FEA Reference Model Mapping Quick Guide (FY10 Budget Preparation)
Overview

The Federal Enterprise Architecture Framework equips OMB and Federal agencies with a common language and framework to describe and analyze investments, enhance collaboration and ultimately transform the Federal government.

The FEA consists of a set of interrelated “reference models” designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies. Collectively, the reference models comprise a framework for describing important elements of federal agency operations in a common and consistent way. Through the use of this common framework and vocabulary, agency investments can be better managed and leveraged across the federal government.

Purpose

The purpose of this guide is to help agencies map their investments to the FEA reference Models, especially for completing the Exhibit 53 and Exhibit 300 in OMB Circular A-11, for the FY10 budget year.
The PRM provides a common language enabling an agency EA to link investments to the agency’s ability to achieve agency and program performance objectives.

PRM Measurement Areas and Categories

**Mission and Business Results**
- Services for Citizens
- Support Delivery of Services
- Management of Government Resources

**Customer Results**
- Customer Benefit
- Service Coverage
- Timeliness and Responsiveness
- Service Quality
- Service Accessibility

**Process and Activities**
- Financial
- Productivity
- Cycle Time and Timeliness
- Quality
- Security and Privacy
- Management and Innovation

**Technology**
- Technology Costs
- Quality Assurance
- Efficiency
- Information and Data
- Reliability and Availability
- Effectiveness

The PRM is structured around Measurement Areas, Measurement Categories, Measurement Groupings, and Measurement Indicators.

**Measurement Areas** – The high-level organizing framework of the PRM capturing aspects of performance at the output levels. This layer is directly linked to the performance objectives established at the agency and program levels. The PRM for FY10 includes four measurement areas: Mission and Business Results, Customer Results, Processes and Activities, and Technology.

**Measurement Categories** – Collections within each measurement area describing the attribute or characteristic to be measured.

**Measurement Groupings** – Further refinement of categories into specific types of measurement indicators. For the Mission and Business Results Measurement Area, these groupings align to the Sub-functions of the BRM.

**Measurement Indicators** – The specific measures, e.g., number and/or percentage of customers satisfied, tailored for a specific BRM Line of Business or Sub-function, agency, program, or IT initiative.
The BRM provides a framework facilitating a functional (not organizational) view of the federal government’s lines of business (LoB’s). Following are graphical representations of the BRM by Business Area, with corresponding numeric codes, to help agencies identify BRM mappings to complete the Primary FEA Mapping column of the Exhibit 53 (OMB Circular A-11).

**Services for Citizens**

The Services for Citizens Business Area describes the mission and purpose of the federal government in terms of the services it provides both to, and on behalf of, the American citizen.
Mode of Delivery

The Mode of Delivery Business Area represents the vehicle the federal government utilizes to deliver its Services to Citizens.

Note: “Mode of Delivery” LoBs and Sub-functions are not valid as a primary FEA mapping on the Exhibit 53.
Support Delivery of Services

Support Delivery of Services Business Area provides the critical policy, programmatic and managerial foundation to support federal government operations.

(3) Support Delivery of Services

(301) Controls and Oversight
- 091: Corrective Action
- 092: Program Evaluation
- 093: Program Monitoring

(302) Internal Risk Management and Mitigation
- 094: Contingency Planning
- 095: Continuity of Operations
- 096: Service Recovery

(304) Planning and Budgeting
- 101: Budget Formulation
- 102: Capital Planning
- 103: Enterprise Architecture
- 104: Strategic Planning
- 105: Budget Execution
- 106: Workforce Planning
- 107: Management Improvement
- 259: Budget and Performance Integration
- 260: Tax and Fiscal Policy

(306) Regulatory Development
- 112: Policy and Guidance Development
- 113: Public Comment Tracking
- 114: Regulatory Creation
- 115: Rule Publication

(305) Public Affairs
- 108: Customer Services
- 109: Official Information Dissemination
- 110: Product Outreach
- 111: Public Relations

(303) Legislative Relations
- 097: Legislation Tracking
- 098: Legislation Testimony
- 099: Proposal Development
- 100: Congressional Liaison Operations

(307) Revenue Collection
- 116: Debt Collection
- 117: User Fee Collection
- 118: Federal Asset Sales

(315) General Government
- 175: Central Fiscal Operations
- 176: Legislative Functions
- 177: Executive Functions
- 178: Central Property Management
- 179: Central Personnel Management
- 180: Taxation Management
- 181: Central Records and Statistics Management
Management of Government Resources

Management of Government Resources Business Area refers to the support activities enabling the government to operate effectively and efficiently.
SRM - Service Types and Components

The SRM provides a framework classifying Service Components according to the capabilities they provide to business functions. Following are graphical representations of the SRM by Service Domain to help agencies identify SRM mappings to complete the Primary FEA Mapping column of the Exhibit 53 (OMB Circular A-11) and the Enterprise Architecture section of the Exhibit 300.

SRM Service Types and Service Components can be used as the primary FEA mapping for an investment on the Exhibit 53. This allows investments providing cross-cutting services for multiple Lines of Business or Sub-Functions to be able to reflect the service they provide versus alignment to a specific BRM Line of Business and Sub-function.

Agencies can use the following codes in the Service Component column to indicate if an investment provides multiple service components within a service type:

- 500 – Delivers all service components within the service type
- 501 – Delivers more than one service component within the service type.

Customer Services

The Customer Services Domain defines the set of capabilities directly related to an internal or external customer, the business’s interaction with the customer, and the customer-driven activities or functions.

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**Customer Services**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domain</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>(702)</td>
<td>Customer Preferences</td>
<td>520: Personalization, 521: Subscriptions, 522: Alerts and Notifications</td>
</tr>
</tbody>
</table>
Process Automation Services
The Process Automation Services Domain defines the set of capabilities supporting the automation of process and management activities to assist in effectively managing the business.

- **Tracking and Workflow**
  - 530: Process Tracking
  - 531: Case Management
  - 532: Conflict Resolution

- **Routing and Scheduling**
  - 533: Inbound Correspondence Management
  - 534: Outbound Correspondence Management

Business Management Services
The Business Management Services Domain represents those capabilities and services necessary for projects, programs and planning to be successfully managed within a business operation.

- **Management of Process**
  - 535: Change Management
  - 536: Configuration Management
  - 537: Requirements Management
  - 538: Program / Project Management
  - 539: Governance / Policy Management
  - 540: Quality Management
  - 541: Business Rule Management
  - 542: Risk Management

- **Organizational Management**
  - 543: Workgroup / Groupware Management
  - 544: Network Management

- **Investment Management**
  - 545: Strategic Planning and Management
  - 546: Portfolio Management
  - 547: Performance Management

- **Supply Chain Management**
  - 548: Procurement
  - 549: Sourcing Management
  - 550: Inventory Management
  - 551: Catalog Management
  - 552: Ordering / Purchasing
  - 553: Invoice / Requisition Tracking and Approval
  - 554: Storefront / Shopping Cart
  - 555: Warehouse Management
  - 556: Returns Management
  - 557: Logistics and Transportation
Digital Asset Services

The Digital Asset Services Domain defines the set of capabilities supporting the generation, management, and distribution of intellectual capital and electronic media across the business and extended enterprise.

- (731) Content Management
  - 558: Content Authoring
  - 559: Content Review and Approval
  - 560: Tagging and Aggregation
  - 561: Content Publishing and Delivery
  - 562: Syndication Management

- (732) Document Management
  - 563: Document Imaging and OCR
  - 564: Document Referencing
  - 565: Document Revisions
  - 566: Library / Storage
  - 567: Document Review and Approval
  - 568: Document Conversion
  - 569: Indexing
  - 570: Classification

- (733) Knowledge Management
  - 571: Information Retrieval
  - 572: Information Mapping / Taxonomy
  - 573: Information Sharing
  - 574: Categorization
  - 575: Knowledge Engineering
  - 576: Knowledge Capture
  - 577: Knowledge Distribution and Delivery
  - 578: Smart Documents

- (734) Records Management
  - 579: Record Linking / Association
  - 580: Document Classification
  - 581: Document Retirement
  - 582: Digital Rights Management

Business Analytical Services

The Business Analytical Services Domain defines the set of capabilities supporting the extraction, aggregation, and presentation of information to facilitate decision analysis and business evaluation.

- (741) Analysis and Statistics
  - 583: Mathematical
  - 584: Structural / Thermal
  - 585: Radiological
  - 586: Forensics

- (742) Visualization
  - 587: Graphic / Charting
  - 588: Imagery
  - 589: Multimedia
  - 590: Mapping / Geospatial / Elevation / GPS
  - 591: CAD

- (743) Knowledge Discovery
  - 592: Data Mining
  - 593: Modeling
  - 594: Simulation

- (744) Business Intelligence
  - 595: Demand Forecasting / Management
  - 596: Balanced Scorecard
  - 597: Decision Support and Planning

- (745) Reporting
  - 598: Ad hoc
  - 599: Standardized / Canned
  - 600: OLAP
Back Office Services

The Back Office Services Domain defines the set of capabilities supporting the management of enterprise planning and transactional-based functions.

- **(751) Data Management**
  - 601: Data Exchange
  - 602: Data Mart
  - 603: Data Warehouse
  - 604: Meta Data Management
  - 605: Data Cleansing
  - 606: Extraction and Transformation
  - 607: Loading and Archiving
  - 608: Data Recovery
  - 609: Data Classification

- **(752) Human Resources**
  - 610: Recruiting
  - 611: Resume Management
  - 612: Career Development and Retention
  - 613: Time Reporting
  - 614: Awards Management
  - 615: Benefit Management
  - 616: Retirement Management
  - 617: Personnel Administration
  - 618: Education / Training
  - 619: Health and Safety
  - 620: Travel Management

- **(753) Financial Management**
  - 621: Billing and Accounting
  - 622: Credit / Charge
  - 623: Expense Management
  - 624: Payroll
  - 625: Payment / Settlement
  - 626: Debt Collection
  - 627: Revenue Management
  - 628: Internal Controls
  - 629: Auditing
  - 630: Activity-Based Management
  - 631: Currency Translation

- **(754) Asset / Materials Management**
  - 632: Property / Asset Management
  - 633: Asset Cataloging / Identification
  - 634: Asset Transfer, Allocation, and Maintenance
  - 635: Facilities Management
  - 636: Computers / Automation Management

- **(755) Development and Integration**
  - 637: Legacy Integration
  - 638: Enterprise Application Integration
  - 639: Data Integration
  - 640: Instrumentation and Testing
  - 641: Software Development

- **(756) Human Capital / Workforce Management**
  - 642: Resource Planning and Allocation
  - 643: Skills Management
  - 644: Workforce Directory / Locator
  - 645: Team / Org. Management
  - 646: Contingent Workforce Management
  - 647: Workforce Acquisition / Optimization
Support Services

The Support Services Domain defines the set of cross-functional capabilities able to be leveraged independent of Service Domain objective and/or mission.
The TRM provides a framework to describe how standards and technologies support the secure delivery, exchange, and construction of Service Components.

To demonstrate how a major IT investment aligns with the FEA Technical Reference Model (TRM), list the Service Areas, Categories, and Standards supporting the IT investment. For more information on the TRM, go to [www.egov.gov](http://www.egov.gov).

### Service Access and Delivery

<table>
<thead>
<tr>
<th>Access Channels</th>
<th>Delivery Channels</th>
<th>Service Requirements</th>
<th>Service Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Browser</td>
<td>Internet</td>
<td>Legislative / Compliance</td>
<td>Supporting Network Services</td>
</tr>
<tr>
<td>Wireless / PDA</td>
<td>Intranet</td>
<td>Authentication / Single Sign-on</td>
<td>Service Transport</td>
</tr>
<tr>
<td>Collaboration / Communications</td>
<td>Extranet</td>
<td>Hosting</td>
<td></td>
</tr>
<tr>
<td>Other Electronic Channels</td>
<td>Peer to Peer (P2P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Virtual Private Network (VPN)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Service Platform and Infrastructure

<table>
<thead>
<tr>
<th>Support Platforms</th>
<th>Delivery Servers</th>
<th>Hardware / Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless / Mobile</td>
<td>Web Servers</td>
<td>Servers / Computers</td>
</tr>
<tr>
<td>Independent Platform</td>
<td>Media Servers</td>
<td>Embedded Technology Devices</td>
</tr>
<tr>
<td>Dependent Platform</td>
<td>Application Servers</td>
<td>Peripherals</td>
</tr>
<tr>
<td>Software Configuration Management</td>
<td>Portal Servers</td>
<td>Wide Area Network (WAN)</td>
</tr>
<tr>
<td>Test Management</td>
<td></td>
<td>Local Area Network (LAN)</td>
</tr>
<tr>
<td>Modeling</td>
<td>Database / Storage</td>
<td>Network Devices / Standards</td>
</tr>
</tbody>
</table>

### Component Framework

<table>
<thead>
<tr>
<th>Security</th>
<th>User Presentation / Interface</th>
<th>Business Logic</th>
<th>Data Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates / Digital Signatures</td>
<td>Static Display</td>
<td>Platform Independent Technologies</td>
<td>Database Connectivity</td>
</tr>
<tr>
<td>Supporting Security Services</td>
<td>Dynamic Server-Side Display</td>
<td>Platform Dependent Technologies</td>
<td>Reporting and Analysis</td>
</tr>
<tr>
<td></td>
<td>Content Rendering</td>
<td>Data Interchange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wireless / Mobile / Voice</td>
<td>Data Exchange</td>
<td></td>
</tr>
</tbody>
</table>

### Service Interface and Integration

<table>
<thead>
<tr>
<th>Integration</th>
<th>Interoperability</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middleware</td>
<td>Data Format / Classification</td>
<td>Service Discovery</td>
</tr>
<tr>
<td>Enterprise Application Integration</td>
<td>Data Types / Validation</td>
<td>Service Description / Interface</td>
</tr>
<tr>
<td></td>
<td>Data Transformation</td>
<td></td>
</tr>
</tbody>
</table>
Additional Guidance

The purpose of this guide is to help agencies map their investments to the FEA Reference Models, especially for completing the Exhibit 53 and Exhibit 300 in OMB Circular A-11, for the FY10 budget year.

**For Exhibit 53 Mappings:**

- The primary mapping to the FEA reference models is no longer included as part of the UPI code; instead, it is captured in columns called “Primary FEA Mapping (BRM or SRM)” in the Exhibit 53.
- Agencies should map investments to the FEA BRM based on the function of the investments; *not* the function of the program or mission of the agency. If the investment provides a service supporting multiple business functions, agencies can map the investment to the SRM.
- Though an IT investment can have a number of valid mappings to the BRM or SRM, the primary mapping should be the line of business and sub-function (BRM) or the service type and service component (SRM) it most directly supports.
- If an investment provides multiple service components within a service type, agencies can use the following codes in the Service Component column:
  - (500) delivers all service components within the service type or
  - (501) delivers more than one service component within the service type.
- The BRM “Mode of Delivery” business area is not valid for primary FEA mappings.
- Agencies should not use the “Information and Technology Management” (404) and “Administrative Management” (401) mappings for investments supporting mission-specific functions. Investments should be mapped to the appropriate mission-specific line of business and sub-function of the BRM.

**For Exhibit 300 Mappings:**

- In the SRM table, if an agency service component is not represented by a Service Component in the FEA SRM, enter “NEW” in the “FEA SRM Component” field and provide a name and description in the “Agency Component Name” and “Agency Component Description” fields in the Exhibit 300.
- In the SRM table, the percentages in the “BY Funding Percentage” column can, but are not required to, add up to 100%. However, they should not add up to more than 100%.
- In the TRM table in the Exhibit 300, agencies should indicate the SRM Service Components supported by the TRM Service Standards listed. Agencies should provide information on the vendor and product mapped to the Service Standard in the “Service Specification” field.

**For More Information:**

- Agencies should refer to the updated FEA Reference Model documentation for FY10 located on [www.egov.gov](http://www.egov.gov). These include:
  - Consolidated Reference Model (CRM) Version 2.3
  - CRM Version 2.3 Revisions Summary document
- For guidance on completing the Exhibit 300 and Exhibit 53 for the FY10 budget year, see OMB Circular A-11, available at [http://www.whitehouse.gov/omb/circulars/a11/current_year/a11_toc.html](http://www.whitehouse.gov/omb/circulars/a11/current_year/a11_toc.html).
Contact Information

For additional information please visit the FEA PMO website:

www.egov.gov

For any questions/comments, e-mail the Federal Enterprise Architecture Program Management Office (FEA PMO) at:

fea@omb.eop.gov