

Justice Tracking Information System (JUSTIS) Roadmap Executive Briefing

City and County of San Francisco

February 28, 2019





Approach and Methodology

Future State Vision

Roadmap and Initiatives

Investment and Staffing Estimates

Implementation Plan

Appendix

Approach and Methodology

Major Activities and Outputs

Gartner's approach for developing the JUSTIS 5-Year Roadmap began with establishment of the baseline Current State Assessment. The future state vision was then built in collaboration with key agency and program stakeholders considering consensus needs, technology trends and Integrated Justice Information Systems (IJIS) leading practices.

Working with agency stakeholders and JUSTIS leadership, Gartner formulated initiatives designed to realize the Future State Vision and used prioritization and dependencies to create the five year Roadmap.



Final Stage

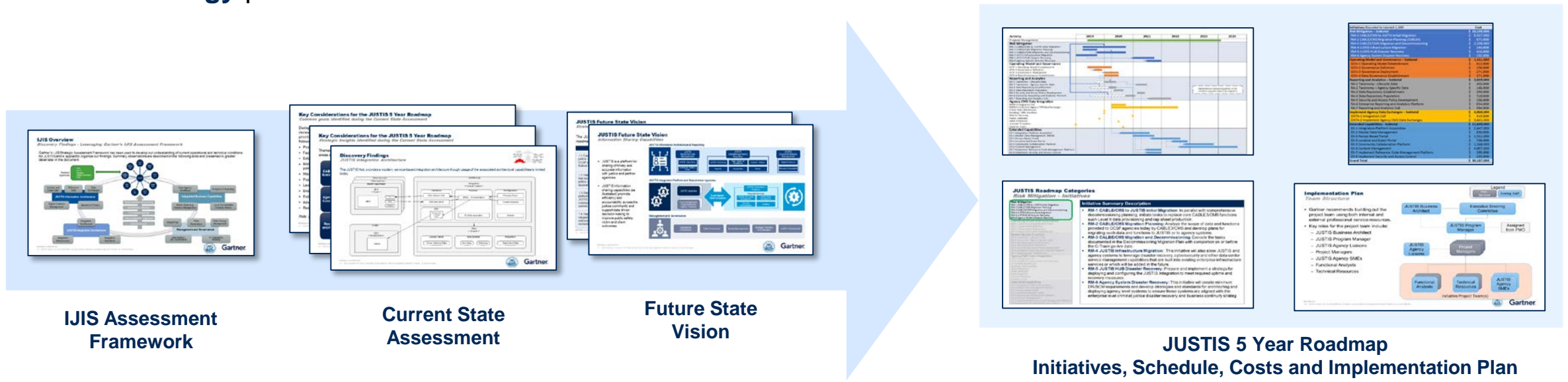


Gartner

Approach and Methodology

Roadmap Development Process

- ✓ **Defines the initiatives, schedule, costs, and recommended implementation plan** that will deliver the JUSTIS 5-Year Roadmap to enhance JUSTIS systems and provide 21st century capabilities to the Juvenile and Criminal Justice Agencies to help them achieve their missions and better serve the community.
- ✓ Is **consensus driven** and based on input from executives, operational and technical stakeholders across CCSF.
- ✓ Considered perspectives on **best practices, technology trends** and **market capabilities**.
- ✓ Defines **accountability** among leadership and delivery groups with **transparent links between business objectives and technology** priorities.





Approach and Methodology

Future State Vision

Schedule and Initiatives

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Appendix

JUSTIS Future State Vision

Key Challenges

JUSTIS agencies within San Francisco face multiple challenges which are not fully addressed by the current JUSTIS platform or the multiple stakeholder agency core system replacement projects currently underway. Examples include:

- Technical obsolescence and lack of extensibility of current CABLE/CMS and agency systems
- Superior Court transition to a new case management system
- Lack of system capabilities to prevent operational lapses with the potential for public safety issues or liability exposure
- Inability to evaluate the effectiveness of programs (social, criminal justice, others) for which the City invests significant sums
- Inability to track complex crimes where multiple incidents are associated with a single event
- Barriers to track and analyze criminal justice outcomes by race, ethnicity or crime type; inability to track recidivism across arrest, charging, trial, incarceration and reentry
- Inability to identify frequent criminal offenders so as to focus resources on the offenders most responsible for serious criminal offenses and quality of life issues
- Inability to create a holistic view of an individual's interaction with public safety partners and to correlate with agency interactions focused on public health, mental health and homelessness
- Inability to track the consistency and effectiveness of charging decisions against case dispositions and sentencing outcomes

The **Future State Vision** describes transformed and new JUSTIS capabilities that will enable CCSF to apply data driven processes to overcome challenges and constraints present today



JUSTIS Future State Vision

Vision Statement and Drivers

JUSTIS will provide a platform for sharing of timely and accurate information with justice and partner agencies. JUSTIS information sharing capabilities will leverage modern technology to: improve the quality and consistency of criminal and juvenile justice data, enable the sharing of data between JUSTIS agencies in real-time whenever applicable, deploy robust reporting capabilities regarding the complete life cycle of the local criminal justice¹ system, and drive improvements in public safety outcomes through transparency and inter-agency collaboration.



Data driven decisions and processes with direct and measurable impact on public safety and quality of life imperatives



Improve and expand **collaboration** between partner agencies and community based organizations to improve outcomes and reduce recidivism



Enhanced levels of **transparency and accountability** to all facets of the criminal and juvenile justice processes including **equitable treatment, privacy, and required confidentiality** for all impacted individuals



Improved **process efficiencies** enabling and reduction of paper based processes thereby enabling staff to focus on high impact interaction with clients and the public



Enablement of CCSF to fully realize the benefits of current and future **technology innovations in a fiscally responsible and cost-effective manner.**



A **resilient, secure and reliable** foundation for CCSF data sharing

JUSTIS Roadmap

Justice Lifecycle Data Consistency: Enable the understanding of criminal and juvenile justice information across the enterprise

Reporting: Modernize, improve or establish (as required) JUSTIS analytics & reporting

CABLE/CMS: Define and develop an approach to fully replace existing CABLE/CMS functionality

Platform Optimization: Expand usage of the integration platform standards to align with data sharing business needs

Operating Model: Provide organizational, resource and change management structures to ensure continuous JUSTIS service

Governance: Refresh and establish governance structures to manage inter-agency decisions and responsibilities

1. Criminal justice is inclusive of both adult and juvenile justice systems and agencies.



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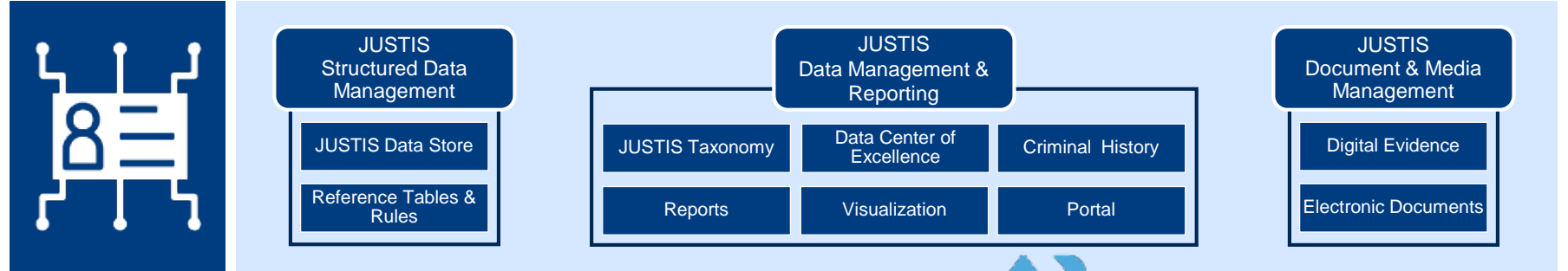
JUSTIS Future State Vision

Information Sharing Capabilities

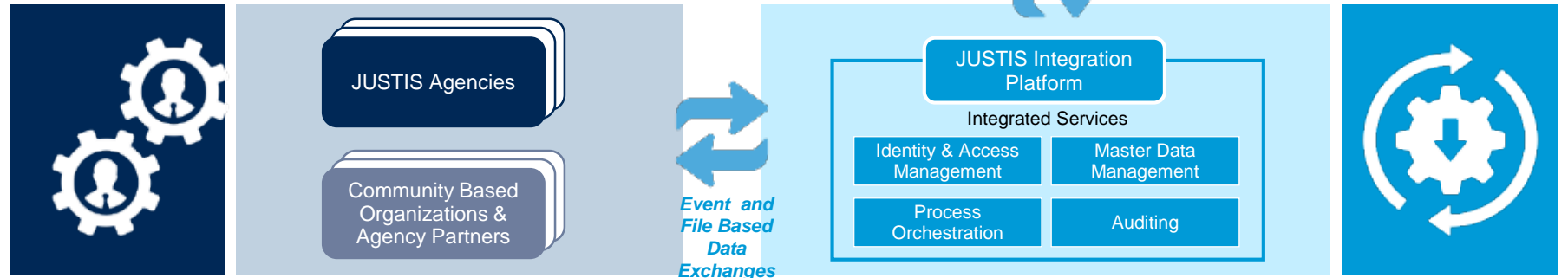
The JUSTIS Future State Vision promotes information sharing by providing the following capabilities:

- Shared definitions, standards, data stores and reporting access
- Common infrastructure for resiliency and integration capabilities serving JUSTIS and partner stakeholders
- Foundational management structures to govern and oversee architectural and operational decisions for current and future JUSTIS needs

JUSTIS Information Architecture & Reporting



JUSTIS Integration Platform and Stakeholder Agencies



Management and Governance



Strategic Planning Components

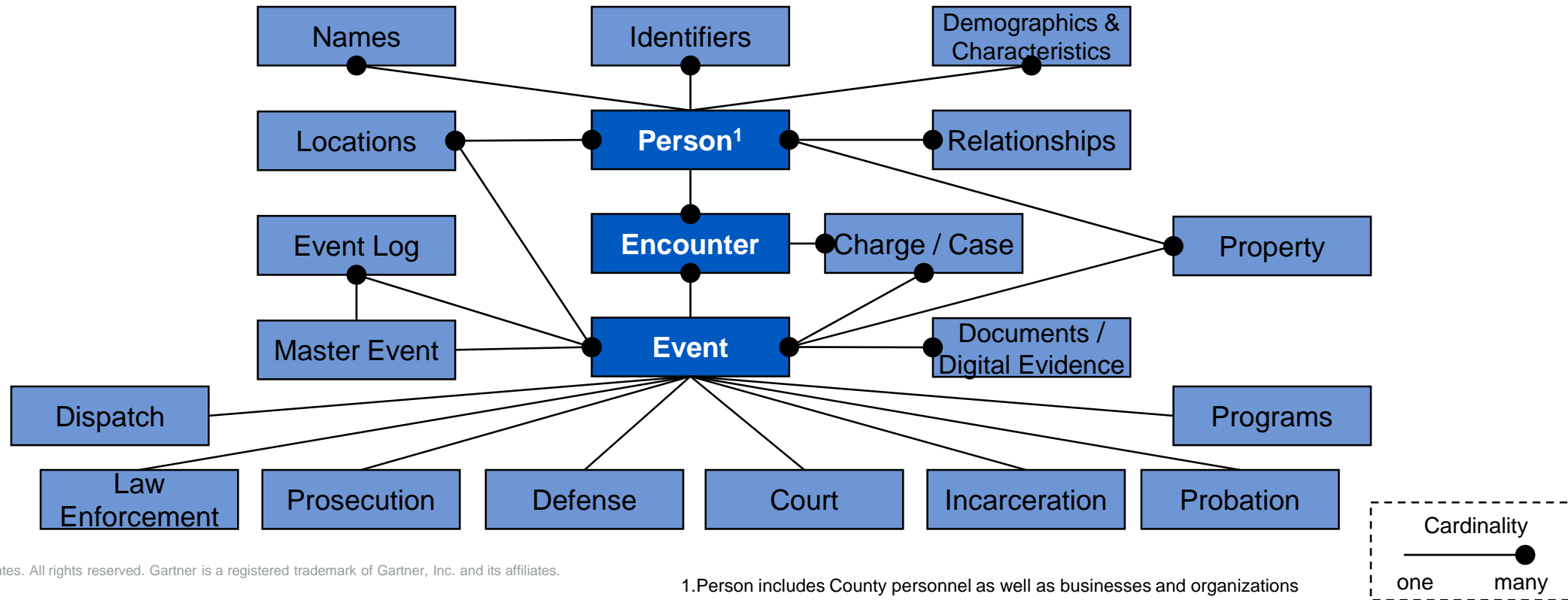
JUSTIS Lifecycle Data Consistency

JUSTIS Information Architecture

Justice Lifecycle Data Consistency – Establish and sustain a common taxonomy, shared reference data structures and common identifiers to facilitate consistent representation and understanding of criminal justice information across the enterprise

JUSTIS will provide a common vocabulary (i.e., taxonomy) for CCSF criminal justice information across all stakeholder agencies. The JUSTIS Future State Vision also includes a Conceptual Data Model for managing information that will be retained centrally and be made available for JUSTIS Reporting Services. JUSTIS Data Governance will govern the long term evolution of the model and compliance with standards (e.g., NIBRS).

JUSTIS Master Reference Tables



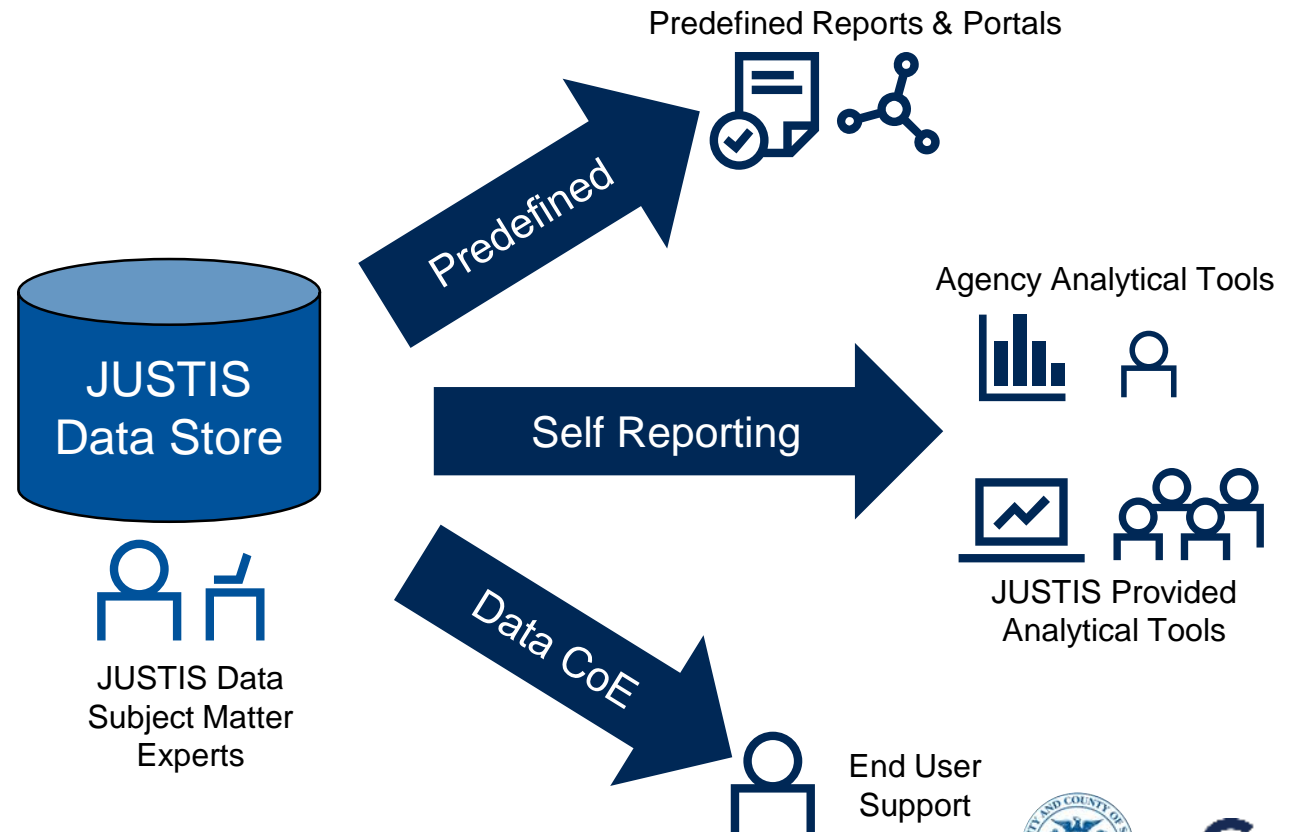
Strategic Planning Components

Reporting

Integrated Business Capabilities

Reporting– Modernize, improve or establish (as required) JUSTIS analytics & reporting to derive insights, data driven decisions and improve transparency, efficiency and accountability across the stakeholder agencies.

- JUSTIS reporting services will provide reporting and analytics on inter-agency data accessible in the JUSTIS data store
- Specifically JUSTIS would provide the following reporting methods and access to agency stakeholders and CCSF leadership:
 - Predefined JUSTIS Reports
 - Agency Self Reporting
 - Data Center of Excellence (CoE) Consultative Services



Strategic Planning Components

CABLE/CMS Replacement

JUSTIS Integration Architecture

CABLE/CMS Replacement – Define and develop an approach to fully replace existing CABLE/CMS functionality and provide an extendable platform for future shared functional and data requirements; develop the decommissioning plan and interim solution that assures daily operations for stakeholder agencies are not negatively impacted and stakeholder agency system implementations are not delayed

- The future vision for CABLE/CMS Replacement includes implementation of TR C-Track for court case management
- Replacement of current non-court CABLE/CMS functionality will be provided by a combination of extended capabilities provided by JUSTIS and functions of the other new agency systems
- Upon completion of the transition of non-court CABLE/CMS functionality and implementation of C-Track, CABLE/CMS will be decommissioned
- Contingency plans would be developed for the possibility of CCSF system retrofit activities extending past the C-Track go live date

Develop inventory of functions with corresponding systems that are dependent on CABLE/CMS and require retrofit

Implement CABLE/CMS current shared functionality within agency systems and the JUSTIS integration platform

Deploy Criminal Court C-Track in production

Archive data and decommission CABLE/CMS

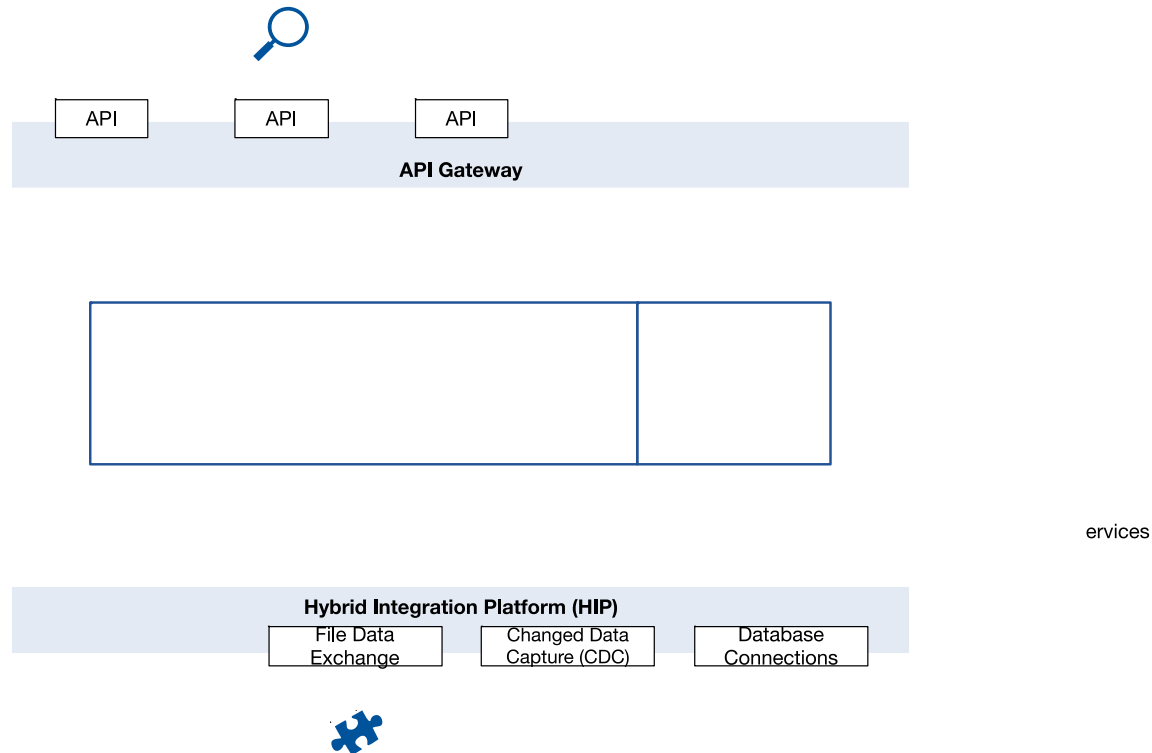


Strategic Planning Components

Target State Integration Hub Architecture

JUSTIS Integration Architecture

Platform Optimization – Expand usage of the integration platform and support organization to align with data sharing business needs and to leverage current integration technology available in the marketplace including potential replacement of integration infrastructure components



- The **Integration Hub** architecture is successfully used by large inter-agency justice organizations to facilitate data exchanges and consolidated data access.
- A similar design, the *Digital Integration Hub* is increasingly used by other organizations to enable high-scale API access while minimizing workload and dependency on systems of record, and deliver additional value via analytics.
- The architecture consists of:
 - An **API Gateway** to interact with agencies, partners and the community. This includes criminal history inquiries.
 - **Data stores** to support consolidated data access without directly accessing systems of record, metadata management to enable common data understanding and consistent usage and data analytics across broad data sets representing the justice lifecycle.
 - A **Hybrid Integration Platform** to exchange data with agencies through event-based exchanges and periodic data ingestions of broad data sets outside of exchanges.
- The architecture must also support capabilities to “fill the gap” between the legacy CMS and replacement applications.

Adapted from: [Innovation Insight: The Digital Integration Hub Turbocharges Your API Strategy](#), Massimo Pezzini and Eric Thoo (26 June 2018 - ID G00360082)



Strategic Planning Components

JUSTIS Operating Model

Management and Governance

JUSTIS Operating Model - Provide organizational, resource and change management structures to ensure continuous JUSTIS service levels to all stakeholder agencies; provide an operating model for the JUSTIS Technology Support Team with necessary capacity and access and support

Responsibilities for the JUSTIS Technology Support Team, in addition to the services provided today, will include:

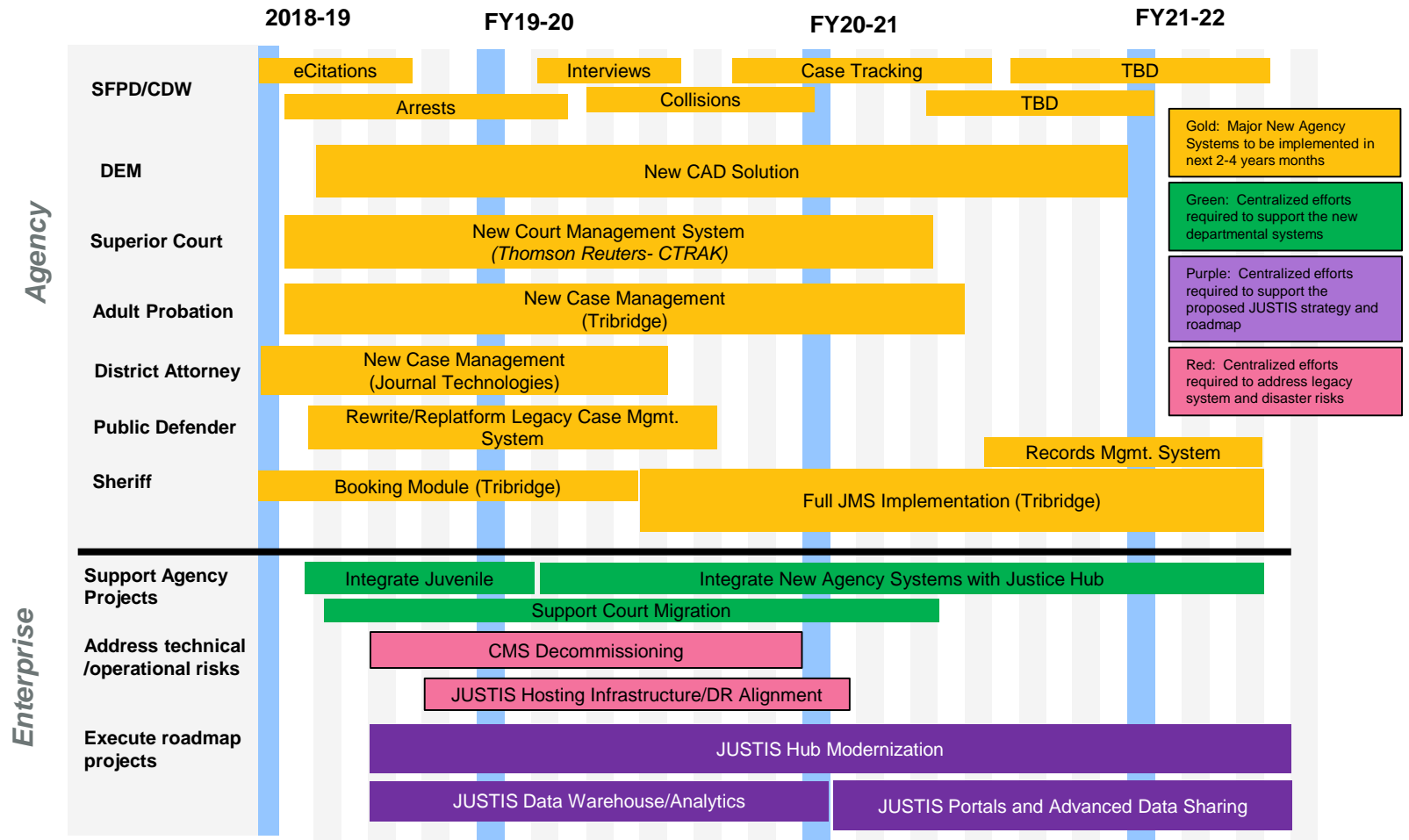
- Establish, sustain and extend the JUSTIS architecture and standards including integrating Juvenile Probation's CMS into the JUSTIS Hub
- Administer and operate the integration platform (i.e., JUSTIS Hub), including monitoring of queues and other operational mechanisms
- Provide an Integration Center of Excellence (CoE) which consults with agency level IT and/or third party vendors when designing interfaces and establishing interface contracts
- Document and configure platform level components for specific interfaces and support testing, including providing test harnesses where appropriate
- Provide a Data Center of Excellence to support JUSTIS reporting and query development
- Common infrastructure for criminal justice applications will be managed consistent with CCSF, state and federal standards and protocols



Note: agency applications shown are representative examples

The JUSTIS Roadmap needs to consider both Agency Driven and Shared Initiatives

- Nearly every JUSTIS agency is in the midst of replacing their core case management system.
- Each new system will need to be thoughtfully integrated with JUSTIS
- Significant effort will be required to decommission CABLE/CMS
- Infrastructure and DR issues need to be addressed
- The modernized, real-time JUSTIS data exchange and comprehensive enterprise level reporting and data analytics capability must be implemented



Having the right governance over the JUSTIS and the transformation program is foundational and must be addressed at the very beginning of the program



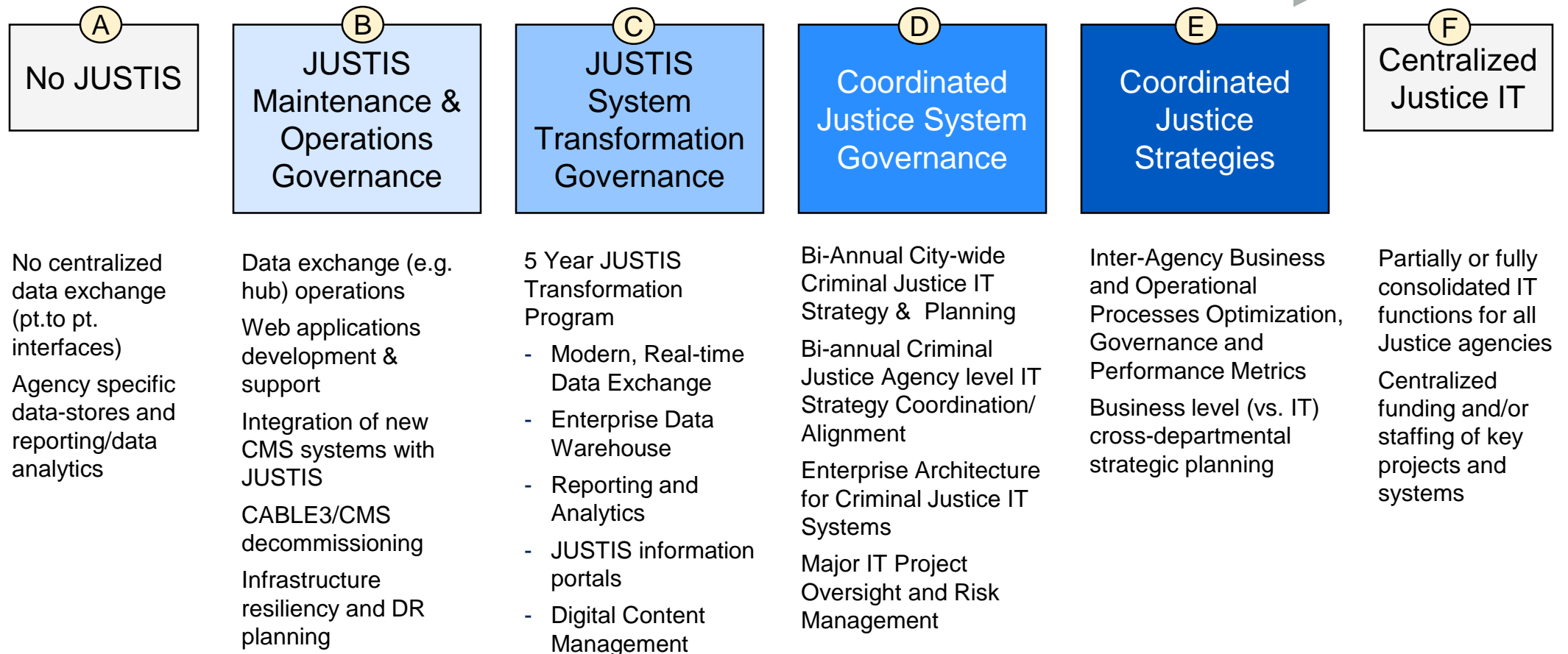
Strategic Planning Components

Governance

Management and Governance

Governance - Refresh and establish governance structures to manage inter-agency decisions and responsibilities pertaining to budget, data, policy, operations, technical planning/execution, security and privacy

The level of governance that is needed is highly dependent on what is actually being governed



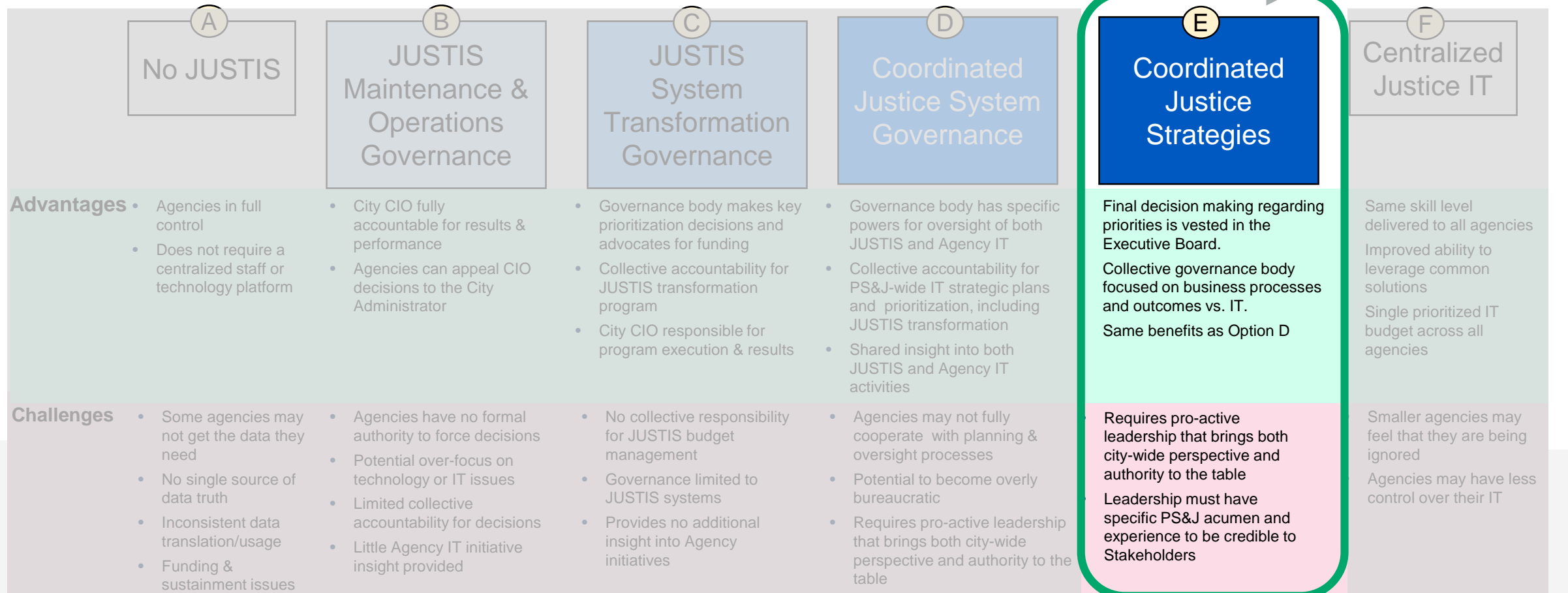
Strategic Planning Components

Governance

Management and Governance

Governance - Refresh and establish governance structures to manage inter-agency decisions and responsibilities pertaining to budget, data, policy, operations, technical planning/execution, security and privacy

Increasing Transparency and Lower Cost



Strategic Planning Components

Governance

Management and Governance

Governance - Refresh and establish governance structures to manage inter-agency decisions and responsibilities pertaining to budget, data, policy, operations, technical planning/execution, security and privacy

- While there is not a single model that guarantees success, there are some key best practices present in optimal governance systems
 - Involved executive sponsor the required authority, knowledge and stature/reputation
 - Active participation by the senior most Agency executives
 - Well defined and layered governance structure that pushes decision making to the right level
- To address current gaps establish the following governance bodies:
 - Executive Sponsor: City Administrator
 - Executive Board: Agency Executive Directors
 - A dedicated Office of Justice Technology within the Department of Technology with a Program Officer and staff
 - Focused Committees which support inter-agency coordination and the ongoing use and evolution of criminal justice technology and systems



Executive Sponsor

City Administrator

Chairs & Facilitates



New Executive Board

Adopts/Rejects Recommendations



New Office of Justice Technology
New Program Officer

Supports and Facilitates



Justice Operations Information Network Committees

Tactical
Operations &
Maintenance

Strategic
Technology
Architecture &
Planning

Information and
Data Sharing

Oversight and
Performance
Monitoring

Represents Departments, monitors current operations and recommends future investments

Strategic Planning Components

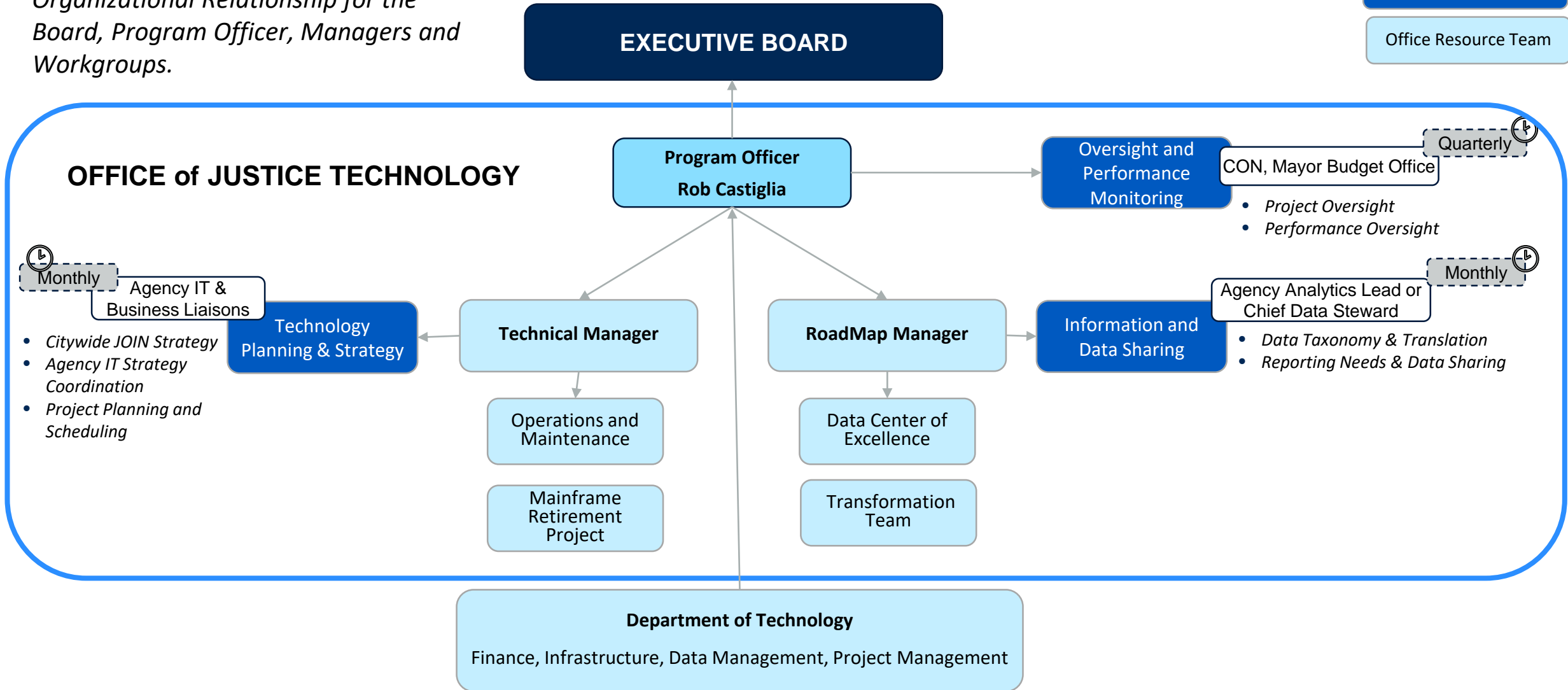
Governance Organization

Organizational Relationship for the Board, Program Officer, Managers and Workgroups.

Executive Management

Advisory Workgroup

Office Resource Team



JUSTIS Future State Vision

Strategic Objectives

The JUSTIS 5 Year Roadmap will facilitate achievement of the following strategic objectives. These strategic objective(s) will be used to ensure the Roadmap initiatives are aligned with the Future State Vision described herein and as a baseline to measure effectiveness of the Roadmap's implementation.

Innovations	
1.1 Establish a common taxonomy and comprehensive criminal justice conceptual data model, aligned across all JUSTIS member agencies and where possible with state and federal standards.	1.5 Deploy data exchanges consistent with the needs and data sharing opportunities presented by the implementation of new juvenile and criminal justice agency systems over the next 24 months.
1.2 Deploy a city wide criminal justice data store that includes 'index level' data from all criminal justice agencies, covering the complete criminal and juvenile justice lifecycle, aligned to the common taxonomy.	1.6 Deploy a platform for sharing electronic documents and managing digital evidence.
1.3 Deploy an enterprise reporting analytics platform which enables stakeholder agencies, the JUSTIS Technology Support Team, and community partners to create dashboards, queries, and standard reports.	1.7 Deploy a collaboration platform for awareness and communication with health care and social services agencies to improve both individual and population level outcomes.
1.4 Deploy and/or re-architect the current JUSTIS integration platform with a lighter weight, secure and scalable architecture that encourages increased levels of data sharing.	1.8 Extend JUSTIS to include Juvenile data and transactions with required access controls.
1.9 Rebrand and transform JUSTIS inclusive of the Roadmap strategic objectives to define the next generation public safety and social system for CCSF.	

Sustainment and Risk Mitigation
2.1 Decommission CABLE/CMS including removal of dependencies on CABLE/CMS from all other CCSF criminal justice applications-
2.2 Complete CCSF planning and integrations to support the Superior Court go-live ¹ on criminal C-Track without disrupting the partner agency operations. <small>1. Planned for late 2019</small>
2.3 Establish a DR strategy that aligns interdependent resiliency levels across stakeholder agency systems and with the JUSTIS Hub, and justice environment.
2.4 Establish security mechanism which manages enterprise access to agency data through JUSTIS.
2.5 Establish governance for the funding, prioritization, expansion, and implementation of transformative technology projects and data management which impact the CCSF Criminal & Juvenile Justice landscape.





Approach and Methodology

Future State Vision

Schedule and Initiatives

Investment and Staffing Estimates

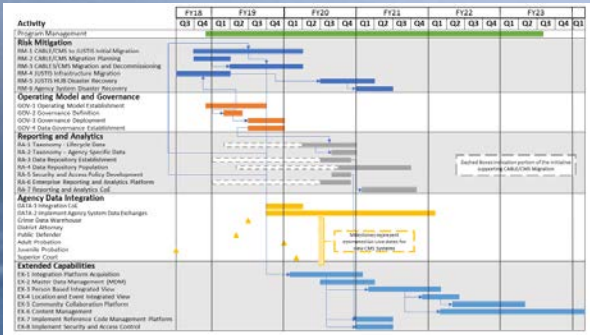
Implementation Plan

Appendix

JUSTIS 5 Year Roadmap Introduction

The JUSTIS 5 Year Roadmap consists of four primary components

Schedule



Cost Estimates

Category	Initiative	Investment	Sub Total
Risk Mitigation	RM-1 CABLE/CMS to JUSTIS initial Migration	\$ 6,327,000	
	RM-2 CABLE/CMS Migration Planning	\$ 671,000	
	RM-3 CABLE/CMS Migration and Decommissioning	\$ 2,298,000	
	RM-4 JUSTIS Infrastructure Migration	\$ 244,000	
	RM-5 JUSTIS HUB Disaster Recovery	\$ 416,000	
	RM-6 Agency System Disaster Recovery	\$ 192,000	\$10,149,000
Operating Model and Governance	GOV-1 Operating Model Establishment	\$ 612,000	
	GOV-2 Governance Definition	\$ 136,000	
	GOV-3 Governance Deployment	\$ 271,000	
	GOV-4 Data Governance Establishment	\$ 271,000	\$1,311,000
Reporting and Analytics	RA-1 Taxonomy - Lifecycle Data	\$ 403,000	
	RA-2 Taxonomy - Agency Specific Data	\$ 146,000	
	RA-3 Data Repository Establishment	\$ 359,000	
	RA-4 Data Repository Population	\$ 718,000	
	RA-5 Security and Access Policy Development	\$ 156,000	
	RA-6 Enterprise Reporting and Analytics Platform	\$ 664,000	
	RA-7 Reporting and Analytics CoE	\$ 584,000	\$3,019,000
Implement Agency System Data Exchanges	DATA-1 Integration CoE	\$ 419,000	
	DATA-2 Implement Agency System Data Exchanges	\$ 3,661,000	\$4,060,000
Extended Capabilities	EX-1 Integration Platform Acquisition	\$ 2,647,000	
	EX-2 Master Data Management	\$ 830,000	
	EX-3 Person Based Portal	\$ 1,511,000	
	EX-4 Location and Event Integrated View	\$ 756,000	
	EX-5 Community Collaboration Integrated View	\$ 1,268,000	
	EX-6 Content Management	\$ 4,007,000	
	EX-7 Implement Reference Code Management Platform	\$ 295,000	
	EX-8 Implement Security and Access Control	\$ 335,000	\$11,649,000
Grand Total			\$30,187,000

Initiative Descriptions

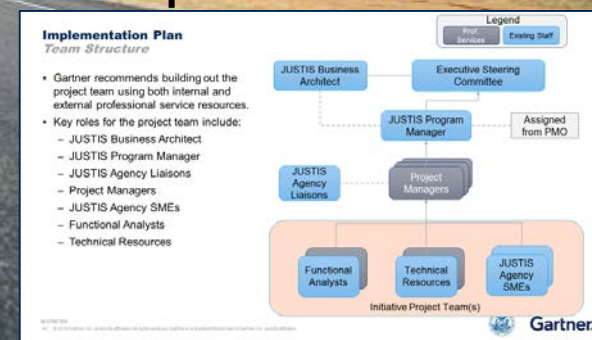
JUSTIS Roadmap Categories
Risk Mitigation - Initiatives

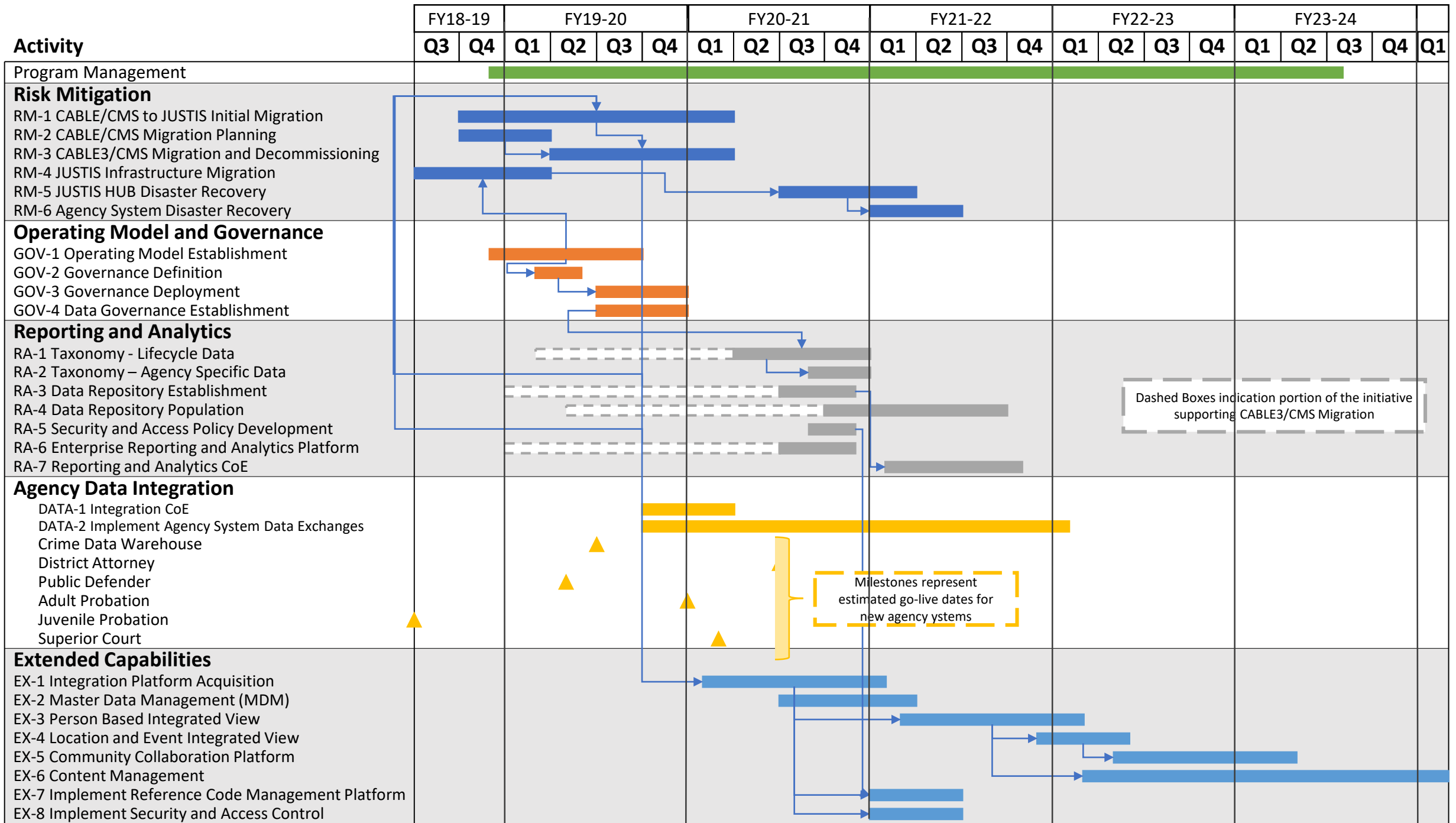
Risk Mitigation
RM-1 CABLE/CMS to JUSTIS initial Migration
RM-2 CABLE/CMS Migration Planning
RM-3 CABLE/CMS Migration and Decommissioning
RM-4 JUSTIS Infrastructure Migration
RM-5 JUSTIS HUB Disaster Recovery
RM-6 Agency System Disaster Recovery

Initiative Summary Description

- RM-1 CABLE/CMS to JUSTIS initial Migration:** In parallel with comprehensive decommissioning planning, initiate tasks to replace core CABLE3/CMS functions such level II data provisioning and rap sheet production
- RM-2 CABLE/CMS Migration Planning:** Analyze the scope of data and functions provided to CCSF agencies today by CABLE3/CMS and develop plans for migrating such data and functions to JUSTIS or to agency systems.
- RM-3 CABLE/CMS Migration and Decommissioning:** Execute the tasks documented in the Decommissioning Migration Plan with completion on or before the C-Track go-live date.
- RM-4 JUSTIS Infrastructure Migration:** This initiative will also allow JUSTIS and agency systems to leverage disaster recovery, cybersecurity and other data center service management capabilities that are built into existing enterprise infrastructure services or which will be added in the future.
- RM-5 JUSTIS HUB Disaster Recovery:** Prepare and implement a strategy for deploying and configuring the JUSTIS integration to meet required uptime and recovery measures.
- RM-6 Agency System Disaster Recovery:** This initiative will create minimum DR/BCM requirements and develop strategies and standards for architecting and deploying agency level systems to ensure those systems are aligned with the enterprise level criminal justice disaster recovery and business continuity strategy

Implementation Plan





JUSTIS Roadmap Categories

Risk Mitigation – Primary Outcomes

Risk Mitigation

RM-1 CABLE/CMS to JUSTIS Initial Migration
RM-2 CABLE/CMS Migration Planning
RM-3 CABLE3/CMS Migration and Decommissioning
RM-4 JUSTIS Infrastructure Migration
RM-5 JUSTIS HUB Disaster Recovery
RM-6 Agency System Disaster Recovery

Operating Model and Governance

GOV-1 Operating Model Establishment
GOV-2 Governance Definition
GOV-3 Governance Deployment
GOV-4 Data Governance Establishment

Reporting and Analytics

RA-1 Taxonomy - Lifecycle Data
RA-2 Taxonomy – Agency Specific Data
RA-3 Data Repository Establishment
RA-4 Data Repository Population
RA-5 Security and Access Policy Development
RA-6 Enterprise Reporting and Analytics Platform
RA-7 Reporting and Analytics CoE

Agency CMS Data Integration

DATA-1 Integration CoE
DATA-2 Implement Agency CMS Data Exchanges
Crime Data Warehouse
Booking / JMS Interface
District Attorney
Public Defender
Adult Probation
Juvenile Probation
Superior Court

Extended Capabilities

EX-1 Integration Platform Acquisition
EX-2 Master Data Management (MDM)
EX-3 Person Based Portal
EX-4 Location and Event Portal
EX-5 Community Collaboration Platform
EX-6 Content Management
EX-7 Implement Reference Code Management Platform
EX-8 Implement Security and Access Control

Primary Outcomes

- JUSTIS implementation of operational and statistical reports provided to the agencies by CABLE3/CMS
- Detailed Plan to remove all dependencies by CCSF agencies on CABLE3/CMS
- Specifications for migrating CCSF CABLE3/CMS functionality into JUSTIS or agency systems
- Removal of dependency between JUSTIS and CABLE3/CMS
- Decommissioning CABLE3/CMS
- Resilient infrastructure inclusive of disaster recovery and cybersecurity protections
- Same or similar levels of infrastructure services and responsiveness
- Implemented systems recovery capabilities and business continuity management procedures for JUSTIS
- Overall IT Disaster Recovery Strategy and Plan

JUSTIS Roadmap Categories

Risk Mitigation – Initiatives

Risk Mitigation

- RM-1 CABLE/CMS to JUSTIS Initial Migration
- RM-2 CABLE/CMS Migration Planning
- RM-3 CABLE3/CMS Migration and Decommissioning
- RM-4 JUSTIS Infrastructure Migration
- RM-5 JUSTIS HUB Disaster Recovery
- RM-6 Agency System Disaster Recovery

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- Public Defender
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- Juvenile Probation
- Superior Court

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- EX-5 Community Collaboration Platform
- EX-6 Content Management
- EX-7 Implement Reference Code Management Platform
- EX-8 Implement Security and Access Control

RM-1 CABLE/CMS to JUSTIS initial Migration

- Replace already identified core CABLE3/CMS functions such as Level II data provisioning and rap sheet production.

RM-2 CABLE/CMS Migration Planning

- Fully analyze data and functions provided by CABLE3/CMS and develop plans for migrating JUSTIS or to agency systems.

RM-3 CALBE/CMS Migration and Decommissioning

- Execute the Decommissioning Migration Plan with completion on or before the Court go-live.

RM-4 JUSTIS Infrastructure Migration

- Leverage disaster recovery, cybersecurity and other data center capabilities to ensure continuous operations.

RM-5 JUSTIS HUB Disaster Recovery

- Implement a strategy for configuring the JUSTIS Integration to meet required uptime and recovery measures.

RM-6 Agency System Disaster Recovery

- Create strategies and standards for agency level systems to ensure alignment with the enterprise level DR/BCM.

JUSTIS Roadmap Categories

Operating Model and Governance – Primary Outcomes

Risk Mitigation

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Primary Outcomes

- Responsibility matrix for all agencies
- Updated operating agreement for JUSITS/DT
- Enhanced governance design and domain charters
- Functioning governance and working groups.
- Administrative code updates
- Established data governance function

JUSTIS Roadmap Categories

Operating Model and Governance – Initiatives

Risk Mitigation

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GOV-1 Operating Model Establishment

- Formalize roles and responsibilities between JUSTIS and agency teams

GOV-2 Governance Definition

- Document specific areas to be governed, governance bodies with defined responsibility and authority

GOV-3 Governance Deployment

- Incrementally establish and build agency adoption of the enhanced JUSTIS governance.

GOV-4 Data Governance Establishment

- Establish processes and structure for management of the consistency, accessibility and accuracy of criminal justice data.

JUSTIS Roadmap Categories

Reporting and Analytics – Primary Outcomes

Risk Mitigation

RM-1 CABLE/CMS to JUSTIS Initial Migration
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RM-3 CABLE3/CMS Migration and Decommissioning
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Primary Outcomes

- Community-wide criminal justice data model
- Definitions and common terms to describe the core criminal justice lifecycle, from the call for service to disposition and post-disposition actions.
- Data dictionary aligned with the JUSTIS Data Repository and Taxonomy
- Identification of the appropriate source system for each element
- Data Security roles and policies
- Implemented reporting and analytics tools
- Operational charter for the Data Center of Excellence

JUSTIS Roadmap Categories

Reporting and Analytics – Initiatives

Risk Mitigation

RM-1 CABLE/CMS to JUSTIS Initial Migration
RM-2 CABLE/CMS Migration Planning
RM-3 CABLE3/CMS Migration and Decommissioning
RM-4 JUSTIS Infrastructure Migration
RM-5 JUSTIS HUB Disaster Recovery
RM-6 Agency System Disaster Recovery

Operating Model and Governance

GOV-1 Operating Model Establishment
GOV-2 Governance Definition
GOV-3 Governance Deployment
GOV-4 Data Governance Establishment

Reporting and Analytics

RA-1 Taxonomy - Lifecycle Data
RA-2 Taxonomy – Agency Specific Data
RA-3 Data Repository Establishment
RA-4 Data Repository Population
RA-5 Security and Access Policy Development
RA-6 Enterprise Reporting and Analytics Platform
RA-7 Reporting and Analytics CoE

Agency CMS Data Integration

DATA-1 Integration CoE
DATA-2 Implement Agency CMS Data Exchanges
Crime Data Warehouse
Booking / JMS Interface
District Attorney
Public Defender
Adult Probation
Juvenile Probation
Superior Court

Extended Capabilities

EX-1 Integration Platform Acquisition
EX-2 Master Data Management (MDM)
EX-3 Person Based Portal
EX-4 Location and Event Portal
EX-5 Community Collaboration Platform
EX-6 Content Management
EX-7 Implement Reference Code Management Platform
EX-8 Implement Security and Access Control

RA-1 Taxonomy – Lifecycle Data

- Create a shared vocabulary for core criminal justice events and data

RA-2 Taxonomy – Agency Specific Data

- Extend the taxonomy for agency specific and juvenile justice data

RA-3 Data Repository Establishment

- Establish a centralized repository of shared criminal and civil justice data

RA-4 Data Repository Population

- Create processes to populate agency data into the JUSTIS Common Data Repository

RA-5 Security Access Policy Development

- Refine Identity Access Management (IAM) and data security policies aligned with evolved data sharing capabilities

RA-6 Enterprise Reporting and Analytics Platform

- Adopt and implement a shared JUSTIS level reporting and data visualization platform

RA-7 Reporting and Analytics CoE

- Establish consultative capabilities to support agency created reporting and data understanding

JUSTIS Roadmap Categories

Agency Data Integration – Primary Outcomes

Risk Mitigation

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Primary Outcomes

- Expanded charter outlining roles and responsibilities of the CoE team
- Estimated resource levels and skills required to support to JUSTIS agencies
- Published data hub integration standards
- Initial COE resources on boarded and available to work
- Master Integration Development Schedule
- Deployment and on-going support and enhancements of event driven data exchanges.

JUSTIS Roadmap Categories

Agency Data Integration – Initiatives

Risk Mitigation

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DATA-1 Integration CoE

- Establishes consultative capabilities to support agencies (and their vendors) in the development of interfaces between criminal justice systems using the Criminal Justice Integration hub

DATA-2 Implement Agency CMS Data Exchanges

- Utilizing the JUSTIS Integration Platform, design, develop and deploy data exchanges to interface new agency systems

JUSTIS Roadmap Categories

Extended Capabilities- Primary Outcomes

Risk Mitigation

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Primary Outcomes

- Modernized integration platform components
- Implementation of the platform including at least one pilot integration deployed in production
- Integrated person, location, and event view
- Collaboration platform to serve community based organizations
- Specification and deployment of meta data management capabilities
- Content management system
- Security capabilities limiting user access to data

JUSTIS Roadmap Categories

Extended Capabilities – Initiatives

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EX-1 Integration Platform Acquisition

- Provide lighter weight, agile integration tooling that promotes information sharing and reduces barriers to integration

EX-2 Master Data Management (MDM)

- Establish tools and processes for managing shared single records for core data such as person, case and location

EX-3 Person Based Integrated View

- Create a user interface to present all information from all agency systems about a single person

EX-4 Location and Event Integrated View

- Create a user interface to present all information from all agency systems about a single location or case

JUSTIS Roadmap Categories

Extended Capabilities – Initiatives (continued)

Risk Mitigation

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EX-8 Implement Security and Access Control

EX-5 Community Collaboration Platform

- Establish capabilities to share information and workflows with community based organizations

EX-6 Content Management

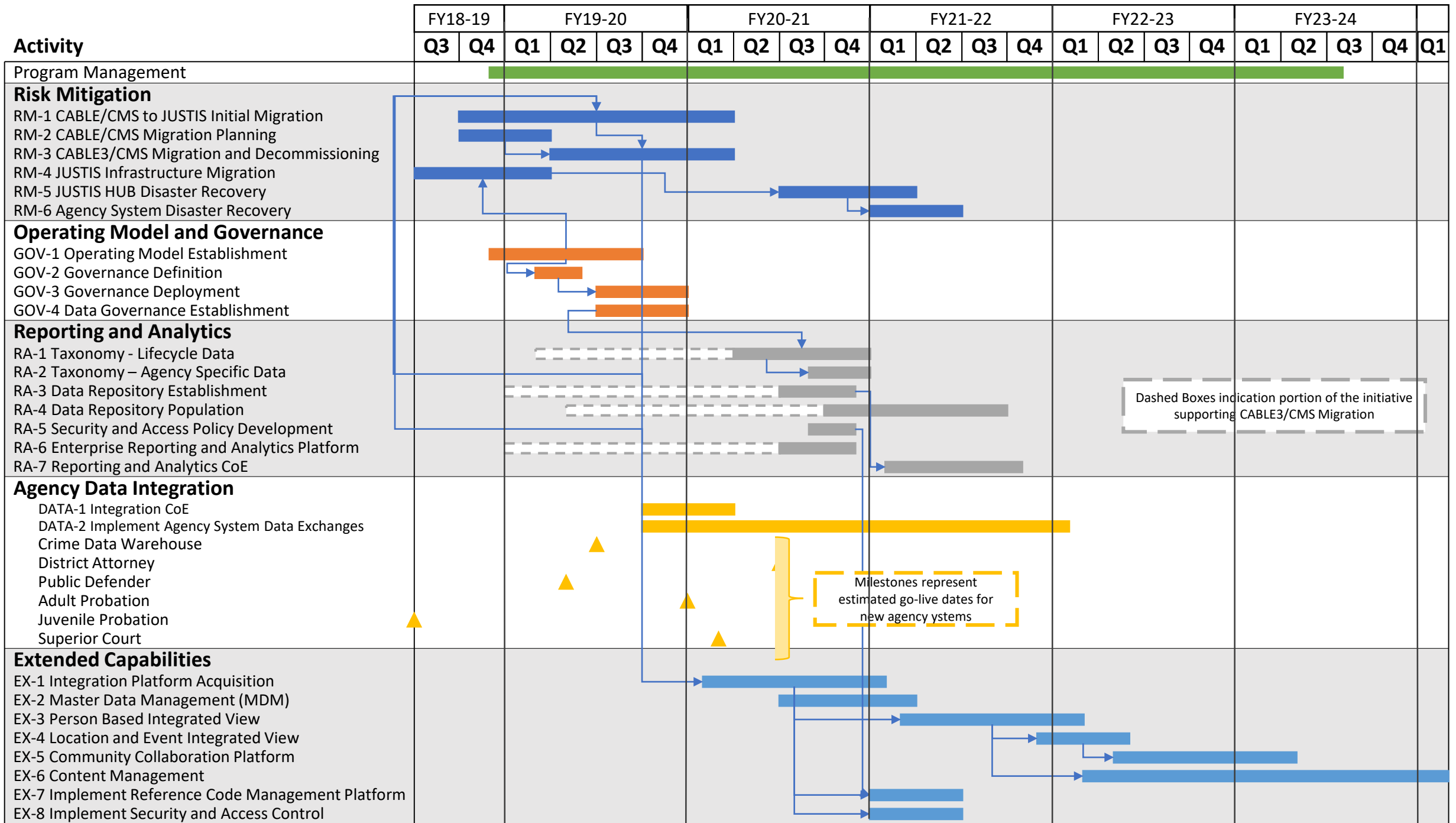
- Implement a platform for the sharing of non-structured content (e.g., documents, videos, digital evidence, etc.)

EX-7 Reference Code Management Platform

- Implement capabilities to support the use of consistent sets of reference codes

EX-8 Implement Security and Access Control

- Implement the Identity Access Management and Data Security Policy and integrate such capabilities as necessary with agency systems





Approach and Methodology

Future State Vision

Schedule and Initiatives

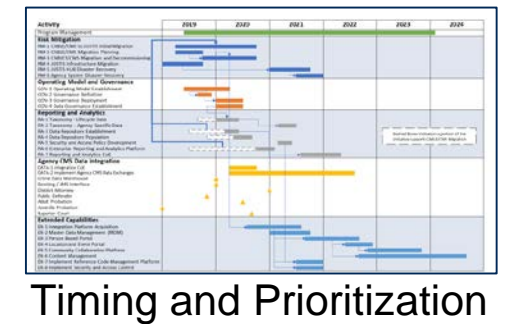
Investment and Staffing Estimates

Implementation Plan

Appendix

Cost Estimate Methodology

- Rough Order of Magnitude (ROM) Cost was calculated using the following key drivers.
 - **Hardware Costs:** Anticipated cost of any computers, server, or other hardware associated with an initiative. Costs are applied to the initiative in the first month.
 - **Software Costs:** Estimated software licensing costs. Costs are applied the first scheduled month of an initiative
 - **Other Resources:** Resources contracted to deliver an entire initiative or a portion of it. The cost was estimated by multiplying the total work hours to complete and initiative by the industry rates for the required resources. Cost are allocated monthly over the length of the initiative.
- Existing resources were forecasted to build a staffing model, however, no incremental cost was applied as they have already been accounted for internally.



Role	Estimated Annualized Costs	Assumptions
Project Manager (I)	\$ 400,000	External Rate Table - Role 12.5 (\$150.43/hr)
Functional Analyst (E)	\$ 35,459	External Rate Table - Role 12.5 (\$141.61/hr)
Architect / Specialist (E)	\$ 758,135	External Rate Table - Role 14.5 (\$503.76/hr)
Application Engineer (E)	\$ 400,000	External Rate Table - Role 13.5 (\$173.19/hr)

Role	Description
L1 (E)	Project Manager (I) or (E)
L2 (A)	Functional Analyst (I) or (E)
L2 (S)	Architect / Specialist (E) or (E)
L3 (H)	Application Engineer (I) or (E)
L3 (S)	Infrastructure Engineer (I)
L4 (A)	JUSTIS Application Engineer (I)
L4 (S)	Agency Functional SME (I)
L4 (E)	Agency Application Engineer (I/E)
L5 (E)	JUSTIS Program Manager (I)
L5 (E)	JUSTIS Business Architect (I)

• Staffing was calculated by estimating the monthly work hours by role for each initiative, and then multiplying that number by the estimated duration.



Estimated Initiative Costs

Total estimated hardware, software and labor costs for each initiative are shown.

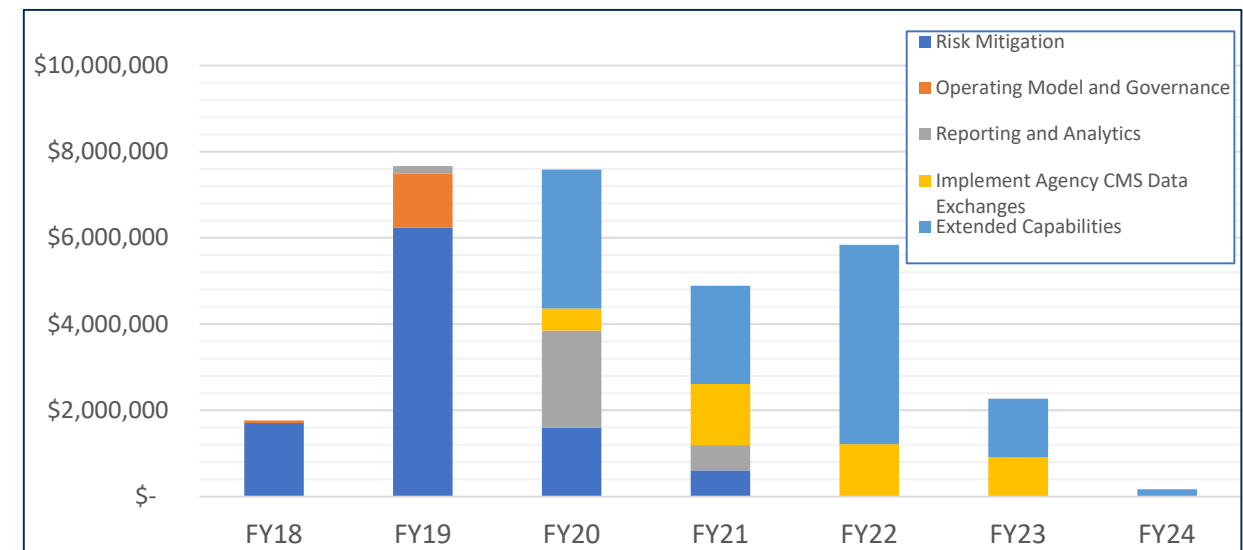
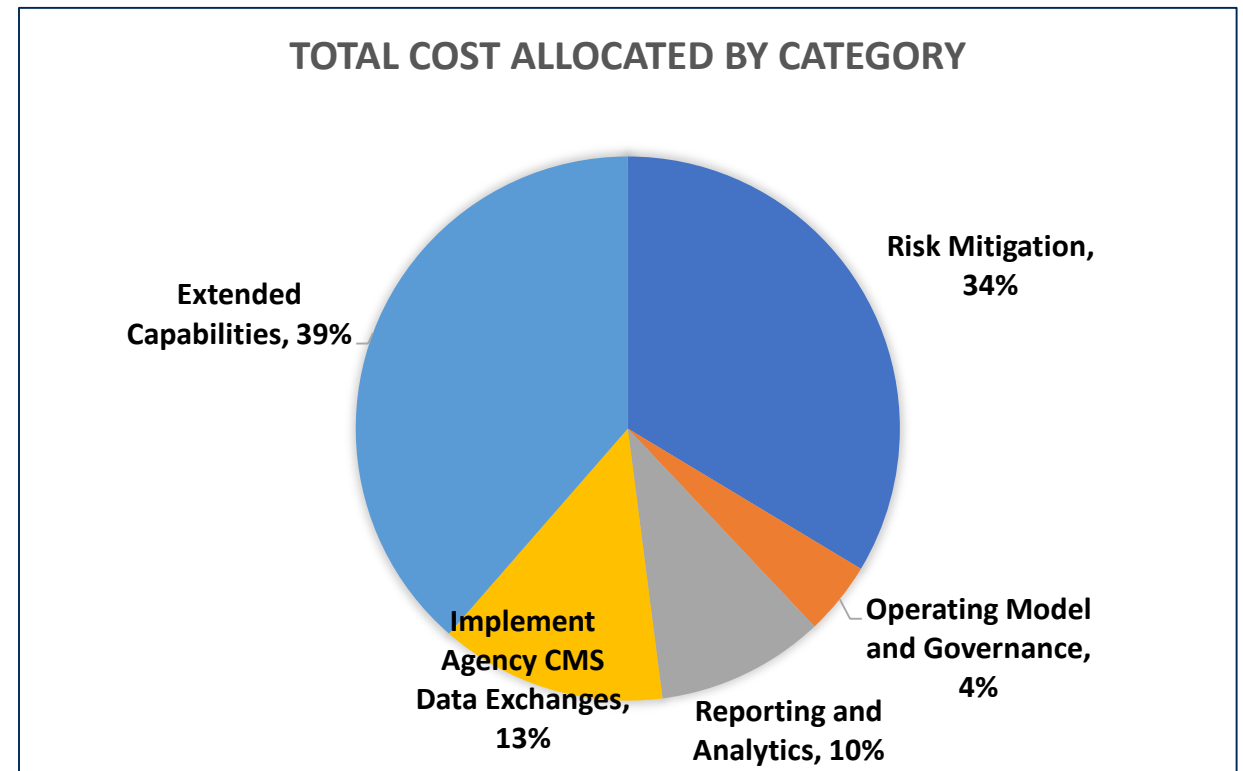
- Internal CCSF resources were included in the effort estimates, however, no incremental cost was applied as these resources are already budgeted
- The model does not include ongoing maintenance or support costs
- Estimates do not include cost contingencies; best practice is to include a 20-25% contingency for technology projects similar to those in the Roadmap

Category	Initiative	Investment	Sub Total
Risk Mitigation	RM-1 CABLE/CMS to JUSTIS Initial Migration	\$ 6,327,000	
	RM-2 CABLE/CMS Migration Planning	\$ 671,000	
	RM-3 CABLE3/CMS Migration and Decommissioning	\$ 2,298,000	
	RM-4 JUSTIS Infrastructure Migration	\$ 244,000	
	RM-5 JUSTIS HUB Disaster Recovery	\$ 416,000	
	RM-6 Agency System Disaster Recovery	\$ 192,000	
			\$10,149,000
Operating Model and Governance	GOV-1 Operating Model Establishment	\$ 612,000	
	GOV-2 Governance Definition	\$ 156,000	
	GOV-3 Governance Deployment	\$ 271,000	
	GOV-4 Data Governance Establishment	\$ 271,000	
			\$1,311,000
Reporting and Analytics	RA-1 Taxonomy - Lifecycle Data	\$ 403,000	
	RA-2 Taxonomy – Agency Specific Data	\$ 146,000	
	RA-3 Data Repository Establishment	\$ 359,000	
	RA-4 Data Repository Population	\$ 718,000	
	RA-5 Security and Access Policy Development	\$ 156,000	
	RA-6 Enterprise Reporting and Analytics Platform	\$ 654,000	
	RA-7 Reporting and Analytics CoE	\$ 584,000	
			\$3,019,000
Implement Agency System Data Exchanges	DATA-1 Integration CoE	\$ 419,000	
	DATA-2 Implement Agency System Data Exchanges	\$ 3,641,000	
			\$4,060,000
Extended Capabilities	EX-1 Integration Platform Acquisition	\$ 2,647,000	
	EX-2 Master Data Management	\$ 830,000	
	EX-3 Person Based Portal	\$ 1,511,000	
	EX-4 Location and Event Integrated View	\$ 756,000	
	EX-5 Community Collaboration Integrated View	\$ 1,268,000	
	EX-6 Content Management	\$ 4,007,000	
	EX-7 Implement Reference Code Management Platform	\$ 295,000	
	EX-8 Implement Security and Access Control	\$ 335,000	
			\$11,649,000
Grand Total			\$30,187,000

Investment Summary

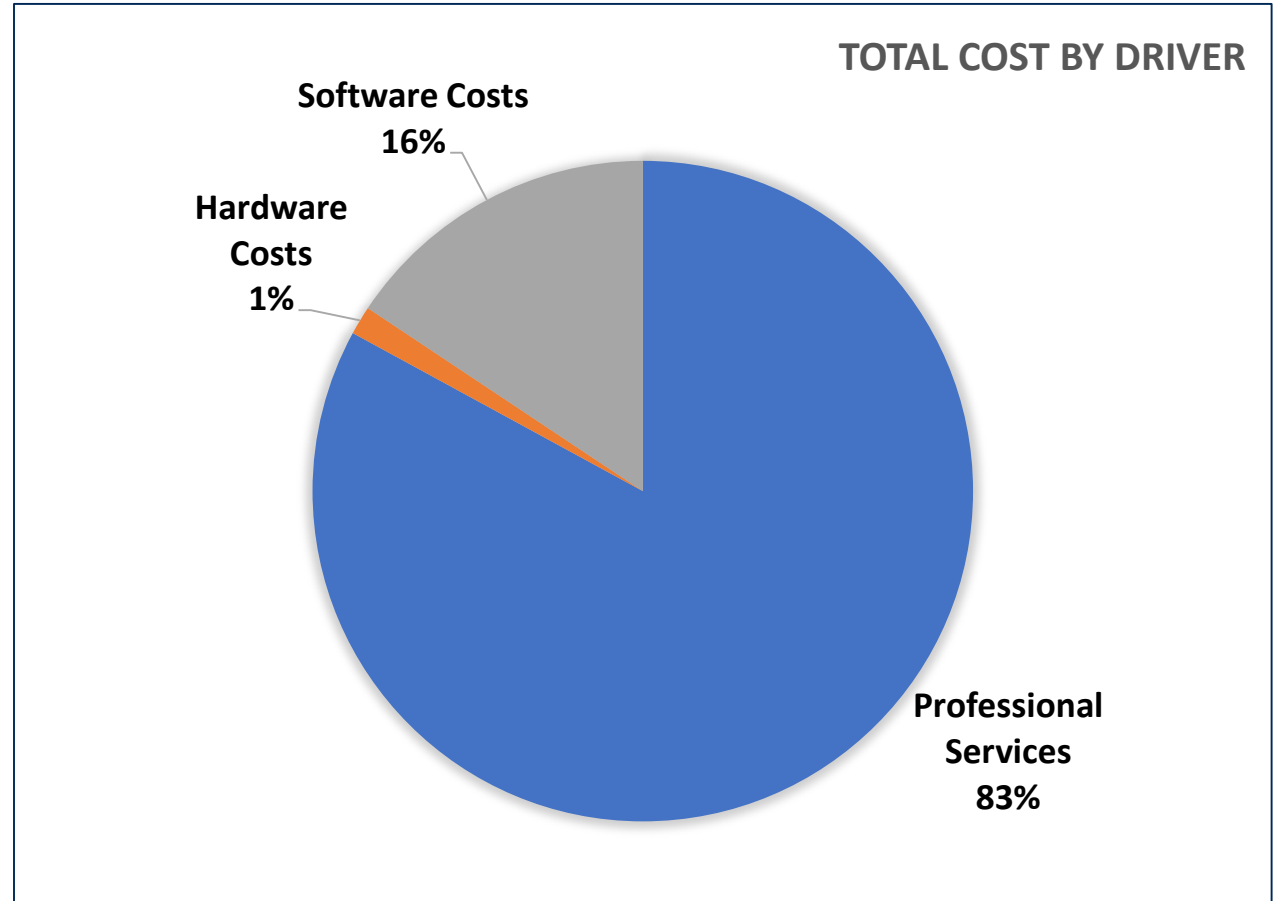
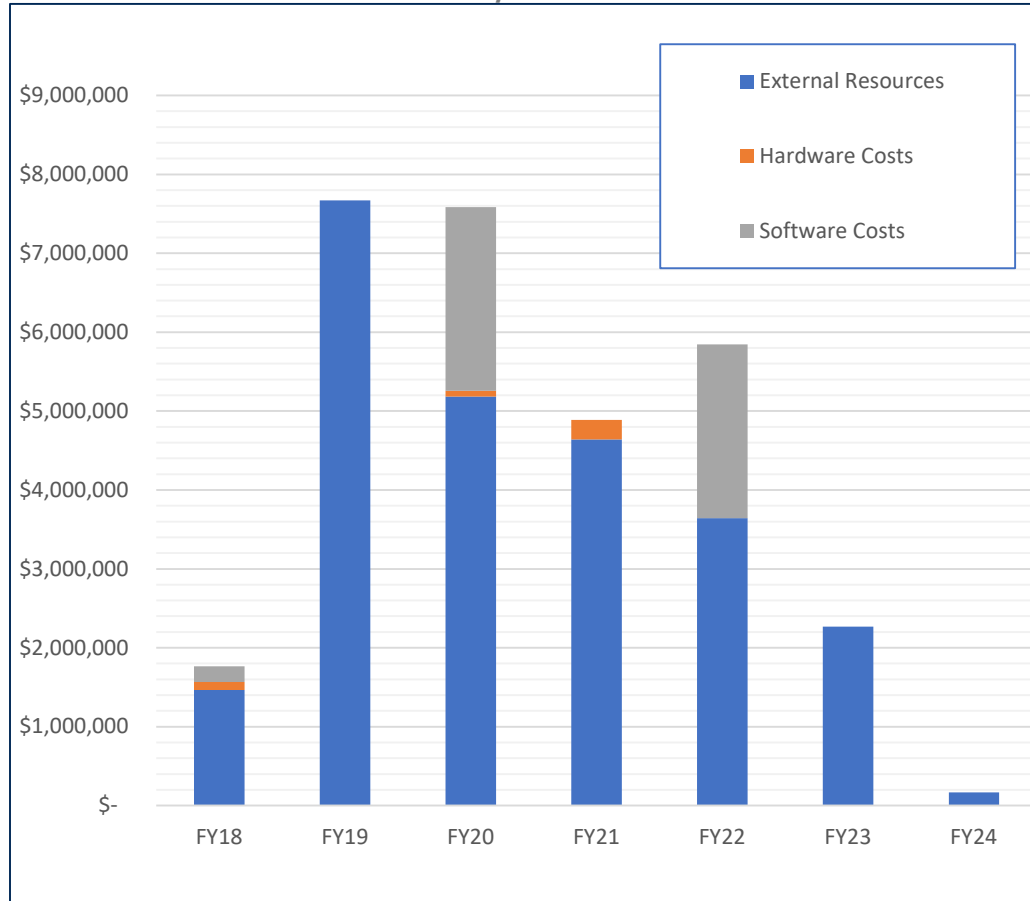
Key Observations

- Estimated cost for the Roadmap is \$30M over the five year Roadmap, with resources being the primary cost driver. Costs can be allocated to future years to address budget limits.
- Risk Mitigation and Extended Capability Development represent almost 70% of the total investment associated with the Roadmap.
- Risk Mitigation is high priority and will be the primary focus of the roadmap in the first two years. These initiatives will address system support risks identified in the Current State Assessment Report, and will remove CCSF's dependency on the pending Superior Court transition away from CABLE3/CMS.
- Reporting and Analytics, while comprising only 10% of the overall costs, will provide high value capabilities for CCSF.

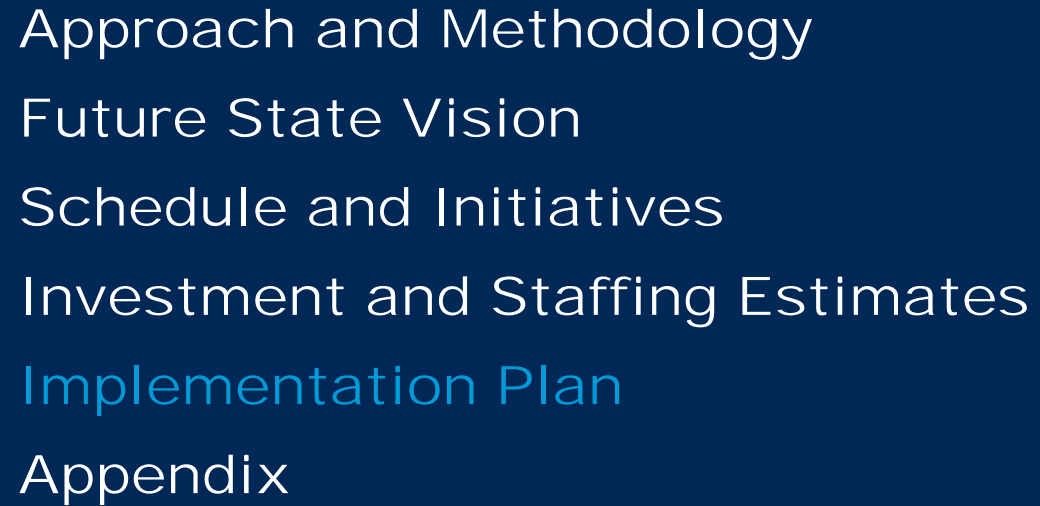


Investment Summary

New Resource Requirements



<i>Rounded to nearest 1,000</i>	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Grand Total
Hardware Costs	\$ 100,000	\$ -	\$ 75,000	\$ 250,000	\$ -	\$ -	\$ -	\$ 425,000
Software Costs	\$ 200,000	\$ -	\$ 2,325,000	\$ -	\$ 2,200,000	\$ -	\$ -	\$ 4,725,000
Resources	\$ 1,466,000	\$ 7,669,000	\$ 5,183,000	\$ 4,639,000	\$ 3,643,000	\$ 2,270,000	\$ 167,000	\$ 25,037,000
Grand Total	\$ 1,766,000	\$ 7,669,000	\$ 7,583,000	\$ 4,889,000	\$ 5,843,000	\$ 2,270,000	\$ 167,000	\$ 30,187,000



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Implementation Plan

Objective

- The Implementation plan provides a recommended approach to executing the Roadmap and is focused on the Execution, Monitoring, and Control portions of the PMBOK project lifecycle
- Key components of the implementation plan include:
 - Team Structure
 - Staffing Plans
 - Governance
 - Change Control
 - Project Management Planning
 - Key Performance Metrics
 - Risk Management



Implementation Plan

JUSTIS Completion and Renaming

- The initial objective of the JUSTIS project has been completed, specifically:
 - *“The intention of the original JUSTIS Architecture, as documented over 5 years ago, was to replace the integrated legacy system (CABLE) with an integration of a data warehouse, various client/server point solutions for departments and some new web applications for query and reporting. The primary integration method considered for this plan was replication of data among the constituent parts using Oracle technology.” JUSTIS Vision-Charter 2003, pg7*
- Over the last 15 years JUS.T.I.S. succeeded in:
 - a) Mapping the Computer Assisted Bay Area Law Enforcement Legacy System (CABLE3/CMS) to a modern Oracle Database
 - b) Creating a Criminal Justice Data Hub Infrastructure that facilitates data sharing and transformation in real time.
 - c) Creating a secure infrastructure to aggregate, transmit and store criminal offender records and detail.
 - d) Supporting the implementations of the criminal justice agencies modern case management systems.
 - e) Providing a Notification System to the criminal justice agencies based on critical events.
- Given that this work has been completed a new Program should be established, which is comprised of the contents of this Roadmap
- **With a new Program, comes a new name. What do you think we should call this new Program!!**



Implementation Plan

JUSTIS Charter and Memorandums of Understanding

- Create the JUSTIS Program Governance Charter between the City Administrator and Justice Agencies:
 - Strategic Responsibilities
 - Annual Planning and Budgeting Priorities
 - Operational Responsibilities
 - Executive Board Membership
- Remove Chapter 2A Article IV from the Admin code (JUSTIS project governance)
- Develop Memorandum of Understanding between the Department of Technology and Justice Agencies:
 - Service Level Agreement on infrastructure performance and support
 - Security and operational process
 - Service Desk response and support



Implementation Plan

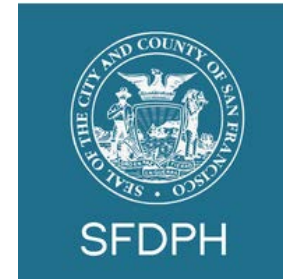
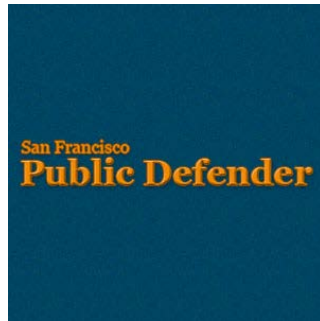
JUSTIS Next Steps

1. Conduct a meeting of the Executive Board to:
 - a) Formally adopt the 5 Year Roadmap
 - b) Outline the Charter
 - c) Review 2019/2020 budget priorities
 - d) Review the CABLE3/CMS Decommission budget and schedule
2. Organize and institute the Gartner recommended governance workgroups to begin in March 2019 to move forward on the RoadMap initiatives – specifically CABLE3/CMS Decommissioning.
3. Create and fill the Program Officer position.
4. Request the Program Officer to coordinate the development of a Service Level Agreement between the Justice Agencies and the Department of Technology.
5. Finalize the CABLE3/CMS Decommission Plan and immediately start the project.



Thank You!

Thank you to each of the agencies for your contributions to the Roadmap





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Appendix

Roadmap Documents

Gartner 5 Year Roadmap documents are located on the project Sharepoint site:

1. Project Initiation Document
2. Current State Assessment
3. Future State Vision
4. Roadmap Initiatives and Implementation Plan
5. Executive Presentation



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