Connecticut Integrated Criminal Justice Information System

Opportunities and Issues: an IT Perspective

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Governor's Task Force on Sentencing and Parole Reform
December 10, 2007

CJIS Program Vision

Seamless

Criminal Justice

Information System

The Criminal Justice Information System will provide the policy and informational framework within which to build and maintain a fully-integrated criminal justice community whose organizational efficiency and combined ability to render quality decisions throughout every aspect of the criminal justice system will continually improve public safety and aid sound policy decisions.

Work in Progress, June 2007

CJIS Program Goals

CJIS Program Governance

CJIS Implementation Strategy

Sustainable Program Funding

Needed IT Staffing Levels and Skills

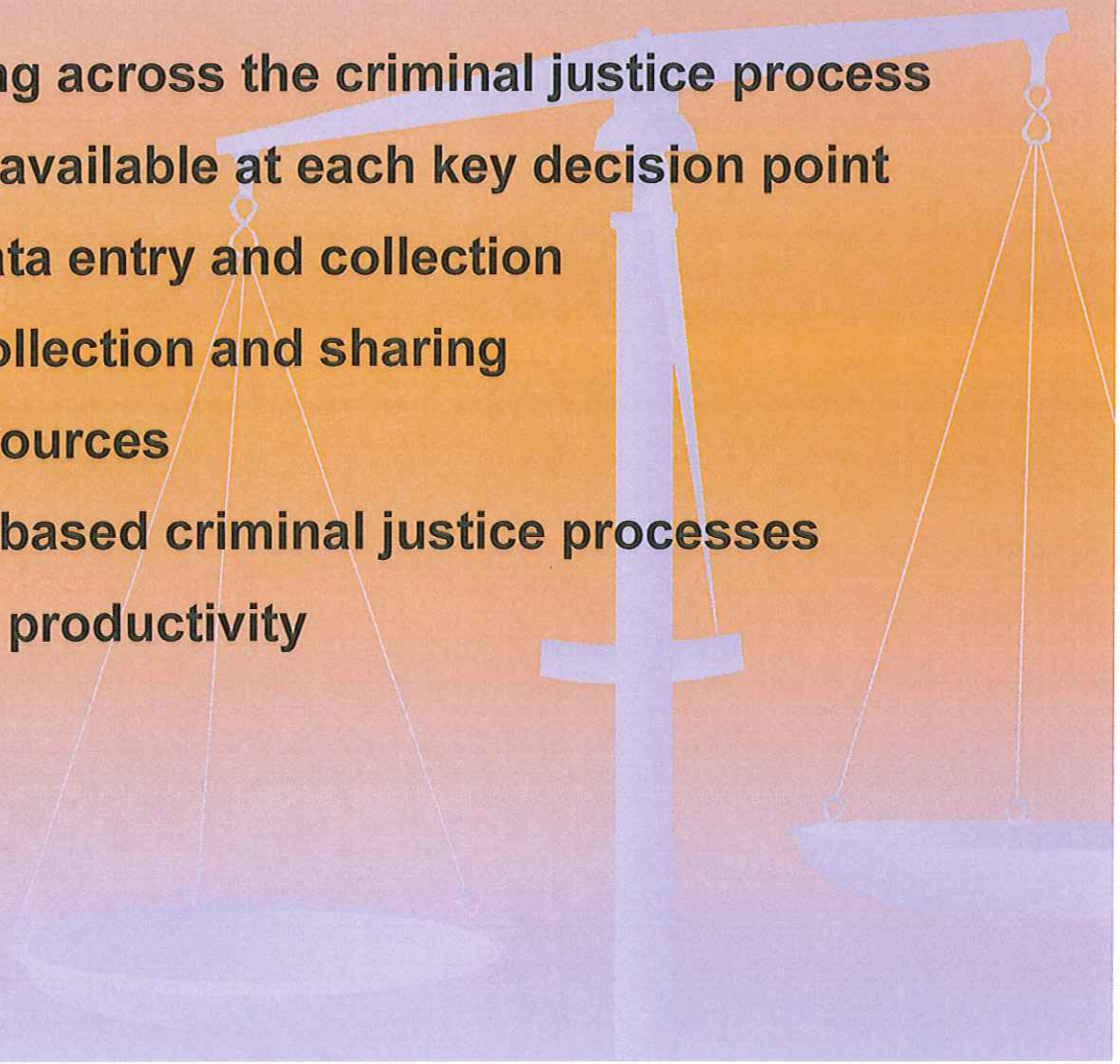
Technology Currency

- **Broaden the CJIS governing Board's structure and mandate to allow CJIS to develop a fully coordinated system that meets the diverse needs of its users;**
- **CJIS must continually define its users and determine their informational needs;**
- **Develop and maintain long-term sustainable funding for the CJIS program;**
- **Provide CJIS with a responsive Human Resources system that will attract, hire, and retain dedicated, diverse, and properly skilled staff;**
- **CJIS must keep pace with emerging technology by moving from outdated, legacy systems to state-of-the-art platforms that conform to a set of statewide standards for data sharing.**

Work in Progress, June 2007

CJIS Business System Goals

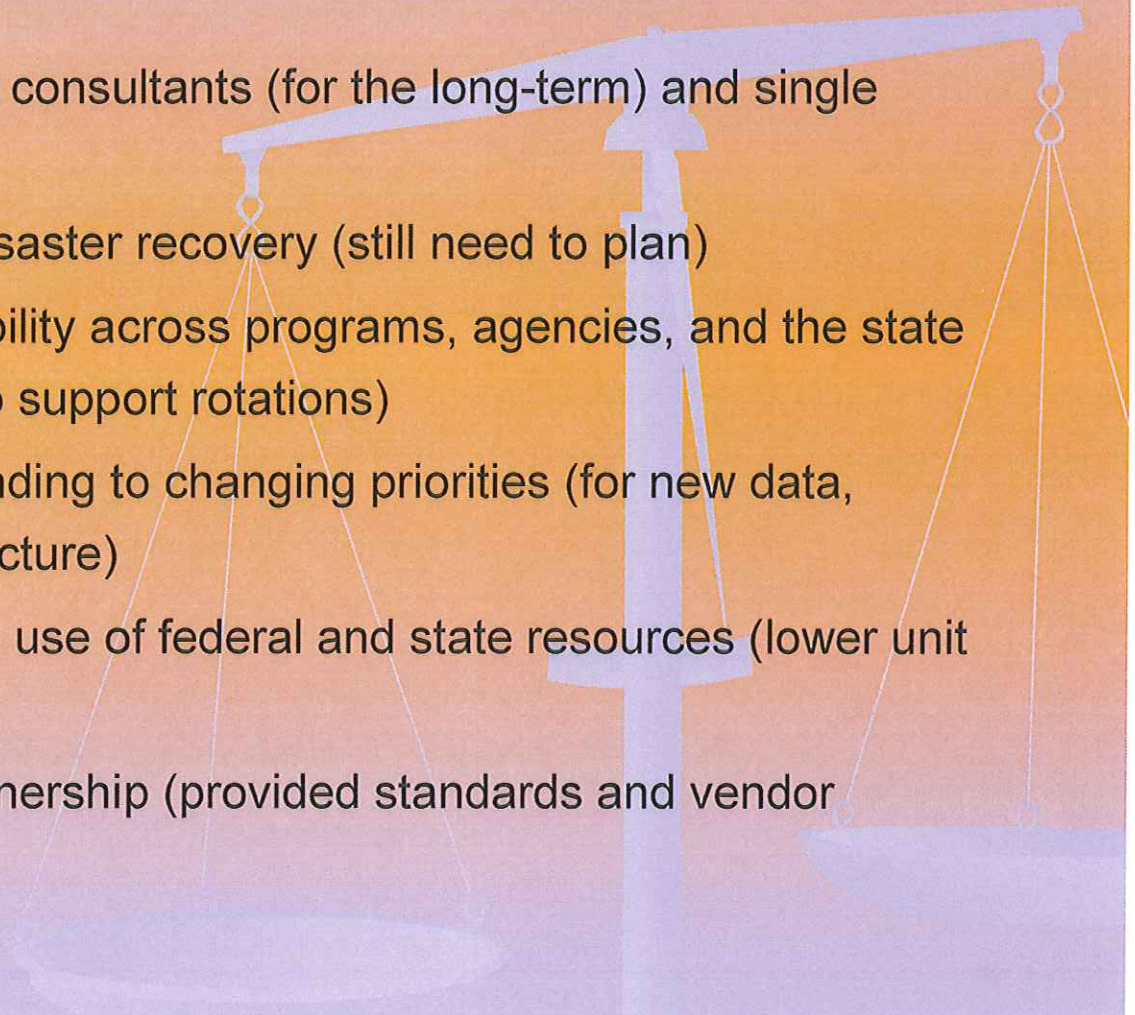
- Improve decision-making across the criminal justice process
- Improve quality of data available at each key decision point
- Eliminate duplicative data entry and collection
- Eliminate offline data collection and sharing
- Connect isolated data sources
- Streamline information-based criminal justice processes
- Increase organizational productivity



Alignment with State's IT Strategy

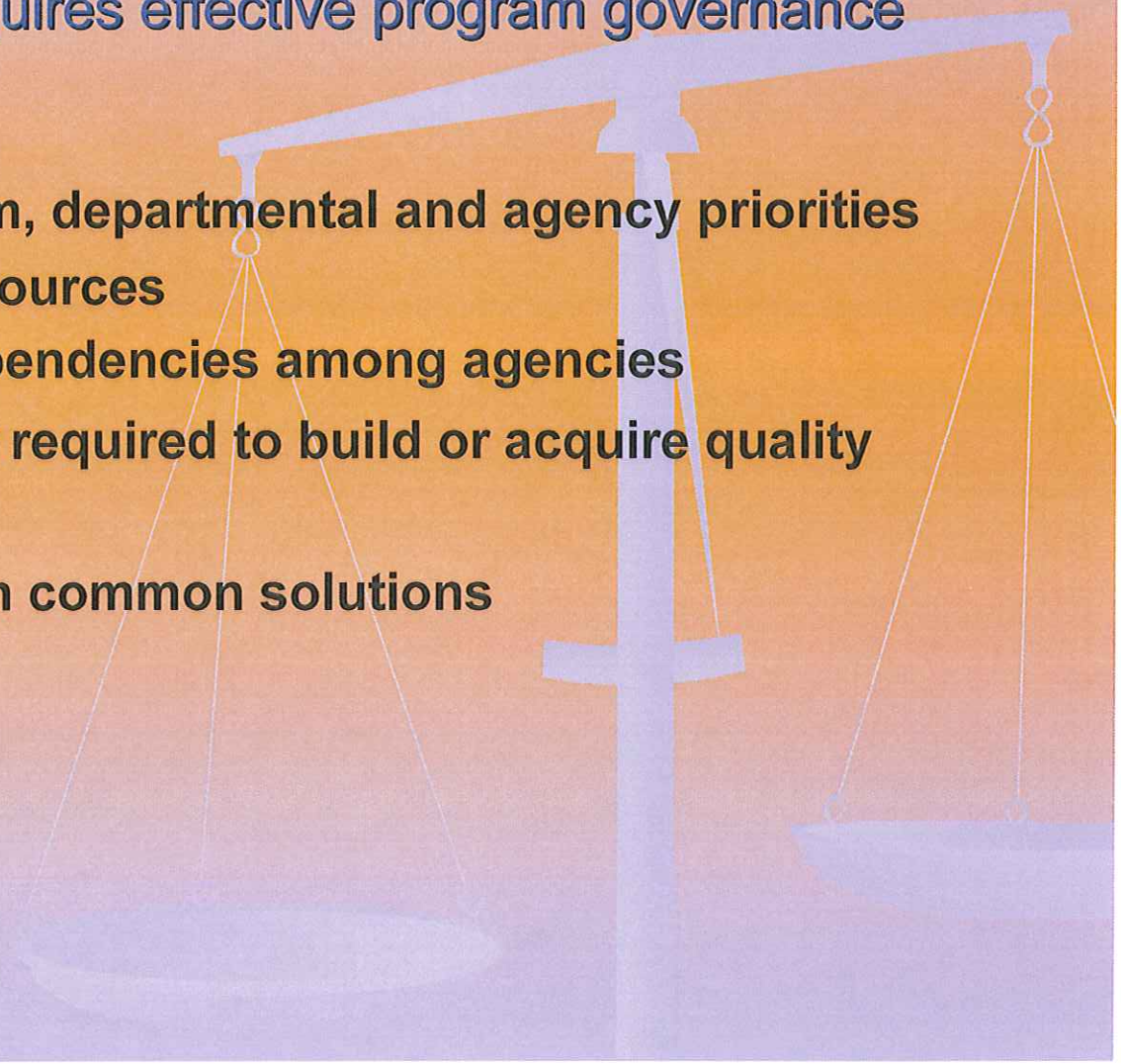
"Leverage common solutions" to:

- Reduce dependence on consultants (for the long-term) and single points of failure
- Facilitate backup and disaster recovery (still need to plan)
- Improve skills transferability across programs, agencies, and the state (staffing policies need to support rotations)
- Improve agility in responding to changing priorities (for new data, applications, or infrastructure)
- Foster more economical use of federal and state resources (lower unit costs)
- Improve total cost of ownership (provided standards and vendor competition)



CJIS Program Governance

- Coordinated action requires effective program governance because of :
  - Differing program, departmental and agency priorities
  - Limited state resources
  - System inter-dependencies among agencies
  - Time, cost, labor required to build or acquire quality systems
  - Value potential in common solutions



CJIS Program Governance

Well-positioned:

- CJIS Governing Board has statutory authority (October, 2007)
- CJIS Finance Committee formed to integrate priorities and review funding (February, 2007)
- Comprehensive OPM Criminal Justice plan canvassed sector branches and agencies for their issues, including IT (March, 2007)
- Legislative hearing on Sentencing Reform raised integrated justice issues, including IT needs (Sept 11, 2007)

CJIS Program Governance

- *The challenge is systems-wide and requires enterprise commitment:*
  - Developing an integrated criminal justice system is a major initiative
    - Colorado Integrated Criminal Justice Information System
      - Development cost $100MM over 5 Years
    - Pennsylvania JNET
      - Development cost $10MM over 3 years
      - Annual Operations cost $7MM
  - State's consolidated criminal justice data repository (OBTS) 70% complete after investment of $28.6MM
  - IT needs of smaller agencies at critical criminal justice decision points overlooked

CJIS Program Governance

CJIS community needs comprehensive view of what must be done

- *CJIS Program Vision*

  Translated into an Implementation Vision

- CJIS Current State

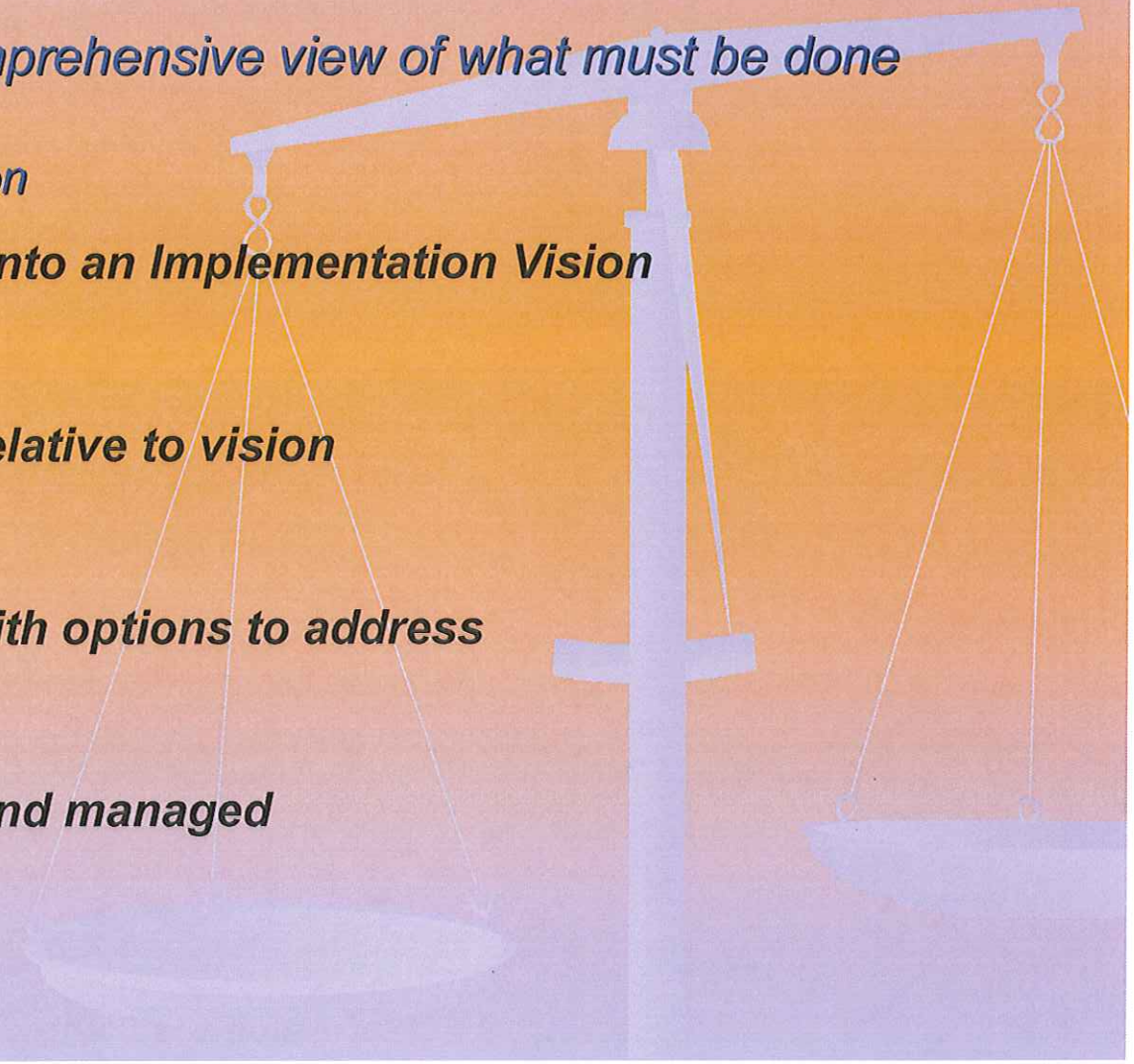
  Assessed relative to vision

- Gaps

  Identified with options to address

- Projects

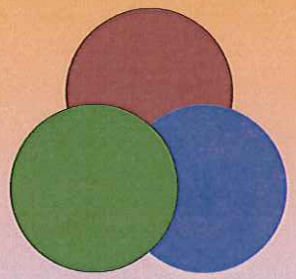
  Chartered and managed



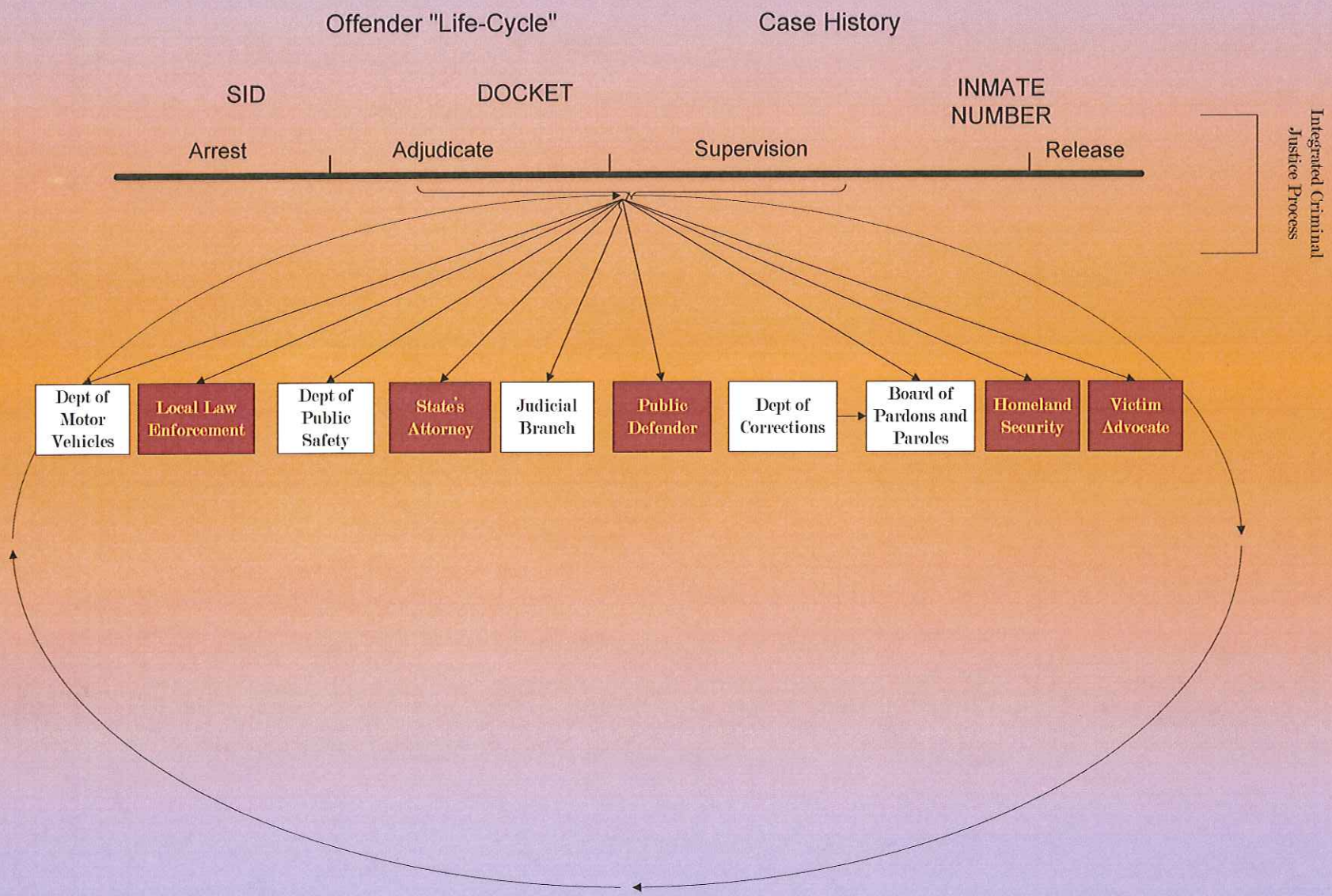
Current CJIS Program Scope – *Three Views*

- Integrated Justice Business Process
- **Sector Agency Line-of-Business Applications**
- Consolidated Data Repository

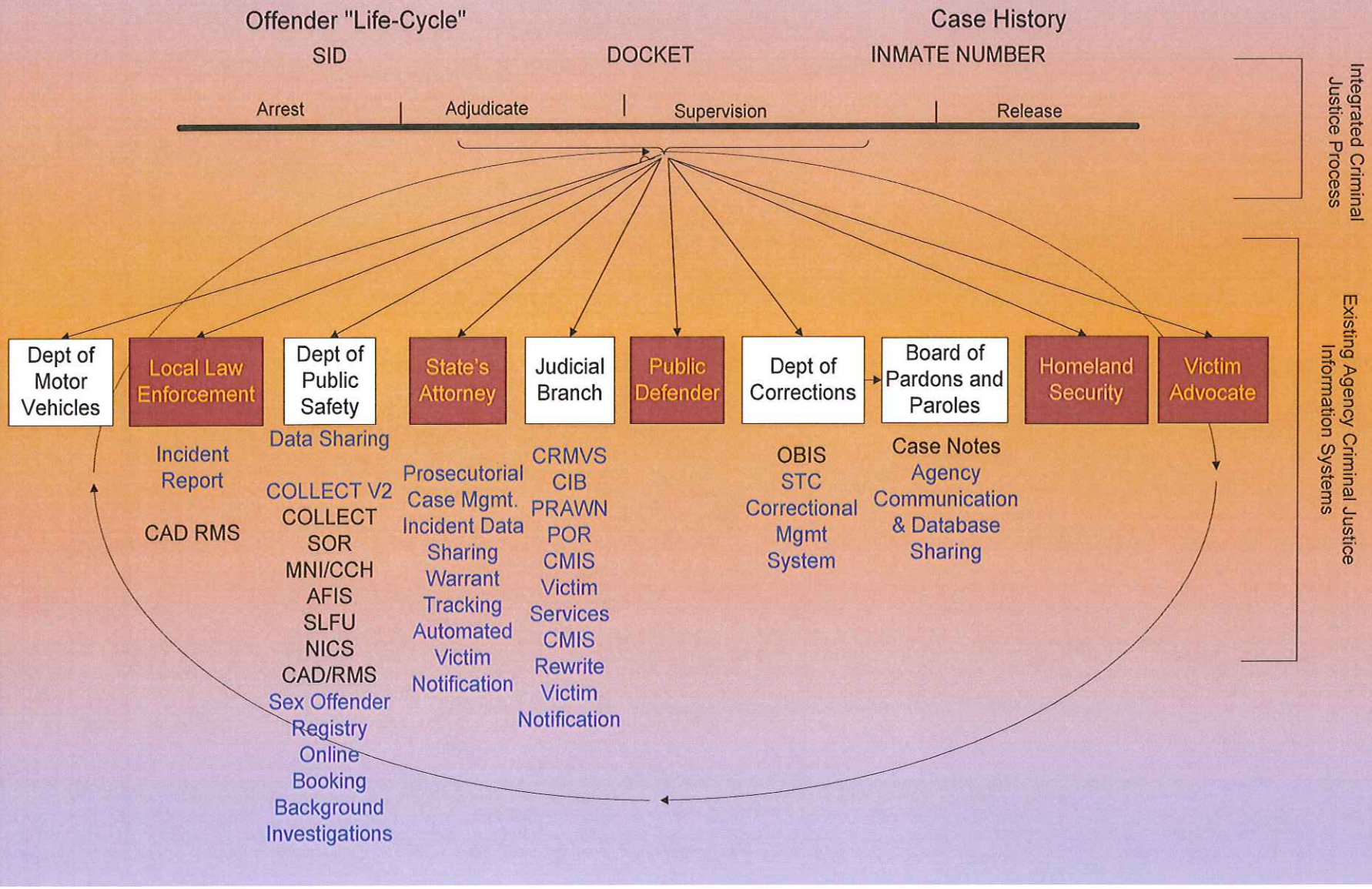
Priorities differ…Issues do not



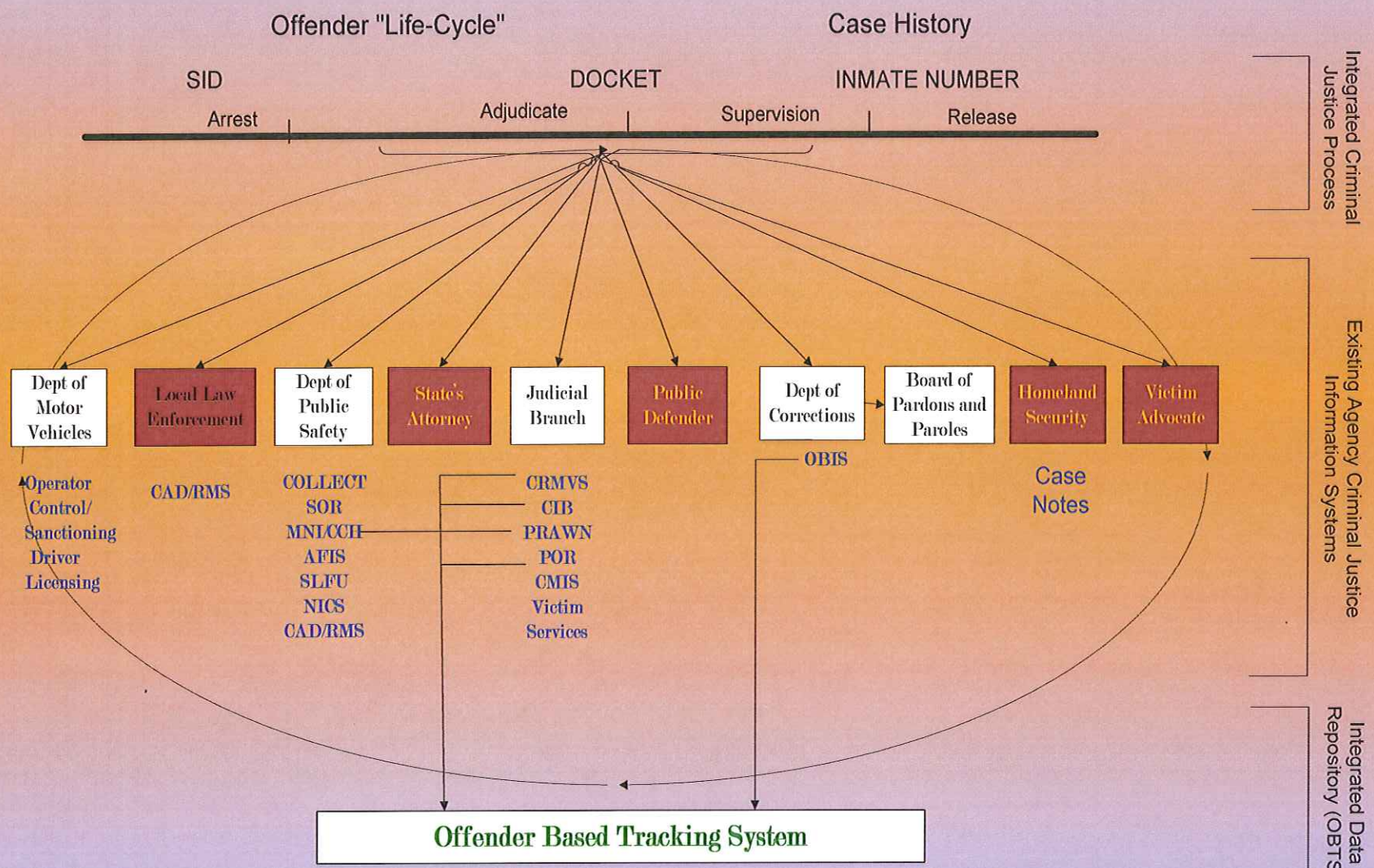
Criminal Justice Business Process



Safety and Judicial Sector Line of Business Applications



Consolidated Data Repository (OBTS)

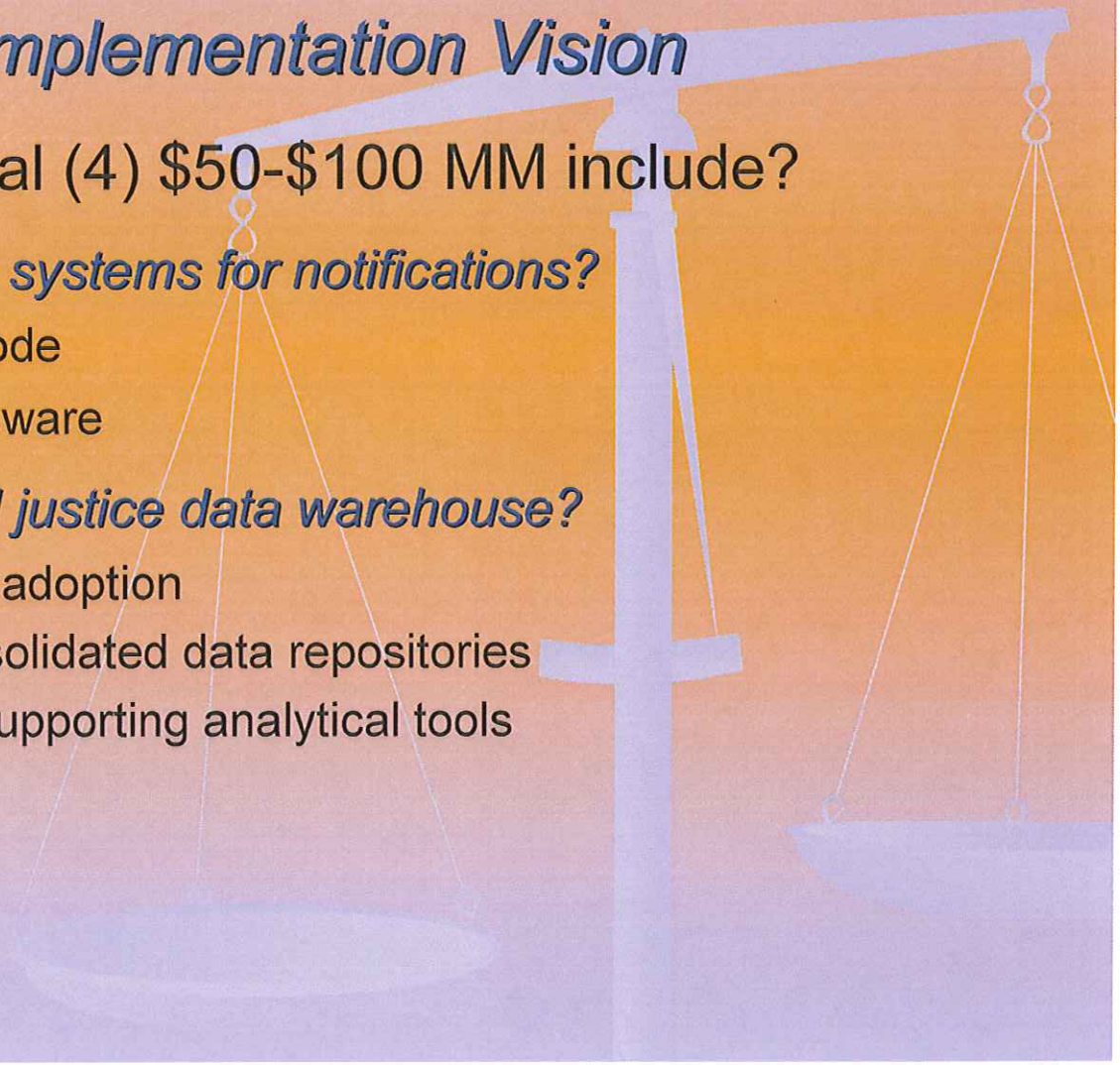


Proposed "*Shield*" Implementation Scope

- *"Shield" as CJIS Implementation Vision*
  - What shall proposal (4) $50-$100 MM include?
    - *More Network Communications Bandwidth?*
      - Public Safety Data Network
    - *Expanded CJIS Portal?*
      - Expanded CJIS Portal, including
        - Secure Remote Access Identification and Authentication?
        - Single Sign On?

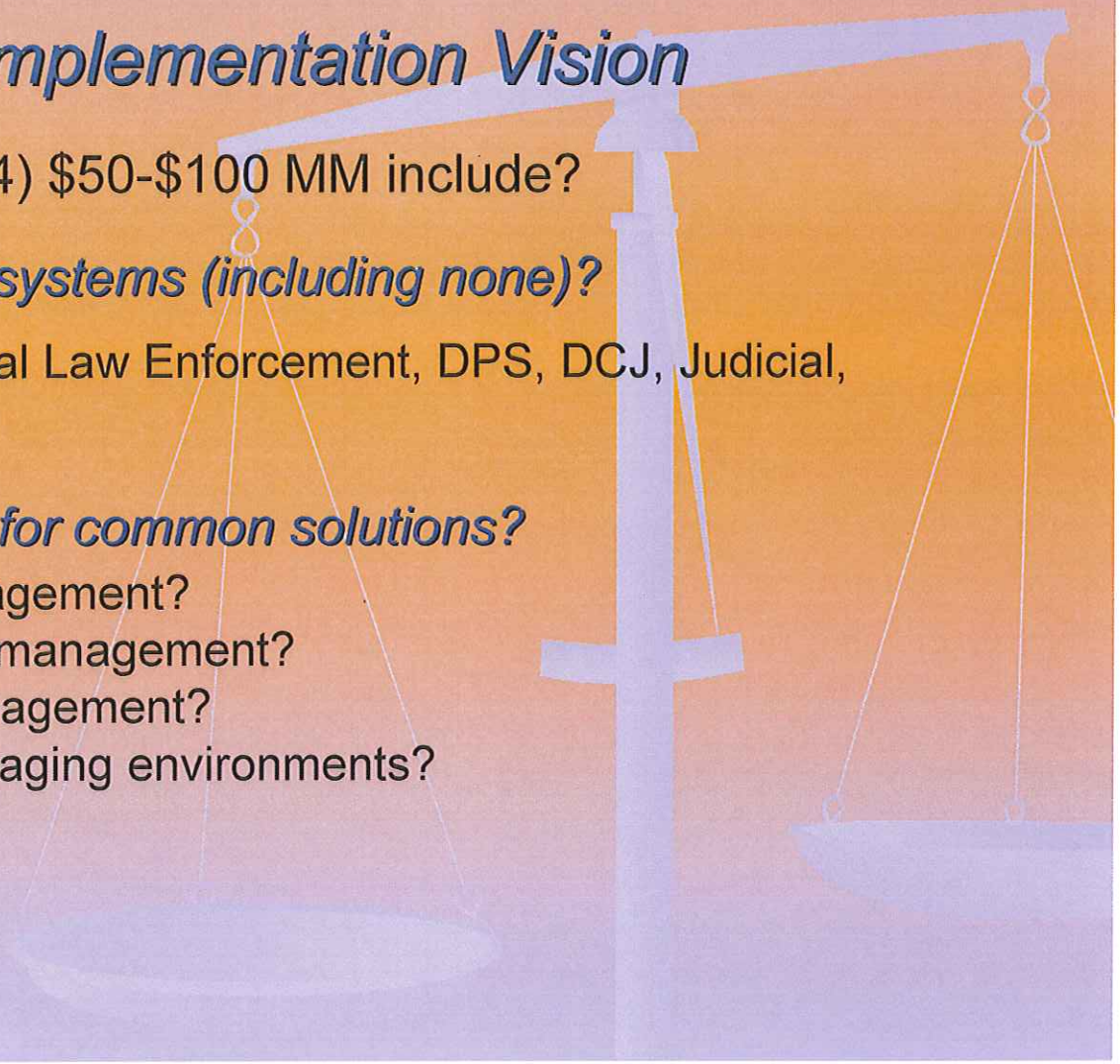
Proposed "*Shield*" Implementation Scope

- *"Shield" as CJIS Implementation Vision*
  - What shall proposal (4) $50-$100 MM include?
    - *Retrofitting legacy systems for notifications?*
      - Wrapping old code
      - Inserting middleware
    - *Building a criminal justice data warehouse?*
      - Data standards adoption
      - Expanding consolidated data repositories
      - Providing and supporting analytical tools

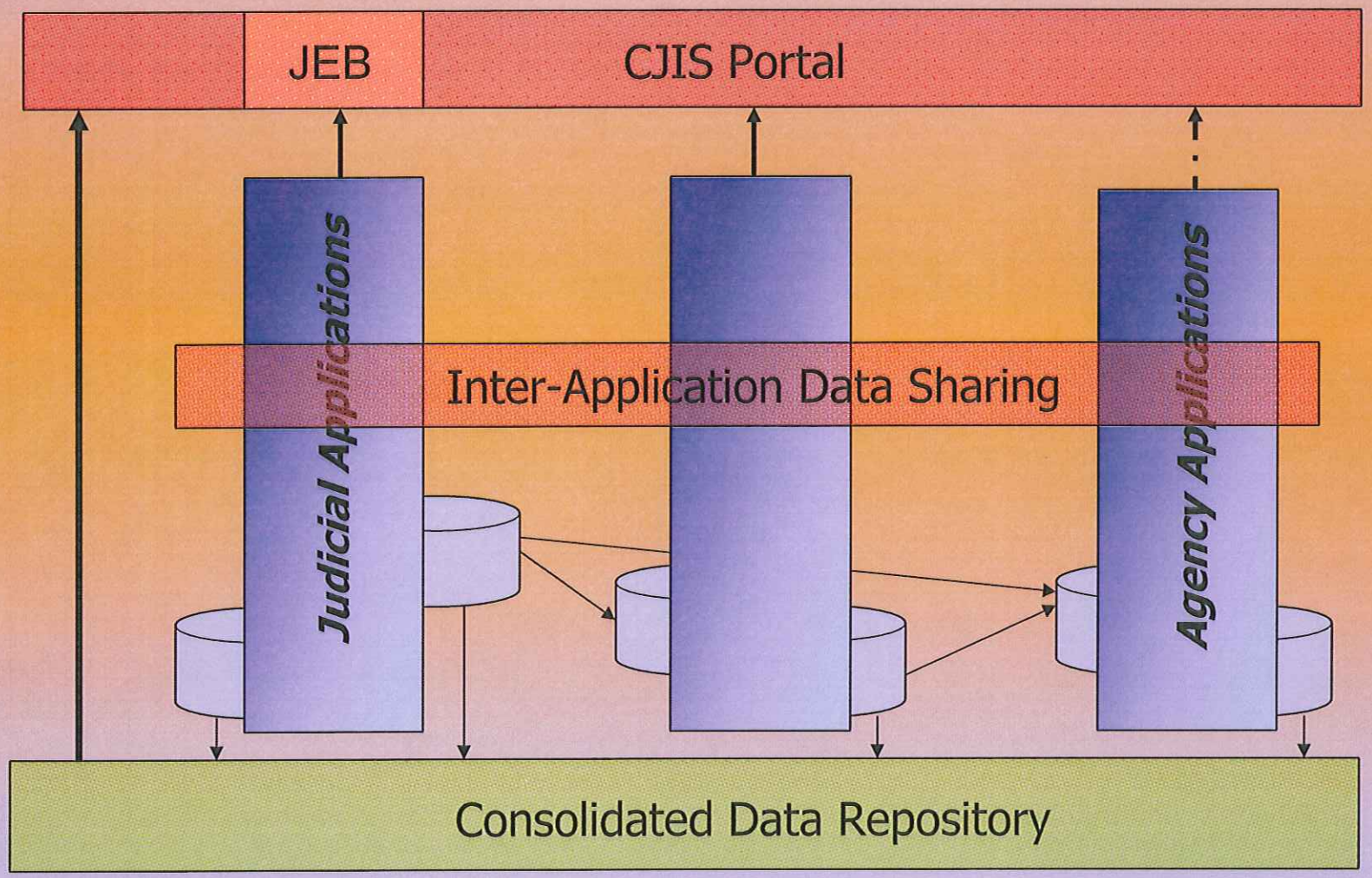


Proposed "*Shield*" Implementation Scope

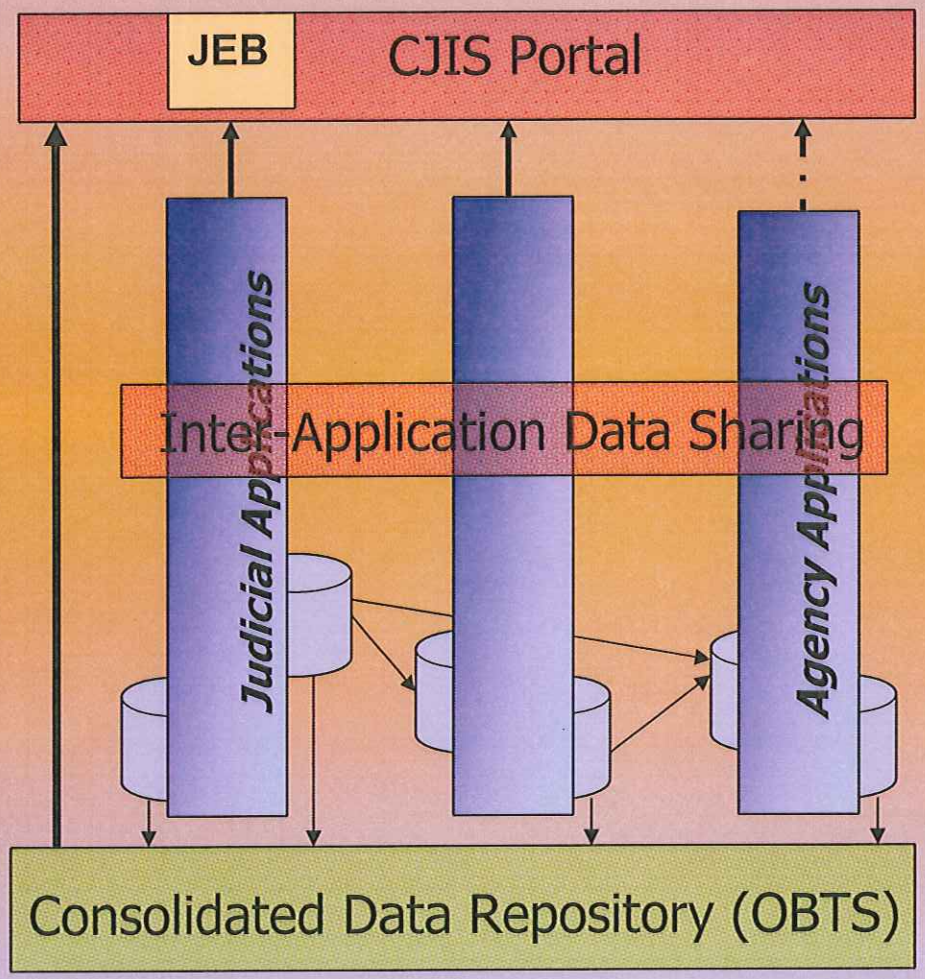
- ***"Shield" as CJIS Implementation Vision***
  - What shall proposal (4) $50-$100 MM include?
    - ***Replacing legacy systems (including none)?***
      - Needed for Local Law Enforcement, DPS, DCJ, Judicial, DOC/BOPP
    - ***Opportunities for common solutions?***
      - Case management?
      - Document management?
      - Image management?
      - Test and staging environments?



"*Shield*" Building Blocks



CJIS Current State: *Metrics*



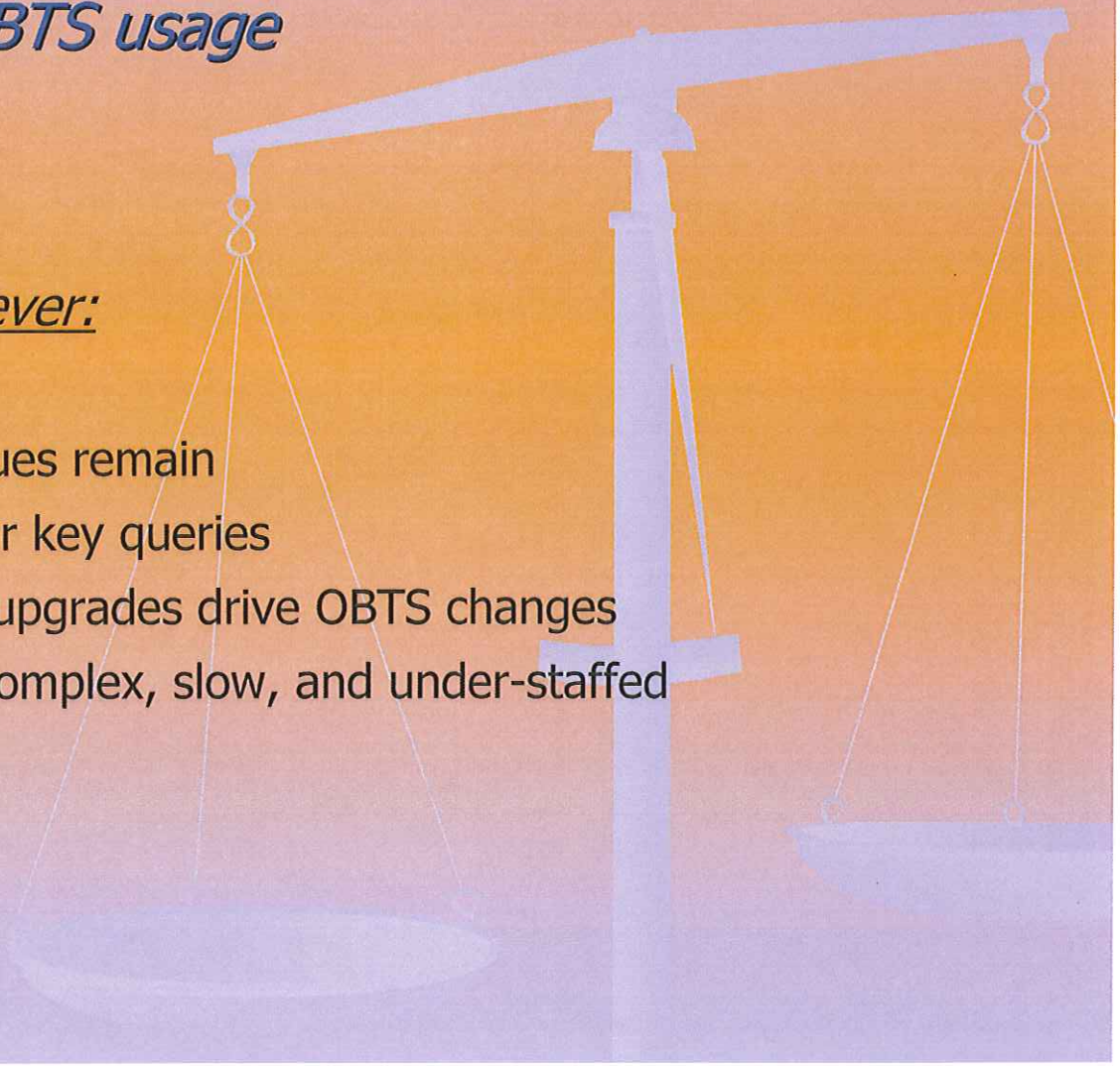
	% Complete	$ Invested
CJIS Portal	15%	0.25MM
Inter-Application Data Sharing	~0%	~0
Judicial Applications	~0%	6.3MM
Agency Applications		
Consolidated Data Repository (OBTS)	70%	28.6MM

CJIS Current State: *Value-Add*

CJIS Portal increases OBTS usage

OBTS (5.0) operational

- 2,860 end-users *<u>however:</u>*
  - Key functionality issues remain
  - Poor performance for key queries
  - Feeding application upgrades drive OBTS changes
  - Testing changes is complex, slow, and under-staffed



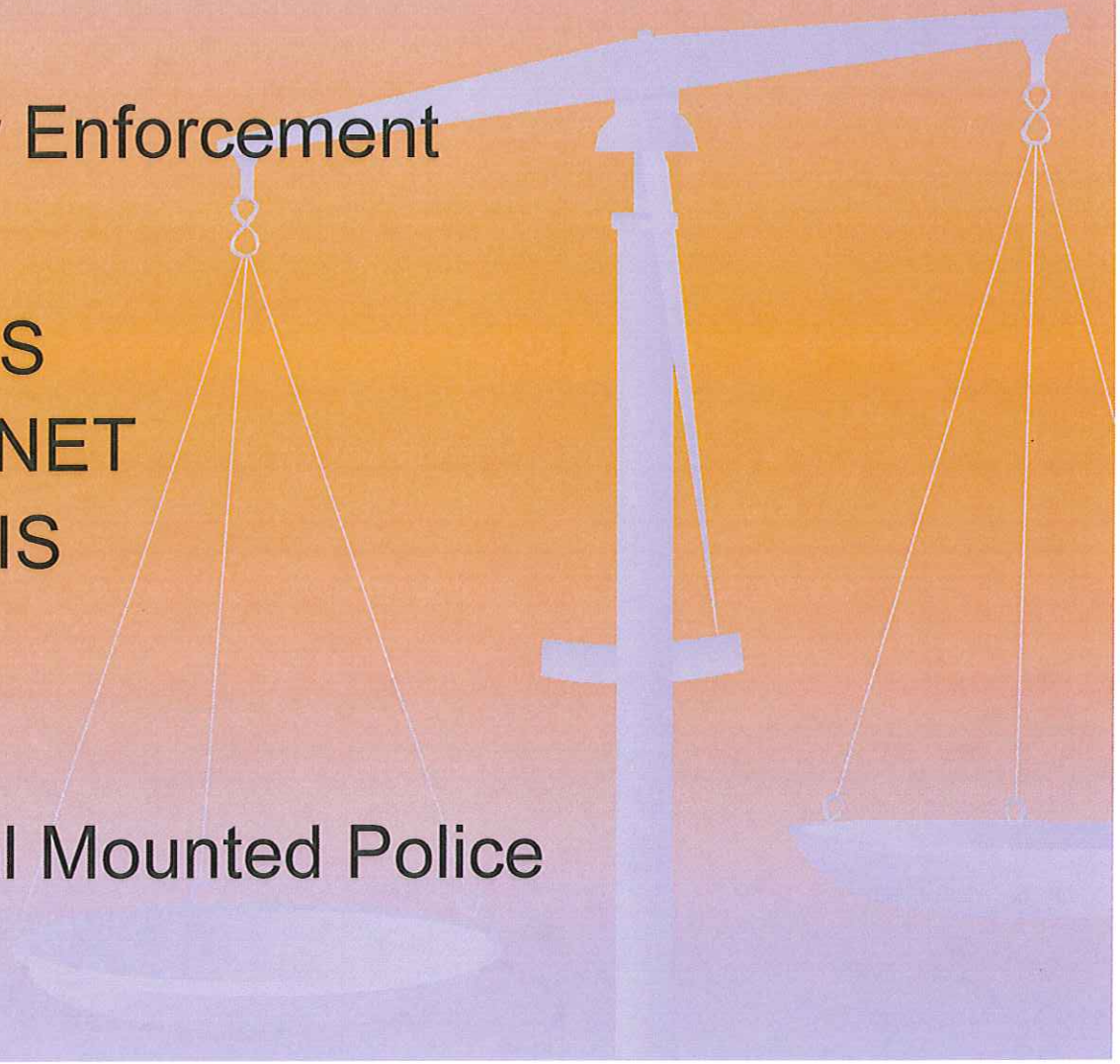
CJIS Current State: *Value-Add*

OBTS provides integrated information individual systems cannot provide:

- **DMV** - Cyclic screening of all bus driver endorsements for recent arrest or conviction (April, 2007)
- **OLR** - 2004 percentage of violent crime recidivism for people with previous felony convictions (May, 2007)
- **DPS (Crimes Analysis)** - Breakdown of under-age drinking arrests by type of crime (August, 2007)

Reference Integrated Justice Models

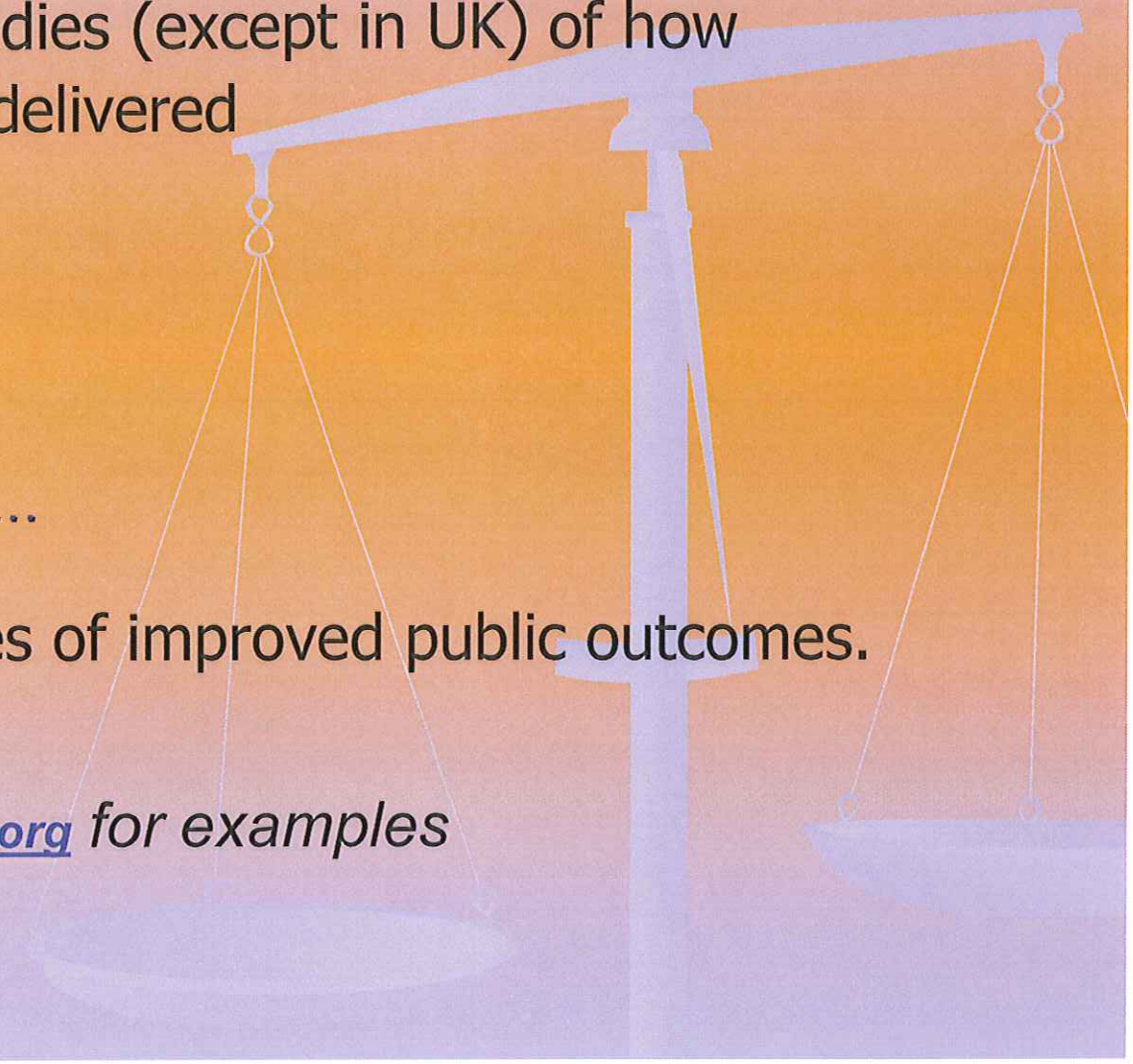
- Municipalities
  - Ohio Local Law Enforcement
- States
  - Colorado CICJIS
  - Pennsylvania JNET
  - Connecticut CJIS
- National
  - US DOJ
  - Canadian Royal Mounted Police



Realized Benefits

- No systems-wide studies (except in UK) of how integrated CJIS has delivered
  - *more,*
    - *better,*
      - *faster,*
        - *cheaper …*
- However, many cases of improved public outcomes.

Refer to www.SEARCH.org for examples



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Needed IT Staffing Levels and Skills

Technology Currency

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Work in Progress, June 2007

State-wide IT Funding Issue

Sustainable Funding

- ***Federal funding typically offsets short-term development but not long-term operations***
  - State experience across a number of functionally comparable major applications –
    - Over 5 years, annual operating costs 32% of annualized development costs
    - Assumes application delivered original scope; otherwise, more
    - Project funding seldom includes annual operating costs at this level at the outset

Staffing is a State-Wide Issue

State IT Staffing

- ***Not enough, not experienced enough, lacking productivity tools***
  - **Most agencies lack adequate IT resource levels and skills to meet their mandates with speed, focus, and quality**
    - **DoIT - CIO Wallace Fy08 assessment of IT staff needed for DoIT to support agency demand - an additional 125 FTEs at $12.5MM**
    - **Exclusive of applications development staffing to roll capacity across changing state, enterprise, or agency priorities.**
  - **"Silver tsunami" of retirements 2011-2016 years can make matters worse (as the 2002-2003 ERIP did)**
  - **IT staffing alone will not fully address the IT issues.**

And for CJIS Support

Consolidated Data Repository (OBTS)

- Only 2 OBTS and systems interface testers for program
  - 5 years of effort to complete a full system enhancement with 2 testers*
  - to complete a major enhancement in 9 months, need another 14 testers*
- Options
  - Redirect OBTS focus to leveraging what is (business intelligence/data mining for which CJIS has staff)
  - Improve CJIS project governance, management, and development processes (DoIT state-wide initiative)
  - Automate testing for 25% reduction in time needed for each cycle (after 1 year startup w/ current staff)
  - Obtain and train additional staff (2-year lead time to develop business systems knowledge)

**Quantitative staffing model available on request*

State-Wide IT Staffing Issue

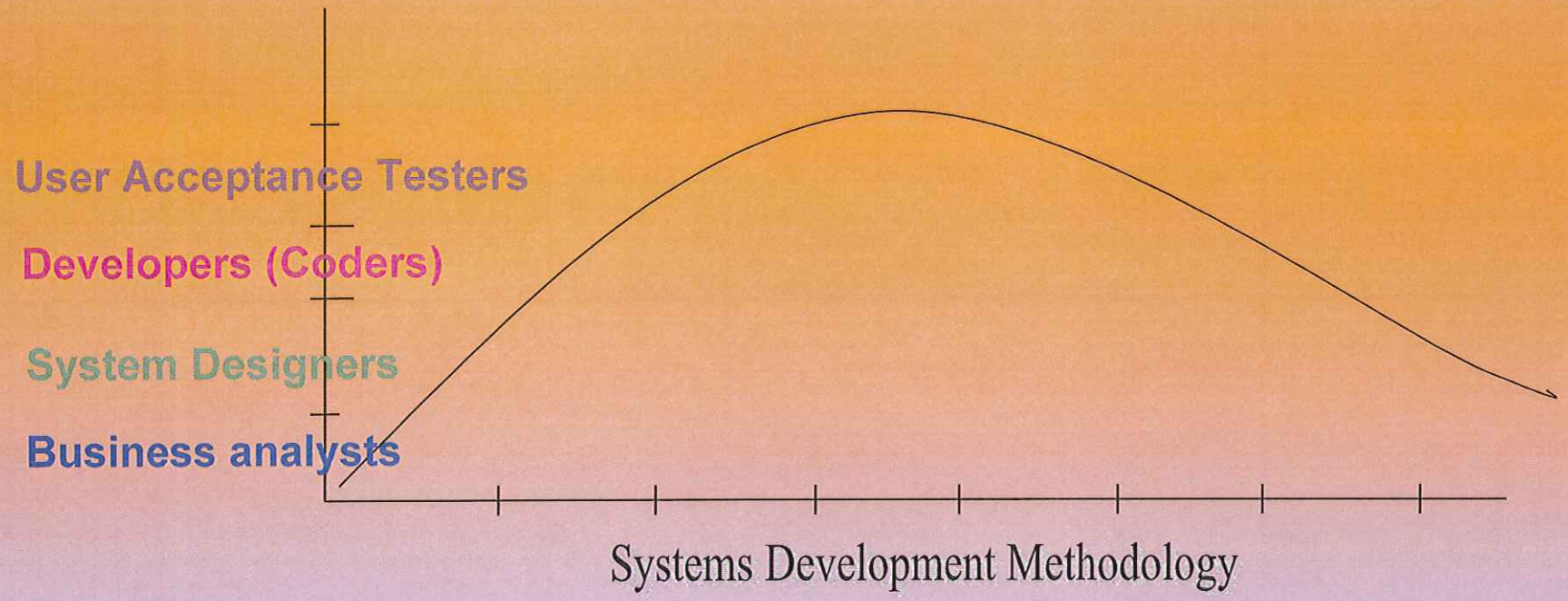
A Sourcing Dilemma

- **If hiring only state employees to staff all phases of development, hiring agency has excess capacity (from a program or state view) post-implementation**
  - Not cost ineffective (overcapacity)
  - May or may not align with broader set of priorities based on public outcomes
  - Projects may take longer (35 hour workweek, 4 day schedule)
  - Agency-centric resourcing does not leverage skills state-wide
  - May or may not spread common standards state-wide
- **If hiring only consultants to staff all phases of development, hiring agency will have only consultants indefinitely**
  - Not cost-effective (ITA3 employee $61.84-$70.95/hr vs. consultant $67.00-$90.00/hr)
  - May or may not align with broader set of priorities based on public outcomes
  - Projects may be done more quickly - where state environment is not an issue
  - Agency-centric resourcing does not assure needed skills state-wide
  - May or may not spread common state standards

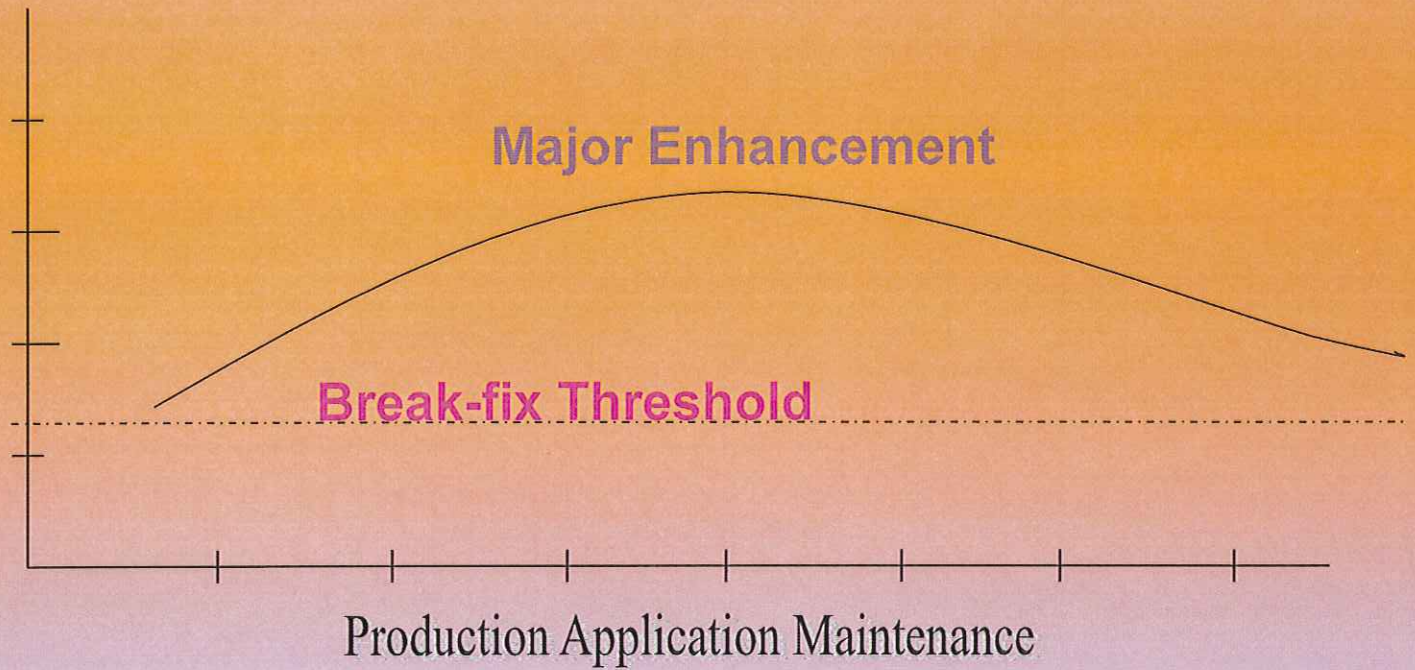
Root of the Sourcing Dilemma

Successful application development projects do not require the same staffing levels after implementation as they did for development

Application Staffing Levels: *Development*



Application Staffing Levels: *Production*



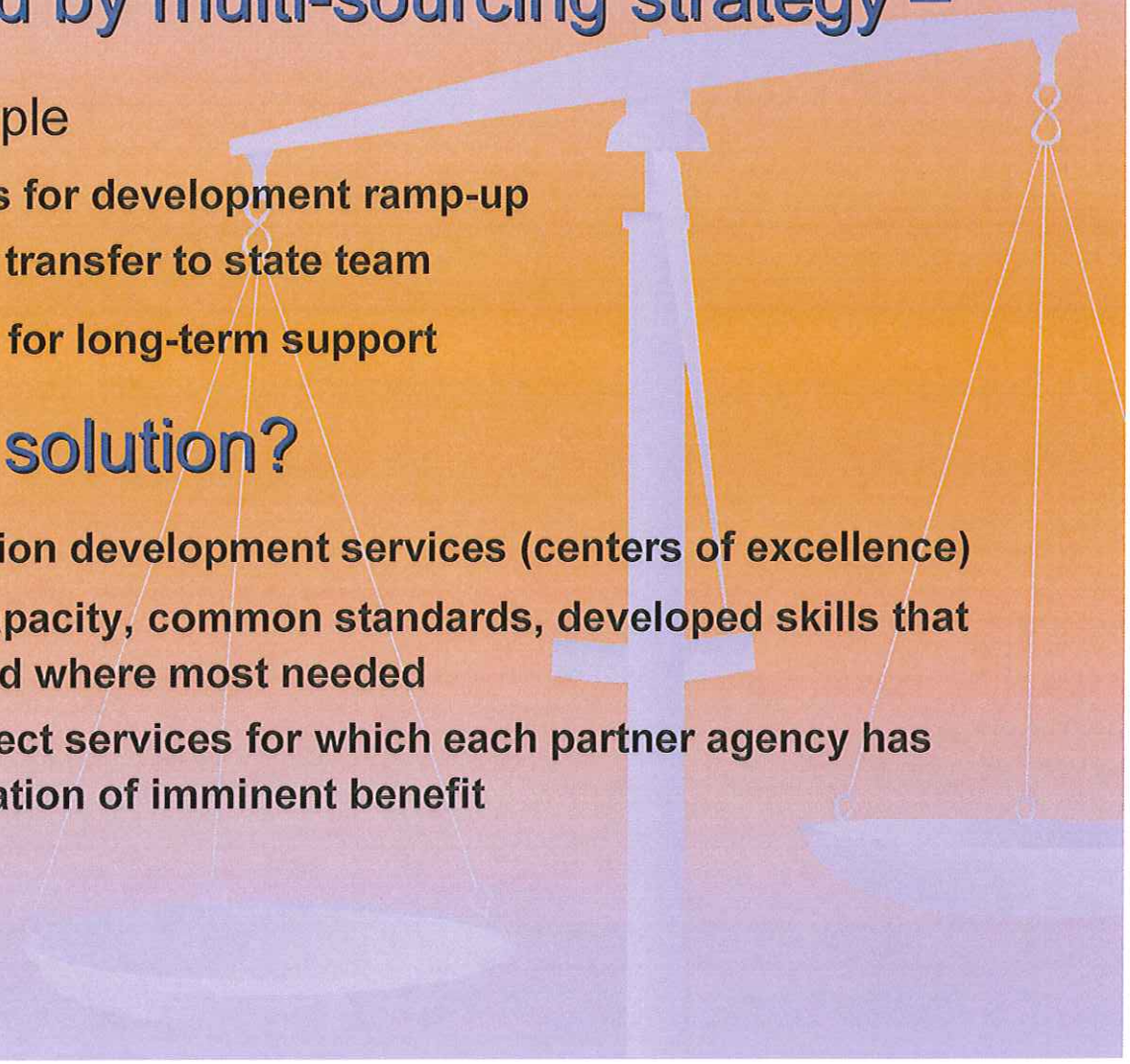
State-Wide IT Staffing Issue

Typically resolved by multi-sourcing strategy –

- OBTS is an example
  - **Hire consultants for development ramp-up**
  - **<u>And</u> knowledge transfer to state team**
  - **Staff state team for long-term support**

Is there a better solution?

- **Shared application development services (centers of excellence)**
- **PRO – builds capacity, common standards, developed skills that can be leveraged where most needed**
- **CON – must select services for which each partner agency has realistic expectation of imminent benefit**

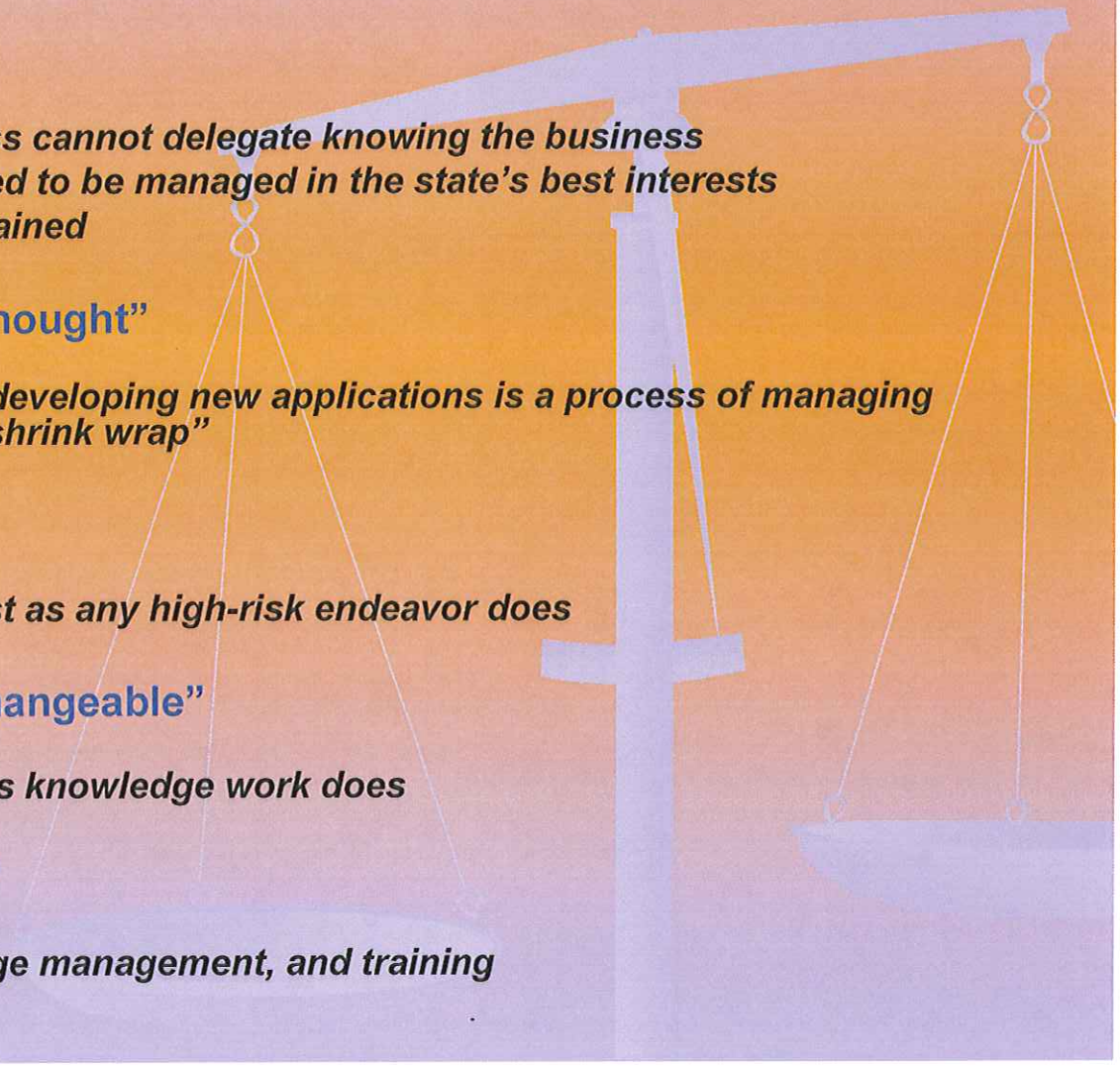


State-Wide IT Staffing Issue

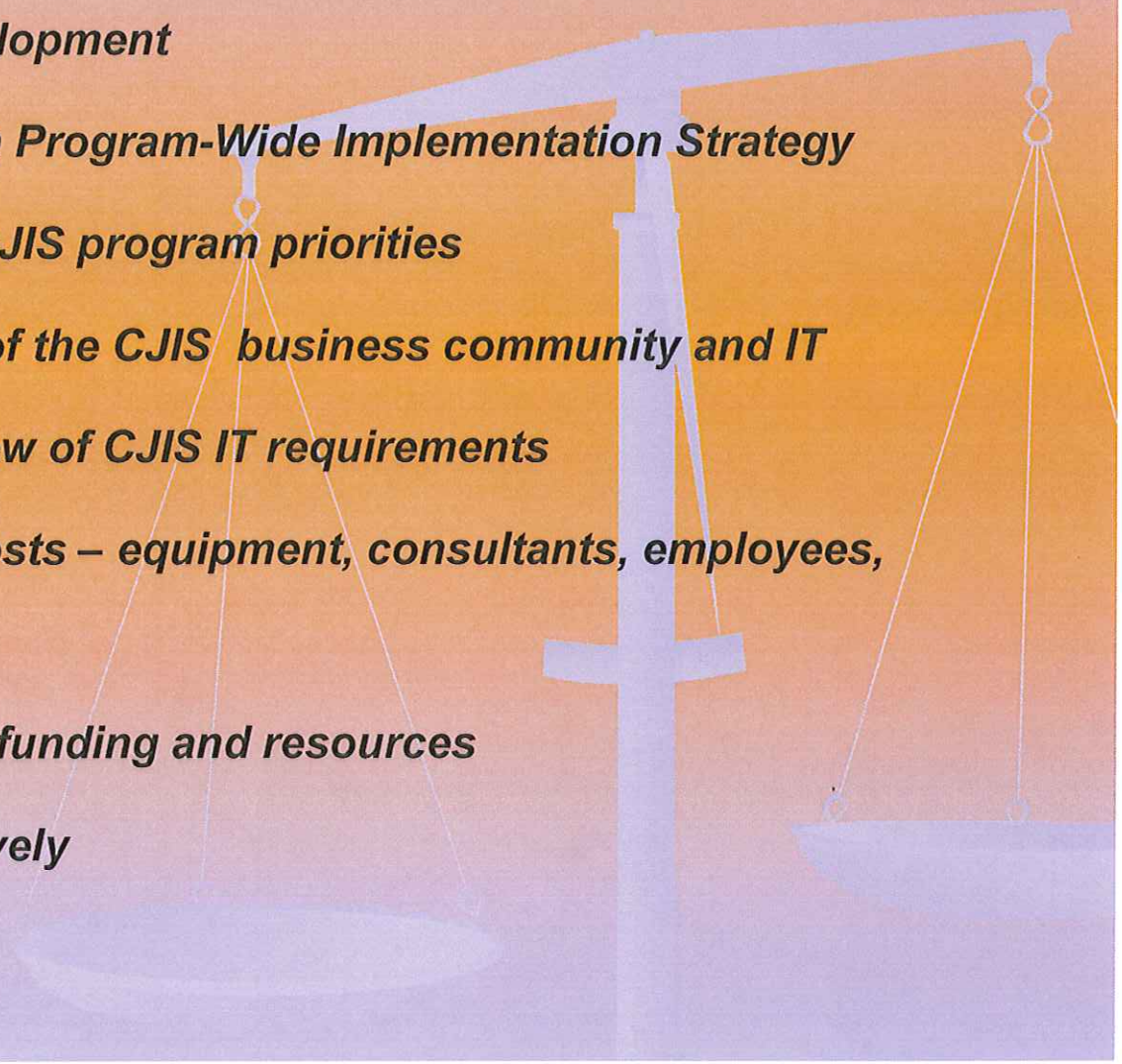
- Recommended CJIS Shared Development Services
- Centers of Excellence for
  - ***Professional Project Management***
  - ***Facilitated Business Requirements***
  - ***Common Development Tools***
  - ***Reusable services***
    - ***Reporting environment***
    - ***"Plug and play" Application Components***
  - ***Testing Support***

IT Myths to Dispel

- "IT costs eventually vanish"
  - *Costs do go down over time, but demand and support complexity go up*
- "IT runs itself"
  - *Those who know the business cannot delegate knowing the business*
  - *Vendors and consultants need to be managed in the state's best interests*
  - *Infrastructure must be maintained*
- "IT happens at the speed of thought"
  - *Introducing technology and developing new applications is a process of managing change and risk; it is not a "shrink wrap"*
- "Anyone can do IT"
  - *IT requires professionals, just as any high-risk endeavor does*
- "Those who do IT are inter-changeable"
  - *IT requires specialists, just as knowledge work does*
- "Build IT and they will come"
  - *Not without marketing, change management, and training*

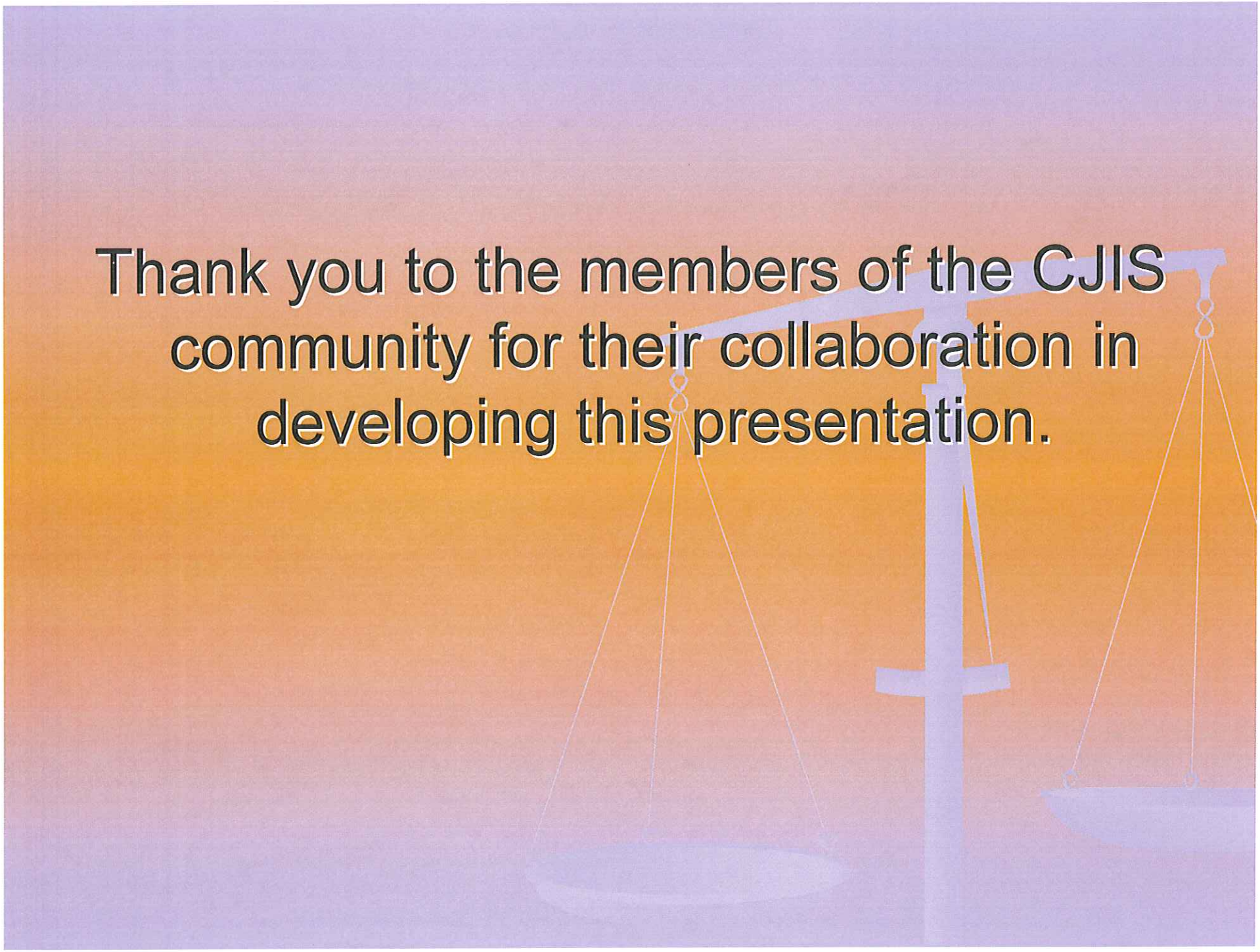


Next Steps
for the CJIS community



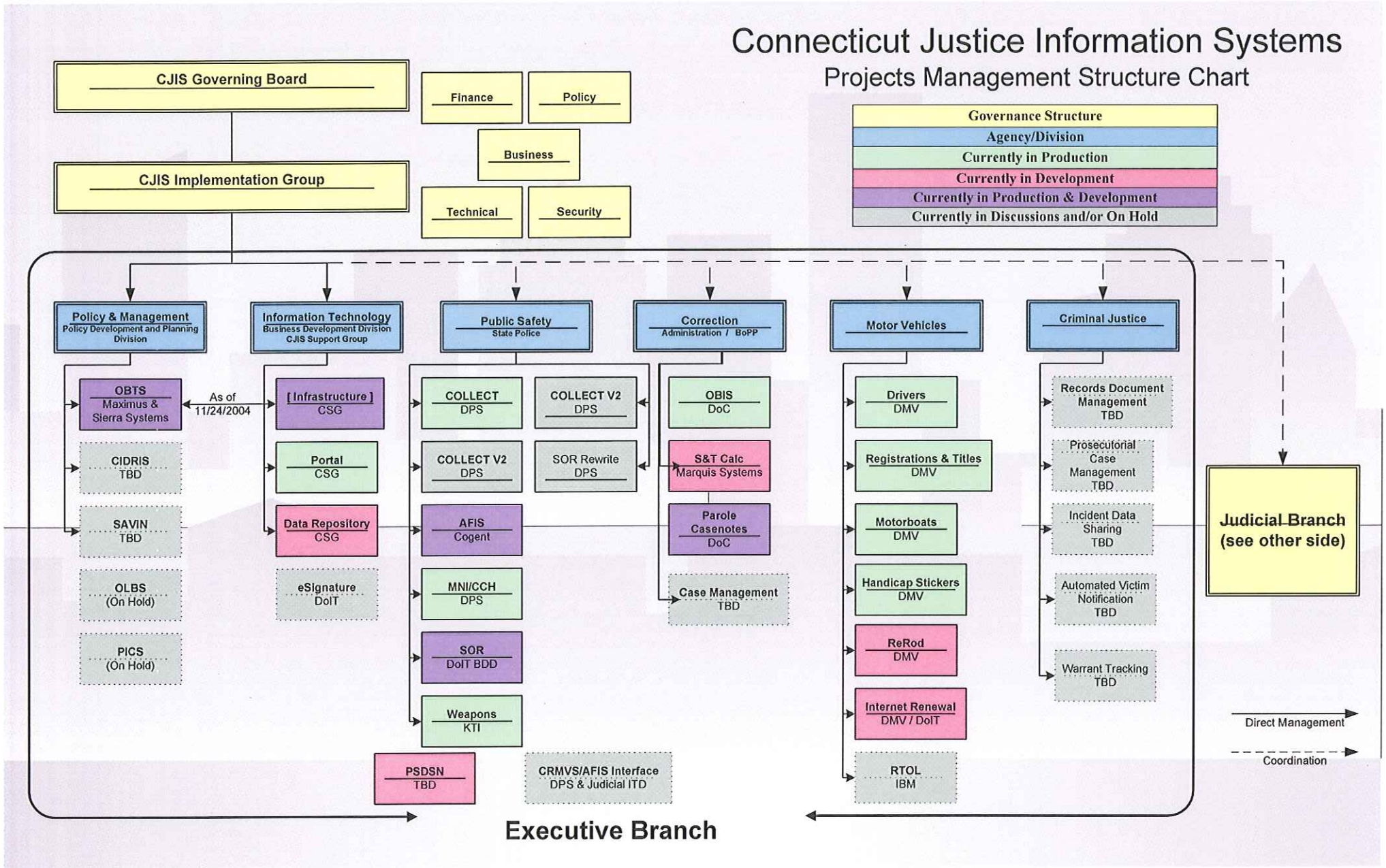
- ***Complete CJIS Vision Development***
- ***Translate CJIS Vision into a Program-Wide Implementation Strategy***
- ***Set and maintain realistic CJIS program priorities***
- ***Fulfill the respective roles of the CJIS business community and IT***
- ***Achieve comprehensive view of CJIS IT requirements***
- ***Determine CJIS program costs – equipment, consultants, employees, training, tools***
- ***Seek and provide requisite funding and resources***
- ***Staff and manage IT effectively***

Thank you to the members of the CJIS community for their collaboration in developing this presentation.



Connecticut Justice Information Systems

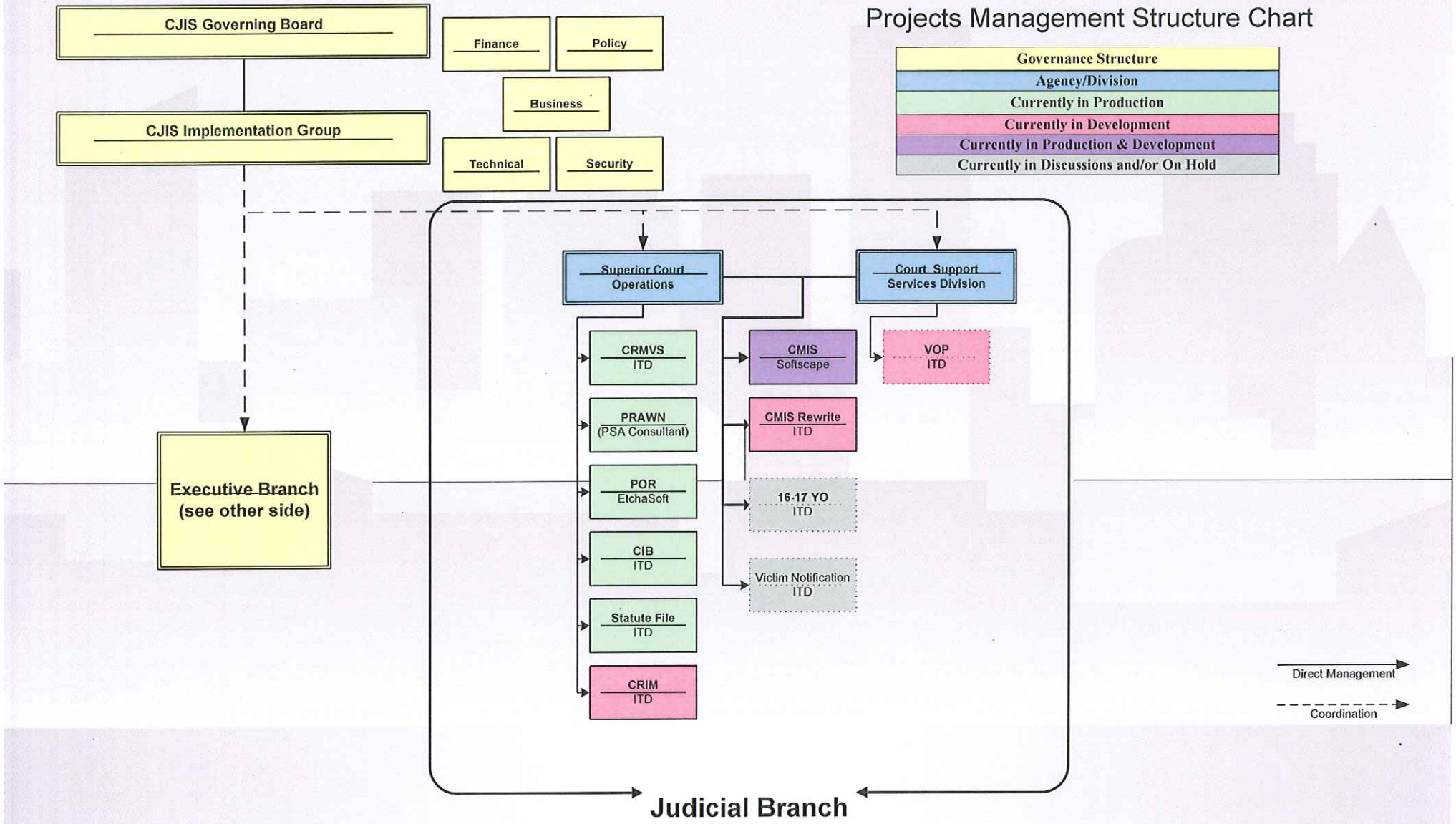
Projects Management Structure Chart



Monday, December 10, 2007

Connecticut Justice Information Systems

Projects Management Structure Chart

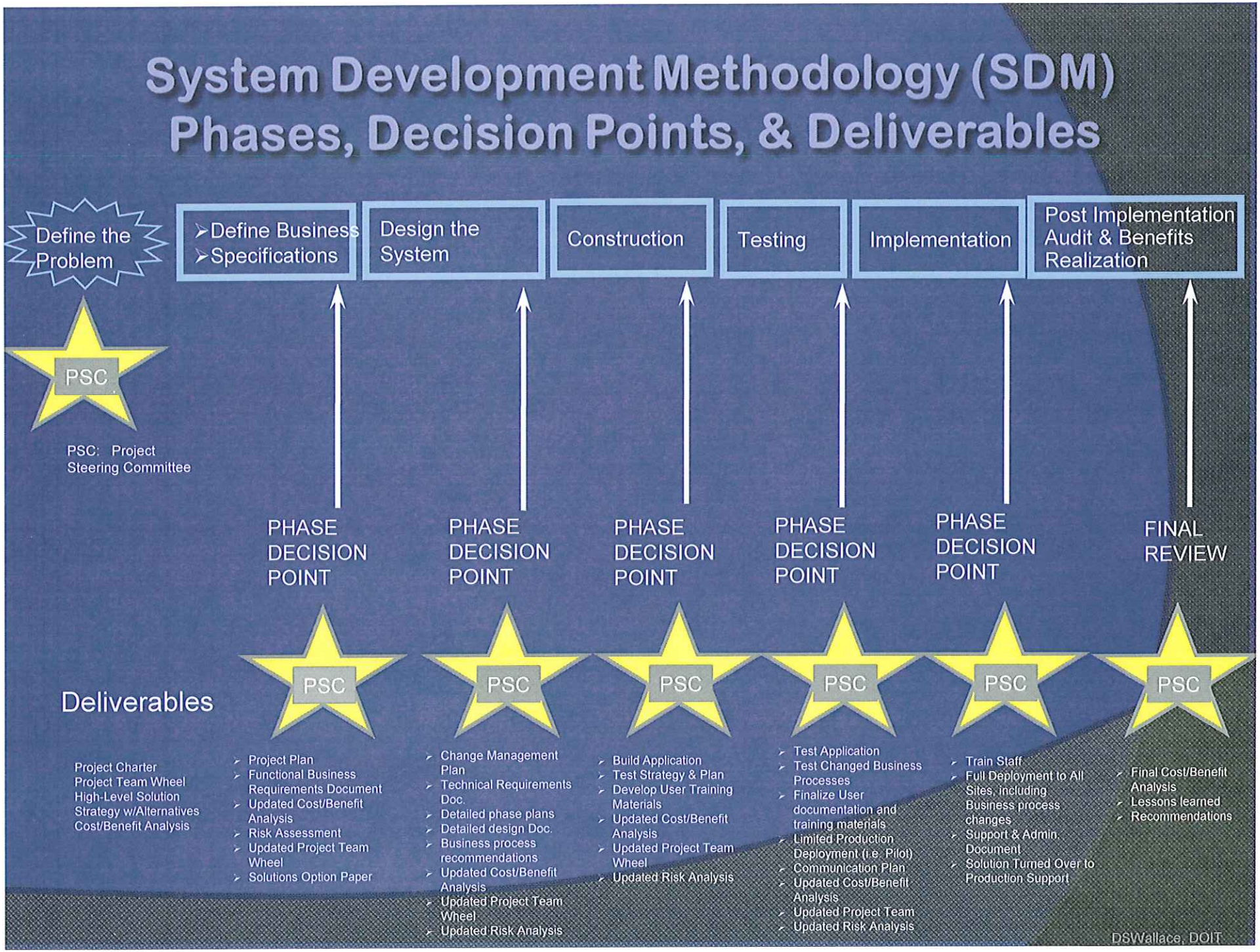


Monday, December 10, 2007

Developing State of Connecticut IT Applications:
Best Practices for a Successful Project:

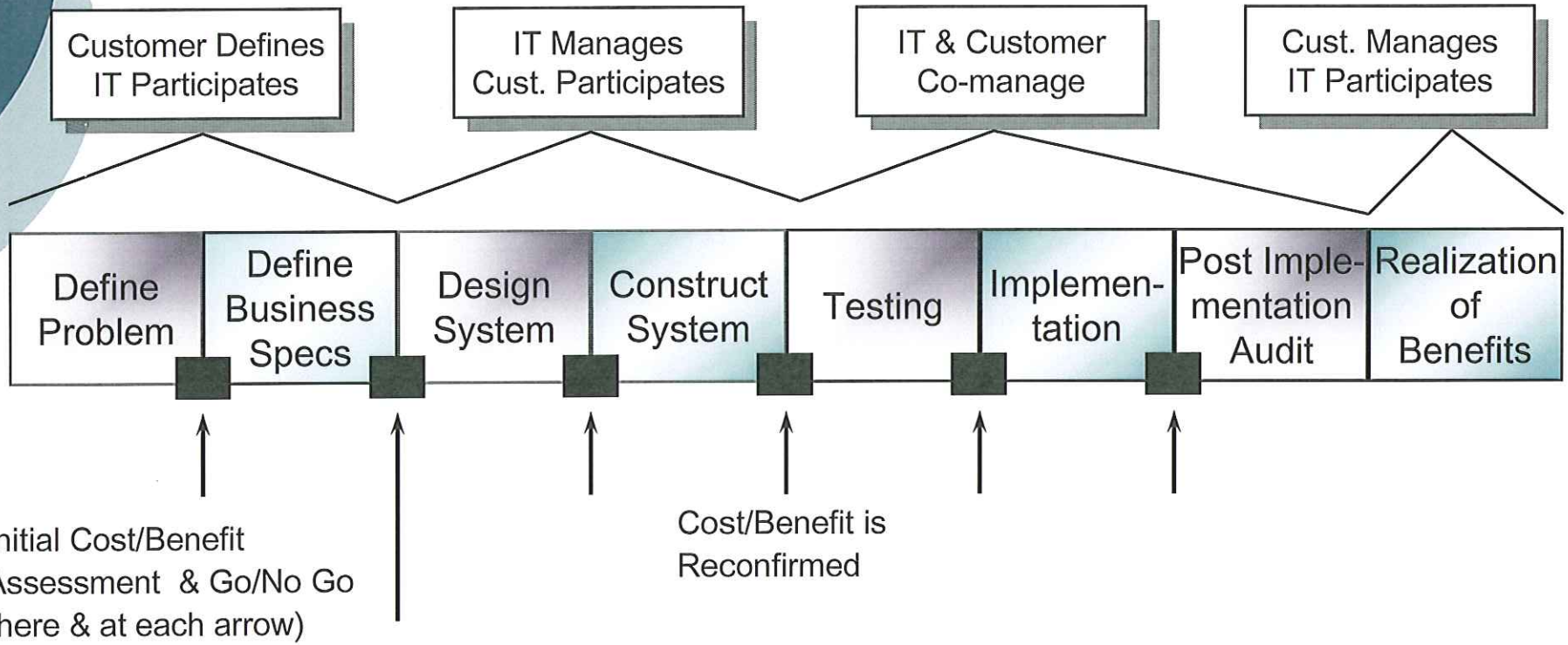
- Business Sponsorship at the Executive level with consistent participation throughout the project
- A well defined project plan that is actively used to manage the project
- Sign-offs at each stage of the system development process
- Explicit documentation to record all decisions
- Governance processes to manage scope creep and change management requests
- It's more important to focus on business process changes than the technology! (Process changes account for 60% of new technology improvements when done properly.)
- Investments in training & communication

System Development Methodology (SDM) Phases, Decision Points, & Deliverables



Proper IT project execution will save time, $ and ensure quality results

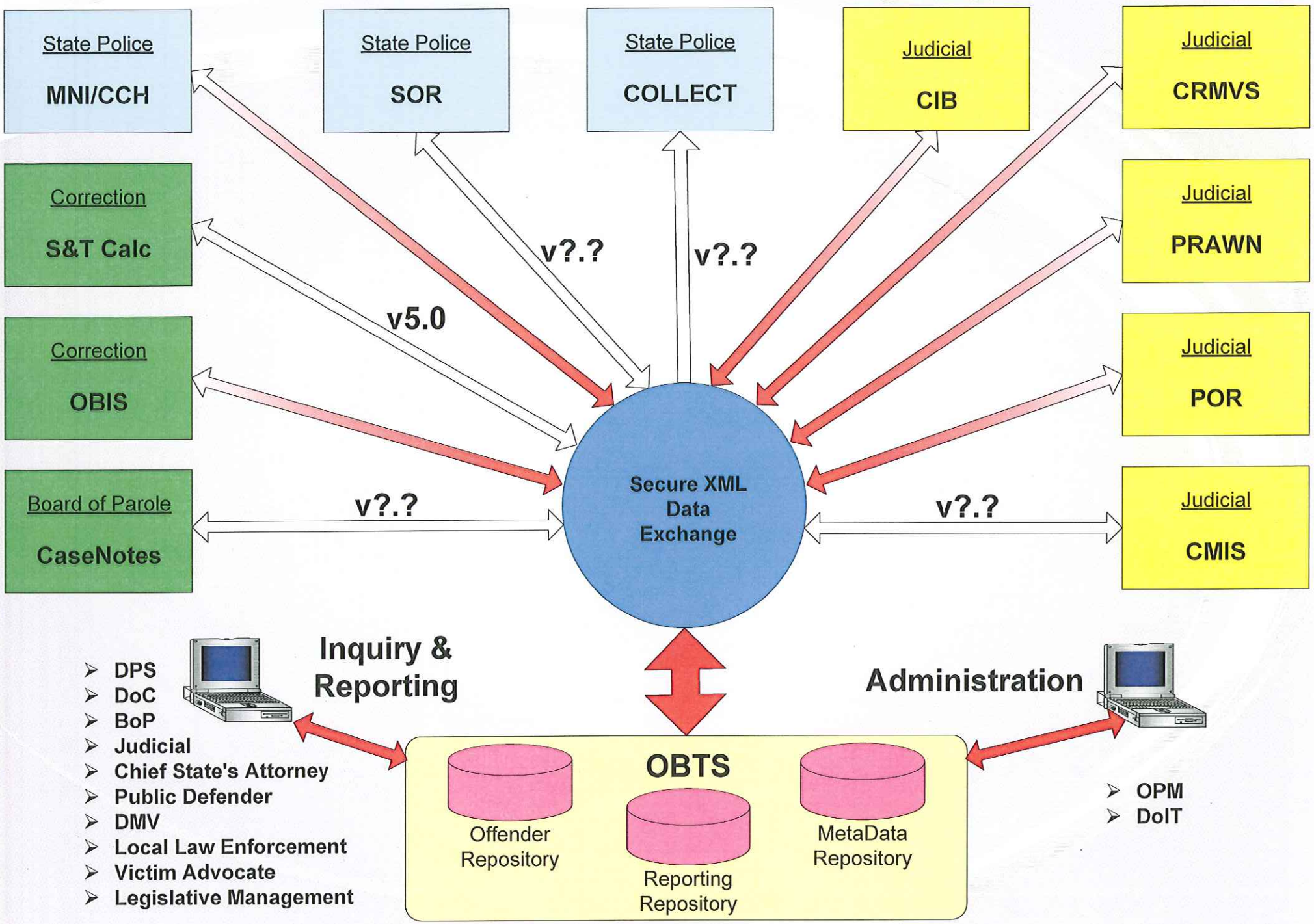
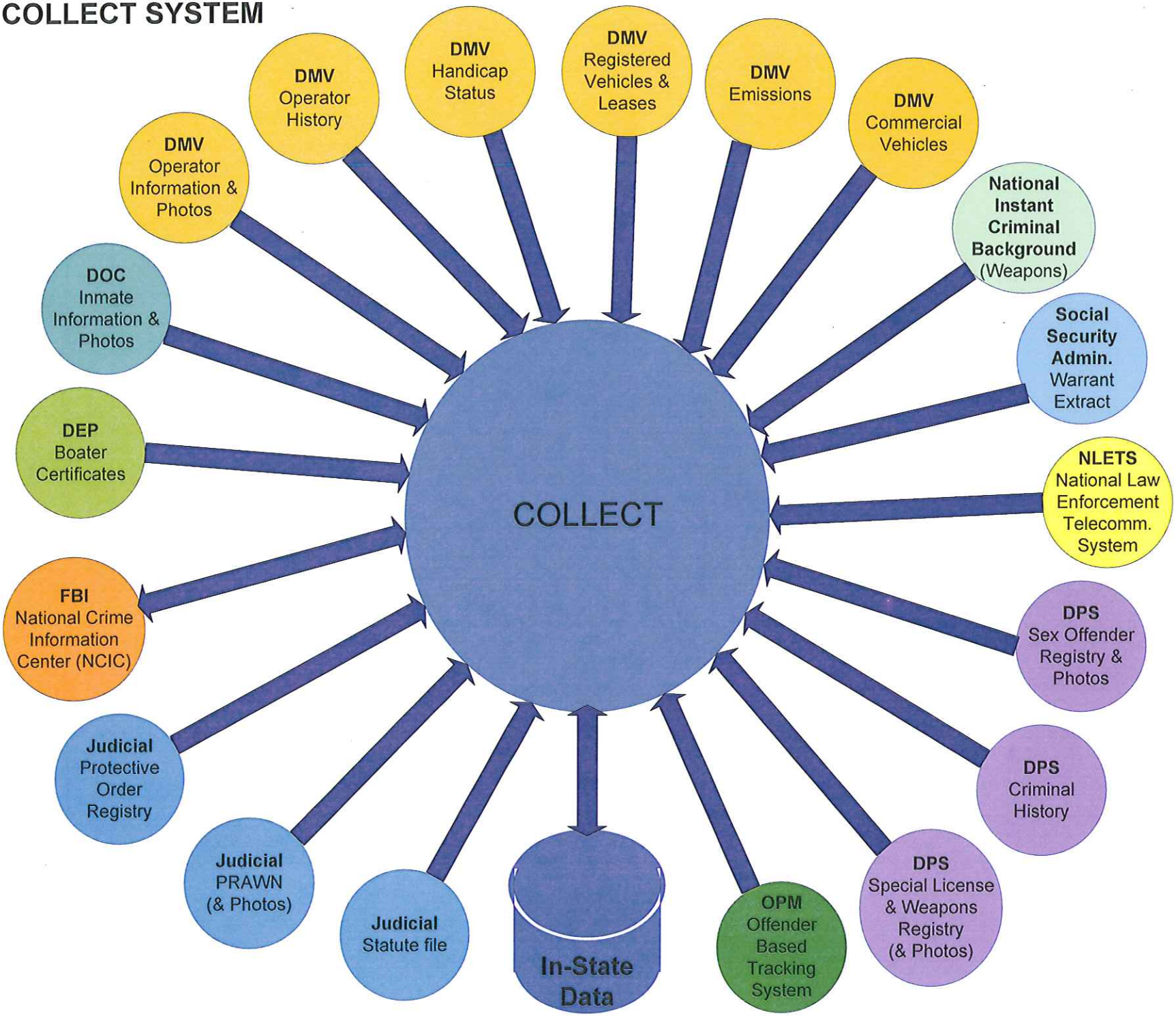
System Development Methodology (SDM) Roles & Responsibilities:



DOIT Owns This Process and Is Responsible For Overall Execution

Diane S. Wallace, CIO

Offender Based Tracking System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