Modernizing Rulemaking
Shared Services Forum for Agency Implementation Leaders

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April 8, 2021

CUSTOMER SERVICE IS OUR NORTH STAR, INNOVATION IS OUR COMPASS

*Office of Regulation Management*

Agenda

- Background & Rulemaking Process

- eRulemaking Program

- Transparency, Accountability & Efficiency

- Success to Date

- Planning for Modernization

- Discussion

Background

- The eRulemaking Program was established as a cross-agency E-Gov initiative under the E-Government Strategy of 2002.
- The Environmental Protection Agency acted as the managing partner until it was moved to GSA on October 1, 2019.
- GSA brought together the eRulemaking program and the Regulatory Information Service Center under the new Office of Regulation Management in GSA's Office of Government-wide Policy.

After spending FY20 focusing on stabilizing, documenting, and improving security of the legacy system, **GSA is now exploring the benefits of modernization including innovations in data analytics.**
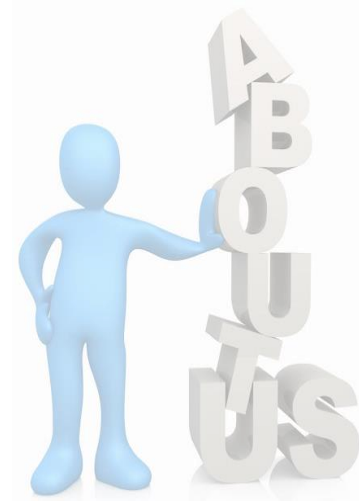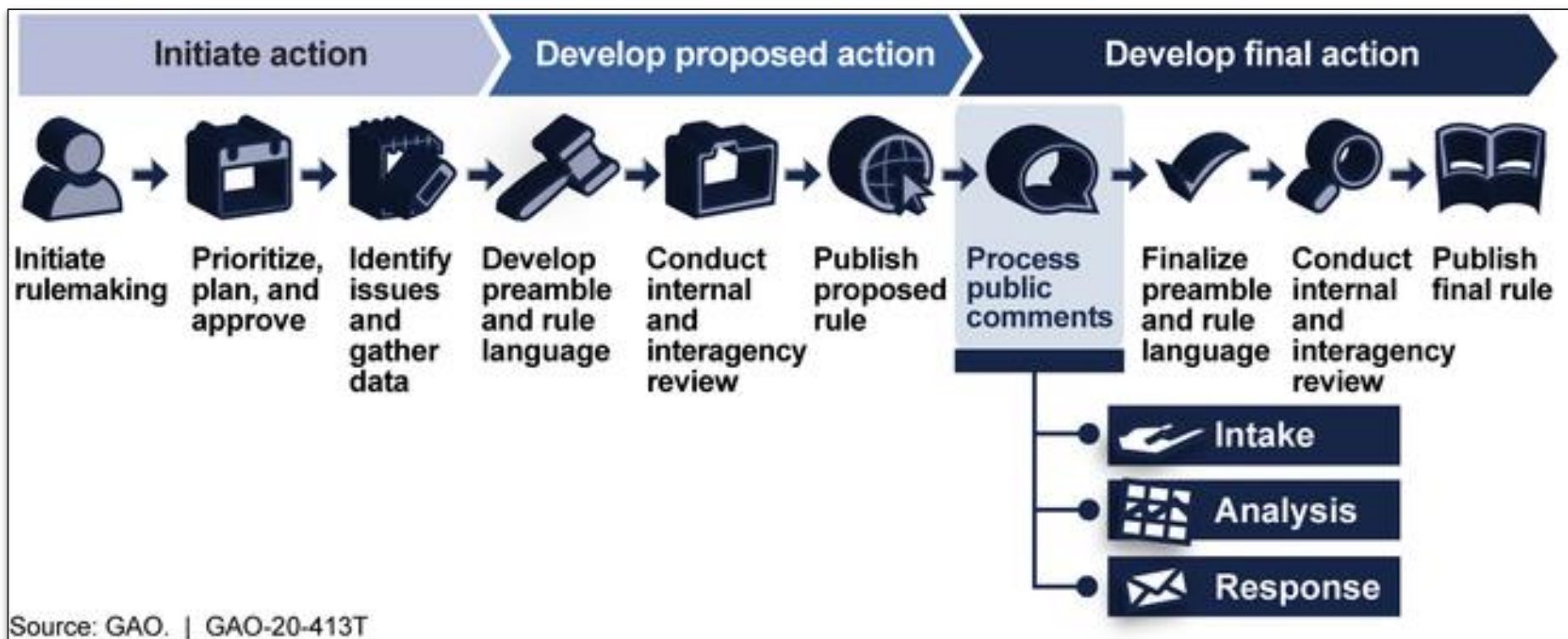
Agency Partnership

- *43 Partner Agencies*
- *Over 220 participating agencies, including subcomponents, pay for services*
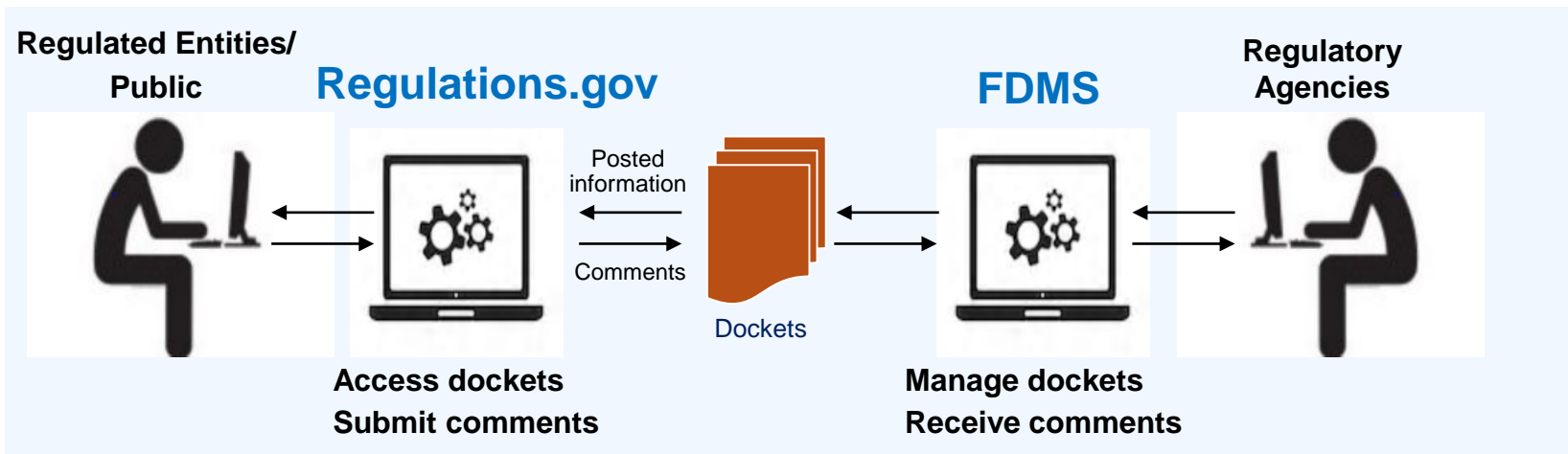- *Agencies participate in a governance structure co-chaired by OMB and GSA*

Etc…

Rulemaking Process

Initiate action			Develop proposed action			Develop final action			
Initiate rulemaking	Prioritize, plan, and approve	Identify issues and gather data	Develop preamble and rule language	Conduct internal and interagency review	Publish proposed rule	Process public comments	Finalize preamble and rule language	Conduct internal and interagency review	Publish final rule

- Intake
- Analysis
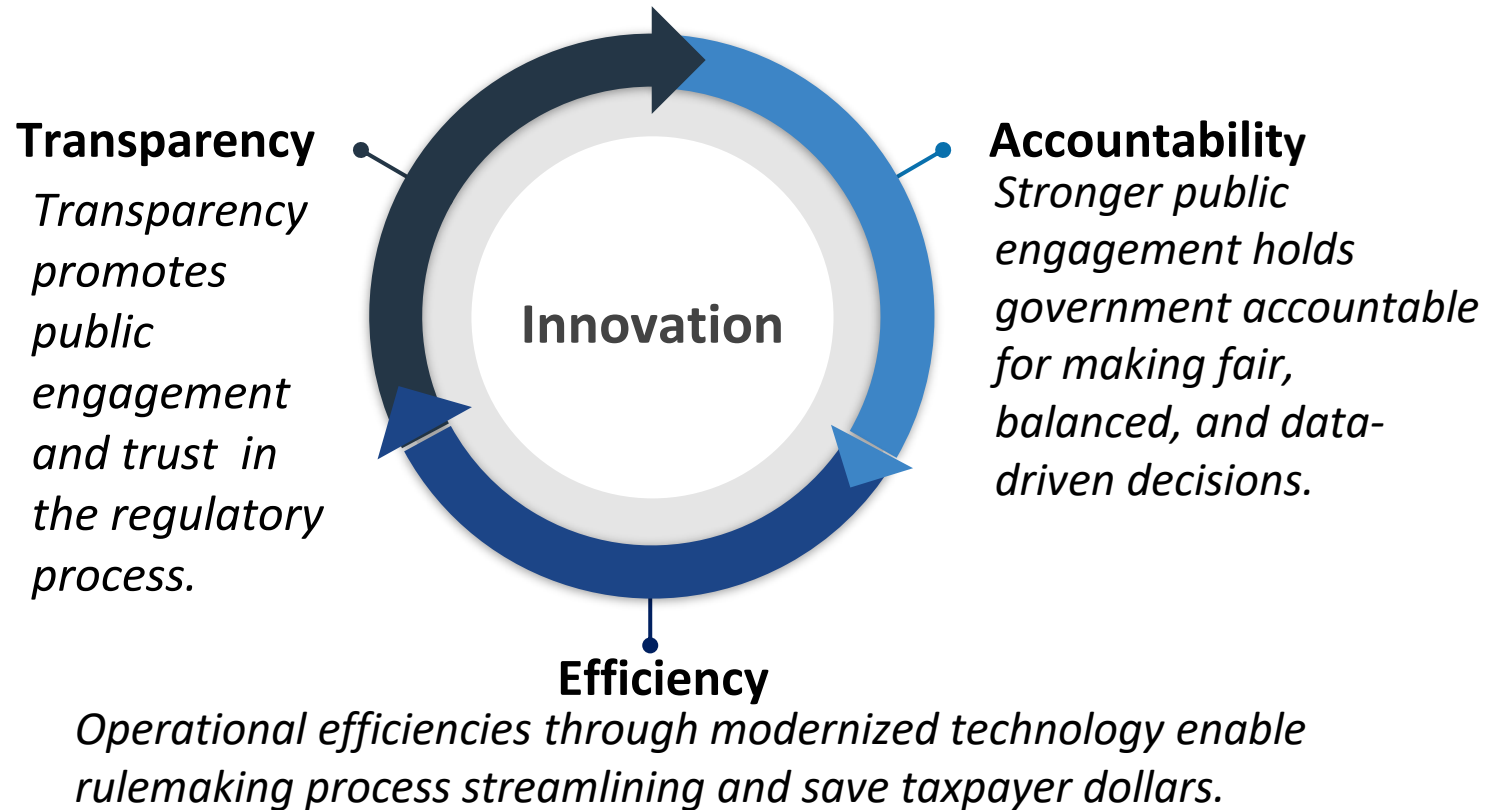- Response

Source: GAO. | GAO-20-413T

eRulemaking Program

- Supports Federal agencies and their components in their rulemaking processes, including receiving and processing **4 million comments** annually.
- Enables the President's Regulatory Agenda and public participation in the rulemaking process through two systems:
  - The Federal Docket Management System (FDMS), a web-based application that agencies use to manage about **5,000 rulemaking actions** per year.
  - Regulations.gov, a website that enables public searching, viewing, and commenting on proposed rulemaking actions.

Regulated Entities/
Public

Regulations.gov

Posted information

Comments

Dockets

FDMS

Regulatory
Agencies

Access dockets
Submit comments

Manage dockets
Receive comments

Transparency, Accountability and Efficiency in Rulemaking Management

Innovation

Transparency
Transparency promotes public engagement and trust in the regulatory process.

Accountability
Stronger public engagement holds government accountable for making fair, balanced, and data-driven decisions.

Efficiency
Operational efficiencies through modernized technology enable rulemaking process streamlining and save taxpayer dollars.

Shared services centralize shared government functions and *drive efficiency*

An *effective and efficient rulemaking process* drives *better public policy outcomes* and *customer service*

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Critical Incremental Progress

October 2019 - February 2021: 17 months

CHALLENGE

FDMS 4 (legacy system)
- **Critical system security vulnerabilities**, e.g., Adobe Flash end-of-life December 31, 2020
- **High risk of "going dark,"** putting agencies at risk of not being able to efficiently pursue their regulatory missions.
- **Monolithic** architecture

"Classic" Regulations.gov
- High probability of "fraudulent" or **"fake" comments** and spam
- No ability to detect fraudulent comments
- Security vulnerabilities, e.g., Endeca Search **end-of-life** July 2017
- **Outdated user interface**
- **Limited accessibility** through mobile devices

RESPONSE

FDMS 4 (legacy system)
- Rapidly patched and **resolved numerous security vulnerabilities**

FDMS 5
- Stood up Dec 17, 2020, replacing Adobe Flash
- January 14, 2021 - FDMS cutover to **Minimum Viable Product** along with critical system workarounds to ensure continuity of service
- **Continuous security monitoring**

"New" Regulations.gov
- February 18, 2021 - cutover to new Regulations.gov
  - Better search features
  - Mobile-device accessible
  - More user-friendly
  - Incorporated ReCAPTCHA and a Comment API to mitigate risk of "fraudulent" or "fake" comments

![GSA logo]
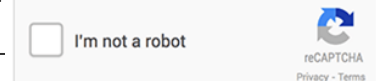
The Problem of "Fake" Comments

"Fake" comments are comments submitted under a false identity or submitted in the name of an individual without permission.
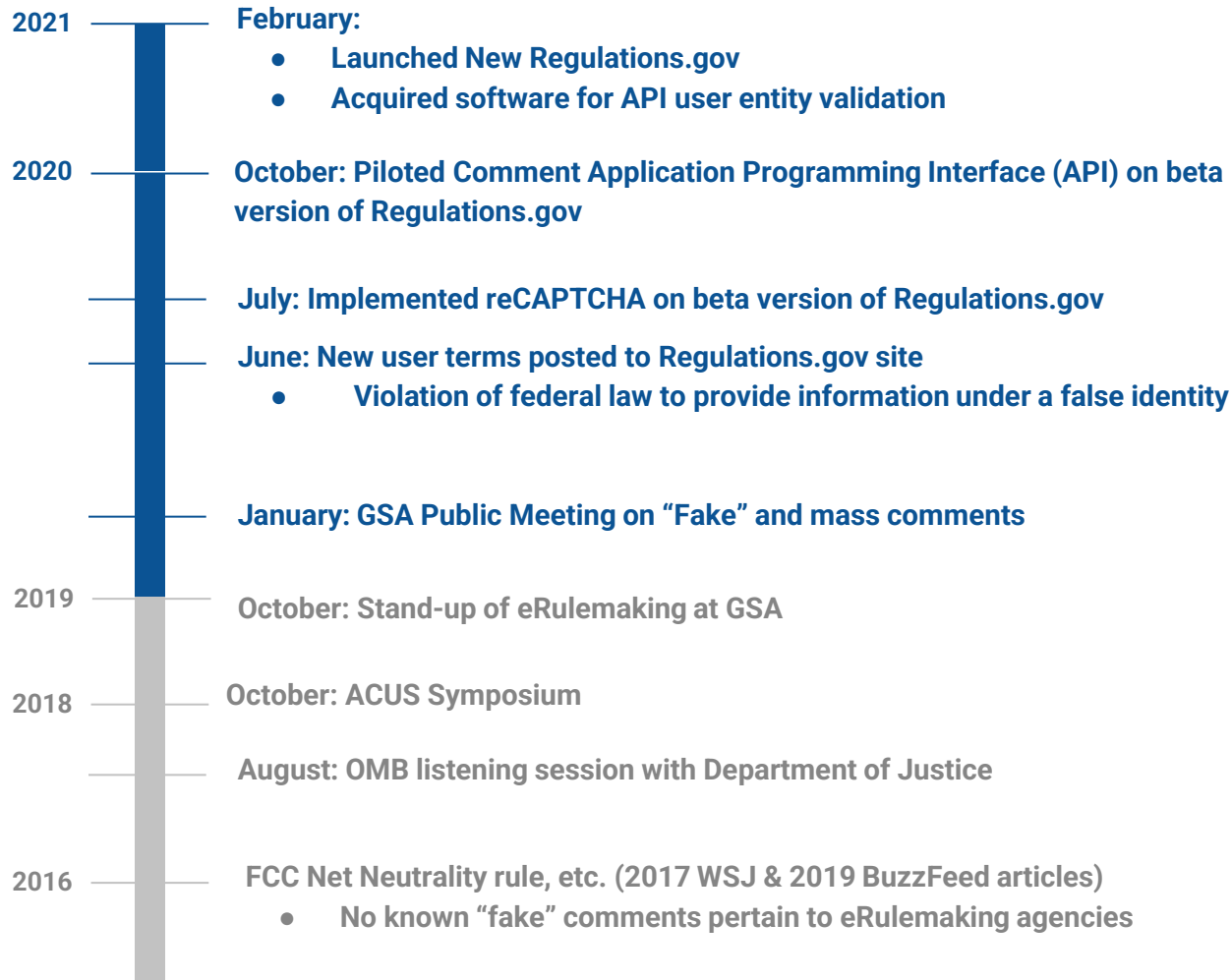
- Agencies permit **anonymous comments**.

- The Administrative Procedure Act (APA) of 1946* requires review of the "whole record" of "substantial evidence"*and does not make a distinction as to comment source; **only relevant content matters**.

- While unlikely to influence the regulatory process, **"fake" comments threaten the *public perception of the integrity* of the rulemaking process.**

- While rulemaking is not based on "majority rule," a **substantial impact on parties** may be a consideration by rulemakers.

5 U.S. Code § 556. Hearings; presiding employees; powers and duties; burden of proof; evidence; record as basis of decision. (d) A sanction may not be imposed or rule or order issued except on consideration of the whole record or those parts thereof cited by a party and supported by and in accordance with the reliable, probative, and substantial evidence.

"Fake" Comment Success Story

Enormous progress in one year

2021 — February:
- Launched New Regulations.gov
- Acquired software for API user entity validation

2020 — October: Piloted Comment Application Programming Interface (API) on beta version of Regulations.gov

July: Implemented reCAPTCHA on beta version of Regulations.gov

June: New user terms posted to Regulations.gov site
- Violation of federal law to provide information under a false identity

January: GSA Public Meeting on "Fake" and mass comments

2019 — October: Stand-up of eRulemaking at GSA

2018 — October: ACUS Symposium

August: OMB listening session with Department of Justice

2016 — FCC Net Neutrality rule, etc. (2017 WSJ & 2019 BuzzFeed articles)
- No known "fake" comments pertain to eRulemaking agencies

GSA | Bipartisan Support

"The combination of the steel-trap CAPTCHA on the front-end with approved API users that can be held accountable for what they send is, in my opinion, the right combination to cut down on spam but allow legitimate bulk senders or aggregators to submit comments." - Marci Harris, CEO of POPVOX

"Congratulations on your successful launch. We've been using the V4 API since Monday. Thank you for all the help and your generous patience." - Hank Hoffman, POLITICO

Great press coverage by Tom Temin on Federal News Radio

Check out the Federal Drive podcast at

https://www.podcastone.com/episode/An-old-and-essential-federal-process-gets-a-revamped-web-site

From Congress

"Marks a significant step towards protecting the integrity of the commenting process and ensuring it works in the public's best interest."
- Senator Tom Carper

"I am pleased that GSA is implementing the recommendations we made in our bipartisan PSI report in 2019 to improve Regulations.gov"
- Senator Rob Portman

Next Steps: Modernization*

Problem Statement:
- Reliance on **monolithic architecture** (partially decoupled) and **end-of-life software** drives costly and time consuming system updates
- **Costly operations & maintenance**
- **Massive volumes of regulatory information** are difficult to process and analyze.
  - Agencies acquire third-party services to read and assess high comment volumes on regulations to ensure timely rulemakings. $80K - $200K per event.
  - Human interfaces are inadequate to comprehensively review regulations for redundancy, contradiction, or inefficient processes.
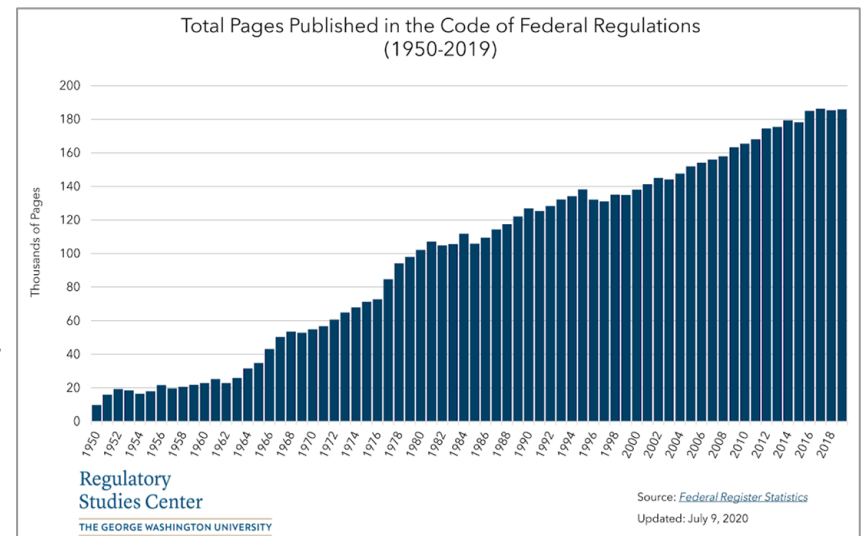
Business Value of Modernization:
- Up to **80 percent reduction in operations & maintenance**
- **Modular Architecture**
  - Scalable, Flexible, Secure, and Reliable
  - More rapid and cost-effective development of services, e.g. Custom reports, Work Flows, Data mining, Docket Management, Records management
- Service delivery model based on **customer demand**
- **Improved analytics**
  - Cost efficiencies with new **shared comment analysis**
  - Enable identification of redundant or contradictory regulations
  - Improved search for regulated entities, law librarians, researchers, and the public across Regulations.gov, Reginfo.gov, and Govinfo.gov.

Modernization is subject to availability of funds

Artificial Intelligence & Rulemaking

- Regulatory management is **knowledge work**, expressed in written human language.

- Searching, reading and interpreting regulatory text is **human-resources intensive** work.

- Regulations comprise **massive volumes of information**

- Capacity for analysis cannot meet demand.
  - 4 M+ comments processed each year.
  - ~One action/ year receives over 1 M comments.
  - 5,000 rulemaking actions per year.
  - 185,984 pages in the Code of Federal Regulations.

- **AI can assist humans**
  - Natural Language Processing
 - Knowledge Representation and Reasoning

Total Pages Published in the Code of Federal Regulations (1950-2019)

Regulatory Studies Center
THE GEORGE WASHINGTON UNIVERSITY

Source: Federal Register Statistics
Updated: July 9, 2020

Human-readable legal text   **Machine-readable legal knowledge**

Use Cases

- Near term business case: Comment analysis.
  - Current expenditures on independent agency efforts: $80K to $200K per agency annually
  - Agencies: Insource the needed functionality through a shared service. Enterprise savings.
  - Public: Interactive smart assistant.

- Long term: Underlying technology for comment analysis establishes the capacity for future services.
  - Search regulations across agencies
    - Avoiding redundancy, inconsistency, cumulative burden
    - Assist law librarians and researchers
    - Third party services (Bloomberg, Reuters, etc.)
  - Interoperability among GSA, Federal Register, and GPO
  - Interoperability with State regulatory systems
  - Context-aware search
    - Small businesses: Which regulations apply to me?
    - Citizens: Which regulations affect my community?
  - Context-aware services
    - Electronic permitting/reporting
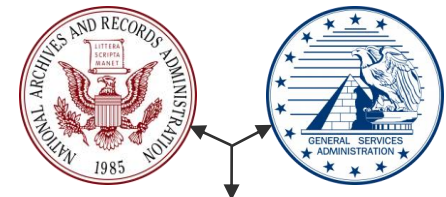
Open Regulatory Information

Business   Government   Citizens

Roadmap Towards Modernization

eRulemaking transferred to GSA

October 2019

December 2020

January 2021

Federal Document Management System (FDMS) v 5

RFI for recompetition of existing IT support contract (Optional Modernization CLINs)

February 2021

New Regulations.gov launched, including reCAPTCHA and Comment API

RFP release for IT Support

Spring 2021

November 2021

Target award for IT Support Services

Potential system modernization pending funding availability

2022 → 2026

Recap: Continuous Innovation

	Past	Present	Future
Transparency & Access	*Limited search engine did not produce the best search results *Less than intuitive navigation features *Limited Mobile App services	*Improved search engine delivers faster and better results *Improved Mobile App services	***Continuous improvement** of public interface *Public ability to search other comments, run custom reports, better docket management, **extract information for research or commercial use, and more**
Accountability & Insight	* Perception of "fake" comments could contribute to an erosion of trust in the integrity of the rulemaking process and a sense that "government is not accountable"	*ReCAPTCHA and new comment API dramatically reduce "fake" comments and improve the ability for legitimate senders of bulk comments to support public engagement	***Advanced data analytics** to process mass comments & review complex regulatory language and data across domains *Ability to **develop new services** (ex: custom reports for public and agencies) to improve accountability & insight ***Data driven decision making**
Efficiency & Reliability	*Excessive security vulnerabilities and end-of-life Adobe Flash software, risking loss of continuity of service *Reliance on costly proprietary software *Monolithic architecture	* Continuous security monitoring. *Replacement of Adobe Flash *Plans in place to replace proprietary software *Monolithic architecture partially decoupled	***Reduced operations & maintenance burden** *Cost-effective, **standardized** enterprise software solutions ***Microservices** and COTS based development ***Interoperability** with NARA (Federal Register) and GPO (Code of Federal Regulations), state systems

Desired Outcomes

Transparency & Access

Ease of finding information
- Reduced "clicks" to find desired information

Greater public engagement in rulemaking process
- Increase in "unique" hits as indicated by IP addresses
- Increase rate of returning customers
- Increase in comment rate relative to number of new regulations

Better Customer Satisfaction
- Set baseline in 2021

Better use of mobile app tools
- Reduce "drop" rate from mobile users

+

Accountability & Insight

Use of AI to review massive volumes of comments in days, not weeks

Use of AI to review regulations across domains to identify opportunities to reduce contradiction or duplication while increasing clarity and regulatory streamlining

+

Efficiency & Reliability

Micro services structure will enable agile development of new services based on stakeholder demand
- Development in weeks, not months

Minimum disruption of service

Use of standard, enterprise-wide software and hardware will lower operations & maintenance costs

Better data sharing and mining across agencies and domains

Foundation of Rulemaking Management

Building a Federal Integrated Business Framework (FIBF) for the rulemaking process

Coordinating our FIBF efforts with other federal mission support business standards development groups

Core Financial Management

Travel & Expense

Regulation Management

Grants Management

Cybersecurity Services

Contract Writing

Electronic Records Mgmt

Real Property Management

HR Management Services

- Through interagency collaboration, we are using FIBF to define and standardize the end to end rulemaking process and the data that flows through it.

- Common business standards will inform decision-making needed to decide what can be adopted and commonly shared, and help drive interconnectivity across systems.

- This work will support the development of a modernized rulemaking management system.

Let's Talk...

1. Can you share your experiences in "greenfield" development, migrating from antiquated systems?
2. What challenges have you encountered with data migration?
3. What change management tips can you share to support successful transition to a new system, especially when many agencies were involved?
4. Any thoughts on metrics to demonstrate success?
5. Any advice on setting payment structures for fee-for-service activities?
6. What questions do you have?

Backup Slides
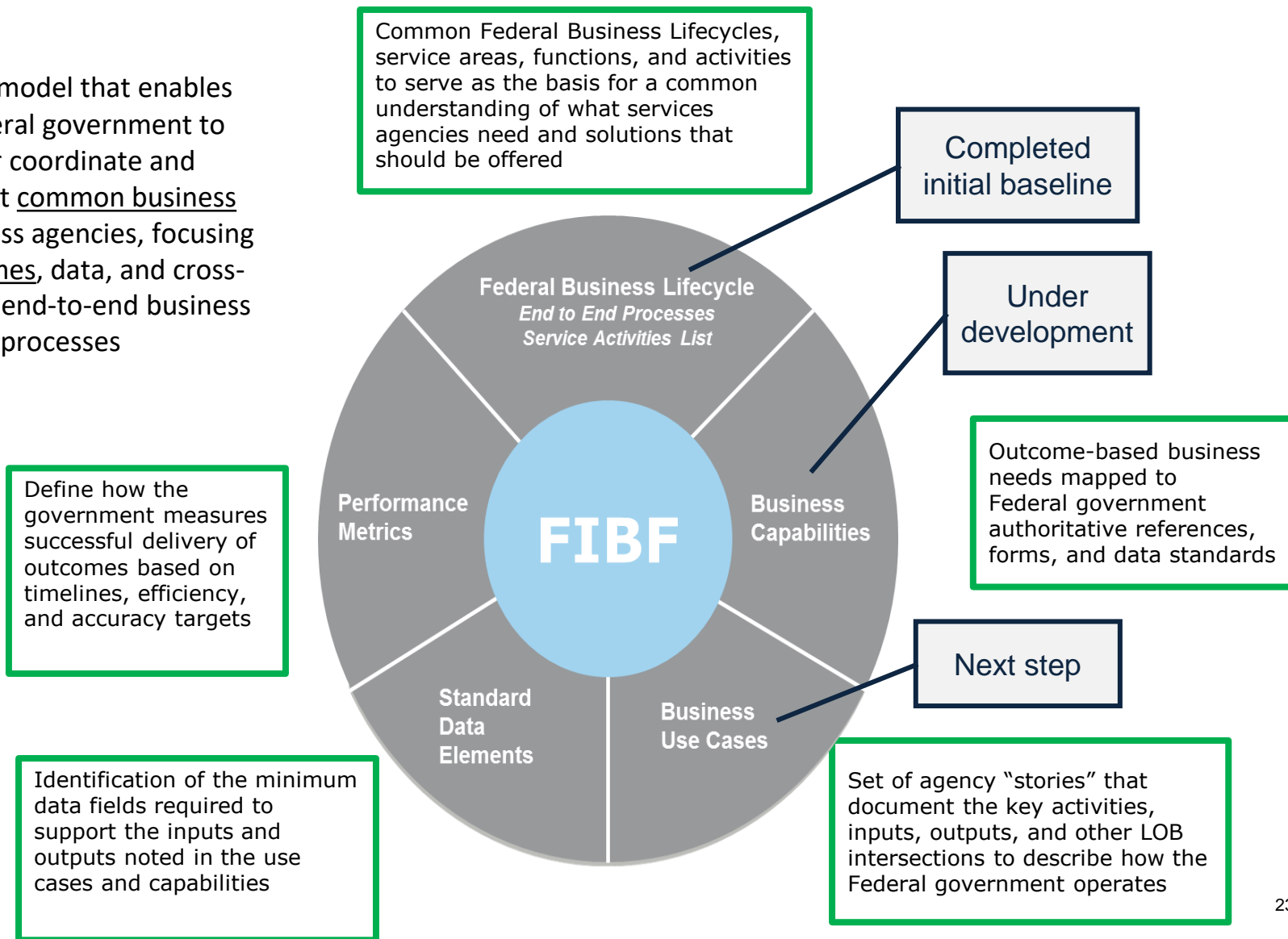
FedRAMP & other Opportunities

Shared Services within Shared Services

eRulemaking offers software as a service (SaaS) for our agency customers and the public. Underneath the hood, GSA uses shared platforms and infrastructure:

- **FedRAMP**:

    - GSA-led initiatives:
        - Established by GSA's FedRAMP PMO in 2012
        - Federal "Cloud first" strategy in 2017
        - "Cloud smart" initiative in 2019

    - Office of Regulation Management
        - Hosting: New Regulations.gov already in AWS FedRAMP.
        - Will transition to GSA instance. (FDMS to follow)
        - Platforms: Natural Language Processing tools and other shared platforms
        - Security: Considering datadog for cloud monitoring

- **Other shared components**

- **Modular approach and open standards**

Progress of Regulation Management FIBF

FIBF is a model that enables the Federal government to better coordinate and document common business needs across agencies, focusing on outcomes, data, and cross-functional end-to-end business processes

Common Federal Business Lifecycles, service areas, functions, and activities to serve as the basis for a common understanding of what services agencies need and solutions that should be offered

Completed initial baseline

Under development

Federal Business Lifecycle
End to End Processes
Service Activities List

FIBF

Performance Metrics

Business Capabilities

Standard Data Elements

Business Use Cases

Outcome-based business needs mapped to Federal government authoritative references, forms, and data standards

Define how the government measures successful delivery of outcomes based on timelines, efficiency, and accuracy targets

Next step

Identification of the minimum data fields required to support the inputs and outputs noted in the use cases and capabilities

Set of agency "stories" that document the key activities, inputs, outputs, and other LOB intersections to describe how the Federal government operates

eRulemaking Partner Agencies

Agency for International Development (AID)	Department of the Interior (DOI)	Federal Retirement Thrift Investment Board (FRTIB)	National Transportation Safety Board (NTSB)
Architectural and Transportation Barriers Compliance Board (ATBCB)	Department of Justice (DOJ)	Federal Trade Commission (FTC)	Office of Personnel Management (OPM)
Consumer Financial Protection Bureau (CFPB)	Department of Labor (DOL)	General Services Administration (GSA)	Pension Benefit Guaranty Corporation (PBGC)
Corporation for National and Community Service (CNCS)	U.S. Department of State (DOS)	Department of Health and Human Services (HHS)	Privacy and Civil Liberties Oversight Board (PCLOB)
U.S. Copyright Office (COLC)	Department of Transportation (DOT)	Department of Housing and Urban Development (HUD)	Small Business Administration (SBA)
Consumer Product Safety Commission (CPSC)	Department of Education (ED)	National Archives and Records Administration (NARA)	Social Security Administration (SSA)
Chemical Safety and Hazard Investigation Board (CSB)	Equal Employment Opportunity Commission (EEOC)	National Aeronautics and Space Administration (NASA)	Department of the Treasury (TREAS)
Department of Homeland Security (DHS)	Export Import Bank of the United States (EIB)	National Credit Union Administration (NCUA)	United States Courts (USC)
Department of Commerce (DOC)	Executive Office of the President (EOP)	National Labor Relations Board (NLRB)	Department of Agriculture (USDA)
Department of Defense (DOD)	Environmental Protection Agency (EPA)	Nuclear Regulatory Commission (NRC)	Department of Veterans Affairs (VA)
Department of Energy (DOE)	Federal Financial Institutions Examination Council (FFIEC)	National Science Foundation (NSF)	