	0	ADPECData_XXXX			
1.12.01	Delete ADPEC Code Indicator	0	DelADPECInd_XXXX		00001S	AB
1.12.02	ADPEC Code	0	ADPEC_0801		00001I	
1.13	NIIN Stat Code	0	NIIN_ST_CD_2670		00001S	

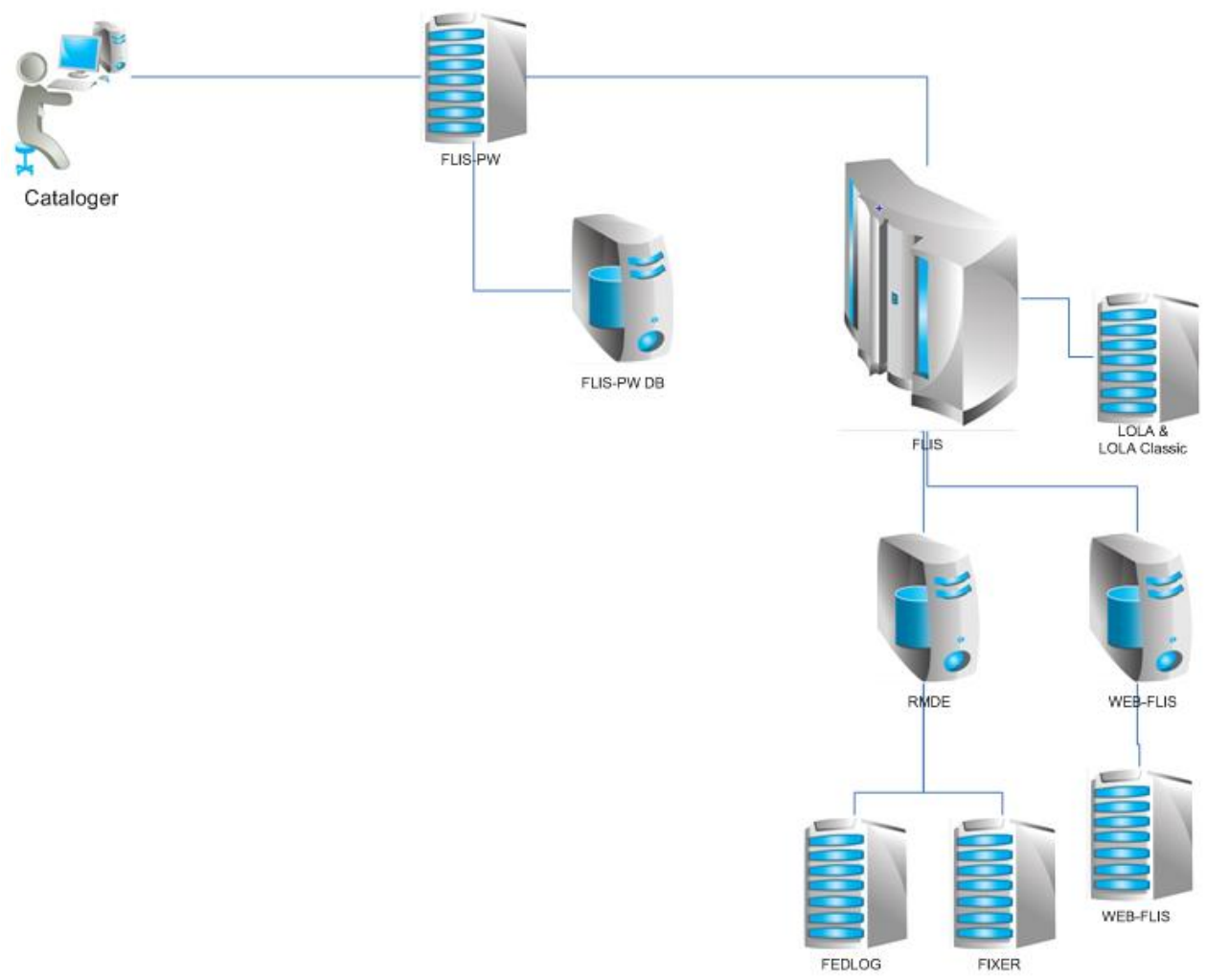


# FLIS Portfolio Workbench Tool As-Is





# FLIS Portfolio Workbench Tool To-Be





# FLIS Portfolio Workbench Tool

## Mapping Strategy

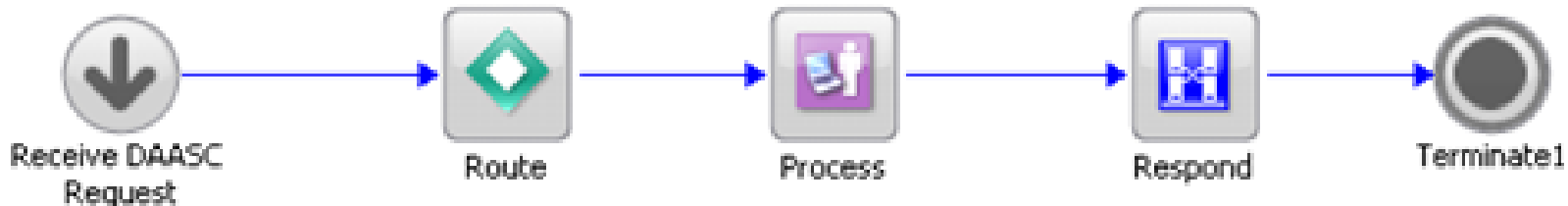
- Each level drills down further in the process
- Level 1 – “10,000 ft” view
  - Displays the overall function of the Process
- Level 2 – “1,000 ft” View
  - Displays the various actions required for the Process to function
- Level 3 – “Ground Level” view
  - Displays each service needed for the activities in the process.





# FLIS Portfolio Workbench Tool

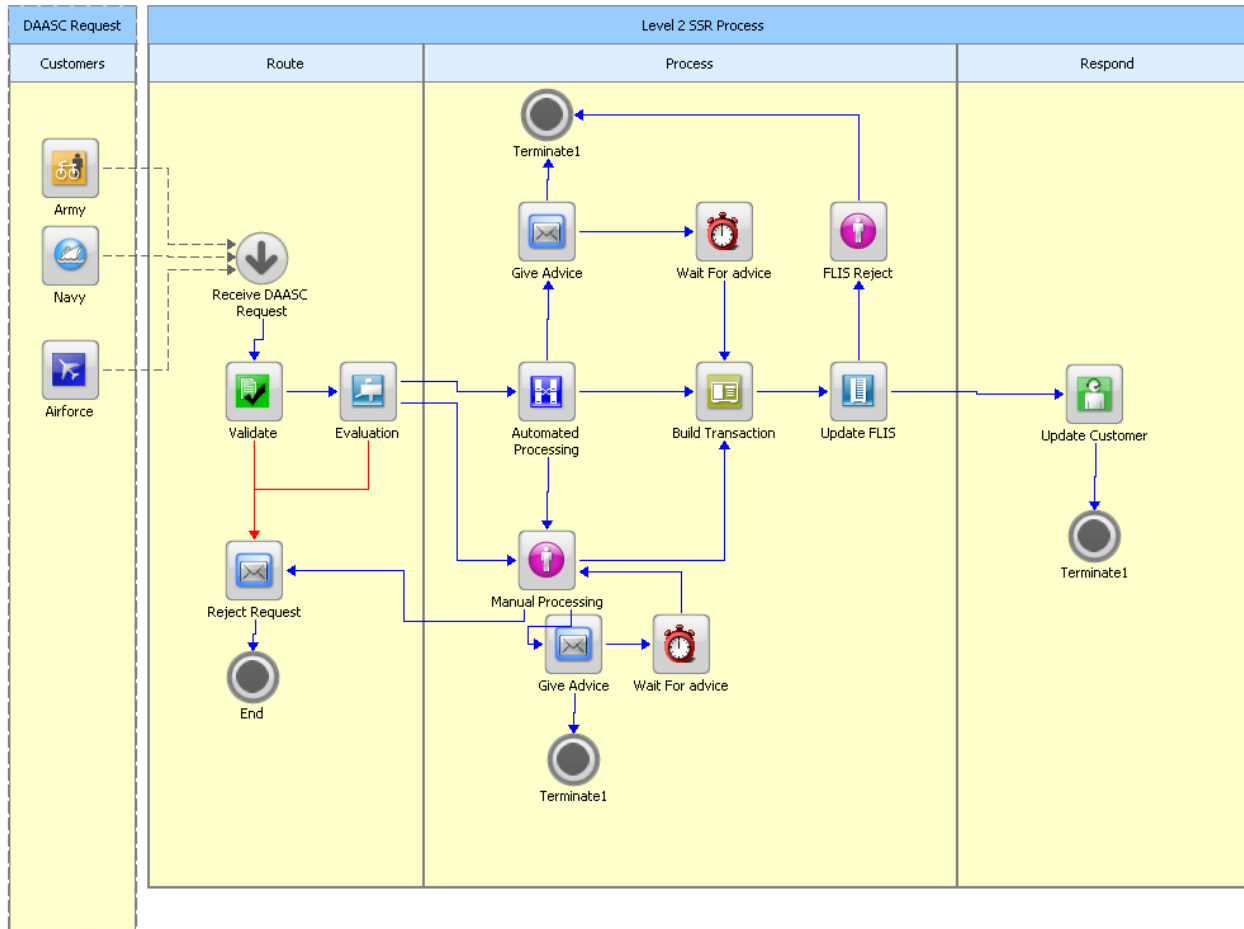
## SSR Workflow Map Level 1 “10,000 ft View”





# FLIS Portfolio Workbench Tool

## SSR Workflow Map Level 2 “1,000 ft View”





# FLIS Portfolio Workbench Tool

## SSR Workflow Map Level 3 “Ground Level” View

