

A Business Reference Model for The Freedom of Information Act (FOIA)

Presentation of the FOIA Reference Model (FRM) v1.0
to the FOIA Advisory Committee

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June 8, 2023



Questions We Plan to Answer

- Who is MITRE and why did we focus on FOIA?
- How can defining FOIA business standards address agency FOIA challenges?
- What are the components of the MITRE FOIA Reference Model and how will it be used to establish government-wide FOIA business standards?



What Is MITRE?

Together with government and public-private partnerships, we work to improve the safety, stability, and well-being of our nation.

We apply systems thinking to solve complex national and global problems, bringing an interdisciplinary perspective to R&D.

We operate six federally funded R&D centers, as well as MITRE Labs and an independent research and development (IR&D) program.

65+ LOCATIONS
WORLDWIDE

9,000+
EMPLOYEES

60+
YEARS

260+ PATENTS

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FOR A SAFER WORLD*

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OUR IMPACT

AEROSPACE & TRANSPORTATION

AIRCRAFT TRAFFIC COLLISION
AVOIDANCE

CYBERSECURITY

THREAT-INFORMED DEFENSE

TECHNOLOGY & INNOVATION

PROTOTYPES &
DEMONSTRATION

HOMELAND SECURITY

PROTECTING OUR BORDERS

HEALTH & HUMAN SERVICES

DATA STANDARDS & INTEROPERABILITY

NATIONAL SECURITY

GPS/PNT

Reliability, Accuracy, Resiliency

Why Did We Focus on FOIA?



- MITRE has supported agencies' FOIA processing in various ways
 - Defining requirements for FOIA system acquisitions
 - Assessing agency FOIA programs
 - Enhancing agency FOIA processing and preparing interim agency solutions
 - Developed an NLP and AI-enabled *FOIA Assistant* tool – streamlines exemption identification, currently supporting deliberative/policy-making documents, personal information, and law-enforcement information
- MITRE's observations:
 - FOIA processing can be both very labor and time-intensive and yet inefficiently supported
 - Implementations tend to be agency-specific and vary in functional and analytical support

FOIA “System” Challenges



Difficulty in Meeting Demand

- Process clogged with “non-FOIA” requests
- Inefficient process with disjoint workflows
- Complex, time-consuming records discovery
- Insufficient personnel and funding



Inconsistency in Release

- Records management and document discovery challenges between agency source systems and FOIA repository
- Lack of tools to enhance exemption use consistency
- Not all agencies take full advantage of proactive disclosure



Challenge with Monitoring and Improvement

- Incomplete process and lack of data to measure performance
- Metrics geared toward compliance reporting – “bean-counting” and throughput
- Lack of analytical tools

How Can Government-Wide FOIA Business Standards Address These Challenges?

- Common “language” to empower agencies with more informed and precise conversations amongst FOIA staff, FOIA solution/service providers, and other mission-support functions
- Agreed-upon government-wide FOIA business standards will enable agencies to:
 - Identify inefficiencies and gaps in agency FOIA business processes and workflows
 - Ensure agency FOIA staff training is consistent and comprehensive
 - Ensure evaluations of FOIA solution/service offerings are thorough
 - Identify and integrate process touchpoints, data exchanges, and related technologies with other agency mission-support functions (e.g., financial management, records management, IT, privacy)
 - Identify and justify resources needed (personnel, funding) based on activity and performance measure targets for FOIA business operations

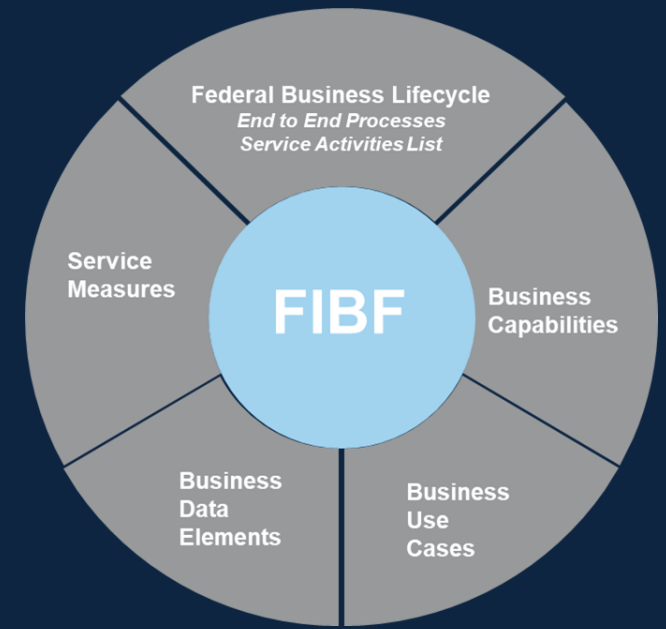
MITRE FOIA Reference Model (RM) History

- In 2021, FOIA RM was initiated through MITRE's IR&D program
- In early 2022, engaged with CFO Council's Technology Committee to stand up the Reference Model Working Group (RMWG)
 - Martha Murphy, FRM working group chair and deputy director, OGIS/NARA
 - Karen N. Hopkins, attorney advisor, OIP/DOJ
 - Lindsay Steel, chief of compliance, OIP/DOJ
 - Matthew Pollack, chief, Disclosure Law and Judicial Actions Branch, CBP/DHS
 - Keri Schenter, FOIA officer and paralegal specialist, USACE
 - Jennifer MacDonald, senior attorney, EPA
 - Marjorie Cole, attorney advisor and FOIA public liaison, CPSC
- In November 2022, DOJ Office of Information Policy (OIP) was designated as the Lead Agency for developing the government-wide Federal Integrated Business Framework (FIBF) FOIA Business Standards
- In January 2023, MITRE delivered to DOJ OIP an initial version of the FIBF FOI Business Standards derived from the MITRE FOIA RM



What Happens Next with the FOIA RM?

- DOJ-OIP and the FOIA Working Group (WG) will continue to draw from the MITRE FOIA RM content to incrementally develop the FIBF FOI Business Standards
 - Chief FOIA Officers Council: Draft FIBF FOI Functions/Activities List to be distributed in July 2023 for comment
- The FIBF FOI Business Standards will be posted on Regulations.gov to get feedback from:
 - Other government agencies not participating in the FOIA WG
 - Other government-wide FIBF Functional Areas (e.g., Federal Financial Management [FFM], Electronic Records Management [ERM])
 - Industry and Federal shared and centralized solution/service providers
- The FIBF FOI Business Standards will be reviewed/approved by OMB
- The FIBF FOI Business Standards will be incorporated into Federal solution/service requirements (e.g., GSA Multiple Award Schedule, Federal shared/centralized services, agency solicitations/awards)



MITRE FOIA RM	FIBF FOI Business Standards
FOIA RM activities, processes	FIBF FOI Functions/Activities
FOIA RM capabilities, requirements	FIBF FOI Business Capabilities
FOIA RM use cases, user stories	FIBF FOI Business Use Cases
FOIA RM data model	FIBF FOI Business Data Elements
FOIA RM measures	FIBF FOI Service Measures

MITRE FOIA Reference Model – Engineering Approach and Components

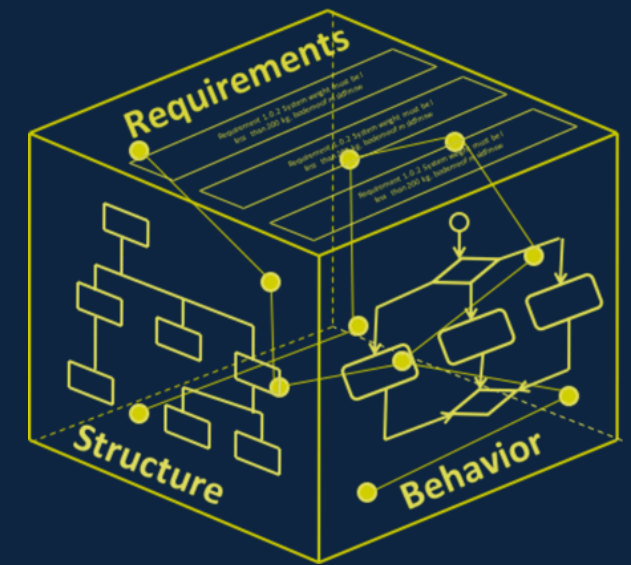
What is a Reference Model?

- **CMU Software Engineering Institute (SEI)**

- A **division of functionality into elements** together with the data flow among those elements

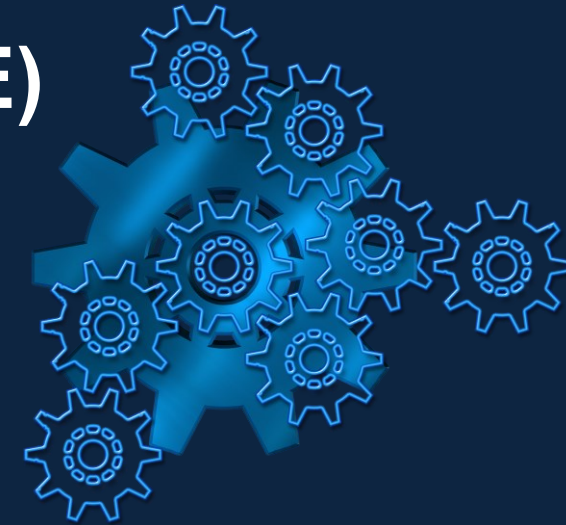
- **DoD Architecture Framework (DoDAF)**

- Reference models facilitate cross-agency analysis, through the development of **a common taxonomy and ontology for describing the business operations** of Federal agencies, independent of any specific agency



The FOIA RM is an integrated framework of capabilities and data, independent of architecture and technology

Modeling Principles: Systems Engineering (SE)



- Utilize sound SE practices that are easy to understand
 - Unified Modeling Language (UML), use cases, user stories
- Model content at a meaningful level, with useful relationships
 - Use cases and illustrative sequence modeling (e.g., BPMNs) – recognize agency variations
 - User story modeling of business requirements
 - Traceability between each user story and a use case
 - Granular use case roles (aka “wearable hats”) to support both complex and simple operations
 - Process and data specs aligned by business function (e.g., Request Intake, Fee Management)

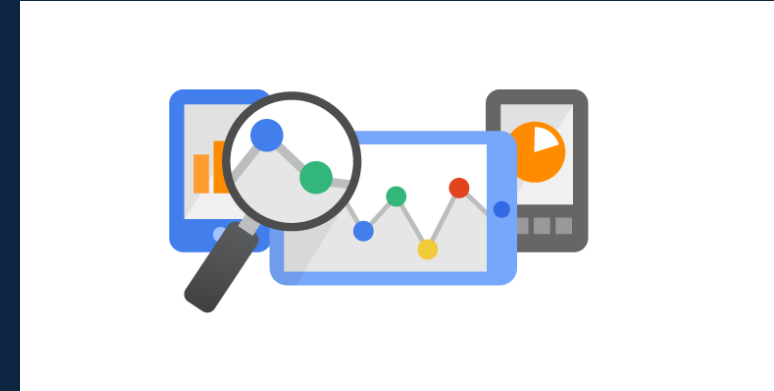
Modeling Principles: Data-driven Approach to Design

- Data models for case and process management
 - Configurable workflows
 - Integrated communications
 - Time accounting
- Attributes with controlled vocabularies to enable user definable reference data
- Federally mandated and agency-specific policies as configurable rules in data
- Integration and traceability of FOIA repository records with source data recordkeeping systems – easier said (and modeled) than done
- Candidate data exchanges between functions and organizations



Modeling Principles: Focus on Analytics

- Targets for advanced analytics (AI/ML/HLT), such as:
 - Searching records in source systems and the FOIA repository (“eDiscovery”)
 - De-duping source system records
 - Identifying likely exemptions and redactions – note: *MITRE FOIA Assistant* tool supports this
 - Finding “similar” requests and analyzing the responses
 - Recommending processes/queues (routing) and topics to incoming requests (tagging)
- Pro forma business intelligence (BI) capabilities and metrics to evaluate performance
 - Aligned to process and performance objectives to measure efficiency and effectiveness
 - Aligned to the underlying data needed for analysis



FOIA RM Document Structure

“Reading Material”

1. Introduction
2. Reference Model Overview
3. Top-Level of the FOIA Reference Model
 - 3.1. Functional Components
 - 3.2. Informational Components
 - 3.3. Common Services
4. Opportunities for Standardized Data Exchanges
5. Relationship to Other Functional Areas

NOTE: In addition to the above content, the FRM includes updatable versions of an Excel file and Visio files with detailed content.



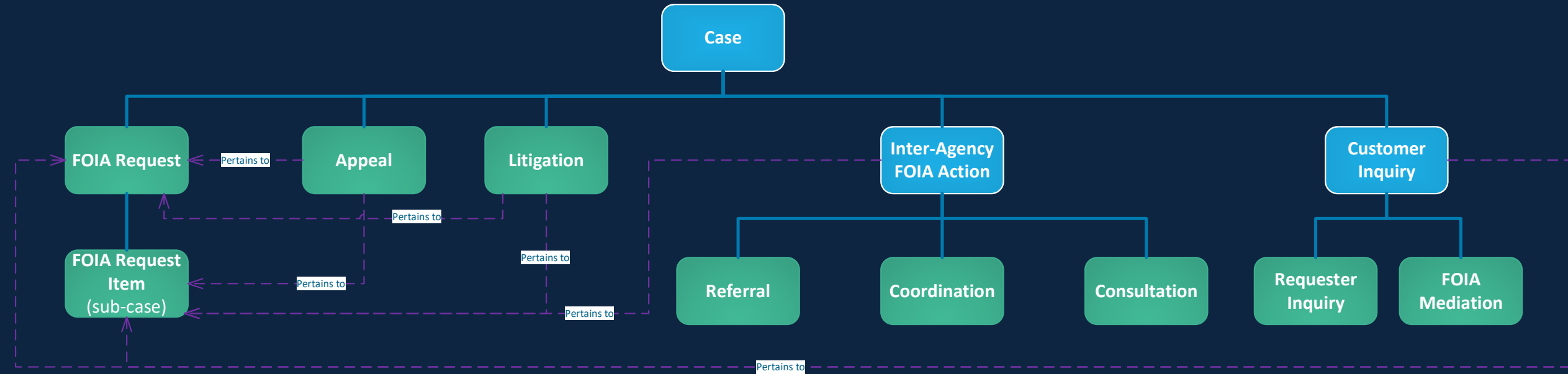
“Reference Material”

6. Reporting and Analytical Capabilities
 7. Process Descriptions
 8. Bibliography
- Appendix A: Role-Activity Mapping
- Appendix B: Common Services-Activity Mapping
- Appendix C: Controlled Vocabularies
- Appendix D: Use Case Diagrams
- Appendix E: Activity Definitions and User Stories
- Appendix F: Abbreviations and Acronyms

Key Features

- Types of “Cases”
- Case Management
- Configurable Workflow
- FOIA Records Environments
- Proactive Disclosure
- Fee Management

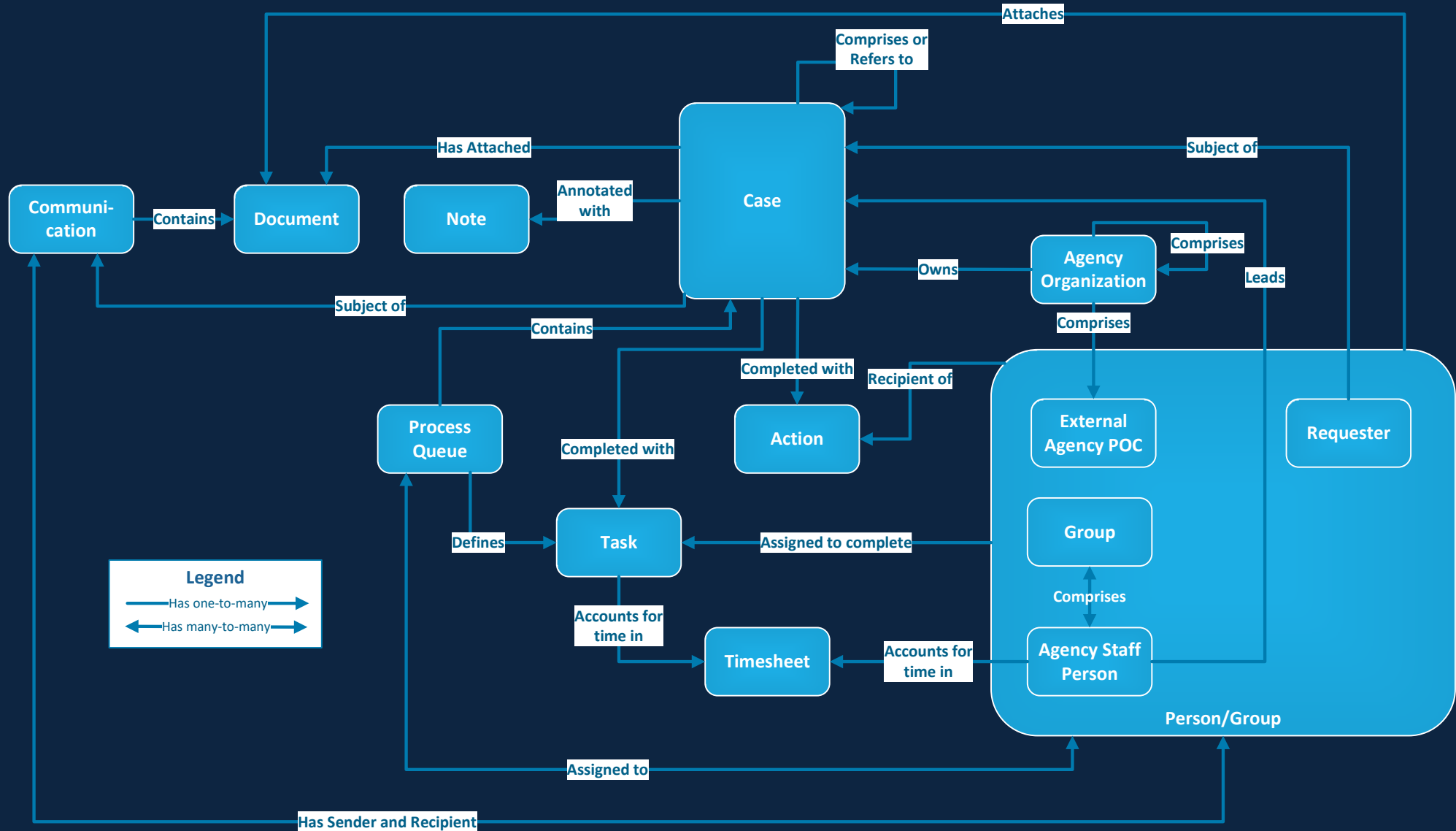
Case Types and Sub-Types



A “case” is any project, transaction, service or response that is “opened” and “closed” over a period to achieve resolution of a problem, claim, request, proposal, development, or other complex activity. It is likely to involve multiple persons inside and outside of the organization, with varying relationships to each other, as well as multiple documents and messages.

[What is Case Management? (aiim.org)]

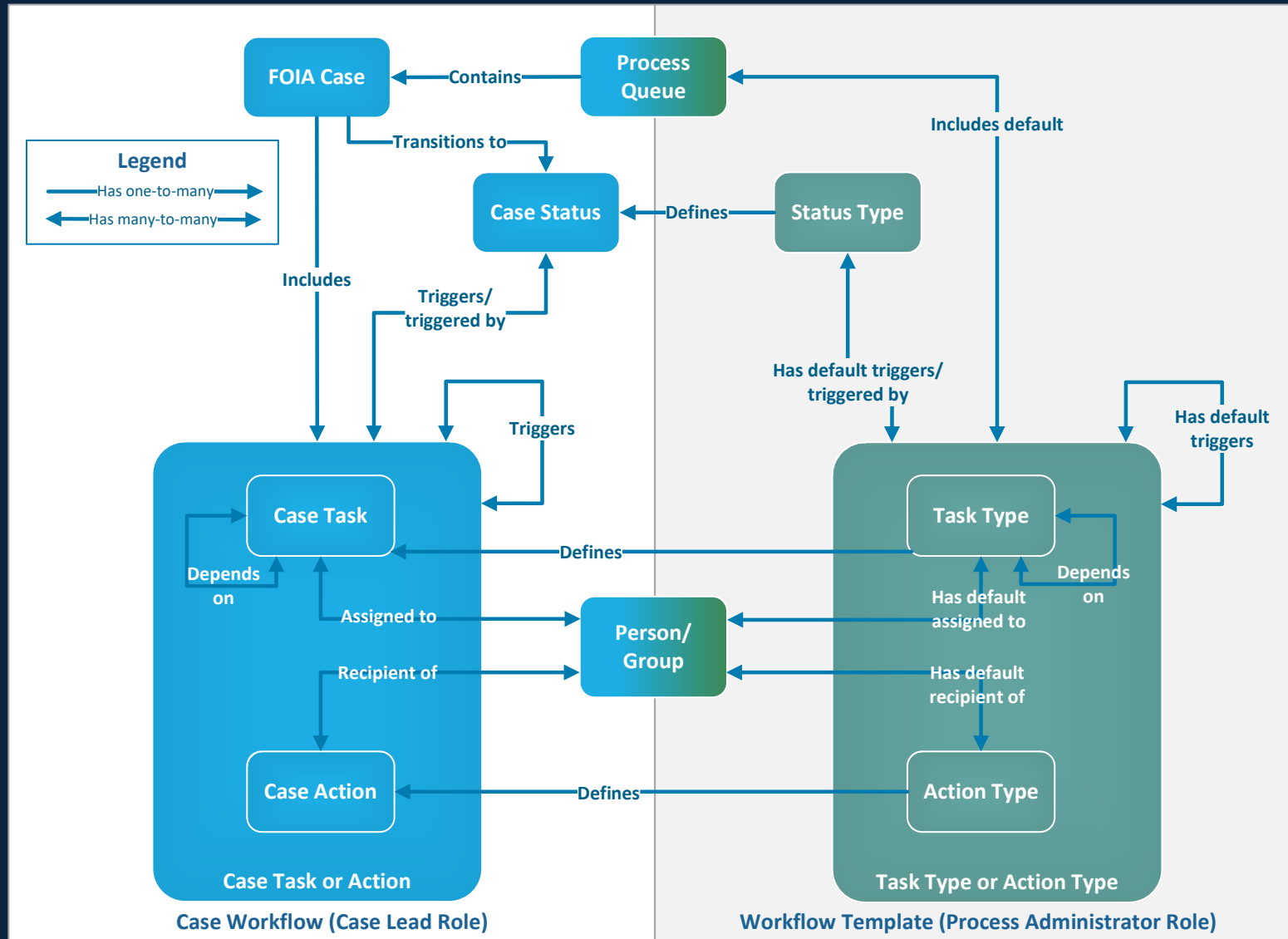
Common Case Content



Configurable Workflow Concept

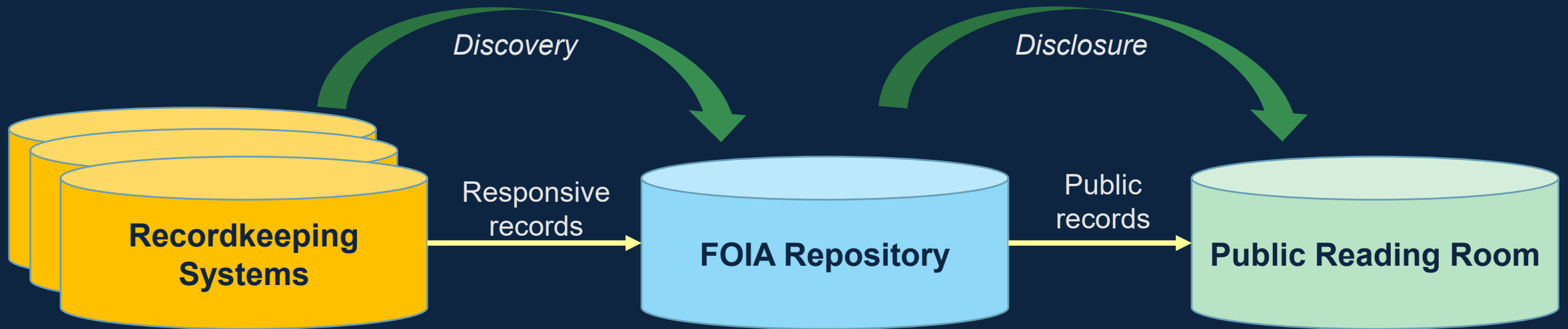
Defined Workflow

Template Workflow



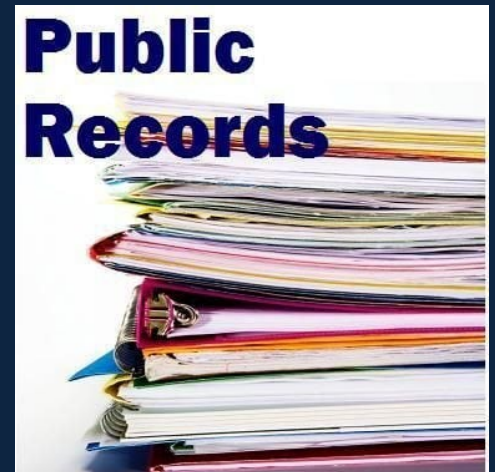
FOIA Records Environments

- Recordkeeping Systems
- FOIA Repository
- FOIA Library (aka “Public Reading Room”)



Proactive Disclosure (PD) in the FOIA RM

- *Provide Pre-Request Support* process
 - Identify non-FOIA methods for accessing agency records (i.e., published elsewhere)
 - Search the agency's FOIA Library (aka "Public Reading Room")
 - Obtain information about responsive records that other Agencies or Components may have
- *Scope and Size Request* process
 - Determine whether Request (or part of it) may be addressed with publicly available information
 - Use of request "topics" to signal possible PD in the *Review Responsive Records* process
- *Review Responsive Records* process
 - Review records "flagged" for possible PD (tags, 3x rule)
 - Trigger *Manage Records for Proactive Disclosure* process for flagged records
- *Manage Records for Proactive Disclosure* process
 - Apply agency criteria for PD
 - Apply 3x rule



Fee Management

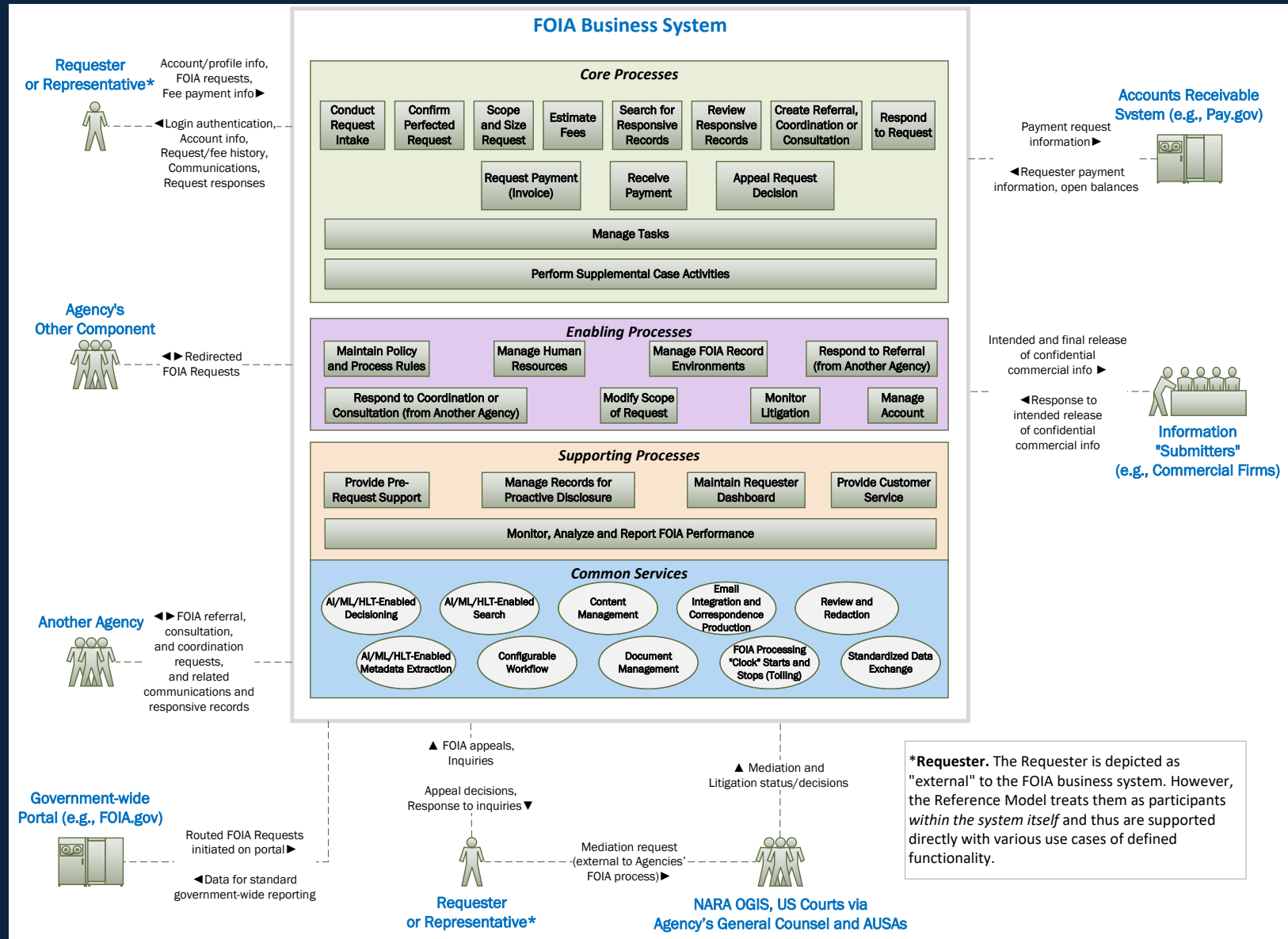
- Key terms used
 - Routine Payments
 - Pre-Payments (prior to conducting search)
 - Advance Payment (prior to providing response)
- Several related processes
 - *Estimate Fees* process
 - *Request Payment* process (depending on situation, may occur at time of response or earlier)
 - *Receive Payment* process
 - *Modify Scope of the Request* process (which may impact fees)
- Timesheet capture supports effort costing



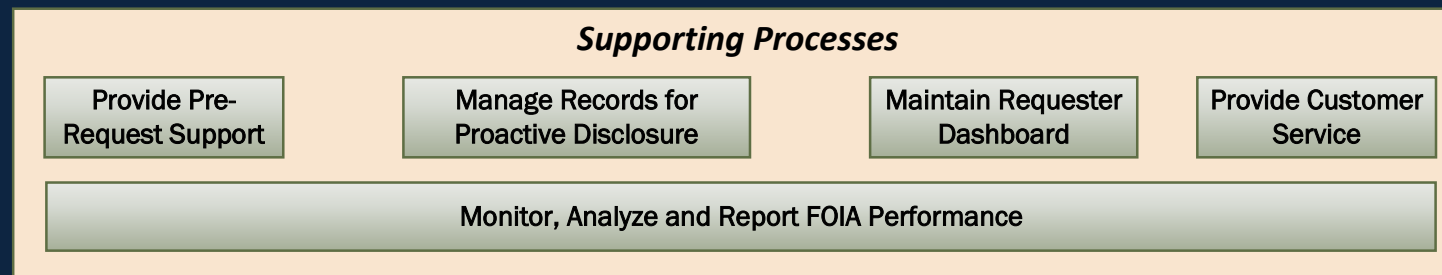
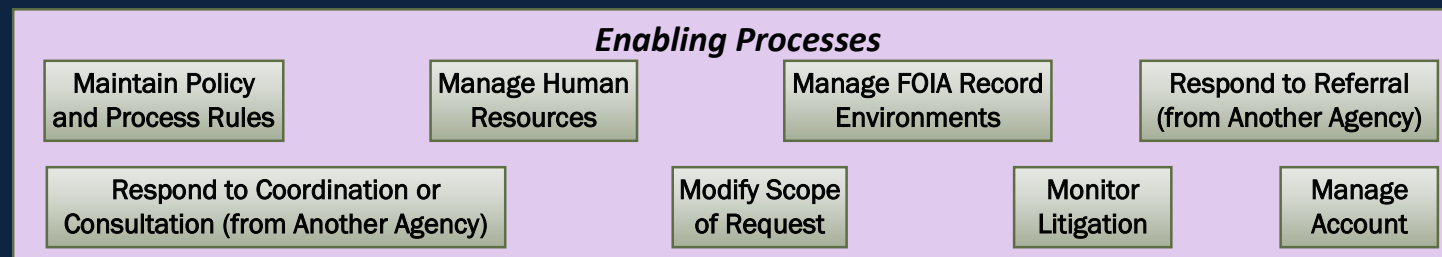
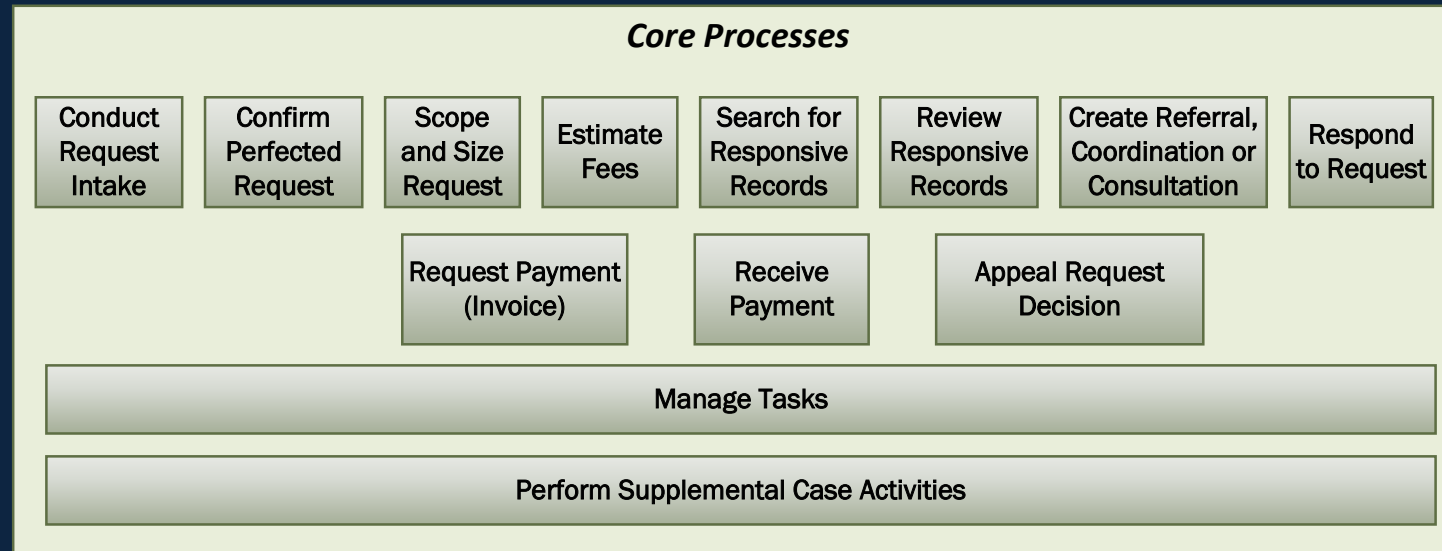
***Fee Management seems to vary across agencies –
adapt the FRM content to meet specific needs***

Top-Level of the Model

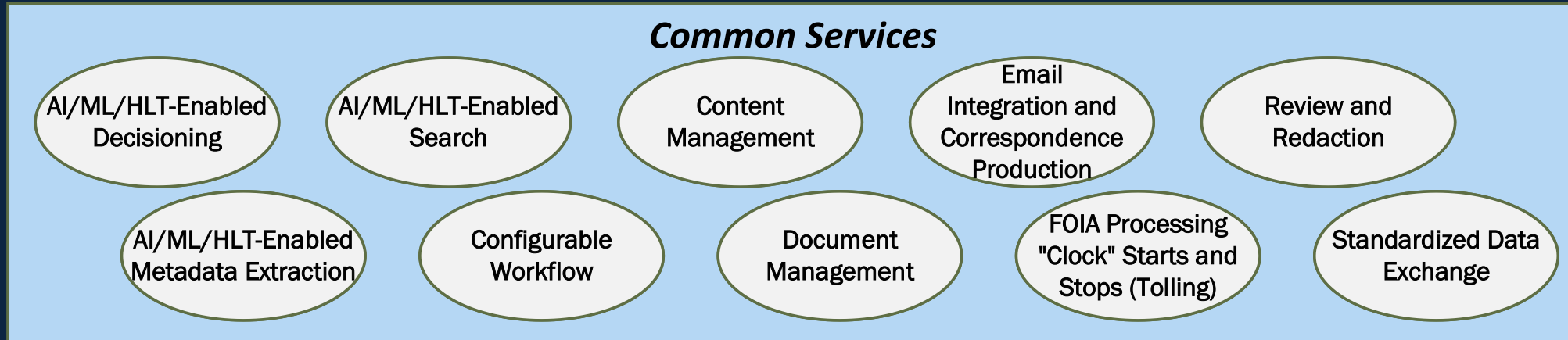
- External “actors” include:
 - Another Agency
 - Agency’s Other Components
 - Government-wide Portal
 - NARA OGIS
 - US Courts via Agency’s GC and Asst US Attorneys
 - Accounts Receivable System
 - Information “Submitters” (e.g., commercial firms who submitted agency records)
- Requesters or Representatives considered “inside” the system



FOIA RM Processes



FOIA RM Common Services



- Activities in the model are mapped, as appropriate, to common services to identify shared functionality
- Each service is defined in the model and include their own user stories (functional requirements)

User Roles and their “Role” in the Model

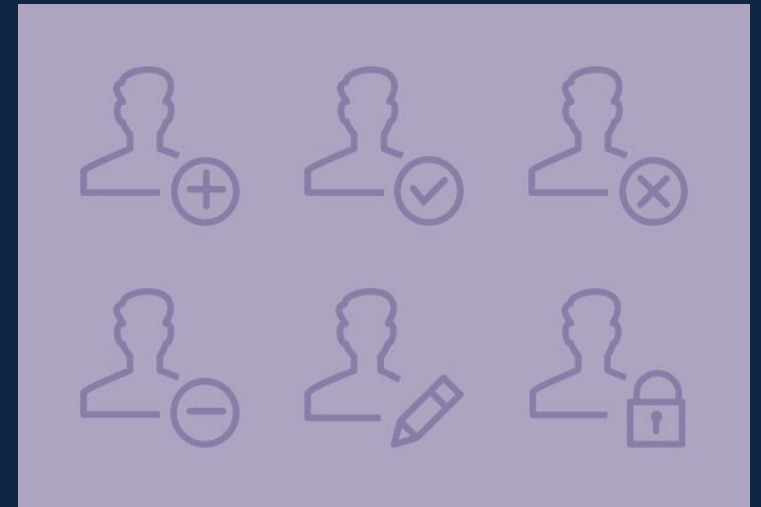
- Over 50 defined roles (actors) performing over 300 activities
- Each role based on core responsibilities – not organizational position
- Roles can be used to define system privileges
- Intentionally fine-grained to accommodate both large and small FOIA shops of varying complexity
- Easy to assign multiple, specific roles to a single person – but difficult (impossible?) to divide a high-level role (or organizational position) into separately assigned pieces



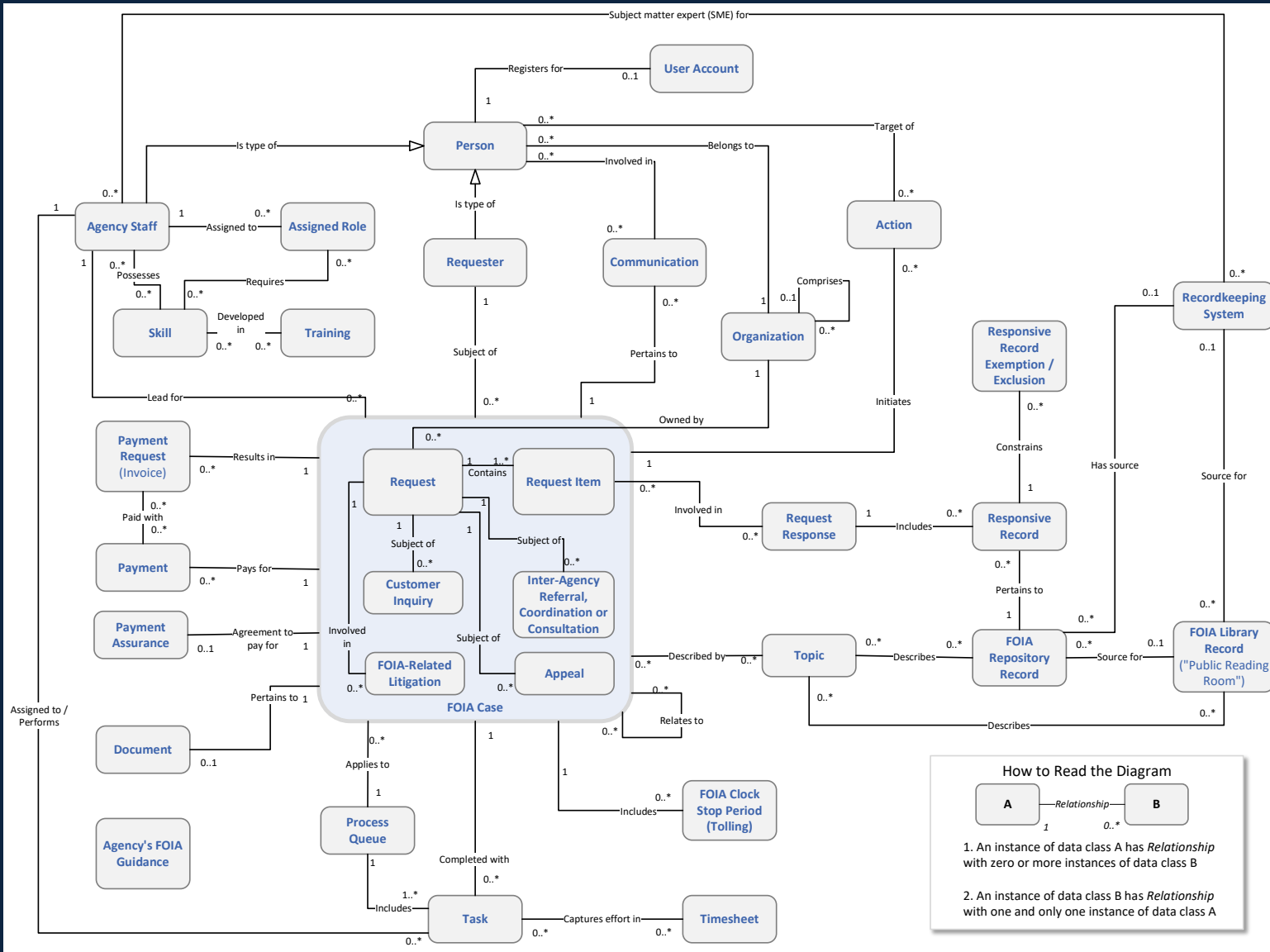
“You can have more than one hat to wear, but you can’t tear a hat into pieces”

Defined Roles

- Accounts Receivable System
- Agency General Counsel
- Agency Reporting Manager
- Analytics User
- Appeal Lead
- Appeals Intake Specialist
- Authorized Official for Expedited Decision
- Authorized Official for Expedited-Related Appeals
- Authorized Official for Fee Waivers
- Authorized Official for Fee-Related Appeals
- Authorized Official for Proactive Records Disclosure
- Authorized Official for Records Release
- Authorized Official for Records-Related Appeals
- Coordination & Consultation Coordinator
- Exemption & Exclusion Specialist
- Fee Specialist
- FOIA Library Manager
- FOIA Public Liaison
- FOIA Records Environment Manager
- FOIA Repository Manager
- FOIA Requester Service Center Staff
- Government-wide Portal
- Intake Specialist
- Intake Supervisor
- Litigation Lead
- NARA OGIS
- Other Agency's FOIA Office
- Other Publicly Accessible Agency Repository
- Perfection Specialist
- Perfection Supervisor
- Policy Manager
- Proactive Disclosure Lead
- Process Administrator
- Recordkeeping System SME
- Records Reviewer
- Records Search Specialist
- Request Item Lead
- Request Lead
- Requester
- Requester Representative
- Resource Administrator
- Resource Manager
- Response Completion Staff
- Response Release QC Staff
- Sizing & Scoping Specialist
- Sizing & Scoping Supervisor
- Submitter
- Task Lead
- Task Manager
- The System
- User
- User Account Manager

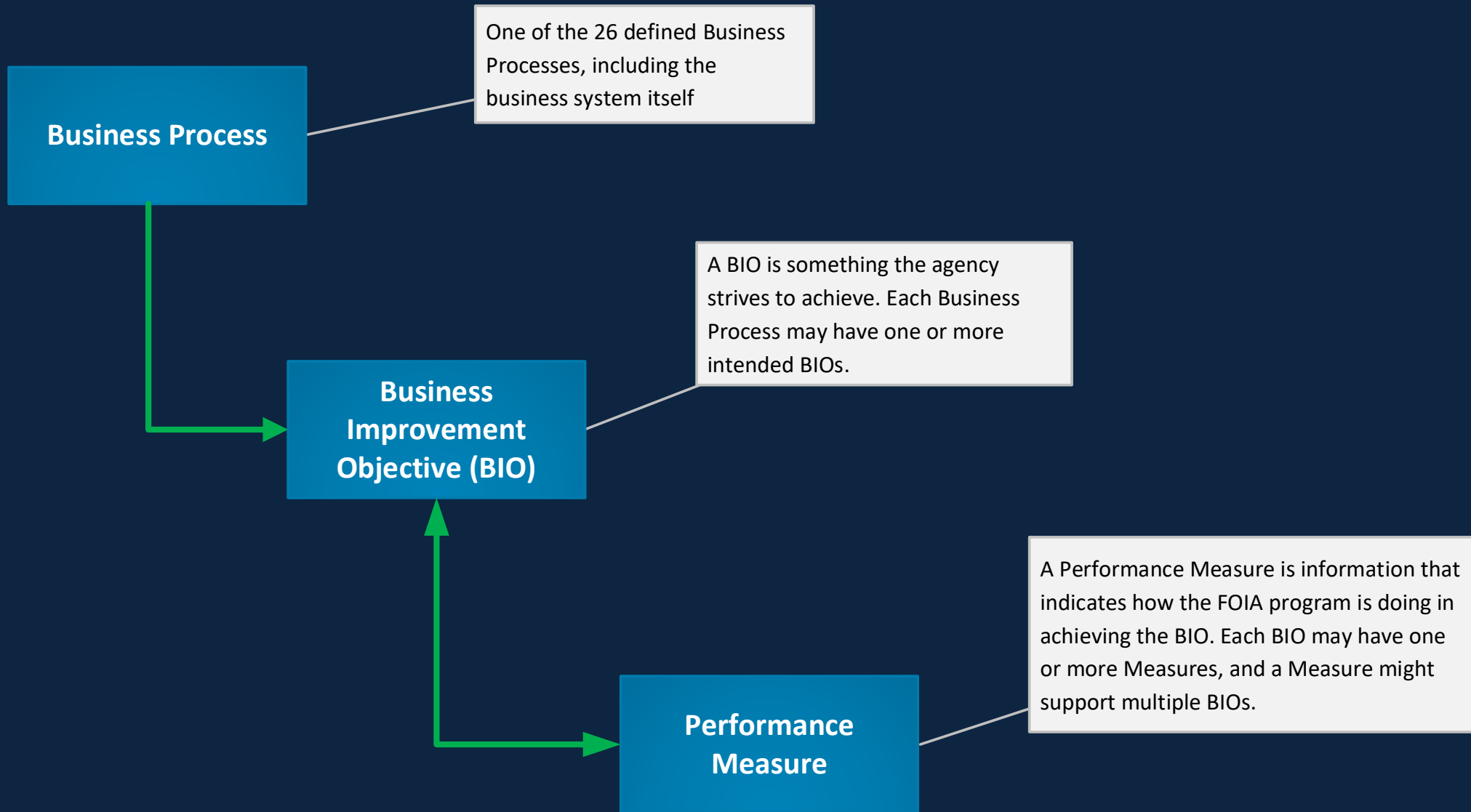


Conceptual Data Model



- Action
- Agency's FOIA Guidance
- Agency Staff
- Appeal
- Assigned Role
- Communication
- Customer Inquiry
- Document
- FOIA Clock Stop Period
- FOIA Library Record
- FOIA-Related Litigation
- FOIA Repository
- FOIA Request
- FOIA Request Item
- Inter-Agency FOIA Action
- Organization
- Payment
- Payment Assurance
- Payment Request (Invoice)
- Person
- Process Queue
- Recordkeeping System
- Request Response
- Requester
- Responsive Record
- Responsive Record Exemption / Exclusion
- Skill
- Task
- Timesheet
- Topic
- Training
- User Account

Business Intelligence and Performance Management Framework



BIOs by Business Process

FOIA Business System

- Improve quality of request outcomes
- Operate a cost-efficient FOIA program
- Provide effective interface and communications for Requesters to interact with the agency
- Provide timely service to process a request

Conduct Request Intake

- Ensure requesters can easily formulate and submit proper requests
- Provide timely service to perform request intake

Confirm Perfected Request

- Improve quality of perfection confirmation
- Improve quality of requester's submissions
- Provide timely service to adjudicate expedited request
- Provide timely service to complete perfected request confirmation

Scope and Size Request

- Improve accuracy of estimated effort
- Leverage scoping for early identification of records for proactive disclosure
- Provide timely service to scope and size request

Estimate Fees

- Improve accuracy of fee estimate
- Provide timely service to adjudicate fee waivers

Search for Responsive Records

- Ensure efficient process to locate responsive records
- Ensure search produces responsive records

Review Responsive Records

- Ensure proper use of exemptions and exclusions
- Leverage review for identification of responsive records for proactive disclosure
- Provide high quality of service
- Provide timely service to review responsive records

Create Referral, Coordination or Consultation

- Ensure efficient process to refer, consult, or coordinate with another agency

Request Payment

- Use appropriate payment determination (pre-pay, advance-pay, routine, pay assurance)

Receive Payment

- Ensure quality of payment received

Respond to Request

- Enable requesters to easily receive responses
- Provide high quality of service
- Provide timely service to complete response package

Appeal Request-Related Decision

- Provide timely service to process appeals
- Reduce number of appeals to adverse determinations

Manage Tasks

- Define reusable (template) tasks that streamline workflow

Perform Supplemental Case Activities

- None

Maintain Policy and Process Rules

- Ensure predefined process queues are defined with useful pre-defined workflows

Manage Human Resources

- Ensure an adequately trained and skilled workforce
- Optimally allocate agency resources to perform FOIA activities and meet demand

Manage FOIA Records Environments

- Ensure metadata describing records in FOIA environments are complete and accurate

Respond to Referral

- Provide timely service to respond to referrals

Respond to Coordination or Consultation Inquiry

- Provide timely service to respond to coordinations and consultations

Modify Scope of Request

- Ensure requester is able to formulate revised request

Monitor Litigation

- Ensure litigation information is captured and tracked to related request(s)

Manage Account

- Encourage requesters to register with login accounts to improve the service they receive

Provide Pre-Request Support

- Enable requesters and members of the public to easily discover materials and use proactively released materials
- Ensure adequate public understanding of FOIA rules and related agency policies

Manage Records for Proactive Disclosure

- Identify alternatives to FOIA for making records available
- Maximize proactive disclosure of impactful records

Maintain Requester Dashboard

- Ensure requesters can easily track their requests

Provide Customer Service

- Provide high quality of service
- Provide timely service to customers

Performance Measures Aligned to BIODs

- Measures defined based on:
 - Business Intelligence (BI) approach
 - Normalized with dimensional attributes
- Each measure described by:
 - Type of information (measure, list/data)
 - Set of applicable dimensions
 - DOJ reporting requirement (yes/no)
 - DOJ reported data clarification
 - FOIA statute citation

Excerpt of 100+ Performance Measures

Business Process / Business Improvement Objective / Measure	Dimensions	Required for Reporting to DOJ	DOJ Reported Data Clarification	FOIA Statute Citation
FOIA Business System				
Improve quality of request outcomes				
# appeals [measure]	Fiscal Year, Agency Component, Appeal Disposition	Yes	Number of initial decisions affirmed on appeal	§ 552(e)(1)(B)(i)
	Fiscal Year, Agency Component, Appeal Disposition	Yes	Number of initial decisions completely reversed/remanded on appeal	§ 552(e)(1)(B)(i)
Operate a cost-efficient FOIA program				
% Fees collected of total costs [measure]	Fiscal Year, Agency Component	Yes	Fees collected as a percentage of total costs	None
amount of fees collected [measure]	Fiscal Year, Agency Component	Yes	Total amount of fees collected	§ 552(e)(1)(N)
cost per record reviewed [measure]	Fiscal Year, Month, Process Queue, Recordkeeping System, Topic	No		None

Opportunities for Standardized Data Exchanges

FRM Process	FRM Activity Involving a Potential Data Exchange	Status
Conduct Request Intake	Receive Coordination or Consultation Request from Another Agency	∅
	Receive FOIA Request from Government-wide Portal	✓ +
	Receive Misdirected Request from Another Agency Component	∅
	Receive Referral from Another Agency	∅
	Send Confirmation of Inter-Agency Action Receipt	∅
Confirm Perfected Request	Redirect Request to Another Agency Component	∅
Create Referral, Coordination or Consultation	Receive Confirmation of Inter-Agency Referral Receipt	∅
	Receive Consultation Response from Another Agency	∅
	Receive Coordination Response from Another Agency	∅
	Send Consultation Inquiry to Another Agency	∅
	Send Coordination Inquiry to Another Agency	∅
	Send Referral Package to Another Agency	∅
Estimate Fees	Review Fee Balance Due (from an A/R system)	✓ *
Monitor, Analyze and Report FOIA Performance	Produce Mandated Reports (government wide FOIA reporting)	✓ +
Receive Payment	Receive Payment Info from A/R System	✓ *
Request Payment	Send Payment Request to A/R System	✓ *
Respond to Coordination or Consultation Inquiry	Respond to Coordination or Consultation Inquiry from Another Agency	∅
<p>Legend: ✓ = Implemented as of December 2022 ∅ = Not Implemented + = Supported by foia.gov * = Supported by pay.gov</p>		

Relationships to Other Functional Areas

- Records management
- Accounts receivable
- Human resources management
- Litigation management
- User account management

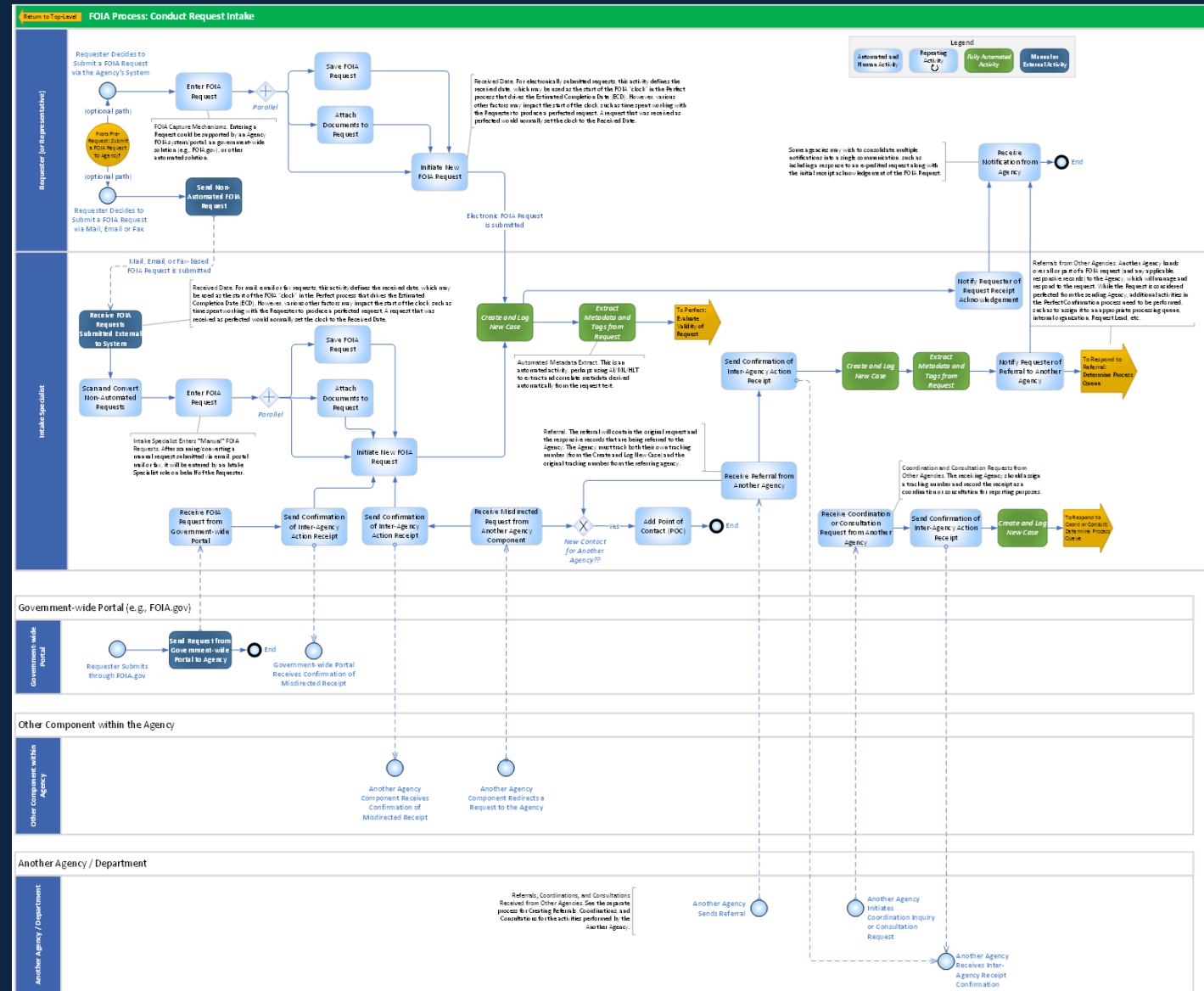
Conduct Request Intake: Process Flow Diagram

This process produces an electronic FOIA request record (pre-perfected), either by direct entry from a requester or capture by an Intake Specialist when the request comes through an email, postal mail, or fax. Key deliverables include request submitted from requesters (or their representatives), and inter-agency actions, including referrals, consultations, and coordination requests from other agencies.

The Request Intake process might be initiated from the *Pre-Request* process, should the Requester be looking for support prior to submitting a FOIA Request. For routine FOIA Requests, the processing will continue with the *Confirm Perfected Request* process, or if a referral, coordination, or consultation was received from another agency, the process will continue with either the *Respond to Referral* or *Respond to Coordination or Consultation* process respectively.

For detailed activity definitions and user stories pertaining to this process, refer to Appendix E.1. A use case diagram for this process is presented in Figure 30 in 8Appendix D.

Figure 9 below depicts the *Conduct Request Intake* process as a process flow diagram. Note that while a particular sequence of activities is depicted, agencies will need to adapt the flows to their specific needs and scenarios.



Conduct Request Intake: Activities

- Add Point of Contact (POC)
- Attach Documents to Request
- **Create and Log New Case**
- Enter FOIA Request
- Extract Metadata and Tags from Request
- Initiate New FOIA Request
- Notify Requester of Referral to Another Agency
- Notify Requester of Request Receipt Acknowledgement
- Receive Coordination or Consultation Request from Another Agency
- Receive FOIA Request from Government-wide Portal
- Receive FOIA Requests Submitted External to System
- Receive Misdirected Request from Another Agency Component
- Receive Notification from Agency
- Receive Referral from Another Agency
- Save FOIA Request
- Scan and Convert Non-Automated Requests
- Send Confirmation of Inter-Agency Action Receipt
- Send Non-Automated FOIA Request
- Send Request from Government-wide Portal to Agency

Create and Log New Case: Definition and User Stories

Description:	A new case is created in the System, creating a FOIA tracking number for the Requester's and agency's benefit, and initiates agency processing.
Part of Process:	Conduct Request Intake
Type of Activity:	Fully automated with no human interaction
Actors:	The System
Triggers:	User created and submitted a FOIA request, and the status was updated from draft to submitted.
Pre-Conditions:	A request is submitted to the System.
Post-Conditions:	A new case for the Request is created in the System.
Supporting Services:	None

User Story: As **The System**, I need to associate any requests submitted by the same Requester with a requester's account when a requester has previously registered with the FOIA system, *so that the system can accurately track and report on all matters.*

User Story: As **The System**, I need to automatically generate a case record with a case number, based on metadata captured from the FOIA request submission, *so that from the time a request is submitted by a requester, it can be properly tracked, statused, processed, and analyzed (e.g., counted).*

User Story: As **The System**, I need to support the capture of other tracking numbers, such as another agency's FOIA reference, *so that all requests and related communications between agencies and/or the Requester are simplified and properly correlated with each other.*

Thank You!

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