

# Future State Vision

## City and County of San Francisco Justice Tracking Information System (JUSTIS) Roadmap

Prepared for: City and County of San Francisco (CCSF)  
FINAL - 4/11/2019





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# Introduction

*Document Purpose*

This document describes a proposed Strategic Vision for integrated justice in the City and County of San Francisco, including future capabilities, governance structure, and operational constructs for the JUSTIS integrated justice technology platform. This Vision defines the target state to be achieved by execution of the JUSTIS 5-Year Roadmap, which will be developed in the next phase.

The Future State Visioning **workshop** is intended to:

- ✓ Generate **feedback** on the initial Future State Vision derived from the Current State Assessment and presented in this document
- ✓ Facilitate **discussion to build consensus** among stakeholders on objectives and the high level scope of the JUSTIS Roadmap before development of the Roadmap commences
- ✓ Succinctly **communicate what the Roadmap will achieve** for all JUSTIS stakeholders
- ✓ Establish the Future State Vision and its associated strategic objectives as the **baseline against which to validate** the JUSTIS Roadmap

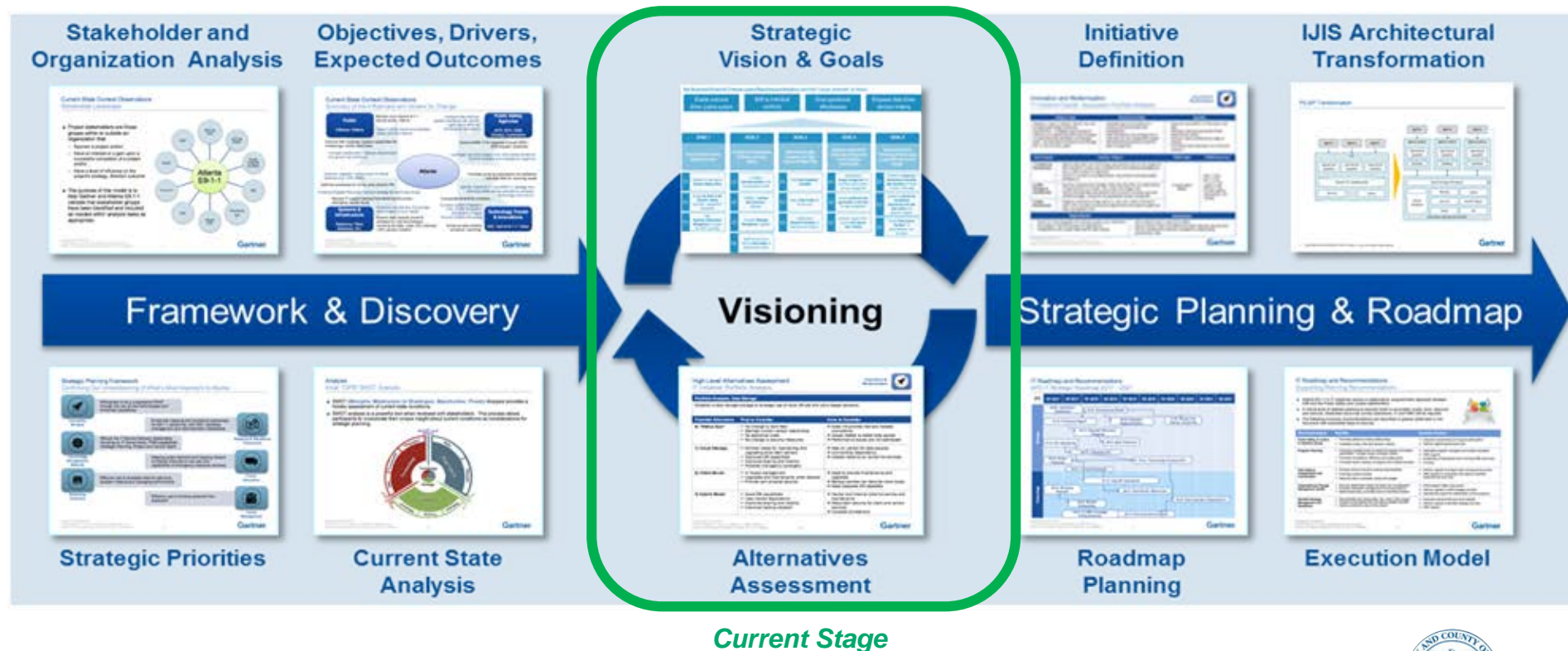


# Approach and Methodology

## Major Activities and Outputs

Gartner's approach for developing the JUSTIS 5-Year Roadmap begins with establishment of the baseline Current State Assessment. The future state vision (current task) is 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 CCSF and JUSTIS leadership, the Gartner team will facilitate analysis of alternatives to define and prioritize the initiatives that are integrated into the JUSTIS Roadmap.



# Approach and Methodology

## Summary Statement of Work

|              | Preparation and Project Management  | Phase A: Discovery  | Phase B: Analysis  |
|--------------|---|---|--|
| Objectives   | <ul style="list-style-type: none"> <li>■ <u>Initiate the project based with a clear, consensus understanding of the scope, approach, schedule and application of effective project control</u></li> </ul>   | <ul style="list-style-type: none"> <li>■ <u>Review available background information and conduct discovery interviews with the team</u></li> </ul>   | <ul style="list-style-type: none"> <li>■ <u>Analysis of JUSTIS Environment (technology, data, processes, applications) and System Architecture (existing and future)</u></li> </ul>  |
| Activities   | <ul style="list-style-type: none"> <li>■ Conduct project initiation meeting</li> <li>■ Confirm stakeholder participation (agency level and central and ITSP governance and decision-making model)</li> <li>■ Submit background document request</li> <li>■ Confirm schedule, participants and agendas for the initial wave of interviews and workshops</li> </ul> | <ul style="list-style-type: none"> <li>■ Conduct operational observations of representative criminal functions to assess conformance of JUSTIS capabilities with CCSF operational needs</li> <li>■ Identify key gaps between the JUSTIS Vision Document and Project Charter and other definitional documents and the actual implemented JUSTIS</li> <li>■ Conduct briefing to confirm findings; establish key strategic priorities</li> <li>■ Document future state objectives and guiding principles to serve as an input to the strategic planning</li> </ul> | <ul style="list-style-type: none"> <li>■ Conduct Strategic Visioning workshops with the JUSTIS leadership team and key stakeholders.</li> <li>■ Assemble the above into the Future State Vision</li> </ul>   |
| Deliverables | <ul style="list-style-type: none"> <li>■ <u>Project Initiation Document (PID);</u></li> <li>■ <u>ITSP Governance Model</u></li> <li>■ <u>Status Report (Weekly)</u></li> </ul>  | <ul style="list-style-type: none"> <li>■ <u>Project Meetings, defined project schedule and assessment methodology</u> <ul style="list-style-type: none"> <li>○ <u>Current State Assessment</u></li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>■ <u>Identification and documentation of project goals, objectives, priorities, gap and barriers, high level milestones for implementation and plan/approach for technical integration of justice systems with JUSTIS</u> <ul style="list-style-type: none"> <li>■ <u>Strategic Vision</u></li> </ul> </li> </ul> |



# Approach and Methodology

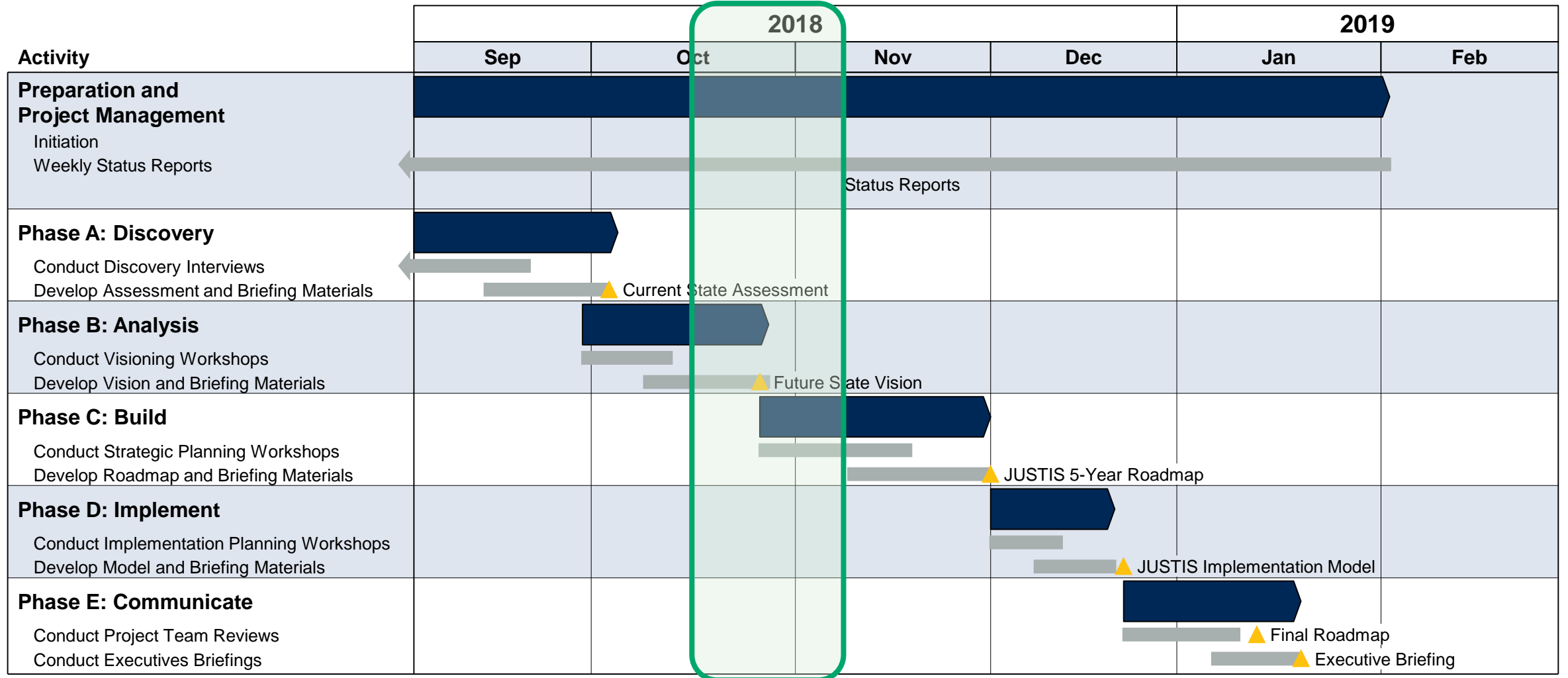
## Summary Statement of Work

|              | Phase C: Build  | Phase D: Implement   | Phase E: Communication   |
|--------------|---|--|--|
| Objectives   | <ul style="list-style-type: none"> <li>Assemble identified initiatives, along with relationships and dependencies, into the JUSTIS 5-Year Road Map.</li> </ul>  | <ul style="list-style-type: none"> <li>Description and documentation of the implementation tasks for the 5-Year roadmap</li> </ul>   | <ul style="list-style-type: none"> <li>Build consensus and awareness of the JUSTIS Strategic Plan and associated benefits with CCSF leadership</li> </ul>  |
| Activities   | <ul style="list-style-type: none"> <li>Provide IJIS industry insight and best practices to drive the definition of strategic initiatives to promote CCSF criminal justice information sharing. Initiatives will be focused on the JUSTIS data architecture and supporting technology platforms</li> <li>Perform an alternatives assessment for key initiatives where choices or different approaches exist</li> <li>Develop high level charters for each key initiative; charters will include high level requirements, resource and infrastructure needs, estimated costs, duration and schedule dependencies</li> </ul> | <ul style="list-style-type: none"> <li>Review the existing JUSTIS Vision Document and Project Charter and other governance foundational documents; identify proposed governance updates to align with the 5-Year Road Map</li> <li>Identify high level anticipated program level benefits and operational improvements and program level risks associated with implementation of the 5-Year Road Map</li> <li>Identify high level business continuity and disaster recovery considerations</li> <li>Develop execution model summarizing tactical initiation activities, supported by architectural, data, project and program governance frameworks</li> </ul> | <ul style="list-style-type: none"> <li>Conduct final report review with CCSF Project Team</li> <li>Develop executive briefing</li> <li>Deliver executive JUSTIS 5-Year Road Map briefing to the project team, JUSTIS Council and sponsors</li> <li>Conduct follow-up sessions to the briefing if required</li> </ul> |
| Deliverables | <ul style="list-style-type: none"> <li>Development and documentation of the 5 Year roadmap for the JUSTIS system and data design (redesign) and construction, recommendations for staffing, infrastructure, change control, schedule and estimated costs.</li> </ul>  | <ul style="list-style-type: none"> <li>Program strategy and governance, risk assessment, performance metrics, benefits and operational efficiencies, operational improvements and disaster recovery practice.</li> </ul>   | <ul style="list-style-type: none"> <li>Formal presentations to the project team, the JUSTIS council, and the sponsors about the 5-Year roadmap by the lead consultants including methods, findings, gaps, recommendations, plan and process.</li> </ul>  |



# Approach and Methodology

## Project Schedule





# Approach and Methodology

## Visioning Development Process

The **visioning process** defines a target future state based on conditions and goals identified in the Current State Assessment (CSA). The process then defines Strategic Objectives that must be satisfied to achieve the vision.

Assumptions are established for each Planning Component identified in the CSA aligned with the Strategic Objectives. This serves as a foundation for next step strategic planning.



**Outputs from the Current State Assessment inform the JUSTIS Strategic Vision and Strategic Objectives**







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# 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 justice<sup>1</sup> 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.



Gartner

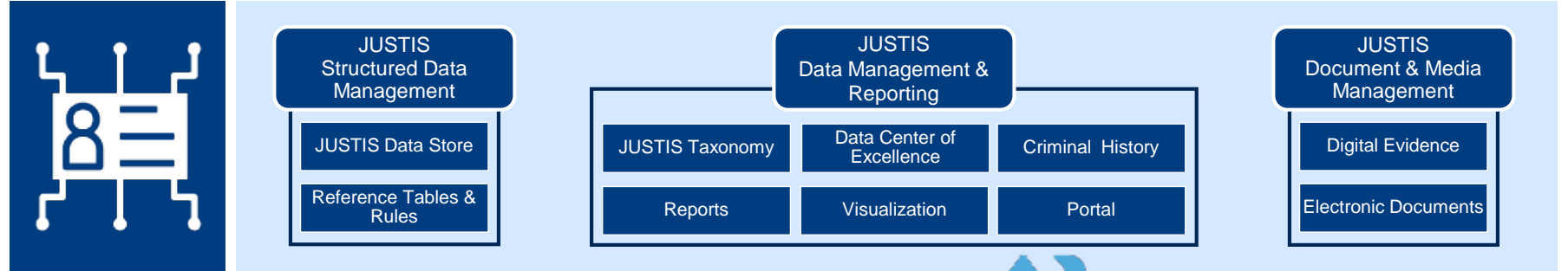
# JUSTIS Future State Vision

## Information Sharing Capabilities

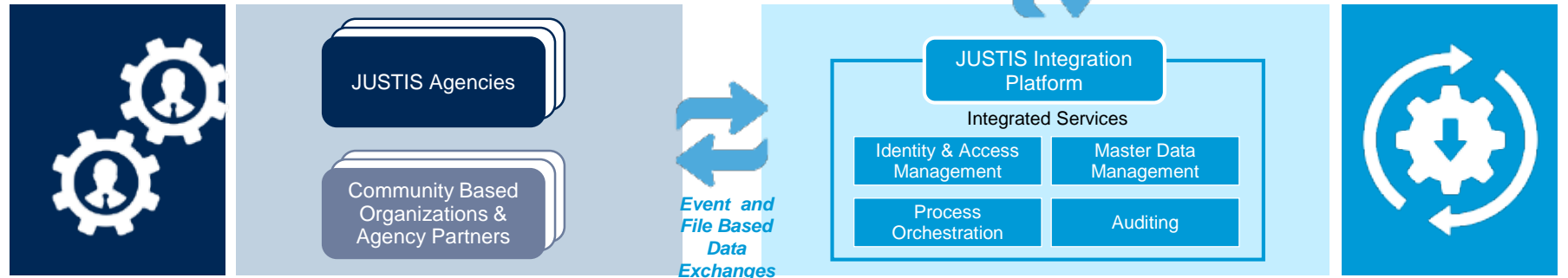
The JUSTIS Future State Vision promotes information sharing by providing the following capabilities:

- 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





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# JUSTIS Future State Vision

## Strategic Planning Components

Components of the anticipated Future State Vision for JUSTIS were identified during the Current State Assessment. Definitions, guiding principles and key considerations for each of the strategic planning components are provided on the following pages and will guide the development and categorization of initiative charters included in the JUSTIS Roadmap.

### Assessment Area

### Strategic Planning Components

|   |  |
|---|--|
| <b>JUSTIS Information Architecture</b>  | <ul style="list-style-type: none"> <li>▪ <u>Justice Lifecycle Data Consistency</u>– 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</li> </ul>  |
| <b>Integrated Business Capabilities</b> | <ul style="list-style-type: none"> <li>▪ <u>Reporting</u>– Modernize, improve or establish (as required) JUSTIS analytics &amp; reporting to derive insights, data driven decisions and improve transparency, efficiency and accountability across the stakeholder agencies.</li> </ul>  |
| <b>JUSTIS Integration Architecture</b>  | <ul style="list-style-type: none"> <li>▪ <u>CABLE/CMS Replacement</u> – 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</li> <li>▪ <u>Platform Optimization</u> – Expand usage of the integration platform and support organization to align with data sharing business needs and to leverage current integration technology and standards available in the marketplace including potential replacement of integration infrastructure components</li> </ul> |
| <b>Management and Governance</b>        | <ul style="list-style-type: none"> <li>▪ <u>JUSTIS Operating Model</u>- 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</li> <li>▪ <u>Governance</u> - Refresh and establish governance structures to manage inter-agency decisions and responsibilities pertaining to budget, data, policy, operations, technical planning/execution, security and privacy</li> </ul>  |

Note: Planning components were refined from the version included in the Current State Assessment



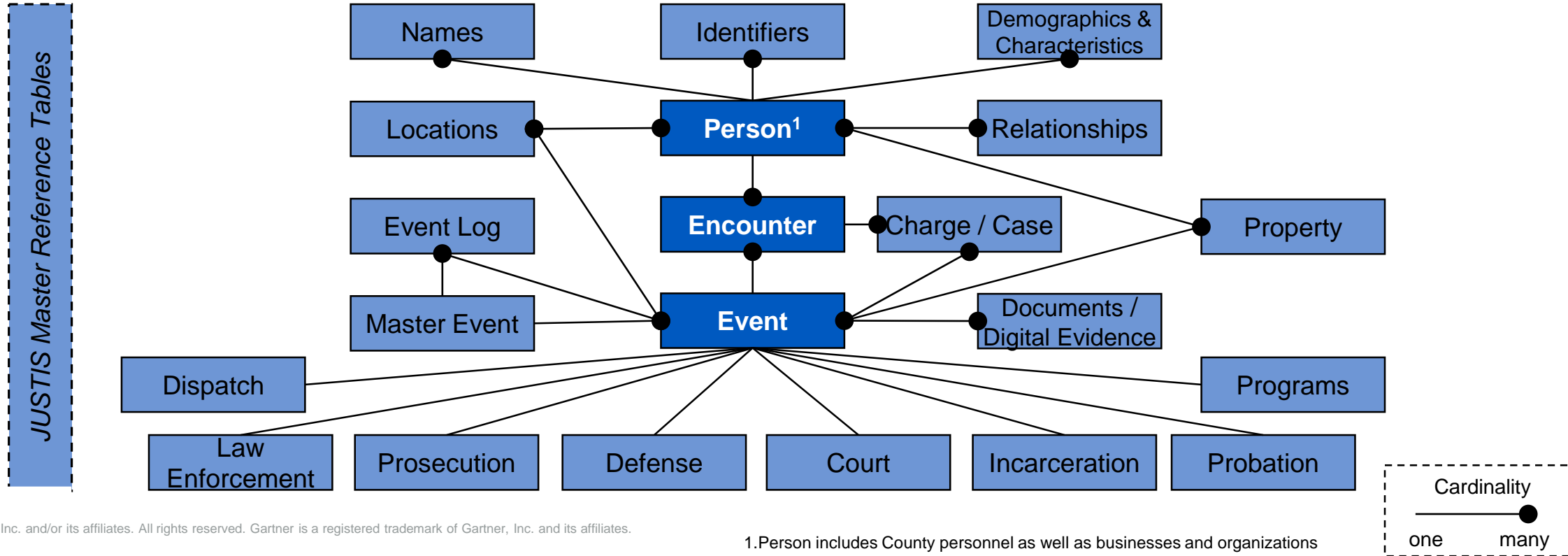
# Strategic Planning Components

## 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).

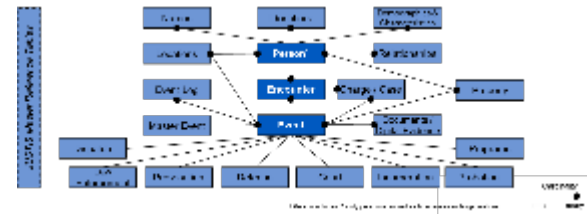






# Strategic Planning Components

## JUSTIS Lifecycle Data Consistency

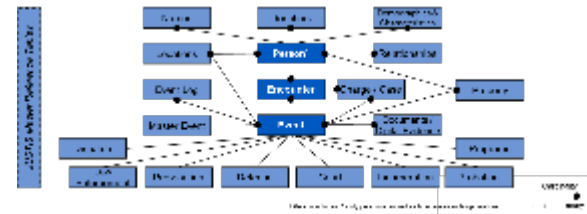


| Entity Name                 | Description  |
|-----------------------------|--|
| Property                    | An occurrence of this entity represents items associated with an Event. Property can include weapons, vehicles or other evidence associated with an Event. Relationships (e.g., owner, driver, etc.) between the Property and Persons are captured.  |
| Documents/ Digital Evidence | An occurrence of this entity represents a pointer to or a physical copy of a document or other unstructured content (e.g., digital evidence) associated with one or more Events.   |
| Event Sub Types             | An occurrence of an Event is further defined by one of the following Event Sub Types: <ul style="list-style-type: none"> <li>• Dispatch - call for service</li> <li>• Law Enforcement – field interviews, crime reports, arrests, suspicious activity reports, recommendation for prosecution, etc.</li> <li>• Prosecution - prosecution case, investigative case</li> <li>• Defense – defense case including public defender, private counsel and pro se representation</li> <li>• Court – court case</li> <li>• Incarceration – an incident of a Person being remanded to custody</li> <li>• Probation – supervision of Person in the context of an Event</li> <li>• Programs – a community based or other provider delivering services to a Person</li> </ul> |

\* These entities are likely master data candidates subject to master data management processes as defined in the portal-integrated view initiatives specified in the JUSTIS Roadmap.

# Strategic Planning Components

## JUSTIS Lifecycle Data Consistency



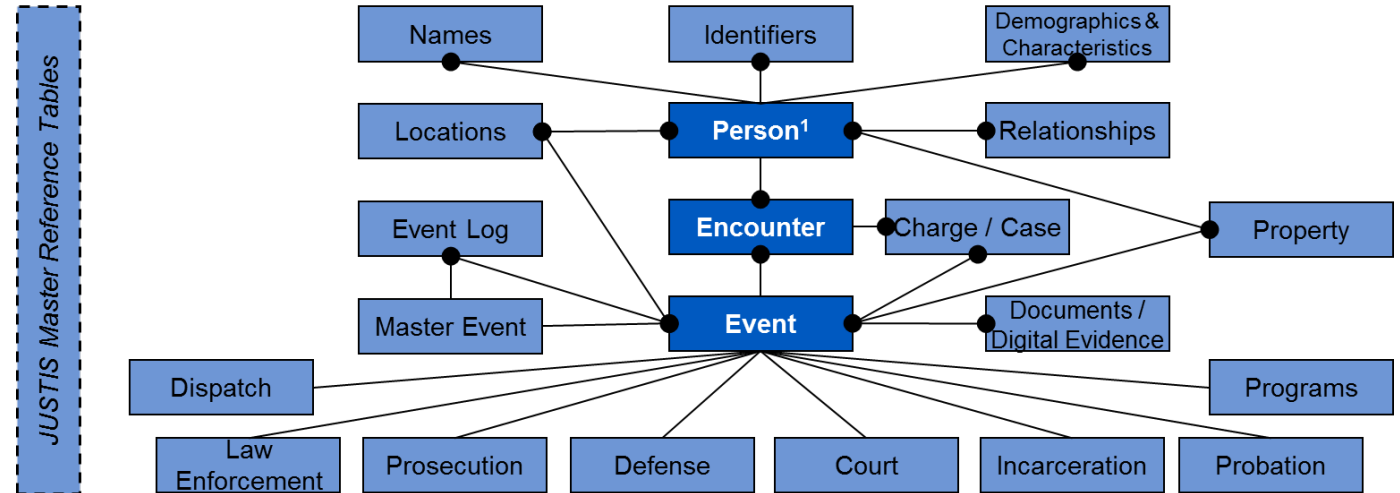
| Entity Name      | Description  |
|------------------|--|
| Master Event     | An occurrence of this entity represents a group of Events representing the same public contact incident. For example a Master Incident might link a series of calls for service, an arrest, prosecution and court case all originating from a single incident.   |
| Event Log        | An occurrence of this entity represents instantiation or completion of a specific step in the workflow associated with an Event.   |
| Locations *      | An occurrence of this entity represents a physical location referenced in one of the other JUSTIS Conceptual Data Model entities. Examples could include dispatch locations, Person addresses, crime scenes and others. Locations could be managed as addresses of geo-spatial coordinates.  |
| Reference Tables | This entity would include standard reference values to be used by attributes within other JUSTIS Conceptual Data Model entities. Where possible, these reference codes will leverage established local, state and national standards. Examples could include charge codes, race and ethnicity, vehicle makes and models and disposition codes. |

\* These entities are likely master data candidates subject to master data management processes as defined in the portal-integrated view initiatives specified in the JUSTIS Roadmap.

# Strategic Planning Components

## JUSTIS Lifecycle Data Consistency

- Core data elements will be available in JUSTIS; detail records will be managed in agency level systems
- The core data entities of the model are:
  - Person** – represents victims, suspects, witnesses and County personnel involved or impacted by an event
  - Event** – a generic entity for calls for service, arrests, bookings, case filing, disposition and other key events during the lifecycle of a criminal case
  - Encounter** – the participation of an individual in an event
- Data accessible in JUSTIS will be optimized to serve the highest business value and most frequent reporting use cases. This will include data consistent with the rap sheet, and provide the ability to report on meta data from the entire criminal justice lifecycle including: Calls for Service, Incidents, Citations, Arrests, Booking, Charging, Adjudication, Custody, Release, Supervision and Disposition



1. Person includes County personnel as well as businesses and organizations

### Preliminary JUSTIS Conceptual Data Model



# Strategic Planning Components

## *JUSTIS Lifecycle Data Consistency – Guiding Principles*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- The taxonomy will establish common definitions for criminal justice events and entities where possible and manage definition variations where required. The taxonomy will conform with CA-NIBRS and federal and state standards where applicable
- The taxonomy will assign standard reference value and code sets for data attributes. Such sets will conform with state and national standards where applicable (e.g., NCIC, CA-NIBRS, CLETS)
- The JUSTIS conceptual data model will utilize common, biometric based identifiers wherever possible
- The JUSTIS data store will implement the conceptual data model with sufficient information to populate consolidated criminal history and support index level queries
- JUSTIS will provide JUSTIS partner agencies access to shared unstructured content (documents and digital evidence)
- Agency applications will be the system of record, with JUSTIS serving as a provider of replicated data available for enterprise level reporting and analytics
- The scope of JUSTIS data will be extended to include complete lifecycle of the local criminal justice system, including juvenile and potentially non-criminal justice partner data

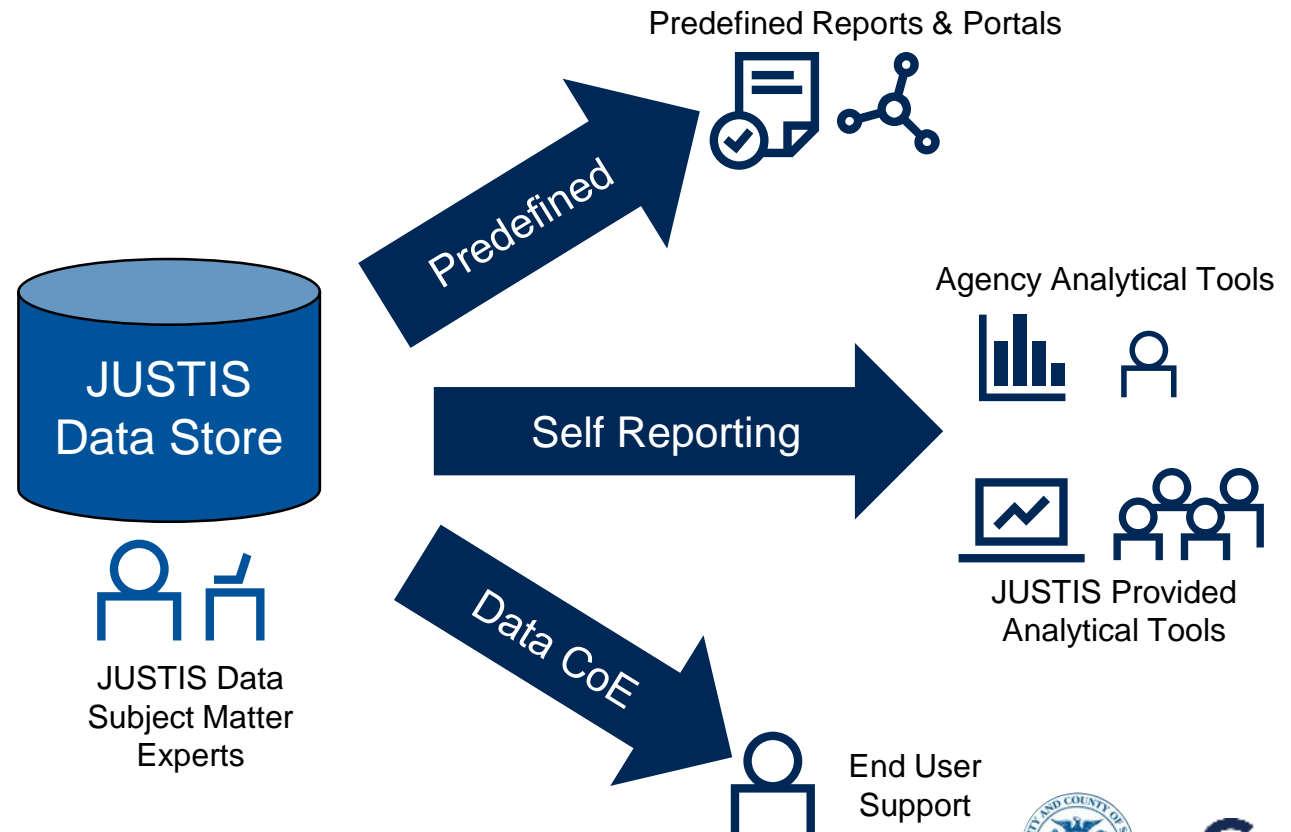
# Strategic Planning Components

## 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.

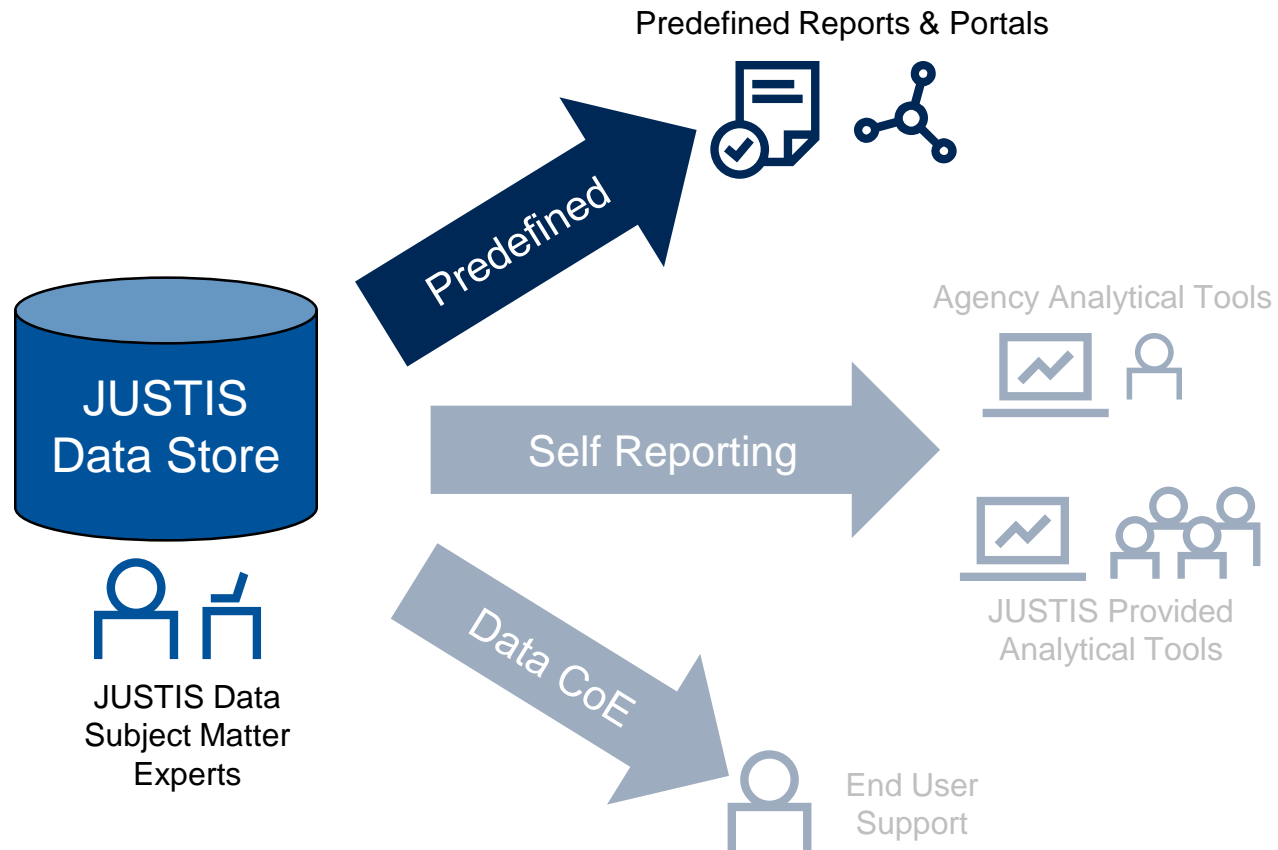
- JUSTIS reporting services will provide reporting and analytics on inter-agency data accessible in the JUSTIS data store
- Specifically JUSTIS would provide the following reporting methods and access to agency stakeholders and CCSF leadership:
  - Predefined JUSTIS Reports
  - Agency Self Reporting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



# Strategic Planning Components

## Reporting

JUSTIS reporting services will provide reporting and analytics on inter-agency data managed in the JUSTIS data store.



## Predefined Reports

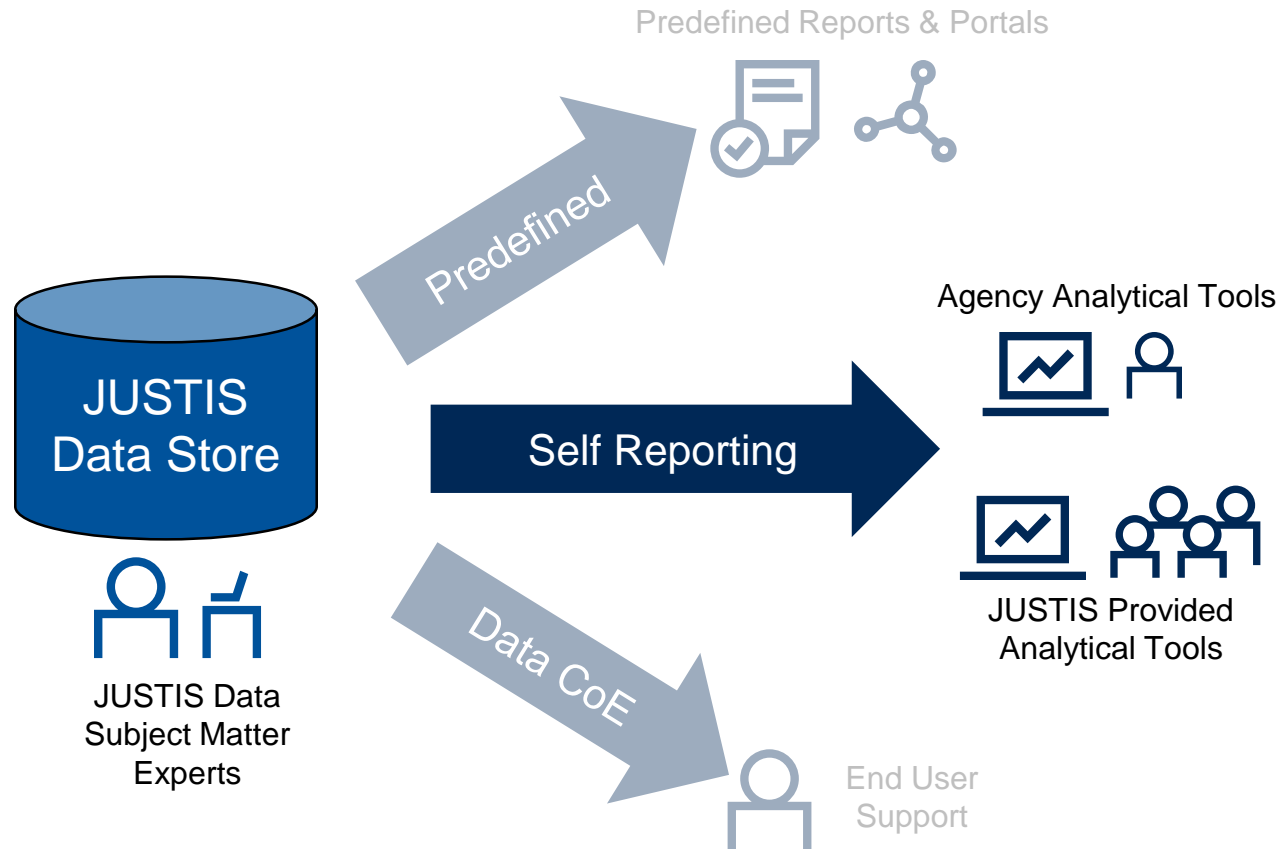
- The JUSTIS Technology Support Team will develop and provide access to scheduled or other predefined reports, as well as portal(s) for querying the JUSTIS Data Store
- Reports will include replacements for designated current CABLE/CMS reports and mandated compliance reports as required.
- Portal(s) will include integrated defendant and other relevant data views
- Development and deployment of predefined reports or queries would be subject to normal IT service request and JUSTIS governance processes



# Strategic Planning Components

## Reporting

JUSTIS reporting services will provide reporting and analytics on inter-agency data managed in the JUSTIS data store.



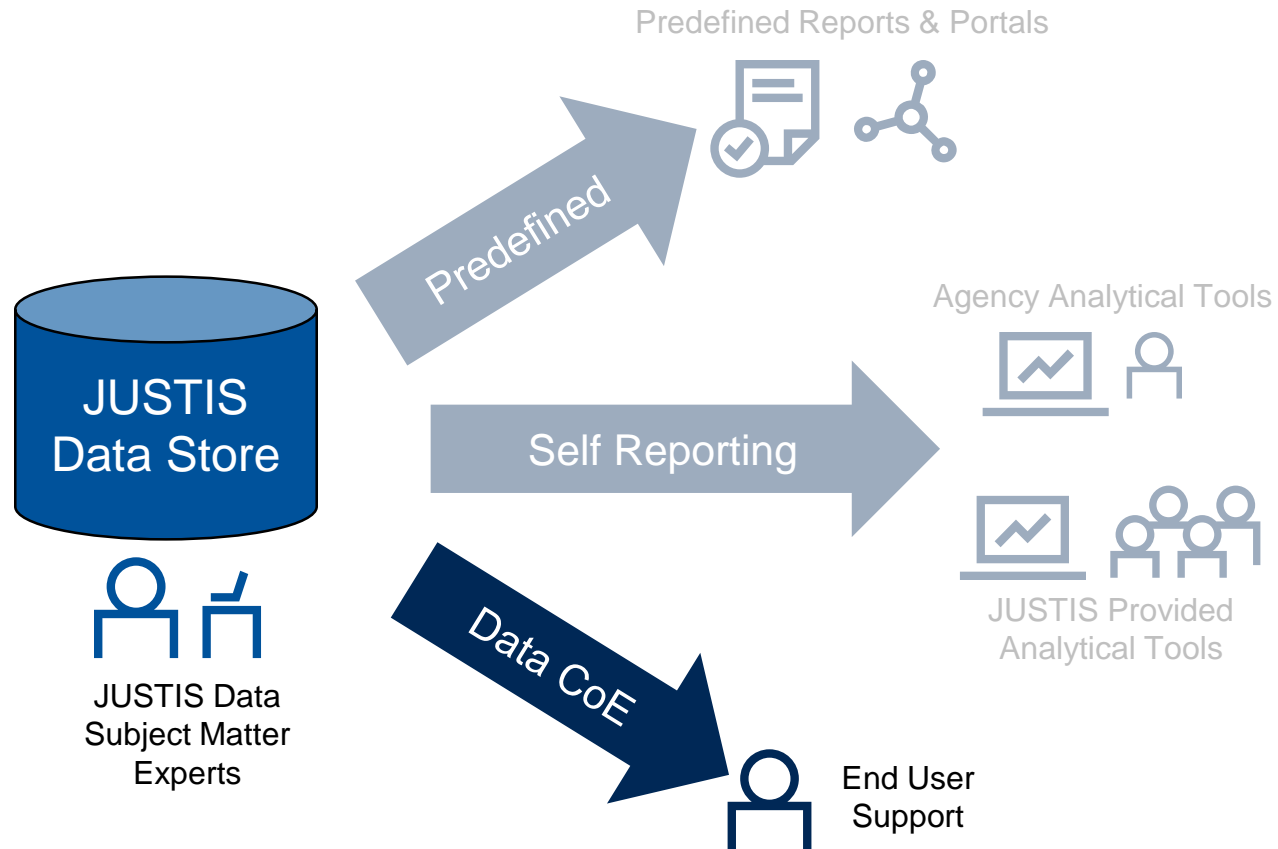
## Self Reporting

- JUSTIS will provide two methods for self reporting access to the JUSTIS data store:
  - Use of agency managed reporting and analytics tools connected to the JUSTIS Data Store
  - Use of established JUSTIS provided reporting and analytics tool(s) connected to the JUSTIS Data Store and available for stakeholder self service

# Strategic Planning Components

## Reporting

JUSTIS reporting services will provide reporting and analytics on inter-agency data managed in the JUSTIS data store.



## JUSTIS Data Center of Excellence

- The JUSTIS Technology Support Team will establish a Data Center of Excellence to provide insights on the meaning of individual data elements and explicit and implicit data relationships within the JUSTIS data store. This consultative support will facilitate accurate design and interpretation of queries and visualizations of JUSTIS data



# Strategic Planning Components

## Reporting

The JUSTIS data store and associated reporting capabilities will allow CCSF to gain data-driven insights into criminal justice objectives and outcomes thereby enabling policy review and formulation of strategies which benefit CCSF and its communities. Examples include:

### Community Driven Topics

- Transparency and accountability for the equitable treatment of all parties interacting with the criminal justice system including specific impacts for particular demographic groups or other vulnerable populations
- Perception that a large proportion of low level criminal activities is perpetrated by a small set of “known” offenders
- Perceived crises in terms of quality of life issues (e.g., vagrancy, public defecation, sidewalk issues, etc.)
- Impact of the opioid epidemic and unaddressed mental health issues on both low level crimes and police uses of force

### Policy Impact Topics

- Drivers for the rising level of auto vandalism and related property crimes
- Identification of conflicting operational policies between JUSTIS Agencies, such as inconsistent policies around what crimes should be cited, charged or prosecuted
- Tracking the impact of the Sheriff’s policy of reducing incarceration through the use of supervised released
- Impact of bail reform on balancing remand decisions with public safety and equity considerations
- Actual and prospective impact of statutory and policy changes (e.g. Proposition 47, AB 953, etc.)
- Understanding the transition of individuals from the juvenile to criminal justice systems and extent of overlapping jurisdiction

# Strategic Planning Components

## *Reporting – Guiding Principles*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- JUSTIS will provide reporting on data accessible in the JUSTIS Data Store and subject to JUSTIS access control policies
- JUSTIS reporting services will include predefined report preparation, self service reporting and subject matter expertise through the JUSTIS Data Center of Excellence
- JUSTIS will manage and provide access to enterprise level tools, such as visualization and self service reporting, for JUSTIS stakeholder agencies to prepare reports and queries on JUSTIS data
- JUSTIS will manage and make available enterprise level meta data consistent with the JUSTIS Taxonomy
- JUSTIS will facilitate the transfer of agency data to DataSF, at the direction of each agency
- JUSTIS will support common application (e.g., portal, domestic violence, notifications, etc.) development that serves multiple agencies



# Strategic Planning Components

*Reporting – Guiding Principles cont.*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- Implementation of business automation needs specific to a department will be led and implemented by the respective department in accordance with the JUSTIS data sharing and integration standards
- Implementation of business automation needs that cross and benefit multiple departments will receive support and assistance from the JUSTIS Technology Support Team. Examples include a portal for domestic violence reporting, and shared queries used by JUSTIS agencies for topics such as court calendaring and custody status



# 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

## *CABLE/CMS Replacement – Guiding Principles*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- The future state JUSTIS will be architected to remove barriers to innovation caused by non-extendable CABLE/CMS architecture and mitigate sustainment risks associated with the current architecture
- CABLE/CMS will be fully decommissioned; the decommissioning process will include modification or replacement of all applications which rely on data from CABLE/CMS (e.g., criminal history)
- JUSTIS member agencies will work collaboratively to remove CABLE/CMS dependencies prior to the C-Track Go-Live
- Replacement and decommissioning of CABLE III and CABLE IV mainframe applications supported by SFPD is not included in the JUSTIS Roadmap scope; JUSTIS will however provide access to data available as necessary to support legacy SFPD applications



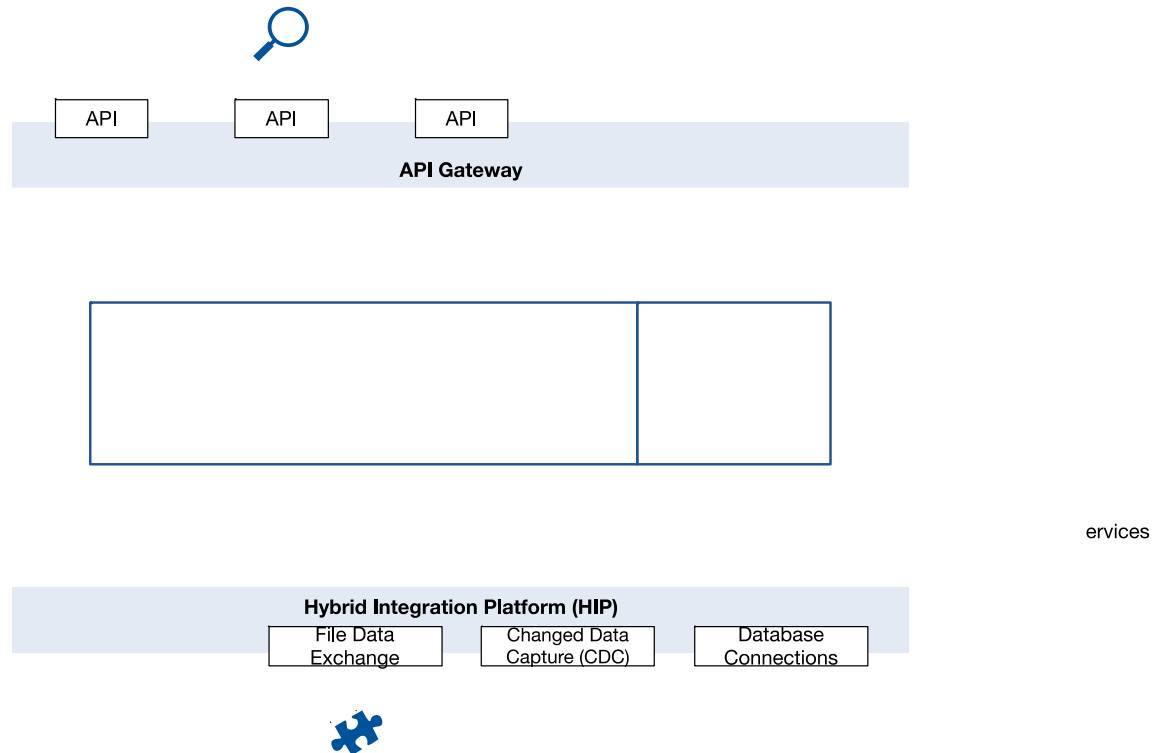


# Strategic Planning Components

## 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



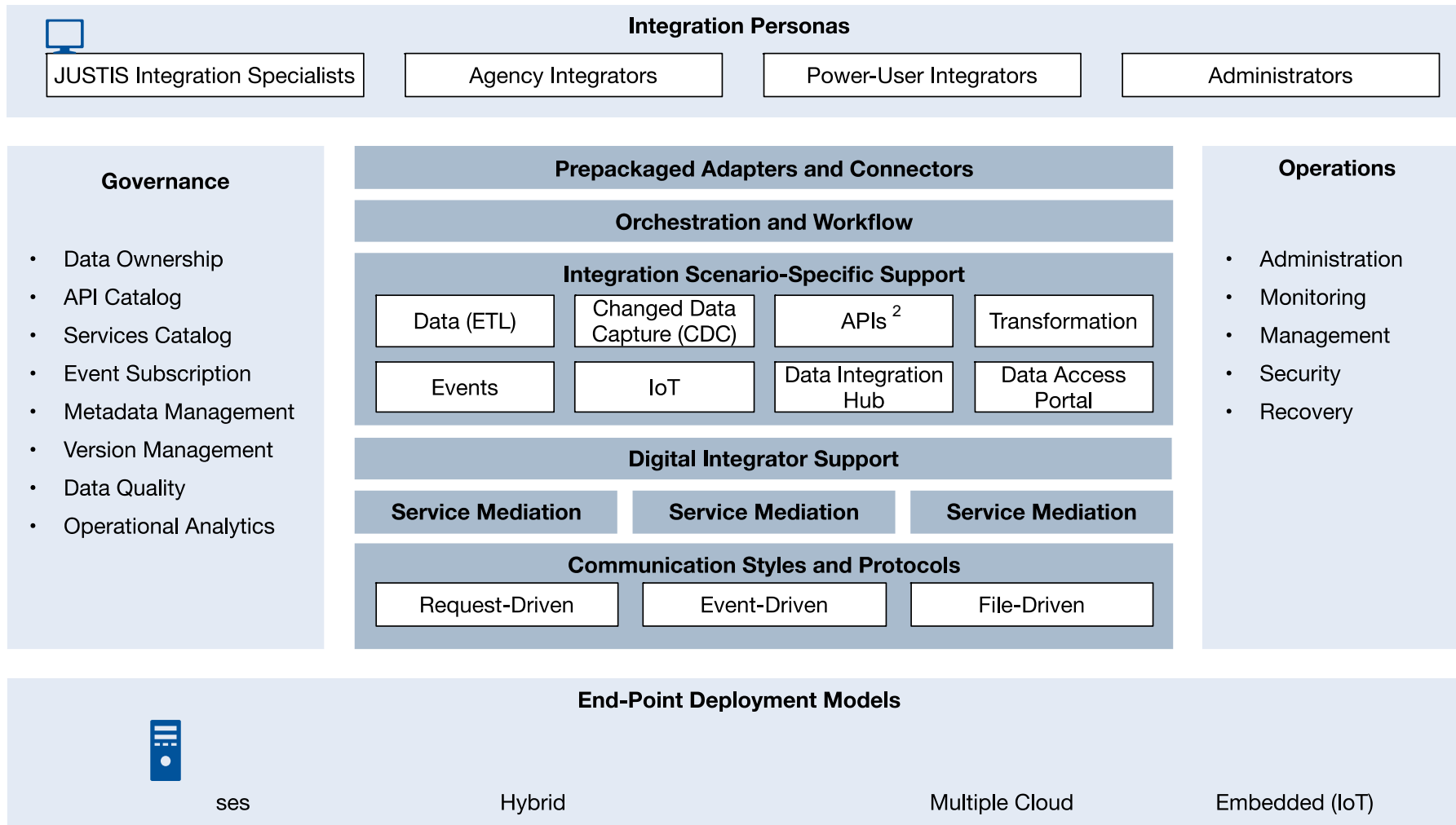
- The **Integration Hub** architecture is successfully used by large inter-agency justice organizations to facilitate data exchanges and consolidated data access.
- A similar design, the *Digital Integration Hub* is increasingly used by other organizations to enable high-scale API access while minimizing 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

## Platform Optimization – Hybrid Integration Platform



- The **Hybrid Integration Platform (HIP)** is increasingly becoming the reference capability framework to tackle the pervasive integration requirements driven by modernization initiatives.
- These capabilities cover JUSTIS' integration scenarios and integration direction.
- A market for 'out of the box' HIP-enabling offerings is developing, but the provider landscape is very fragmented.
  - The maturity of the rapidly evolving technologies may not be consistent across offerings' components.
  - More and more integration features come embedded in broader offerings like SaaS, packaged business applications and PaaS from large and small providers.

2. APIs may also include webservice and other integration patterns

Adapted from: [Innovation Insight for Hybrid Integration Platforms](#), Massimo Pezzini (15 October 2018, ID G00373481)



# Strategic Planning Components

## *Hybrid Integration Platform Benefits*

- Support for a variety of **integration scenarios**:
  - Application, data, mobile, cloud and IoT integration scenarios that are usually addressed with specific tools without the need for tight integration.
- A **flexible deployment** model
  - On-premises, cloud, hybrid, edge and embedded deployment gives you maximal flexibility and optimization.
  - Ability to evolve over time
- A tailored, self-service **user experience** (UX) for different personas:
  - Detailed, high-control UX for JUSTIS integration specialists, including APIs for automation and a command line interface (CLI).
  - A less powerful, high-productivity-oriented, low code/no code UX for ad hoc integrators at agencies who occasionally need to perform project-specific integration tasks
  - A task-automation-oriented UX for power users at agencies, which will become a feature of their digital workplace.
  - Ideally, all these different constituents should be able to access the HIP's capabilities through the UX that suits their roles, skills and profile, in a completely self-service manner.
- Ability to provide and offer different level of **cyber security** to meet business needs - from network level segregation to identity and access management.
- Ability to **monitor** platform performance and the “health” of the exchanges as well as enable the auditing of transactions.
- Centralized **governance and control**.
  - Govern and control the activity of the different classes of users.
  - Define and enforce security and compliance policies.
  - Provide the users with reusable integration templates tailored to the different personas you must support.
  - Track the integration activity performed by users.
  - Collect data about platform utilization and endpoint access that you can use for capacity planning, cost allocation, budgeting, auditing and other purposes.
- An **incremental approach** to implementation.
  - JUSTIS can implement a HIP by gradually by modernizing integration platform software to extend capabilities, support standardization and drive integration.
  - As this incremental process progresses, JUSTIS can rationalize the portfolio of HIP components by reducing technology.

Gartner's HIP Capability Framework categorizes the functionalities of an “ideal” comprehensive HIP. Not every organization will need all these capabilities, but organizations like JUSTIS will have to implement some during the next five years.

# Strategic Planning Components

## *Platform Optimization*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- Conformance with the Global Reference Architecture (GRA) will be a priority in selecting and deploying the JUSTIS integration platform
- The hub will not change data in source systems; such data changes are the responsibility of the source systems
- Agencies remain the data stewards of their data and inform the rules for data access within the hub
- The hub will provide legacy and modern approaches to interface with agency systems (event-based APIs and file-based exchanges)
- The hub will have the ability to ingest data by capturing data from exchanges, as well as data loads from systems of record that is not event-based (database extracts, etc.)
- The hub will support the macro-workflow between agencies, not the micro-workflow within agencies; the latter is covered by agency stakeholder systems
- The hub must integrate with CCSF enterprise security standards and standards
- The hub must support a high level of availability - quick recoverability with near-zero data loss upon failure
- The platform will include the ability to monitor the health of the hub and the surrounding ecosystem
- The timing of the platform replacement should be synchronized with upcoming interface development associated with stakeholder agency system replacements



# 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

# Strategic Planning Components

## *JUSTIS Operating Model – Guiding Principles*

The following principles will guide development of Roadmap initiatives supporting this planning component:

- The JUSTIS team should be augmented with resources sufficient to support implementation of the Roadmap
- The operating model will define roles and responsibilities for the JUSTIS Support Team and JUSTIS agencies
- Stakeholders will establish documented interface contracts and updated service agreements
- As new agency systems are implemented, infrastructure will be modernized to ensure security, performance and data sharing; where applicable, City infrastructure with defined service level agreements will be utilized
- Infrastructure and operations for shared and agency systems will conform with state and federal requirements (e.g., DOJ CJIS)
- JUSTIS agencies will conform with CCSF requirements for disaster recovery and continuity as well as service level agreements (SLA) for uptime for the shared system environment



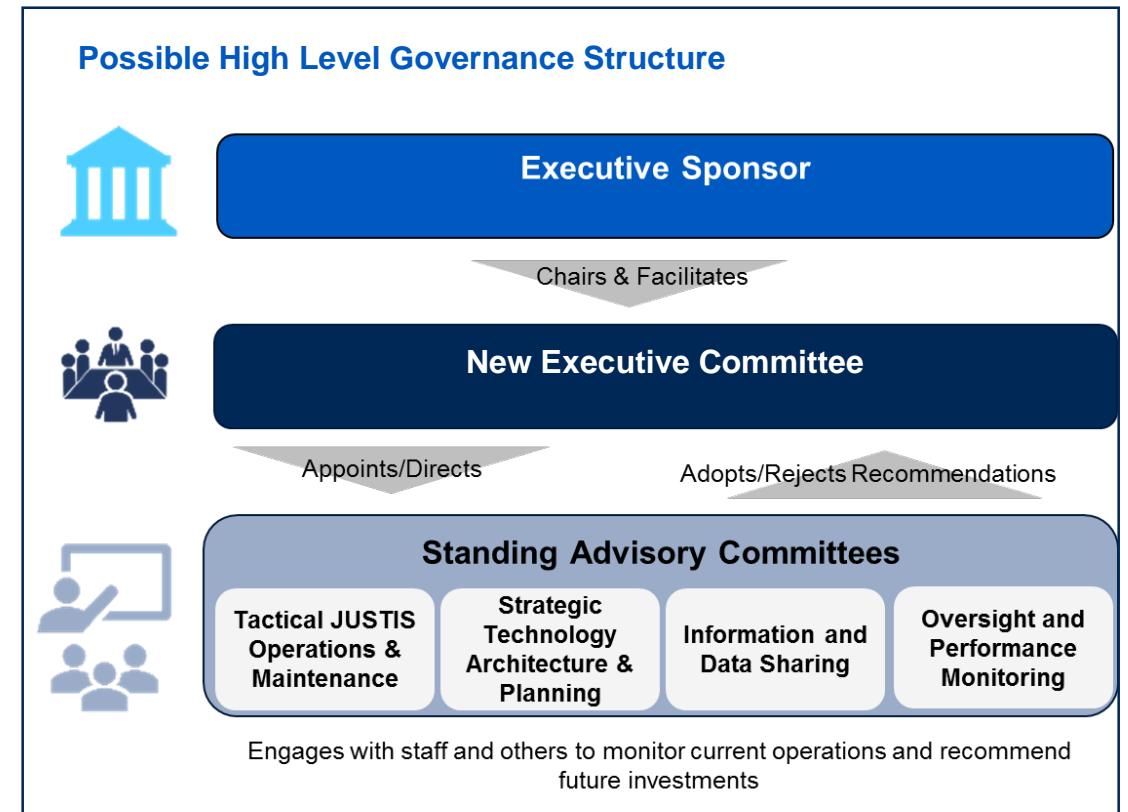
# Strategic Planning Components

## 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
  - Neutral facilitation of the decision making process
- There is clearly a need for some type of effective inter-agency governance mechanism
  - Coordinate the implementation and integration of the new case management systems being implemented by each JUSTIS agency
  - Monitor the transition of the Superior Courts to their new Ctrack system and responsibly sunset CABLE3/CMS without impacting Agency operations
  - Implement the modernized integration hub and enterprise level PS&J data reporting and analytics capability called for in the JUSTIS roadmap

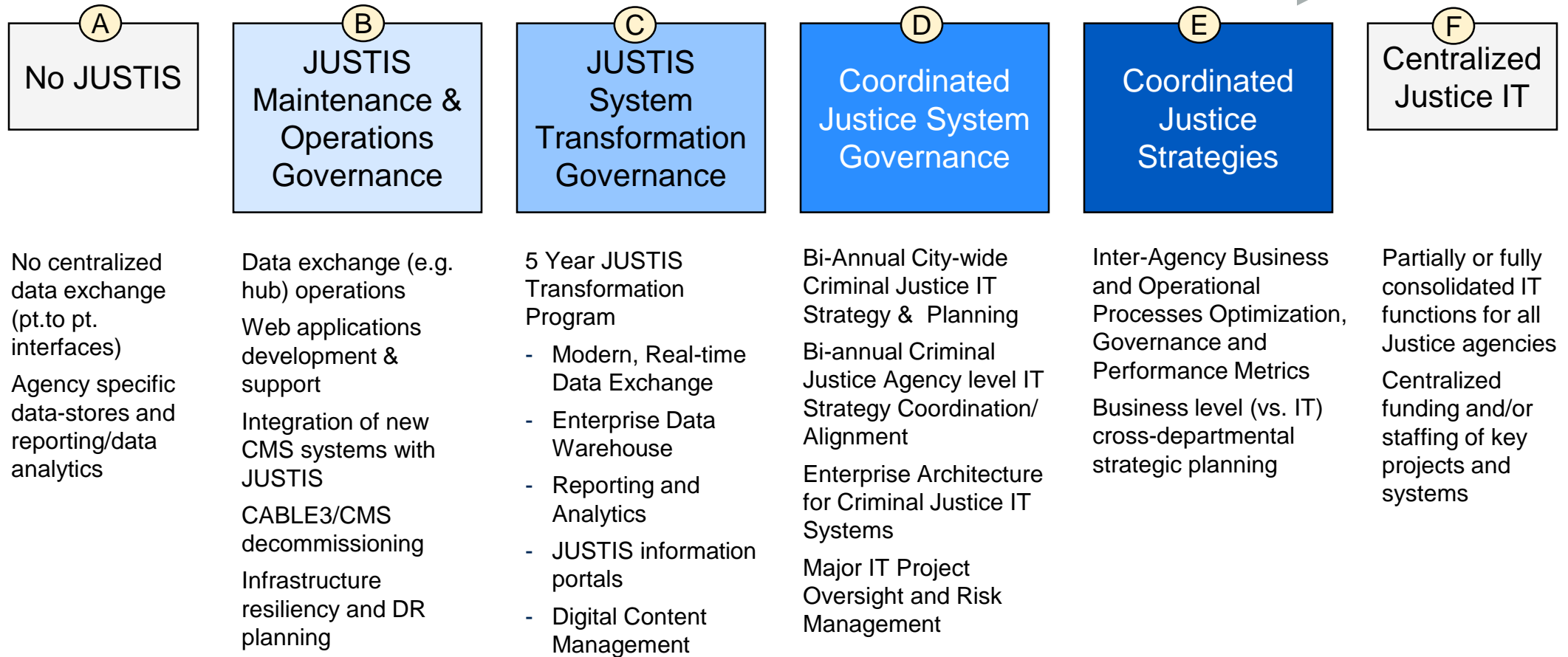




# Strategic Planning Components

## Governance

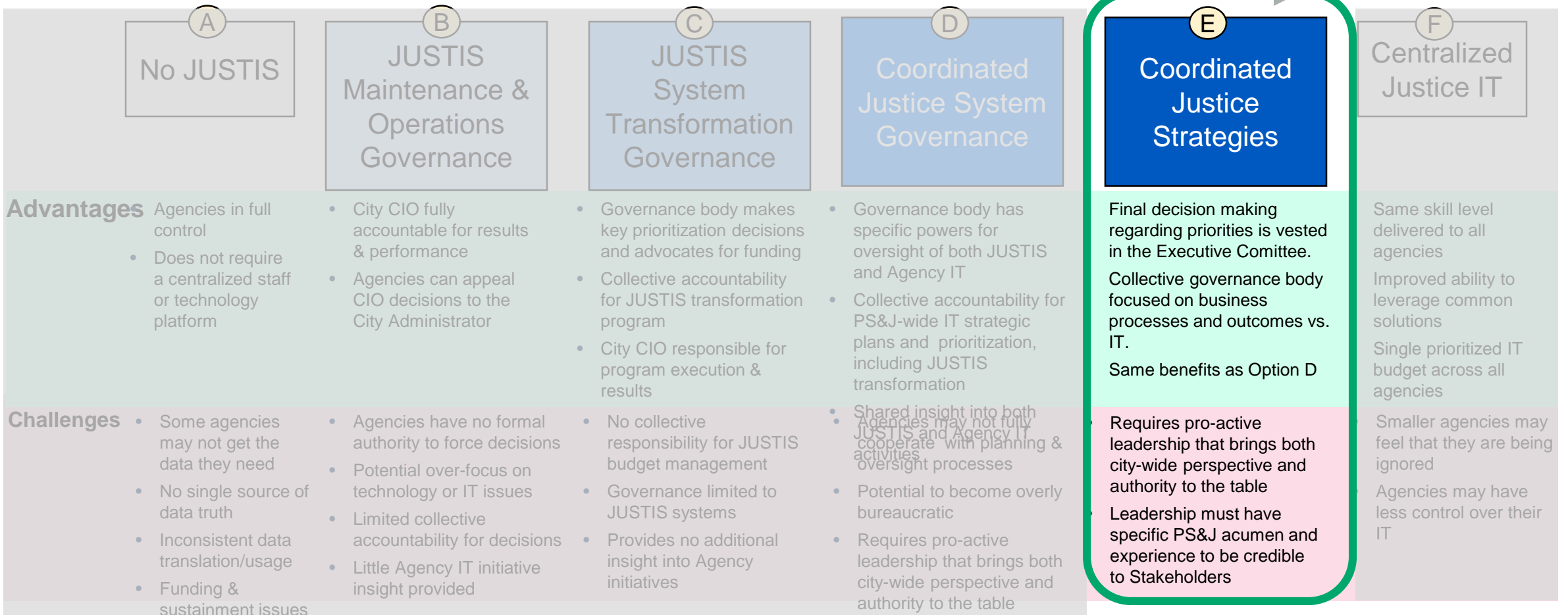
The level of governance that is needed is highly dependent on what is actually being governed



# Strategic Planning Components

## Governance - Recommendation

Increasing Transparency and Lower Cost



## Option E Goal – Coordinated Justice Strategies

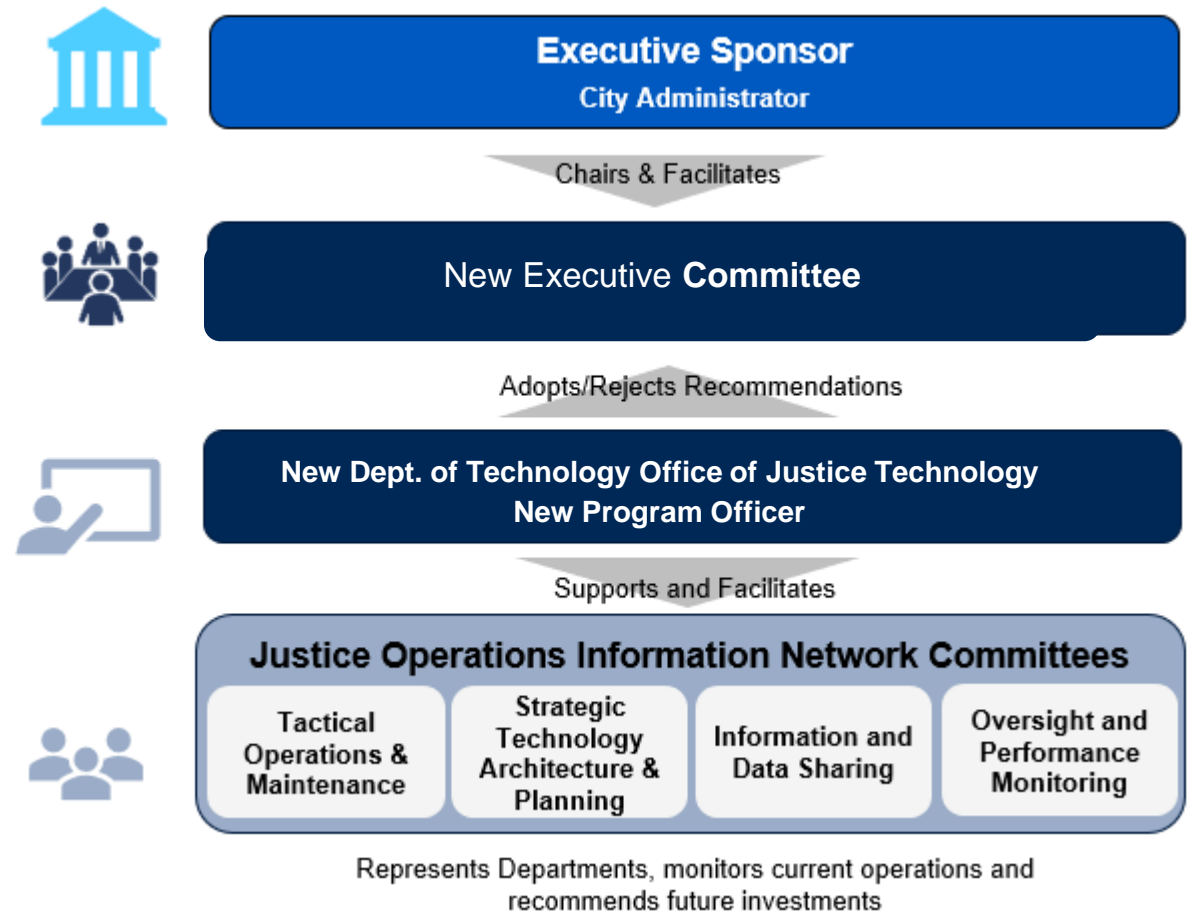
- Address strategic business questions for criminal justice agencies:
  - Understand and track recidivism for non-violent offender and first time offenders in an actionable way
  - Measure race and ethnicity in crime type populations
  - Evaluate the impact of homelessness on justice services
  - Holistic view of a person interacting with PS partners, public health, mental health and homelessness
  - Evaluating program outcomes to reduce crime types
  - Evaluate effectiveness of social/criminal justice programs
  - With data analytics understand when to take action – complex crime, multiple offenses
  - Impact of linking social programs to justice services and outcomes
  - Proactive not reactive policing based on data
  - Better management of high risk offenders and risk assessment tools
  - Understand source of crime and the lifecycle of the criminal justice process
- Shared Data lowers costs and improves transparency:
  - Develop a share approach to data, infrastructure, records management and case management
  - Develop dashboards to provide situational awareness



# Strategic Planning Components

## Governance - Recommendation

- The current governance model lacks sufficient executive coordination and leadership to successfully deliver the roadmap and ongoing technology improvements
- To address current gaps establish the following governance bodies:
  - Executive Sponsor: City Administrator
  - Executive Committee: Agency Executive Directors
  - Office of Justice Technology: Focus on integrated justice systems and data
  - Program Officer: Lead the Office and strategic and operational plans for RoadMap
  - Focused Committees which support inter-agency coordination and the ongoing use and evolution of criminal justice technology and systems



# Strategic Planning Components

## *Governance – Charter Responsibilities*

### **Strategic Responsibilities**

1. Establish the overall strategic IT priorities for the Criminal Justice community, addressing both inter-agency and individual agency needs.
2. Adopt a bi-annual city-wide criminal justice technology strategy and roadmap that addresses the strategic IT priorities.
3. Facilitate the transparency of JUSTIS and Agency IT plans to encourage consistent architectures and timelines and ensure alignment with city-wide strategy and roadmap.
4. Establish an inter-agency data/information taxonomy and set of data sharing policies/MOU's which enables City stakeholders measure the criminal justice program effectiveness and outcomes.

### **Annual Planning and Budgeting Responsibilities**

1. Review the proposed agency & program IT initiatives that affect the City's shared Criminal Justice Infrastructure for alignment with JUSTIS Roadmap and Strategic Plan
2. Establish annual project/priorities for the Program team and work with the City CIO to ensure that this team is well supported with required funding and resources
3. Collectively advocate for funding and resources (grants, MBO/BoS, etc.) on behalf of both individual agency and inter-agency, collective, agency-wide IT initiatives and staffing
4. Review and approve the allocation of budget (held by ADM or DT) to inter-agency IT projects



# Strategic Planning Components

## *Governance – Charter and Responsibilities (continued)*

### **Operational Responsibilities**

1. Facilitate inter-agency coordination around major policy changes with implications for inter-agency systems and business workflows (e.g., police accountability, bail reform, AB109, homelessness response, etc.)
2. Coordinate and control major system changes to ensure that they are will understood by all JOIN participants and will not negatively impact criminal justice operations



# Strategic Planning Components

## *Governance – Charter and Responsibilities*

### Executive Committee

- Executive Leadership
  - Sponsor: City Administrator
  - Executive Committee
    - Director of Deputy Directors
    - No delegations
- All Justice Agency Participation
- Includes Non-Voting Participants/Data Consumers
- Superior Court role to be clarified

| <b>Executive Sponsor: City Administrator</b>   |   |
|--|---|
| <b>Executive Committee</b>   |   |
| <ul style="list-style-type: none"> <li>• City Administrator</li> <li>• City CIO</li> <li>• Program Officer</li> <li>• Adult Probation</li> <li>• DEM</li> <li>• District Attorney</li> </ul> | <ul style="list-style-type: none"> <li>• Juvenile Probation</li> <li>• Status of Women</li> <li>• Superior Court</li> <li>• Police</li> <li>• Public Defender</li> <li>• Sheriff</li> </ul> |
| <b>Non Voting Participants/Data Consumers</b>  |   |
| <ul style="list-style-type: none"> <li>• DPH</li> <li>• MBO</li> <li>• HSH</li> <li>• Police Accountability Office</li> </ul>  | <ul style="list-style-type: none"> <li>• City Budget Office</li> <li>• City Attorney for JOIN</li> <li>• Chief Cybersecurity Officer</li> <li>• Chief Data Officer</li> </ul>               |



# Strategic Planning Components

## *Governance – Structure, Process, and Responsibilities*

### ▪ **Executive Committee structure and process:**

- The new Executive Committee will be established through a **Charter** with voting and participation strictly limited to department heads and his/her deputy (no other delegates allowed)

### ▪ **Responsibilities of the new Executive Committee will include:**

- Meet at least 3 Times per year to take action on recommended decisions from the Program Officer and Committees
- Establish business process, technology effectiveness, and justice outcome improvement objectives, related polices and key metrics for monitoring
- Advocate for funding through the development of the Mayor’s Budget and Annual Appropriation Ordinance
- Develop and maintain a 5 year City-wide Criminal Justice technology roadmap that is inclusive of all agency and inter-agency initiatives
- Review and approve agency technology initiatives that impact the City’s shared Criminal Justice IT Infrastructure
- Review and approve the Office of Justice Technology budget on an annual basis
- Work with the Program Officer to advise on project priorities





# Strategic Planning Components

## *Governance – Structure, Process, and Responsibilities*

### ■ **Office of Justice Technology structure and process:**

- An Office established to coordinate PS&J information systems, policy and provide leadership and sponsorship to the public safety agencies and the transformation initiative
- The Program Officer is the head of this office should have significant experience in public safety, justice information systems and technologies and be exclusively focused on improving criminal justice outcomes for CCSF
- The Office includes a Technical Manager to lead technical projects and operations and a Roadmap Manager to lead the implementation of the Roadmap initiatives and Data Center of Excellence

### ■ **Responsibilities of the Program Officer include:**

- Establishment of key metrics for measuring the effectiveness and outcomes of CCSF's criminal justice process
- Interagency coordination for implementation of local or externally mandated policy changes and priorities
- Liaison to non public safety agencies
- Securing of grants and external funding partnerships for critical initiatives
- Advocating for criminal justice budget and resource priorities
- Coordinate with the Executive Sponsor on organizing and facilitating meetings of the Executive Committee
- Managing and directing the Office resources to implement the Roadmap



# Strategic Planning Components

## *Governance – Structure, Process, and Responsibilities*

### ■ **Standing Advisory Committee structure and process:**

- Participation is limited to staff from member agencies and non-voting member of the Executive Committee. One vote per organization; majority moves recommendation forward to the Executive Committee.

### ■ **Responsibilities of the JOIN committees include:**

- Development and maintenance of inter-agency data taxonomy & standards along with agency-specific data access and sharing rules.
- Establishment and management of city-wide criminal justice application/technology architecture and standards
- Development and oversight of a city-wide criminal justice data/application recovery strategy and testing/execution process
- Technology change control over inter-agency applications and applications that interact impact these functions.
- Monitoring of inter-agency system incidents & error trends
- Bi-annual development of a city-wide criminal justice technology strategic plan/roadmap, which will inform the annual budget
- Other responsibilities and designated assignments as necessary to support implementation of the roadmap and ongoing inter-agency technology operations



# Governance Organization

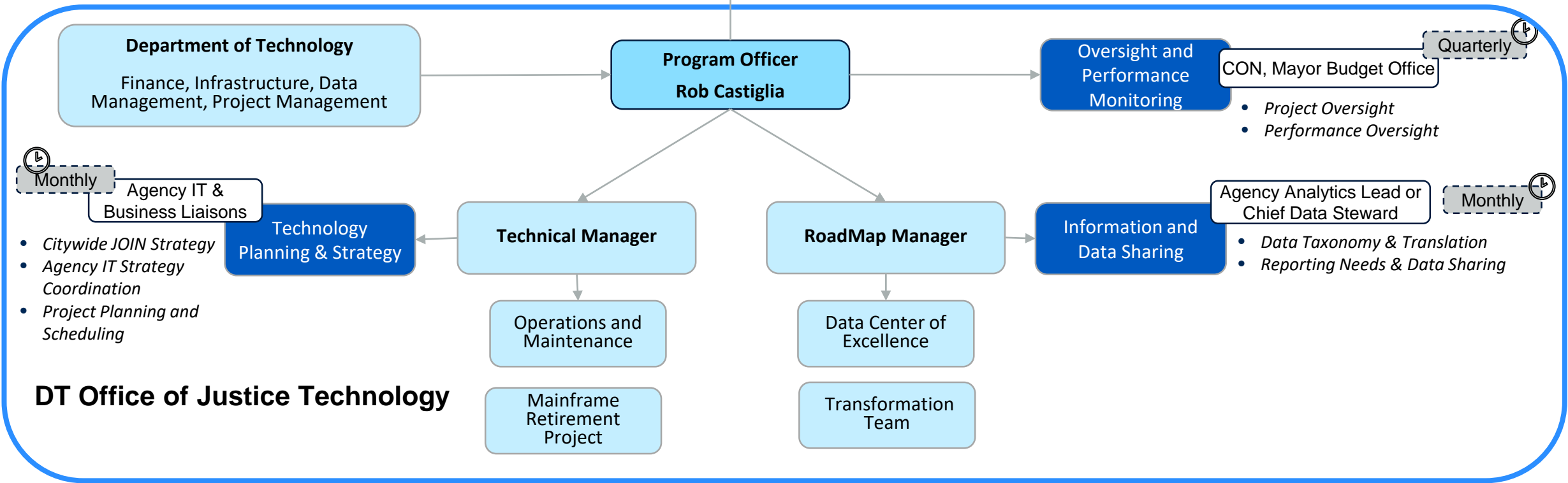
Organizational Relationship for the Board, Program Officer, Managers and Workgroups.

Executive Management

Advisory Workgroup

Office Resource Team

**EXECUTIVE COMMITTEE**



# Strategic Planning Components

## *Governance – Guiding Principles*

The following principles can guide development of Roadmap initiatives supporting this planning component:

- Governance should include structures for budget, data, security, integration technology, and inter-agency coordination
- Governance would specify participants, decision domain, and voting rules
- Governance should have sufficient authority to enforce decisions; updates to supporting structures (e.g., Admin Code) may be required
- Data governance should establish policies for data quality and data management
- Data Management and Data Governance standards should conform with appropriate requirements as mandated by the relevant governmental level (federal, state, local). In the absence of state/federal standards, local standards should be developed and applied
- Data management should provide data quality standards and thresholds which would need to be applied





Introduction

Approach and Methodology

JUSTIS Future State Vision

Strategic Planning Components

Strategic Objectives

Next Steps

# 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.

1.2 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.

1.3 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.

1.4 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.

1.9 Rebrand and transform JUSTIS inclusive of the Roadmap strategic objectives to define the next generation public safety and social system for CCSF.

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.

1.6 Deploy a platform for sharing electronic documents and managing digital evidence.

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.

1.8 Extend JUSTIS to include Juvenile data and transactions with required access controls.

### 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<sup>1</sup> on criminal C-Track without disrupting the partner agency operations.

1. Planned for late 2019

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.



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