# ESC Study Group Agenda

<table>
<thead>
<tr>
<th>Tuesday, Nov 3rd</th>
<th>Wednesday, Nov 4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening</td>
<td>Roadmap Orientation and Discussion</td>
</tr>
<tr>
<td>Overview</td>
<td>Deep Dive into Projects</td>
</tr>
<tr>
<td>Pricing</td>
<td>lunch</td>
</tr>
<tr>
<td>Overview of Service Layer Framework</td>
<td>Team Collaboration - Way Ahead - Deliver Out brief of Study Group</td>
</tr>
<tr>
<td><strong>Lunch</strong></td>
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<tr>
<td>Team Collaboration - Way Ahead</td>
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<tr>
<td>Evening Break Out Sessions</td>
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Who we are

• ESC was created in 2003 as an entity to provide Federal Shared Services
• ESC has been an OMB designated Financial Services and Information Security Services Shared Service Provider since 2005
What is Shared Services

“A Shared Services Provider is a business model that enables resources to be leveraged across an entire organization resulting in lower costs with agreed upon customer-service levels.”

ESC’s Current Certifications

• International Standards Organization (ISO) 9001:2008
• ESC Data Center is ISO (International Electrotechnical Commission (IEC) 20000-1:2005 certified and Information Technology Infrastructure Library (ITIL) compliant.
• ISS ISO Certification ISO 17k
• Certified Information Systems Security Professional (CISSP)
• Certified Information Systems Auditor (CISA)
• Certified Business Continuity Professional (CBCP)
• NDU CNSS 4011-4016, CISO and CIO Certificates
• Certified Authorization Professional (CAP)
• Certified in Risk and Information Systems Control (CRISC)
• GIAC Certified Forensic Analyst
Franchise Fund Principles

• Key Concepts from Legislation
  – Funds available *without* fiscal year limitation (revolving fund)
  – Rates must recover *all* expenses of operation
  – Ability to maintain a reasonable *operating reserve*
  – Ability to maintain *capital reserve*...for acquisition of capital equipment, improvement and implementation of financial management, ADP, and support systems

• Expected Outcomes
  – Gain efficiencies and economies of scale
  – Lower overhead/spread cost
  – Improve quality
  – Provide better service to the public
  – Enhance core programmatic mission by making support more cost effective
ESC Mission and Vision

**Mission:**
ESC delivers exceptional Federal Financial and Technology Shared Services through a culture of employee empowerment, excellence, and innovation.

**Vision:**
Transforming Federal Shared Services and reducing the cost of government Financial and Security services through partnerships, innovation, integrity, and mission focus.

**ESC Priorities:**
1. Enhancing customer mission by reducing cost of admin services
2. To improve efficiency, standardize, and reduce the cost of service
3. To strengthen business management, controls, and transparency
4. To improve the customer experience
5. To align ESC and customer processes with industry best practices
6. Develop ESC Team
Where does ESC sit

- DOT
- NON DOT
- USSM
- FIT
- FAA Franchise Fund Council
- FAA
  - Mike Monroney Aeronautical Center (MMAC)
  - Franchise Fund
  - Fee for Service
  - No appropriations
  - Full Cost Recovery through Customer Agreements
M&O Operating Model for Administrative Shared Services

OMB Management Offices (E-Gov, OFFM, OFPP, OPPM)

OMB Shared Services Policy Officer (SSPO)

Shared Services Governance Board (SSGB)
OMB, Government-wide Administrative Function Policy Agencies, CxO Councils, Consumers, Providers, SSP Home Agencies

Unified Shared Services Management (USSM) Organization

USSM Director

Providers as Determined by USSM (e.g., FSSPs, Centers of Excellence, Category Management, Private Sector Service Contracts)

Government-wide Administrative Shared Services Consumers (includes shared service provider home agencies)

Legend
- M&O OVERSIGHT
- M&O MANAGEMENT
- M&O DELIVERY
- INDEPENDENT OF M&O

Authority via IAA

SLAs

Government-wide Administrative Function Policy Agencies (GWPA)
(Treasury, OPM, GSA)

Consumer Councils (HR, FM, others)

External Stakeholders
# M&O Operating Model: Key Roles and Relationships

<table>
<thead>
<tr>
<th>Organization/Participants</th>
<th>Key Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy-making bodies:</strong></td>
<td>Issue government-wide policy and business requirements for administrative functions (e.g., FM, HR, Travel, Acquisition, IT)</td>
</tr>
<tr>
<td><strong>Government-wide Policy</strong></td>
<td>An integration role: Issue administrative shared services implementation and delivery policies. Coordinate with Hill and OMB Offices to further shared services goals and address challenges</td>
</tr>
<tr>
<td><strong>Oversight</strong></td>
<td>A decision-making body for the shared services ecosystem: Determine strategic direction, goals and expectations for shared services. Approve plans, priorities, targets, standards and solutions. Adjudicate escalated issues between shared services stakeholders</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>An integration body, working across functions, providers and consumers: Assist and enable SSPs and consumers to address shared services challenges. Provide SSP implementation direction and guidance based on administrative shared services strategy, policies and requirements. Provide input to OMB on SSP operating budget and spend plans</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>Implementation organizations: Deliver administrative shared services to consumers, incorporating USSM implementation direction, guidance and assistance. Implement shared service strategies, policies and requirements. Develop operating budget/spend plans and manages operating funds</td>
</tr>
<tr>
<td><strong>Independent of M&amp;O</strong></td>
<td>Government-wide Administrative Function Policy Agencies (GWPA), OMB Management Offices</td>
</tr>
<tr>
<td><strong>Shared Services Policy Officer (SSPO)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Shared Services Governance Board (SSGB)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unified Shared Services Management (USSM)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Shared Service Providers (SSPs)</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Agency Migrations to Shared Solutions: Financial Mgmt Services

<table>
<thead>
<tr>
<th>Agency</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUD (to Treasury ARC)</td>
<td>Travel</td>
<td>HR Processing and Time &amp; Attendance</td>
<td>FM &amp; Procurement</td>
<td></td>
</tr>
<tr>
<td>DHS—DNDO/TSA/USCG (to Interior IBC)</td>
<td></td>
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<tr>
<td>DHS—DMO/NPPD/S&amp;T/USCIS (assessing options for Discovery)</td>
<td></td>
<td></td>
<td></td>
<td>USCG Go-live</td>
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<tr>
<td>VA (assessing shared solutions)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GSA (to USDA NFC)</td>
<td>Personnel Transitioned</td>
<td></td>
<td>System Transitioned</td>
<td></td>
</tr>
<tr>
<td>Labor (Discovery with DOT ESC)</td>
<td></td>
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</tbody>
</table>

Note: Dept of Commerce working with FIT to clarify scope and identify timeframes for moving to a shared solution

* Represents the planned activity’s completion timeframe
* indicates completed milestone

As of 10/22/2015
Current Customer List

• 23 Financial Management Lines of Business Customers

• 5 Integrated Procurement System Customers
## ESC FY15 Successes

<table>
<thead>
<tr>
<th>Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed/Implemented a Unit Manning Document (UMD)</td>
</tr>
<tr>
<td>Developed Strategic Roadmap</td>
</tr>
<tr>
<td>Held 3 Delphi Working Group (DWG) Sessions and 1 Prism Working Group (PWG) Session</td>
</tr>
<tr>
<td>Deployed the new ETS2 (Travel System)</td>
</tr>
<tr>
<td>Upgraded ESC’s SOA</td>
</tr>
<tr>
<td>Developed a plan for Instance Management Strategy for Delphi and ESC PRISM</td>
</tr>
<tr>
<td>Developed / Implemented the Program Management Process</td>
</tr>
<tr>
<td>Treasury Mandate Success with PAM for reporting TAS/BETC (Treasury Account Symbol/Business Event Type Code) in Delphi</td>
</tr>
<tr>
<td>Started Enterprise Data Warehouse / Business Intelligence Workshops</td>
</tr>
<tr>
<td>Completed Upgrading ESC’s Backup Solution</td>
</tr>
<tr>
<td>Started Remedy Enhancement</td>
</tr>
<tr>
<td>Started Network Upgrade</td>
</tr>
<tr>
<td>Filled key management positions – AMK-10, AMK-200/201, and AMK-301</td>
</tr>
<tr>
<td>NHTSA and FRA implemented onto ESC PRISM</td>
</tr>
<tr>
<td>Implemented improved project and task structure for time tracking</td>
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</table>
Action Plan

ESC Assessments
- DOC/DOL Lessons Learned
- ESC Internal Analysis
- Ernst & Young Study
- Oracle STEPS Assessment
- Technical Assessment

FY15 Improvements
- Pricing
- PMB Process
- Staffing & Development
- Infrastructure Modernization
- Roadmap

Next Steps
- Business Process Reengineering (BPR)
- SLA Metrics
Technical Readiness Assessment Overview

**Goals of Study**

1. Determine the readiness of the ESC technical environment to ensure it can accommodate DOL’s financial mission

2. Ensure there is no impact to the existing customer service levels once DOL is on boarded

3. Ensure scalability of ESC environment to accommodate future clients
## Architecture & Vision Framework

<table>
<thead>
<tr>
<th>DELIVERABLES</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture Approach &amp; Vision</td>
<td>Aligns with business guidelines and lays out core architecture principles governing future choices</td>
</tr>
<tr>
<td>Base</td>
<td>Develop framework for evaluating architecture and define guiding architecture principles</td>
</tr>
<tr>
<td>Oct</td>
<td>Identify Challenges &amp; Opportunities in Current Architecture</td>
</tr>
<tr>
<td></td>
<td>- Baseline current state issues and initiatives. Review past reports and documentation</td>
</tr>
<tr>
<td></td>
<td>- Consider possible solutions to address challenges in application and technical architecture</td>
</tr>
<tr>
<td></td>
<td>- Select target architecture and recommended solutions that meet acceptance criteria</td>
</tr>
<tr>
<td>Nov</td>
<td>Generate Possible Solutions</td>
</tr>
<tr>
<td>Dec - Jan</td>
<td>Develop Recommendations</td>
</tr>
<tr>
<td>Feb - Mar</td>
<td>Migration Plan and Value Proposition</td>
</tr>
<tr>
<td>Establish a viable implementation plan and articulate a value proposition for the recommendations</td>
<td></td>
</tr>
<tr>
<td>Baseline of Current Delphi Environment</td>
<td>Include DOL’s core technical requirements and future platform requirements to onboard other federal agencies</td>
</tr>
<tr>
<td>Target Architecture Alternatives Analysis</td>
<td>Addresses the requirements identified in the specifications, adheres to core principles, and satisfy business constraints</td>
</tr>
</tbody>
</table>

### Architecture Approach & Vision

- **Aug - Sept**: Completed
- **Review Gate**: Baseline of Current Delphi Environment
- **Oct**: Identify Challenges & Opportunities in Current Architecture
- **Nov**: Generate Possible Solutions
- **Dec - Jan**: Develop Recommendations
- **Feb - Mar**: Migration Plan and Value Proposition
- **Aug - Sept**: Baseline of Current Delphi Environment
- **Aug - Sept**: Target Architecture Alternatives Analysis
- **Aug - Sept**: Migration Plan

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**Completed**

**Review Gate**
# Preliminary Alternatives

1. **Do Nothing to Current Delphi Environment**
   - This alternative will evaluate the as-is Delphi environment. Current environment will be analyzed to ensure it can first and foremost accommodate DOL by 2019. This will be followed by analyzing the viability of the current environment for hosting additional customers over the next 7 years.
   - Delphi environment will be analyzed for its capacity, scalability, network, security across application architecture, infrastructure, and IT operations.
   - Assess the impact of DOL’s potential migration on ESC’s current People, Process, and Technology.
   - Consequently, no major upgrades and enhancements will be assumed as part of this alternative.

2. **Upgrade Current Environment**
   - This alternative will evaluate the current Delphi Infrastructure with an expectation of significant upgrades to make it viable for hosting DOL in the short run and other customers over the next 7 years.
   - Potential areas of upgrade will include storage, network, compute and applications environment.
   - Introduce high performance, engineered systems, appliance type integrated architecture with the potential of scaling to accommodate DOL and other new tenants. To that end, products such as Oracle Exadata and high speed intra-network connections will be assessed for potential return on investment.

3. **Undertake Architectural Overhaul**
   - This alternative will evaluate the viability and value proposition of undertaking a major architectural overhaul of the Delphi environment including database optimization and code reconfiguration.
   - To that end architectures such as private, public, and hybrid cloud will be evaluated.
   - A potential scenario may involve ESC buying or using cloud services (SaaS, PaaS or IaaS) from a Cloud Service Provider such as FAA AIT or GSA, etc.
   - Hybrid solution may entail starting off with upgrading the current Delphi environment to provide private cloud-like features and then developing a roadmap to introduce public cloud over the next 7 years to accommodate peak work loads and/or testing and development.
Agreement Timeline

Current Year Execution

Oct - Dec
Requirements

Dec - Mar
Prices

Mar - Jul
Budget BY
Programming BY + 1

Note: For this March we are planning on giving FY-17 prices based on planning numbers that were already provided & FY-18 prices using the service layer framework.
Portfolio Review

ESC Historical Revenue and Expenses (in Millions)

<table>
<thead>
<tr>
<th></th>
<th>FY-08</th>
<th>FY-09</th>
<th>FY-10</th>
<th>FY-11</th>
<th>FY-12</th>
<th>FY-13</th>
<th>FY-14</th>
<th>FY-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$124.07</td>
<td>$149.41</td>
<td>$167.64</td>
<td>$158.62</td>
<td>$158.02</td>
<td>$153.50</td>
<td>$153.55</td>
<td>$175.25</td>
</tr>
<tr>
<td>Expense</td>
<td>$127.78</td>
<td>$166.49</td>
<td>$166.34</td>
<td>$154.94</td>
<td>$153.05</td>
<td>$149.43</td>
<td>$166.41</td>
<td>$183.52</td>
</tr>
</tbody>
</table>

FY-08 FY-09 FY-10 FY-11 FY-12 FY-13 FY-14 FY-15

Revenue $124.07 $149.41 $167.64 $158.62 $158.02 $153.50 $153.55 $175.25
Expense $127.78 $166.49 $166.34 $154.94 $153.05 $149.43 $166.41 $183.52

Financial & IT services for 35 agencies:
- 14 DOT & 21 non-DOT
- 824 Servers
- 703 Terabytes Storage
- $15.4B in Vendor Payments

Financial & IT services for 42 agencies:
- 14 DOT & 28 non-DOT
- 932 Servers
- 1,606.5 Terabytes Storage
- $15.5 B in Vendor Payments

Financial & IT services for 43 agencies:
- 14 DOT & 29 non-DOT
- 901 Servers
- 1,465 Terabytes Storage
- $15.4 B in Vendor Payments
Portfolio Review

Financial Results, Proprietary ($000)
- Planned FY15: Operating Margin $1.7M, Revenue $158,800
- FY15 Plan: Deprec, $5,200, Cap Reserve, $7,100, Op Exp, $157,100

Actual FY15
- Operating Margin $0.0M, Revenue $175,300
- FY15 Actual: Deprec, $5,200, Cap Reserve, $8,200, Op Exp, $175,300

Estimated FY-16 Revenue Breakout by Program
- Financial Management 46%
- Other 29%
- IFPA 5%
- PRISM 6%
- DOL O&M 7%

Estimated FY-16 Revenue Breakout by Customer
- FAA 47%
- SEC 6%
- FHW 6%
- Other 31%
- DOL 10%

Includes $600K of Capital Accumulation

Other
- DOL O&M 7%
- NWP 7%
- IFPA 5%
- PRISM 6%
- Other 29%

Planning FY16
- Operating Margin $0.7M, Revenue $176,420
- FY16 Plan: Deprec, $5,220, Cap Reserve, $3,840, Op Exp, $175,750

Includes $600K of Capital Accumulation
## Portfolio Review

<table>
<thead>
<tr>
<th>Reserve Balances</th>
<th>Capital Reserve (CR)</th>
<th>Operating Reserve (OR)</th>
<th>Ending Balance CR</th>
<th>Ending Balance (OR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY-10</td>
<td>--</td>
<td>--</td>
<td>$11.9M</td>
<td>$6.6M</td>
</tr>
<tr>
<td>FY-11 (net change)</td>
<td>$3.6M</td>
<td>$-</td>
<td>$15.5M</td>
<td>$6.6M</td>
</tr>
<tr>
<td>FY-12 (net change)</td>
<td>$5.0M</td>
<td>$-</td>
<td>$20.5M</td>
<td>$6.6M</td>
</tr>
<tr>
<td>FY-13 (net change)</td>
<td>$4.1M</td>
<td>$-</td>
<td>$24.6M</td>
<td>$6.6M</td>
</tr>
<tr>
<td>FY-14 (net change)</td>
<td>($12.5M)</td>
<td>($0.4)</td>
<td>$12.1M</td>
<td>$6.2M</td>
</tr>
<tr>
<td>FY-15 (net change)</td>
<td>($8.2M)</td>
<td>($0.1)</td>
<td>$  3.9M</td>
<td>$6.1M</td>
</tr>
<tr>
<td>Est. FY-16 (net change)</td>
<td>($2.9M)</td>
<td>$0.1</td>
<td>$  1.0M</td>
<td>$4.2M - $6.2M</td>
</tr>
</tbody>
</table>
Historical Delphi/Accounting

Total Delphi/Accounting Revenue (in Thousands)

Implemented SEC; 5 months O&M
System Changes and Enhancements

Customer Working Groups
- Unique/Urgent Significant Level of Effort
- Customer Global

Continual Improvement
- Capacity Management
- Internal Improvements (Technical, Process, Business)
- Operations & Maintenance

Mandates

Project Funded

Fixed Price
"Healthy System"
ESC Funding Profile

Cost Reduction Initiatives

- Capacity Monitoring
- Resource Matching
- “Bottoms-Up” Budget Exercises
- Indirect Enterprise Cost Reduction
- DOL – Cloud & Discovery

- eInvoicing
- Reduce System Customizations
- Back Up Solution
- Continued Collaboration on Customer Cost Drivers

- Automated Testing and Configuration
- Analysis of Manual processes to Automated Solutions
- Standardization of the Helpdesk
- Customer Cost Driver Education
Process Improvement Impact

Cost Reduction Initiatives

- Capacity Monitoring
- Resource Matching
- “Bottoms-Up” Budget Exercises
- Indirect Enterprise Cost Reduction
- DOL – Cloud & Discovery
- eInvoicing
- Reduce System Customizations
- Back Up Solution
- Continued Collaboration on Customer Cost Drivers
- Automated Testing and Configuration
- Analysis of Manual processes to Automated Solutions
- Standardization of the Helpdesk
- Customer Cost Driver Education
Price Build Up

Allocated System Global Costs

1. Telecommunications
2. Hardware/Storage
3. Information Systems Security
4. Software/Licensing
5. Application Support
6. Transaction Processing

Direct
• **Labor Breakdown**
  – Network Management, Operations and Troubleshooting
  – Firewall Management, rule changes
  – Load Balancer Support
  – Network/Router Configuration
  – Network Monitoring
  – Audit Response Services
  – Program Management/Coordination Meetings
  – Disaster Recovery Planning/Implementation
  – Disaster Recovery Testing
  – Acquisition and Inventory

• **Circuit**

• **Non Disaster Recovery Equipment Maintenance**

• **F5 Management Licenses**

• **Equipment LifeCycle Replacement Cost**

• **Disaster Recovery Circuit**

• **Disaster Recovery Circuit Routers and Switches Maintenance**

• **Internet Access Point (IAP)**
• Labor Hours
  – Application Administration
  – Database Administration
  – Production Control
  – Facility Engineer
  – System Administration

• Server Information
  – Physical or Virtual
  – Number of Cores
  – Storage – Tier 1 Prod
  – Environment (PROD, Disaster Recovery, Test)
  – Purpose (File Transfer Protocol, Database, Middle Tier, Application, Web)
  – Operating System and Version
  – Backup and Monitoring

• Load Balancers
  – Primary
  – Disaster Recovery
• Labor Hours
  – Assessment
    • Populate FISMA Tool
    • Plan of Action & Milestone (POA&M) Independent Verification & Validation (IV&V)
  – ISSO
    • Doc Support
    • MOU Compliance Reviews
  – Disaster Recovery / COOP
  – Scanning
    • Vulnerability
    • Penetration Testing
    • RedTeam Reviews

• Scanning Tools, such as:
  – DbProtect
  – Nessus
  – Acunetix
• Maintenance on Licenses
  – Contract Number
  – Type of Maintenance
  – Amount

• Software Support
• Labor Hours
  – Global Operations & Maintenance
  – Service Oriented Architecture (SOA)
  – Application Administration
  – Configuration Management
  – Financial Reporting
  – Database Administration
  – Global Enhancements
• Direct Labor
• Indirect Labor (allocated based on Direct Labor)
• Travel
• Facilities Maintenance
• Equipment
Delphi Allocation Background

• Allocation Methodology Developed by DOT/ESC
  – Delphi costs were allocated on four factors
    • # of FTEs
    • # of Outbound Interfaces
    • # of Delphi Users Logged in During a 120 Day Period
    • Adjusted Based on DOT OAs Ability to Pay

• Current Percent is Based on FY07 Method and has only been Adjusted as New Customers Onboard
Global System Cost Makeup

Delphi

- Complexity 56%
- Users 20%
- Transactions 14%
- Costs 100%

ESC PRISM

- Usage 9%
- PRISM Costs 100%
- Transactions 2%
- Users 33%
- Costs 100%
- Complexity 56%
Global System Cost Allocation

Delphi

Performs technical support for Delphi, includes: design, development, and testing of required system modifications; interface maintenance

Performs functional support for Delphi, includes: requirements analysis, designs, setup, testing for all SCRs, treasury mandates, and other system changes

Allocated based on **helpdesk tickets**, however goal is to base on customizations by customer

ESC PRISM

Performs technical analysis, design, development, and testing of required system modifications such as ESC PRISM Upgrades; interface maintenance

Performs requirements analysis, setup, testing for all SCRs, procurement mandates, and other system changes such as Service Packs, Hot Fixes, and ESC PRISM Upgrades

Allocated based on **user counts**, however goal is to update to more equitable rationale
Delphi Helpdesk Ticket Info

• Included:
  – Tier 2/3 Help Desk Requests Submitted
  – System Change Requests Submitted

• Excluded:
  – Password Reset Requests Submitted
  – User Access Requests Submitted

• Ultimate Goal:
  – Allocate based on legal extensions, not Helpdesk tickets

• Over 10K submitted (FY-14)
Global System Cost Allocation

**Delphi**

- Enterprise-wide licensing and support for software, Oracle licensing

  - Software Licenses/Maint: 16%
  - Customer Services Center: 4%

  Allocated based on active users logged on in the last complete fiscal year by customer

**ESC PRISM**

- Enterprise-wide licensing and support for software, Compusearch licensing

  - Software Licenses/Maint: 29%
  - Customer Services Center: 4%

  Allocated based on user counts, however goal is to update to more equitable rationale
• Total count of user IDs by agency that have logged into Delphi (FY-14 data was from upgrade to the end of FY-14 and excluded R12 testing support; FY-15 data will be the entire FY)
• Includes ESC employees in Financial Services and Information Services
• Over 8K users (FY-14)
Global System Cost Allocation

Delphi

- Equipment associated with storage of data elements in the system, includes storage needed for dev & test instances.
- Offsite storage that allows for continued operations in case of disaster; site is located at the National Information Technology Center (NITC) in Kansas City, MO.
- Labor needed to manage the equipment associated with Storage and Disaster Recovery; manages interfaces into the system.

Allocated based on **cumulative GL lines** from inception to the most complete fiscal year.

ESC PRISM

- Equipment associated with the storage of data elements within the system, also includes storage needed for dev & test instances.
- Offsite storage that allows for continued operations in case of disaster; site is located at the National Information Technology Center (NITC) in Kansas City, MO.

Allocated based on **user counts**, however goal is to update to more equitable rationale.
Delphi Cumulative GL Line Info

- Count of line entries that post to the general ledger, inception to date by agency
- Over 1 billion cumulative GL lines in Delphi (through FY-14)
Global System Cost Allocation

**Delphi**

- Utilized for processing speed of transaction, retrieving report data (Web & Discoverer), processing concurrent jobs
- The labor needed to manage the servers associated with computing capacity
- Network management for transmission of information over long distances
- Ensure systems are secure, includes vulnerability, risk, & threat assessments & associated documentation

Allocated based on **report & concurrent job run times, & GL lines** from last complete FY

**Usage 10%**

- Computing Capacity 3%
- Customer & Sys. Services 2%
- Telecom 2%
- Info Systems Security 3%

**ESC PRISM**

- Utilized for processing speed of transactions, retrieving data for reports (Discoverer), processing database jobs
- The labor needed to manage the servers associated with computing capacity
- Network management for transmission of information over long distances
- Ensures systems are secure, includes vulnerability, risk, & threat assessments and the associated documentation

Allocated based on **user counts**, however goal is to update to more equitable rationale
Delphi Run Times & GL Line Info

• Report Run Times
  – Total minutes of Discoverer report runs by user by agency during the last complete fiscal year
  – Excludes Web Reports
  – Over 314K minutes (FY-14)

• Concurrent Job Run Times
  – Total minutes of concurrent job runs by agency during the last complete fiscal year
  – Over 2.5M minutes (FY-14)

• Current GL Line Info
  – Count of line entries that post to the general ledger; last complete fiscal year
  – Over 82M current GL lines (FY-14)
PRISM Global Cost Allocation

• Adjustments to user counts in Current Year (CY) will not adjust the allocation percentage until the following Budget Year (BY)
  – Due to the nature of the budget cycle and implications to other customers
• A reduction in user counts does not reduce ESC system costs; it only reduces the share by customer
• ESC is looking at other criteria of allocation for allocating different types of cost
FY-16 Delphi / Accounting Prices

• Performed price build up as shown
• Prices remained allocated on old allocation methodology
  – Exception of Capital / Operating Reserve, this was allocated based on new allocation methodology
• Prices would have increased significantly from FY-15 funding levels
  – Due to funding Capital / Operating Reserve and O&M Full Cost Recovery
• Determined that FY-16 would be held at FY-15 levels + 2% for Accumulation of Capital / Operating Reserve
• Would look at other mechanisms to fund shortfall
• Performed price build up as shown
• Prices were analyzed as if new allocation methodology would be implemented:
  – For DOT customers B-10 agreed to adjust FY-17 in pass back
  – For other customers get well plans were put in place to ease into new allocation methodology
• Prices would have increased significantly from FY-15 / FY-16 funding levels
  – Due to funding Capital / Operating Reserve, O&M Full Cost Recovery, and Business Intelligence O&M
• Determined that FY-17 would be capped in total at 4% increase and amounts for Accumulation of Capital / Operating Reserve would be stripped out
• Would look for other mechanisms to fund shortfall
ESC PRISM Prices

• FY-16 Prices
  – Performed price build up as shown
  – Prices allocated based on User Counts collected in the February 2015 timeframe

• FY-17 Prices
  – Performed price build up as shown
  – Prices originally allocated based on User Counts collected in the February 2015 timeframe
  – During Dr. Smith visit to OKC it was determined to re-baseline FY-17 with User Counts from the September 2015 timeframe
  – New FY-17 estimates will be provided ASAP
Pricing Way Ahead

Background

• In October, 2014, the Treasury Office of Financial Innovation and Transformation (FIT) tasked MITRE to provide an “Entrepreneur in Residence” for the four current Financial Shared Service Providers (FSSPs)

• Based on customer feedback, ESC leveraged this project to begin work on improved pricing transparency/methodologies
  – MITRE conducted interviews with DoT ESC subject matter experts (SMEs) to identify DoT capabilities and needs, reviewed industry and government best practices, and developed a recommended service-cost-price framework
Path to Future State

- DoT ESC has made progress with its costing-pricing methodologies, but needs a service-cost-pricing framework to integrate them and provide:
  - Basis for establishing appropriate categories/number of labor charge codes, service metrics to be captured for costing purposes, and processes/tools needed to capture/derive costs and service metrics
  - Well-defined cost components and groupings that can be used to build up the price of different service packages offered to customers (e.g., platform with/without business application support, business transaction processing with no platform/business application support)
  - Transparent pricing methods which connect services, costs, and prices and are defensible with regard to indirect costs allocated to customers
  - Ability to more thoroughly categorize and analyze costs by individual customer and compare/aggregate costs across customers
  - Information needed to inform customer decisions (e.g., mandatory vs. optional services, price of different service levels, price drivers controllable by the customer)
Objectives of Service-Cost-Pricing Framework

• Develop and document a shared understanding of the cost components, basis, and drivers for providing and pricing various services to shared service consumers/customers

• Enable ESC to answer commonly asked questions:
  – What is the full and complete cost to provide the various services?
  – Where might we have the ability to lower, more efficiently deliver, or better recover costs of various services?
  – What packages of services could we consider offering for what price?
  – What can we tell our customers about the potential impact of decisions they can make during implementation and on-going operations?

• Enable ESC personnel to:
  – Identify key service cost drivers and evaluate impact on service levels, costs, and prices of various approaches for reducing, allocating, and recovering costs
  – Evaluate service package offering and pricing alternatives based on the ability to identify, allocate, and recover service cost by customer
  – Engage in informed, effective conversations with shared service consumers/customers on service options and managing service prices affected by consumer/customer decisions

• Trace to the service catalogue to allow relevant cost comparisons across service providers

• Provide a methodology to provide total cost of service for each customer
Service Layer Framework

• Provide basis for systematically identifying and documenting costs
• Can be combined to provide different service packages, for example:
  – Complete set of infrastructure and system services: Service Layers 1-5
  – Hosting customer-maintained/operated system: Service Layers 1 and 2
  – Business transaction processing using customer-hosted system: Service Layers 1 and 6
• Can be selectively scaled to provide different service levels and determine associated impact, for example:
  – Higher level of help desk response/support: increased Level 1 and 5 costs for additional staff needed to meet higher service level
  – Higher level of business transaction processing volume: increased Level 1, 2, and 6 costs for additional staff and network/storage to support higher volume
  – Shift from paper to electronic business transaction processing: decreased Level 1 and 2 costs for reduced staff, increased Level 3 costs for additional software licenses/connections
## Service Layers and Types

<table>
<thead>
<tr>
<th>Service Layers</th>
<th>Technology</th>
<th>Workforce</th>
<th>Advisory</th>
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<tbody>
<tr>
<td>Business Services</td>
<td><strong>Business Functional &amp; Analytics Support</strong>&lt;br&gt;Provides customers specialized services such as (1) guidance on regulations, policies, and processes pertaining to specific business functions; (2) business operations audit and internal controls support; (3) business management and operations performance reporting and analytics.</td>
<td><strong>Business Transaction Processing Support</strong>&lt;br&gt;Provides customers support staff to process business transactions on behalf of the customer. These staff are thoroughly trained on the system/software, specifically, how to process government transactions.</td>
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<td>Platform Services</td>
<td><strong>Business Application Support</strong>&lt;br&gt;Includes monitoring of the application and vendor provided software for faults and performance, application optimization support and help desk support for the system. Provides assistance to users with reporting tools, data access tools and report creation/management.</td>
<td><strong>Data Management</strong>&lt;br&gt;Includes the databases and staff to store and manage system data and user-generated electronic content (e.g., documents, reports). Also included are backup and restore capabilities, adherence to customer data retention policies and the maintenance and administration of common reference/master data.</td>
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<td>Other Technical Services</td>
<td><strong>Software Management</strong>&lt;br&gt;Includes the license management, setup, configuration and optimization of vendor provided software to operate a system. Also included are enhancements, extensions, and custom code.</td>
<td><strong>Hardware/OS/Storage Management</strong>&lt;br&gt;Includes the hardware, operating system(s), storage devices, administrative software, fault and performance monitoring software and staff needed to host, manage and operate a system.</td>
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<td><strong>Facilities/Telecommunication Management</strong>&lt;br&gt;Includes the operation and maintenance of a physical facility to host and operate a system and/or provide support services. It also includes the telecommunications equipment, office furniture, physical security, grounds maintenance etc., necessary to ensure a secure operations center.</td>
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Shared Service Costing-Pricing Project Outcomes

• A functional prototype of the shared service costing-pricing model to support FY17-18 pricing effort
• Tested and documented methodologies for shared service cost collection/analysis/allocation and pricing
• A list of ESC and customer change management initiatives needed to effectively implement and use the shared service costing-pricing model and methodologies
• A list of potential automation and process improvements to support FY18-19 pricing effort
• Recommendations for level/mix of resources needed to support FY18-19 pricing effort
Shared Service Costing-Pricing Project Approach

• Conduct a series of work sessions with DoT ESC project core team and service layer subject matter experts (SMEs) to
  – walk through the previously developed shared service cost-price framework and establish objectives, shared terminology, and overall approach
  – walk through DoT ESC methodologies currently used for costing-pricing shared services
  – refine list of components for each service layer/enabling function and identify those that are the key cost-price drivers for each service layer/enabling function
  – agree upon information needed and approach for costing-pricing key components, including
    • provider service and customer usage metrics to use for costing-pricing purposes
    • labor charge code categories for direct and indirect costs
    • cost collection/analysis/allocation, chargeback, and pricing methods
Shared Service Costing-Pricing Project Approach (con’t)

• Conduct interviews with other shared service providers and shared service customers to identify approaches currently being used for cost collection/analysis/allocation and pricing, as well as costing-pricing information needs not currently being met
  – Other 3 FSSPs (DOI IBC, USDA NFC, Treasury ARC)
  – BFS FIT (service consumer cost baseline project)
  – Selected DoT ESC customers
Shared Service Costing-Pricing Project Approach (con’t)

• Using an iterative development and review approach, develop a shared service costing-pricing model functional prototype and documentation to support FY17-18 pricing effort

• Conduct lessons learned work sessions with DoT ESC project core team and develop briefing that presents project findings and recommendations for FY18-19 costing-pricing effort, including
  – potential automation and process improvements
  – recommended shared service provider and customer change management initiatives needed to achieve shared service costing-pricing objectives
  – recommended level/mix of resources needed to maintain and execute shared service costing-pricing model and methodologies