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► **IT Service-Based Costing: Standardizing Provisioning and Servicing IT Resources**

Paul Brown
Emily Jessen

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Agenda

- ▶ Background
- ▶ What is Service-Based Costing?
  - − Key Terms
  - − Importance
- ▶ At the DIA
  - ▶ IT Service Catalog and Pricing Supplement
  - ▶ Models and Tools
- ▶ Constraints and Challenges
- ▶ Lessons Learned & Future Consideration

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- ► In a fiscally constrained environment, many agencies within the Department of Defense (DoD) and Intelligence Community (IC) are looking to implement a fee-for-service model in order to recover appropriated funds

- ► There is a strong focus amongst these organizations to constrain the spending of appropriated funds to meet their missions

- In 1932 the Economy Act and other legislative measures were passed with the intent to reduce government spending

  – The act authorizes federal agencies to provide goods and services to other agencies on a reimbursable basis

- As a federal agency, the DoD is permitted to utilize the Economy Act

  – Due to the unique mission and composition of the DoD, there are certain limitations that must be defined in order for the Economy Act to be applied correctly
  – DoD Financial Management Regulation (FMR), DoD 7000.14-R, Volume 11A, Chapters 1 and 3, are the primary source for additional definitions of the Economy Act and how the guidelines must be applied

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- ► In compliance with the Economy Act and DoD FMR, the DIA is continuing to take steps to quantify the IT services it provides in order to recover costs

  - US Code 31 1535 – *the head of an agency or major organizational unit within an agency may place an order with a major organizational unit within the same agency or another agency for goods or services* (Economy Act)

  - US Code 13 1301 – *appropriations shall be applied only to the objects for which the appropriations were made except as otherwise provided by law* (Economy Act)

  - DoD 7000.14R, Volume 11A, Chapter 1 – *provides guidance on the amounts that shall be recouped when DoD components work or sell property within the DoD, to other US Government agencies and to private parties* (DoD FMR)

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- ▶ Service-based costing decomposes IT services into discrete, quantifiable components, or cost elements, and assigns a cost according to the actual or estimated consumption by each service
  - – Enables IT providers to precisely estimate the cost of individual services for the purposes of funding and managing services

- ▶ Service-based costing requires:
  - – Defined costing methodology
  - – Set of cost centers using service definitions as published in the IT Service Catalog

Source: Defining, Modeling, & Costing IT Services: A Technical Annual. August, 2005.

- ▶ **Direct costs**
  - Costs that are attributable either directly or through allocation to a single customer/service/location
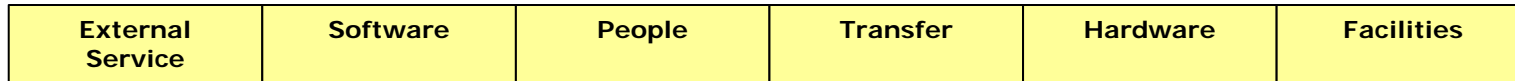 - Example: Backend server hosting

- ▶ **Indirect costs**
  - Shared costs that are incurred on behalf of all, or some, customers/services/locations
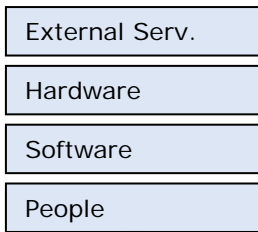 - Example: Requirements Managers

- ▶ **Overhead costs**
  - Costs which cannot be directly attributed to a customer/service/location and includes general administrative activities
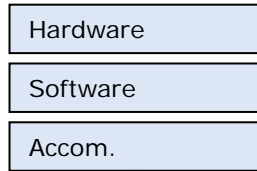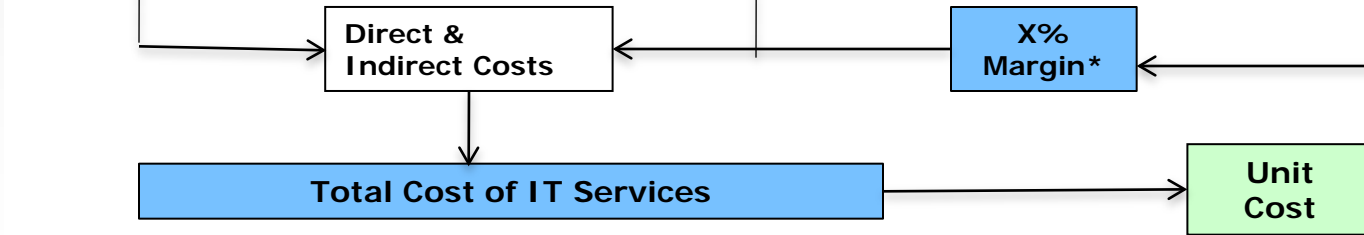 - Example: Utilities

Basic Service-Based Costing Model

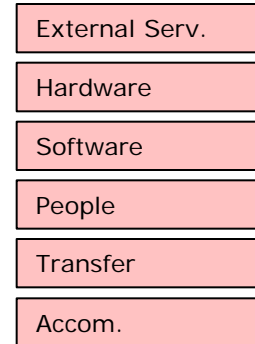| External Service	Software	People	Transfer	Hardware	Facilities

Cost Elements

Direct Costs

- External Serv.
- Hardware
- Software
- People

→ **Direct Costs**

Indirect Costs

- Hardware
- Software
- Accom.

→ **Indirect Costs**

Overhead Costs

- External Serv.
- Hardware
- Software
- People
- Transfer
- Accom.

Direct & Indirect Costs

X% Margin*

*% Margin built into overhead based on forecasted growth or unplanned services

Total Cost of IT Services → **Unit Cost**

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Source: Defining, Modeling, & Costing IT Services. Annual. August. 2005 .

Importance of Service-Based Costing

- ▶ Importance in the IC and DoD:
  - – The Director of National Intelligence (DNI) recently appointed different service providers for IT services throughout the IC
  - – With one or two agencies owning each service, the standard requirements and cost for the service must be known in to ensure costs are being reimbursed accurately and appropriately

- ▶ Benefits to the service provider:
  - – Receive adequate funding for the services provided
  - – Clear documentation of the service process
  - – Costs are justified and defensible to customers
  - – One time setup for each service that is easy to update annually

- ► Service-based costing, or service valuation, was developed as part of the Reimbursable project under the DIA/DS reinvention initiative

    – Implements first ever standardized valuation methodology for the agency
    – Enhances customer focus by providing customers with service pricing information and allows customers to make informed decisions about services they wish to acquire

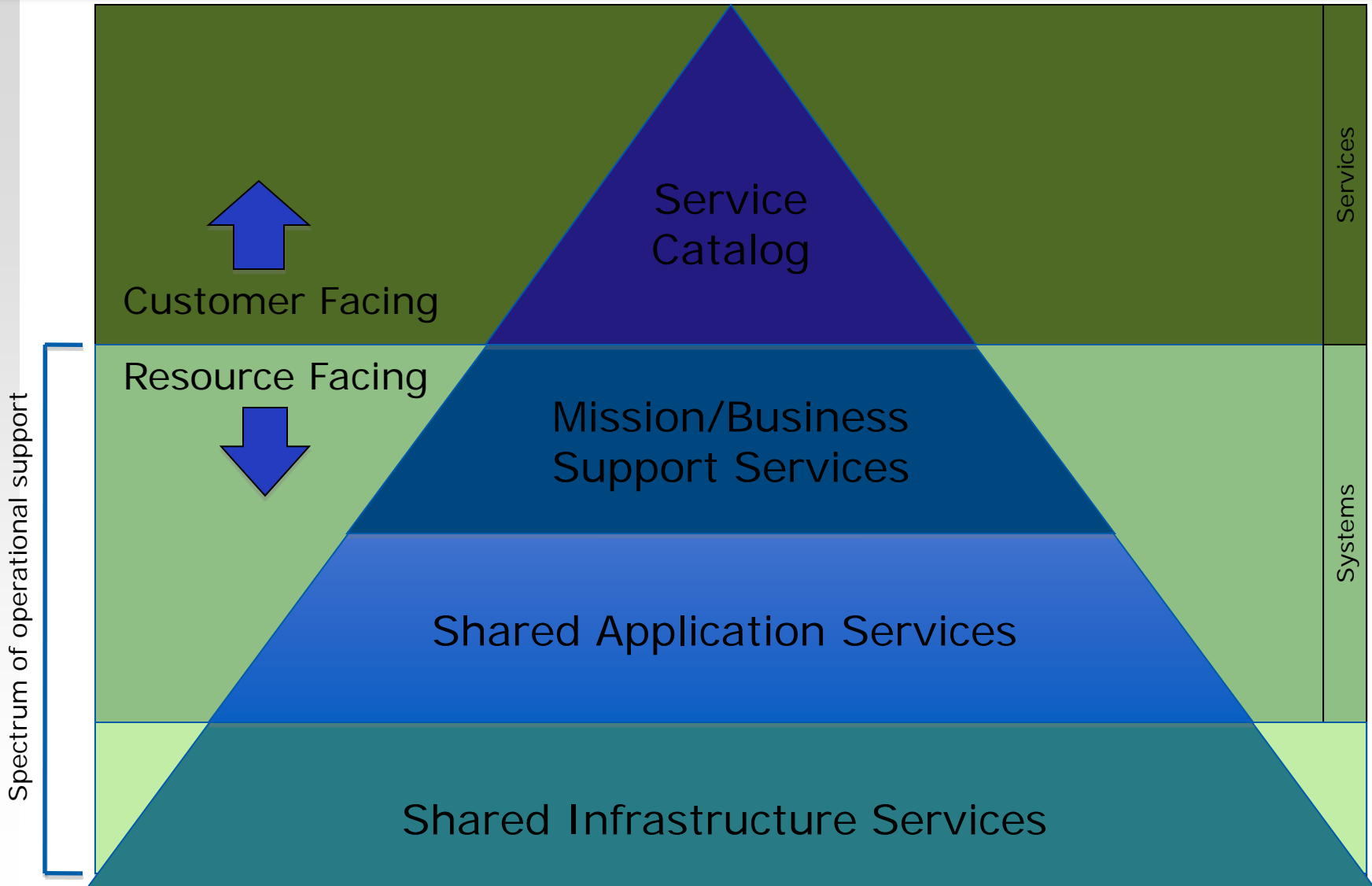- ► DIA's continuing effort to quantify the IT services it deploys facilitates reimbursement for those services

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- ► According to the Economy Act and DoD FMR Volume 11A, Chapters 1 and 3, any methodology used in determining the price of the a reimbursable object must be based upon "the actual cost of good or services provided"

  - Calculations of actual costs for an IT service would be prohibitive in time and money and counter productive to the original intent of the Economy Act

- ► According to the Government Accountability Office (GAO), for transactions executed under the Economy Act, it is a generally accepted principle that the use of standard costs is permissible in place of actual costs if the standard cost is:

  - Based upon documented historical costs, and
  - Does not augment appropriations

Source: General Accounting Office, GAO-08-978SP, September 2008

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Spectrum of operational support

Customer Facing

Resource Facing

Service Catalog

Mission/Business Support Services

Shared Application Services

Shared Infrastructure Services

Services

Systems

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► The goal of the DIA IT Service Catalog is to be a means for the DIA CIO to define standard service configurations and determine standard prices for provisioning and sustainment of these services

- Standard prices demonstrate the value of DIA IT services to its customers and facilitate reimbursement
- The standard price for a service includes*:
  - Hardware
  - Software
  - Labor (installation, integration)
  - First year operations and maintenance

*Due to the complexity of determining and allocating overhead and G&A costs, and the likelihood that some may be excluded from recovery from the Economy Act, these costs are not included as part of service based costing as this time

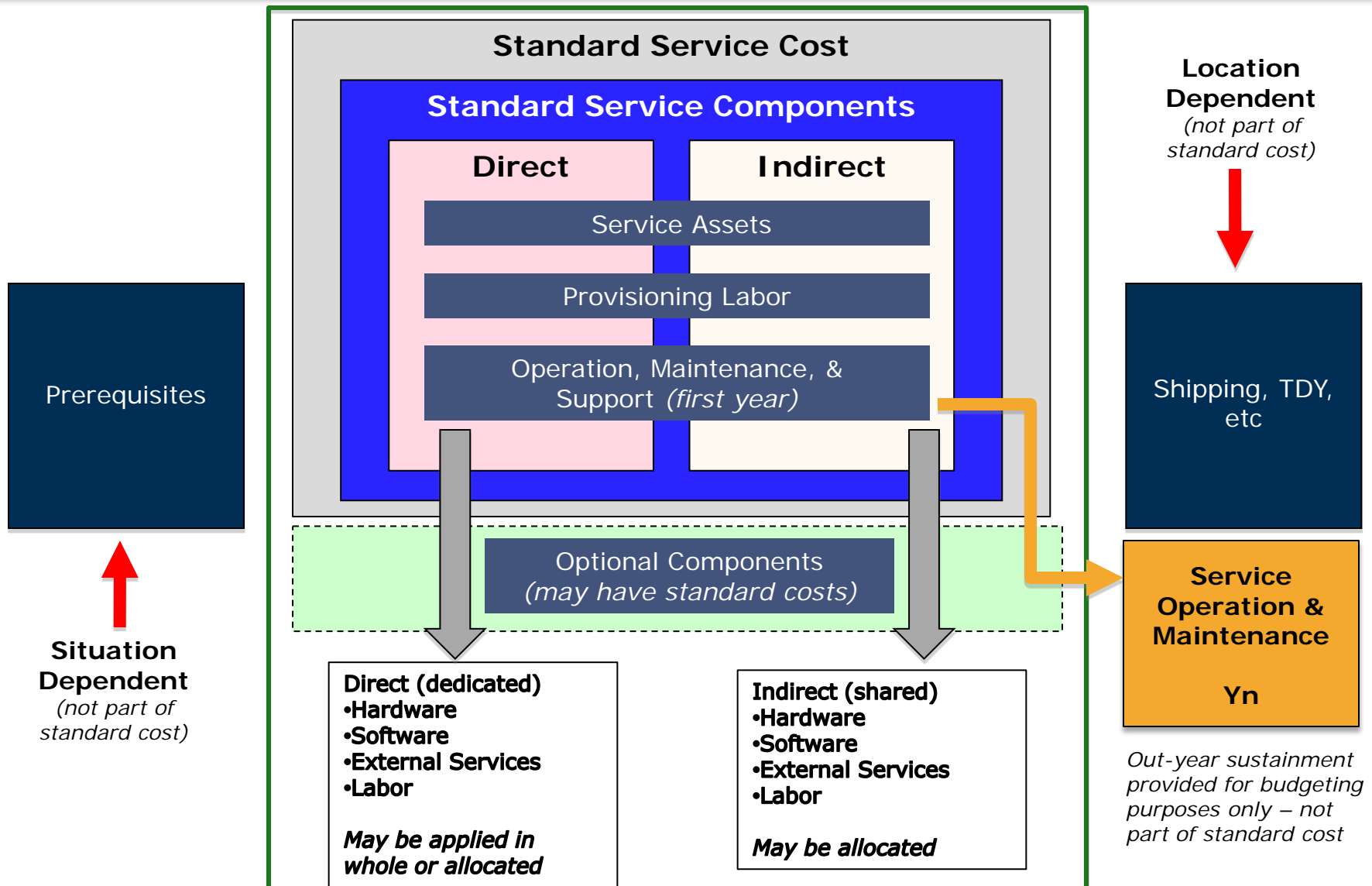Presented at the 2012 SCEA/ISPA Joint Annual Conference and Training Workshop - www.iceaaonline.com

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▶ New services are added to the catalog and valuated as they are identified

  – Either through a formal data call or when a service owner requests a cost for reimbursement

▶ The catalog contains over 150 services in 9 categories

  – User Accounts
  – Peripherals
  – Workstation
  – Communication and collaboration
  – Network
  – Mission Applications
  – Business Applications
  – IT Technical Services
  – IT Consulting and Technical Services

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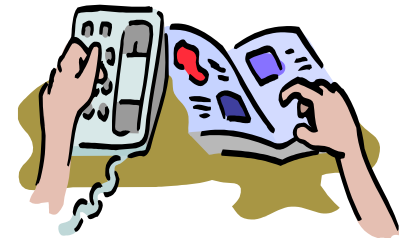
► Pricing Supplement

- ► The Pricing Supplement is an appendix to the IT Service Catalog that contains the standard costs for IT services

  – Some services have not yet been valuated due to complexity, lack of data, or yet to be approved policy

- ► The service-based costing methodology is utilized for the IT Service Valuation

  – The decomposition of IT services into cost elements easily facilitates the agency to track and document the historical costs in order to attain the price of an individual cost element
  – Using standard costs for labor is also an acceptable practice

- ► The cost team works closely with the reimbursable team to ensure that the Economy Act and FMR regulations followed when developing each services' standard cost
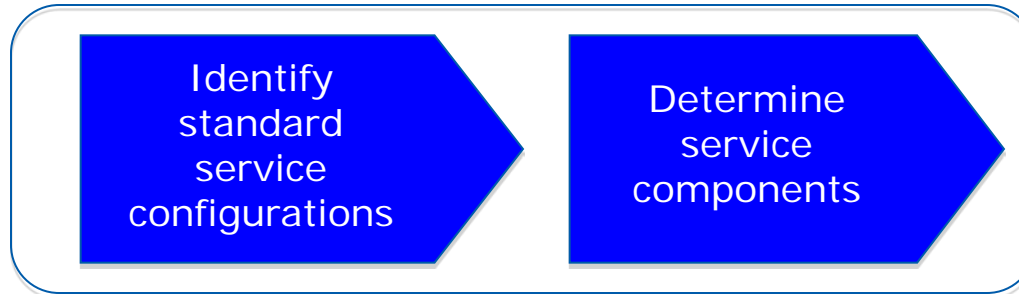
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Standard Service Cost Model

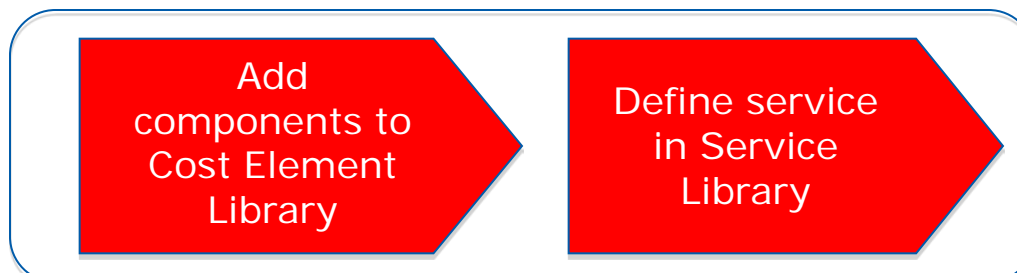# Service Valuation Process

- ▶ Step 1: Interview service owner
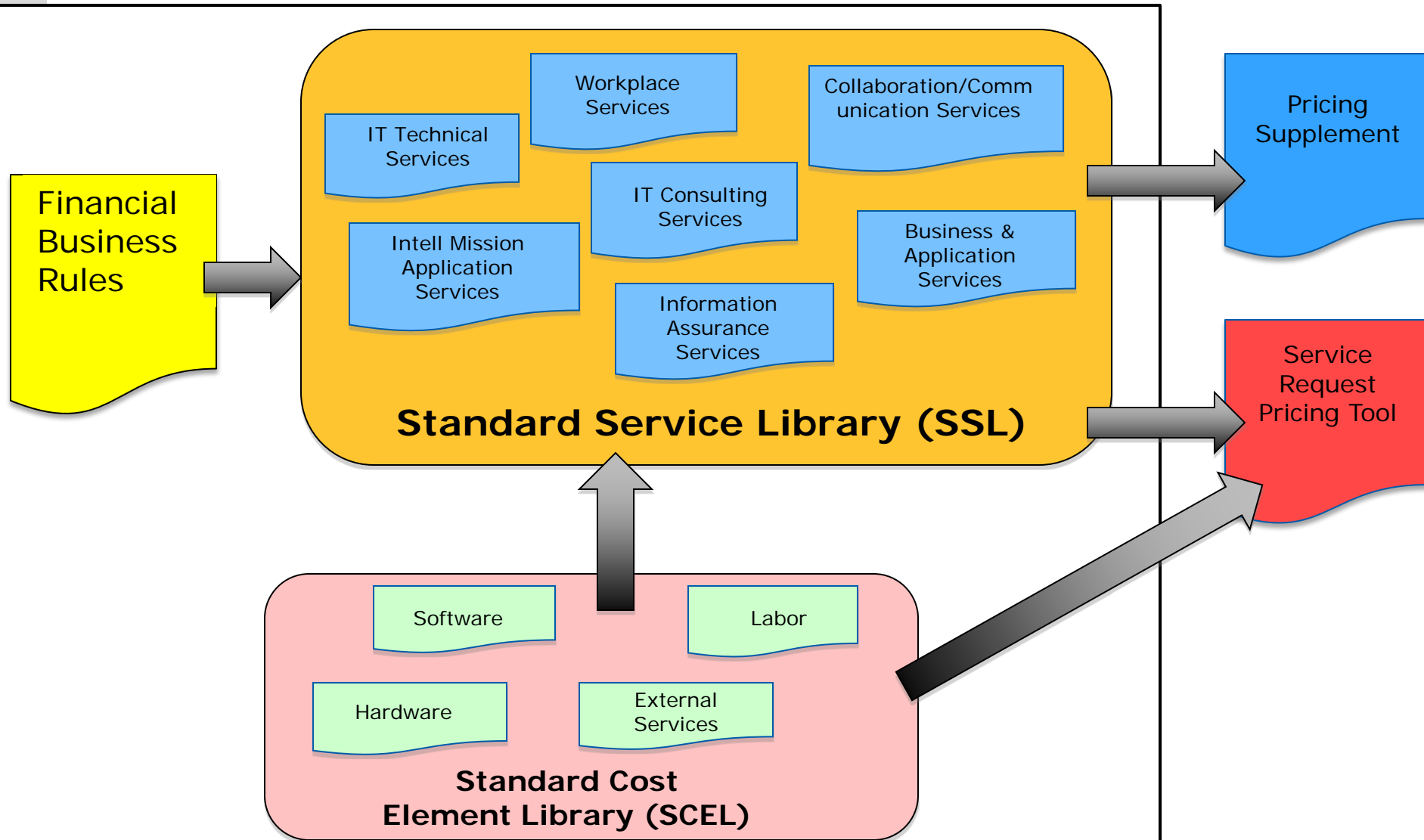

- ▶ Step 2: Collect and normalize cost data
  - Gather cost data from contracts, PRs, IGCEs, and other available databases or resources
  - If hardware or software costs cannot be traced to a specific contract, GSA or NASA SEWP prices may be used
  - Labor steps, where available, are provided by the service owner
- ▶ Step 3: Meet with service owners or identified POCs for review, and validation of service costs
- ▶ Step 4: Update service valuation toolkit

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► Service Valuation Toolkit (SVT)

Financial Business Rules

Standard Service Library (SSL)

- IT Technical Services
- Workplace Services
- Collaboration/Comm unication Services
- IT Consulting Services
- Intell Mission Application Services
- Information Assurance Services
- Business & Application Services

Pricing Supplement

Service Request Pricing Tool

Standard Cost Element Library (SCEL)

- Software
- Labor
- Hardware
- External Services

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Cost Element Library

▶ Below is a snapshot of the Cost Element Library

▶ There are four library categories:

- Hardware
- Software
- Labor
- External Services (includes maintenance agreements)

Tracks the service owner who provided the cost element

STANDARD COST ELEMENT LIBRARY - v 4.1.0								
Hardware **End-User Computing**								
Cost Element Name	Description	Owner	UoM	Cost/Unit	Year	Recur	Comments/Source	Last Updated
end								

Provides the contract or source of the costs, the date of the last update and who inputted the information into the library

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► Below is a snapshot of the Standard Service Library
   – One of these sheets exists for every service valuated in the Pricing Supplement

Provides a description of the service, POC, modifier name, date updated, and total cost

Sums the Year 1 costs by Assets, Installation, and Integration and sums the annual O&M cost

Includes list of HW/SW, O&M labor and service activation workflow. Inputs selections are linked to the Cost Element Library

Allows optional or enhanced elements to be captured for specific customer needs

> ▶ Is linked to the Standard Service Libraries and costs are updated automatically

SERVICE REQUEST PRICING TOOL - v 4.0.0
Standard Service Pricing Sheet

Requestor's Name	Requestor's Organization	Organization (Customer) Type	Delivery Region	Person Pricing Request	Date of Initial Request	Anticipated Installation Quarter

Request Description

Create New Row	Create Bill of Materials	Print Request

A separate worksheet can be outputted that displays all of the services selected and their costs to be given to the customer

Services									Provision			Sustain
Service Req Line Item	Service Category	Service Line	Service Name	Description	Justification	Qty	UoM	Price per UoM	Assests	Installation	Integration	O&M

Do Not Insert Below this Line

The user can identify multiple services to create a ROM for the customer requirement they are satisfying

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► There are other tabs in the SRPT that provide the following functionality:

- Options
    - This worksheet enables the selection of standard service options and quantities for each IT service included in the Standard Service Pricing Sheet, including enhancements and add-ons
- Non-Standard
    - This worksheet provides access to both the Standard Service Libraries (containing standard IT services) and Standard Cost Libraries (containing standard service components)
        - The purpose of this sheet is to allow for situations where it is necessary to include specific service components in order to account for additional non-standard or situation-specific requirements, e.g., additional IT infrastructure to support requested services
- Output
    - These worksheets were created based on feedback from tool users to display total costs by each year and broken out by type of costs, e.g. Assets, Integration, Installation, and O&M

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▶ The SRPT output (see example below) provides the user a high level ROM for all requested services

- This is given to the customer during the agreement step of the reimbursable process
- The cost is presented to the customer as an estimate with the caveat that it is subject to change

Estimated Cost									
Service	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
Service 1	$ 21,000	$ 1,500	$ 1,545	$ 1,591	$ 1,639	$ 1,688	$ 1,739	$ 1,791	$ 32,494
Assets	$ 20,000								$ 20,000
Installation	$ 500								$ 500
Integration	$ 500								$ 500
O&M		$ 1,500	$ 1,545	$ 1,591	$ 1,639	$ 1,688	$ 1,739	$ 1,791	$ 11,494
Service 2									$ -
Assets	$ 50,000								$ 50,000
Installation	$ 750								$ 750
Integration	$ 750								$ 750
O&M		$ 2,000	$ 2,060	$ 2,122	$ 2,185	$ 2,251	$ 2,319	$ 2,388	$ 15,325

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Challenges and Constraints

- **Not all services have a service owner**
  - Without an identified POC the cost team must make assumptions about the standard cost for a service

- **Consideration of discount rates for IT procurements**

- **Lack of data and information on the HW configurations and number of allocations for backend infrastructure**
  - Ongoing debate over whether the allocations should be determined by capacity or usage

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- ► Coordinating costs with the agency's Approved Products List (APL)
  - HW for some services are bought without standards in place

- ► Services with varying configurations across multiple locations make it difficult to collect data and valuate

- ► Service desk costs not captured

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- ▶ Costs by location
  - – Many customers are located around the world and costs for deploying services can vary based on the customer location

- ▶ Consideration of discount rates
  - – The agency receives a discount for purchasing HW and SW in large quantities and this should be considered in the standard cost of a service

- ▶ Continued research on labor categories and rates
  - – Most rates used based on an average for each labor category and do not split it out costs by government or contractor costs

- ▶ Streamlined process for informing users of updates to the Pricing Supplement costs
  - – Often times the users will save the first published copy to their desktop and only use that version for all incoming requirements

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Questions

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