

NHSIA Webinar Series
Overview

Key Concepts
Capability & Business
Viewpoints

Information &
Infrastructure
Viewpoints

**Systems Viewpoint and
Wrap-Up**

National Human Services Interoperability Architecture (NHSIA)

Systems Viewpoint and Webinar Series Wrap-Up

July 2012

ADMINISTRATION FOR
CHILDREN & FAMILIES

JOHNS HOPKINS
UNIVERSITY

Webinars held Thursdays at 1 PM Eastern

#	Webinar Title	Date
1	Overview	May 31
2	Key Concepts	June 14
3	Capability and Business Viewpoints	June 28
4	Information and Infrastructure Viewpoints	July 12
5	Systems Viewpoint & Series Wrap-up	July 26



URL for new ACF Interoperability website:
<http://transition.acf.hhs.gov/about/interoperability>

Webinar Plan

- **Introduction and Welcome by ACF**
- **Systems viewpoint**
 - **To-be architecture reference model layers**
 - **Software applications**
 - **Shared IT services**
 - **Connections and relationships**
- **Webinar series wrap-up**
- **Questions and next steps**

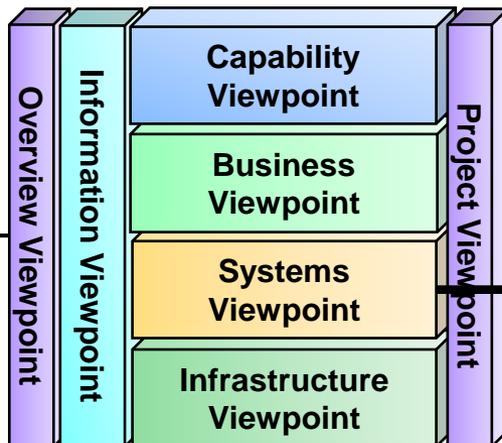
Learning Objective for this Webinar

- Understand the to-be system elements
- Wrap up the webinar series

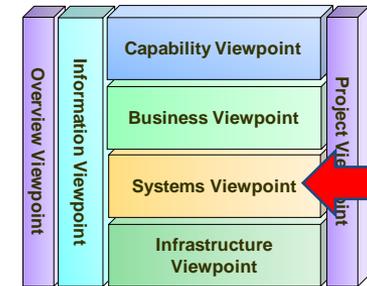
Note: Feel free to enter comments or questions in the Chat window throughout the webinar. At the end we will open the phone lines to take questions.

This webinar focuses on the Systems Viewpoint artifacts.

- **Overview Viewpoint D0.1**
- **As-Is Analysis Report D0.1**
- **White Papers D0.1, D0.2**
 - How the Client and Case Management are Addressed in NHSIA
 - Rules
 - Security
 - Master Person Index Services



- **S-01-SystemsViewpointDescription-D0.2.docx**
- **S-02-Services-D0.2.xlsx**
- **S-03-ApplicationsMappedToBusinessProcesses-D0.2.xlsx**



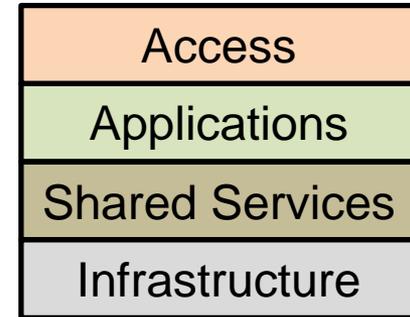
Systems Viewpoint

The Systems Viewpoint describes new and legacy system components in the layers of the to-be architecture.

The Systems Viewpoint Comprises 3 Primary Components

➤ **Systems Reference Model**

Provide a guide for structuring each jurisdiction's architecture around interoperable and reusable elements.



➤ **Model Layer Descriptions**

Explain what is in each layer. Identify several specific examples.

➤ **Connections & Relationships**

Link the services to applications and business activities.

Audience for the Systems Viewpoint

- **Developers of the other NHSIA Viewpoints**
- **State, local, and private provider planners and system architects**
- **Federal Program Managers**

Federal Government

Regional Coalition

State Government

Regional Coalition

Local and Tribal Government

Private

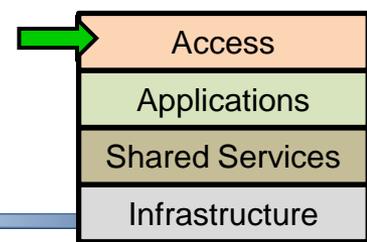


To-be Architecture Reference Model Layers

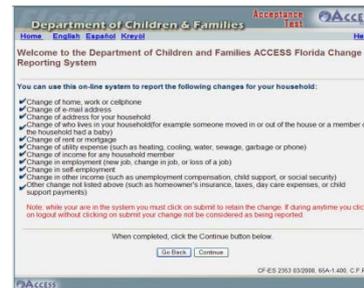
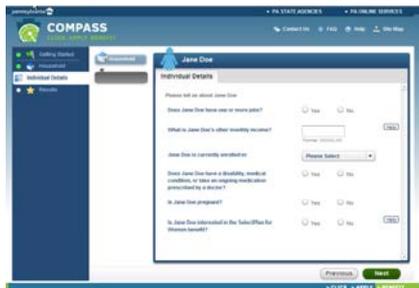
NHSIA Reference Model To-Be Architecture Layers

Access	Presentation layer. How people access human services information.
Applications	High-level software packages that support multiple human services programs.
Shared Services	Functionally-oriented reusable IT services that are unique to human services.
Infrastructure	Services, systems, and data required for interoperability but <u>not</u> unique to human services.

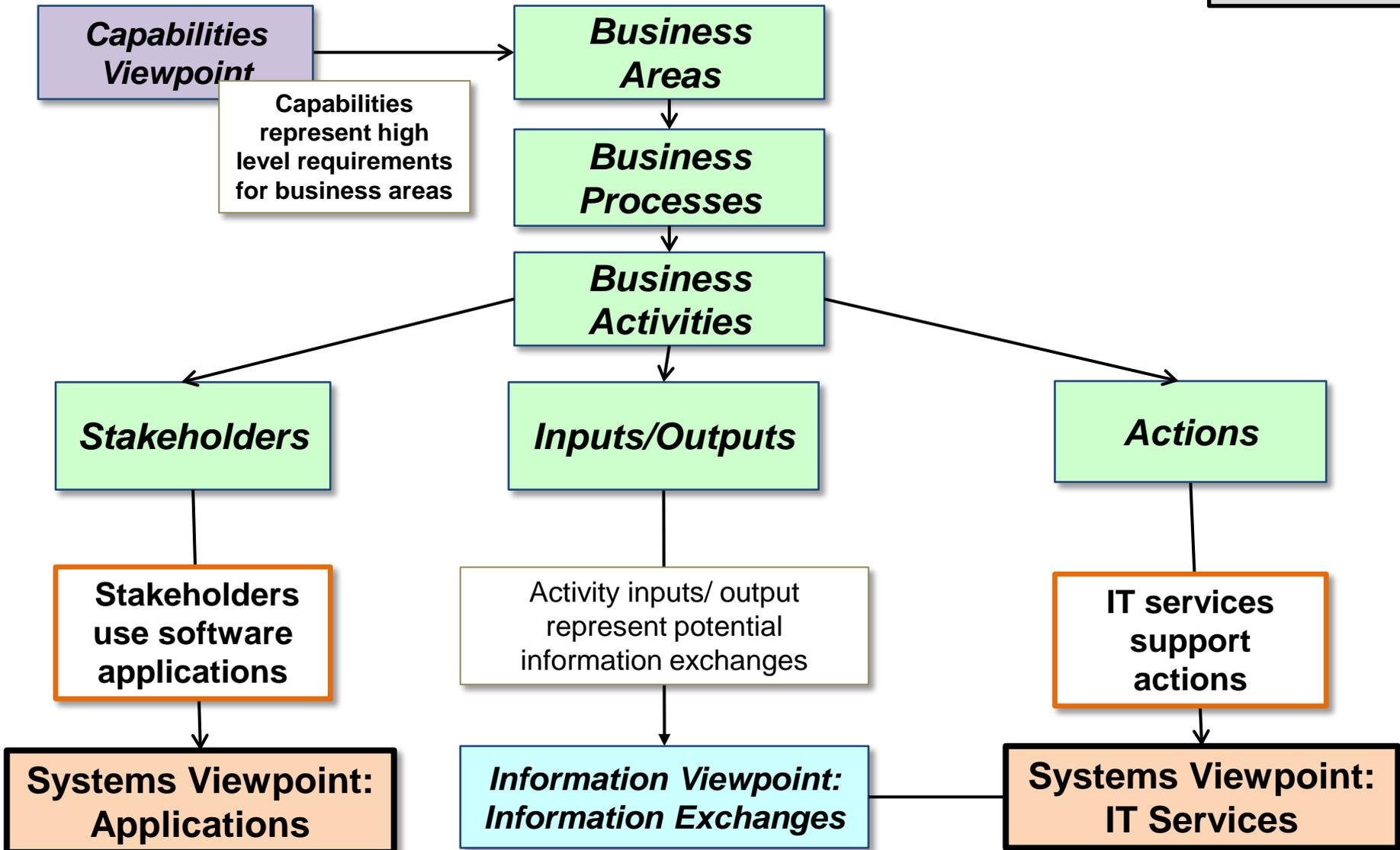
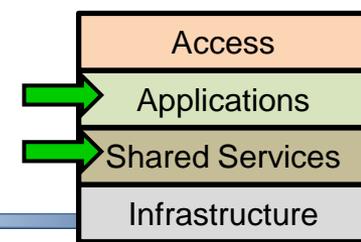
Access Layer Provides Options for Entering the System

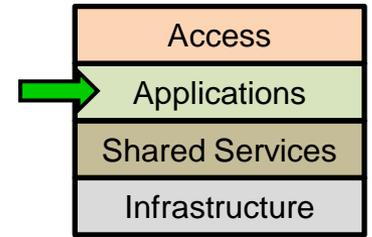


All doorways lead to the same systems



IT Services Support Actions and Stakeholders Use Software Applications

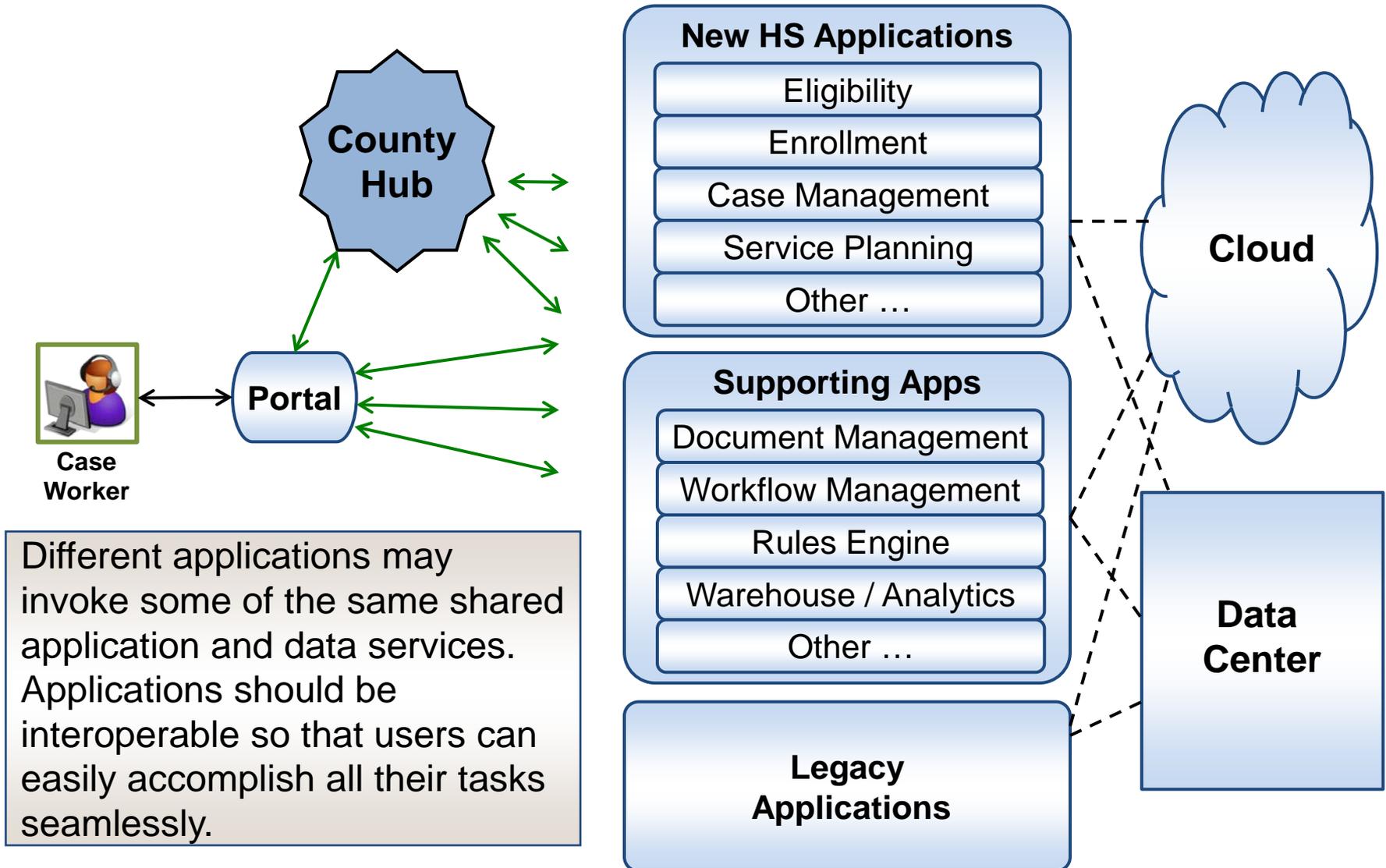




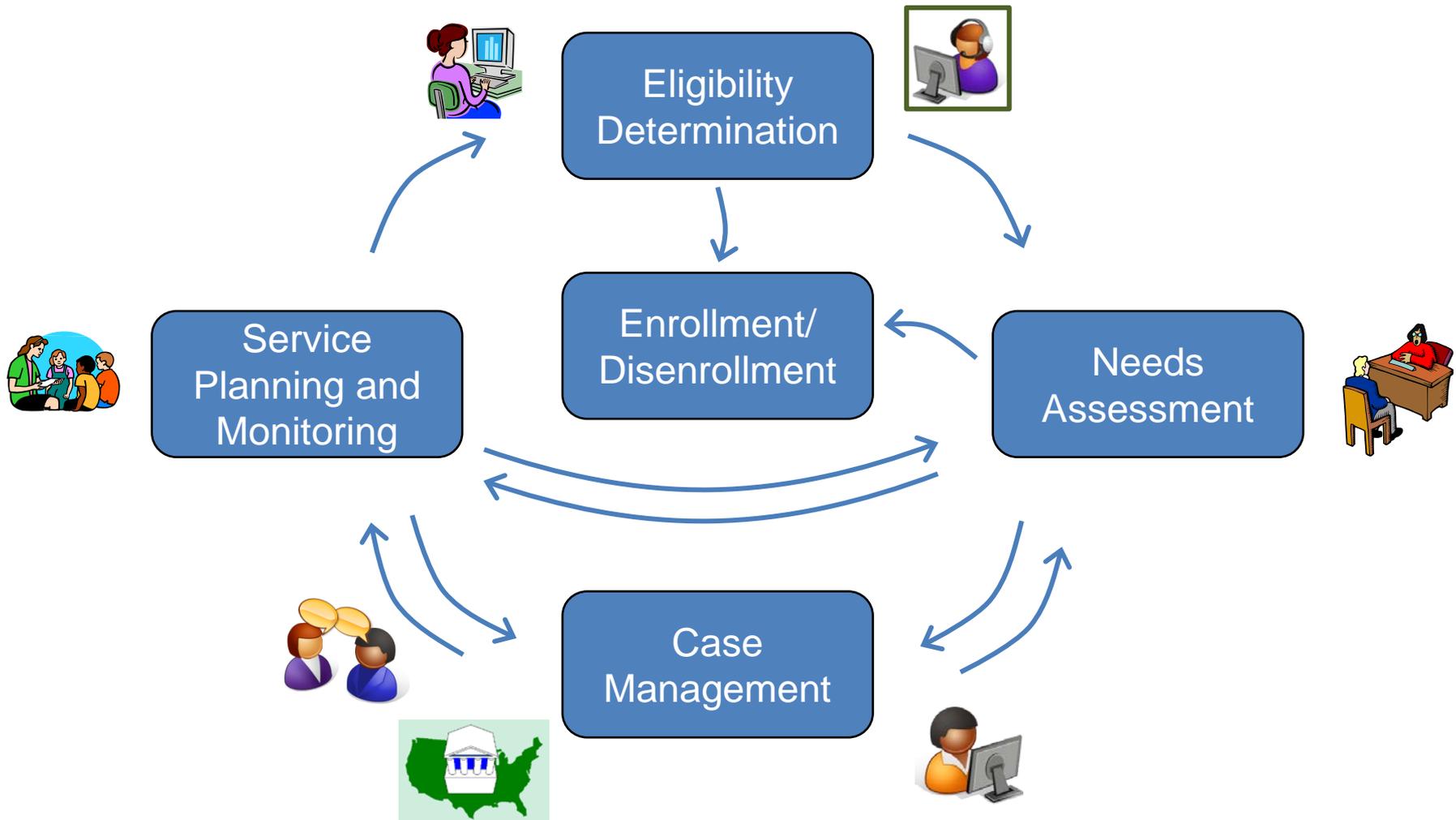
Software Applications

Software Applications

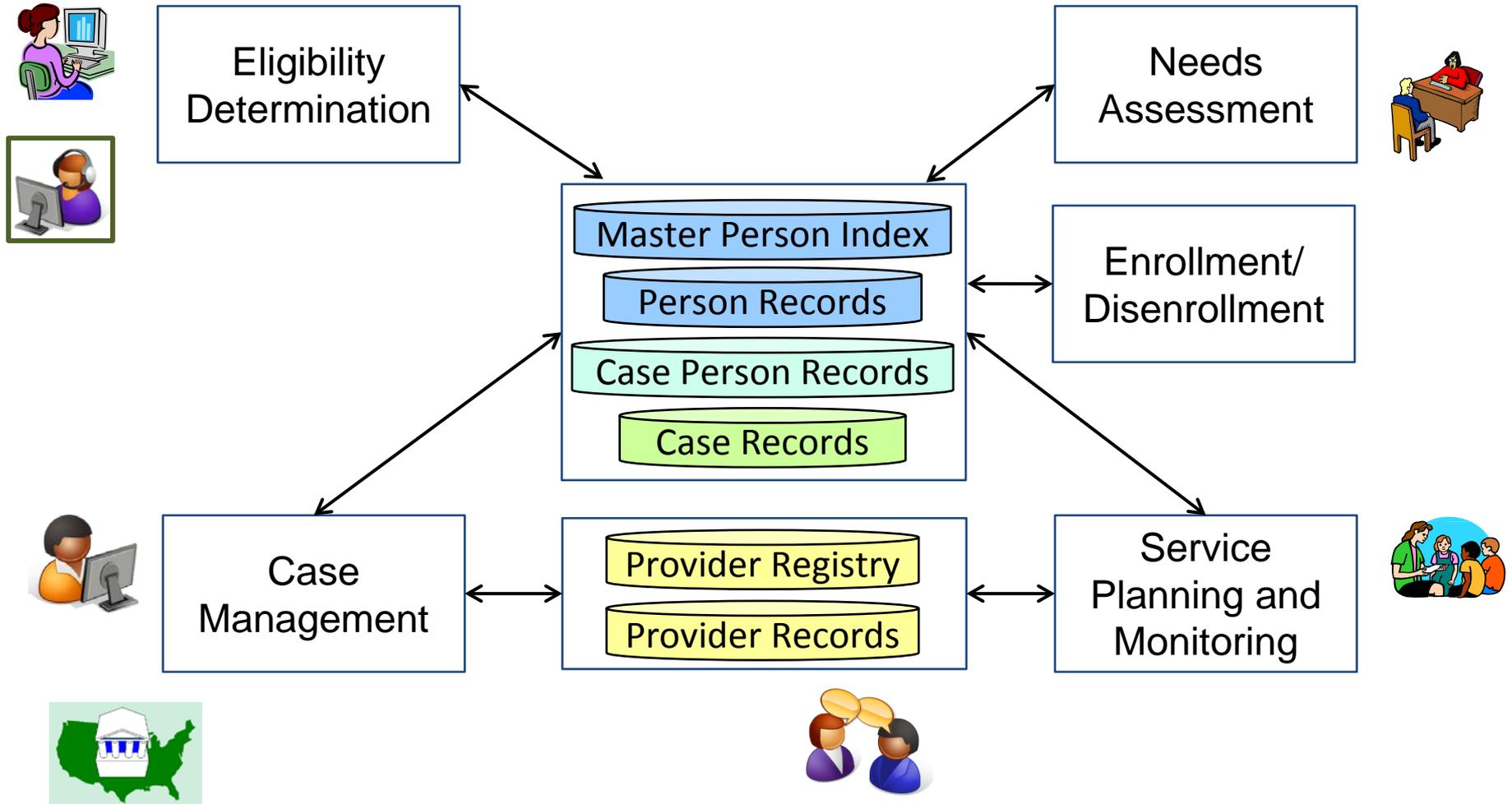
Support Multiple Human Services Programs



Applications Layer Supports the Human Services Cycle for Stakeholders



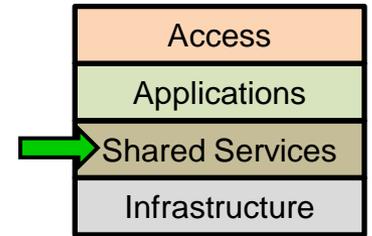
Software Applications Share Information



Systems Viewpoint Describes Notional Interoperable Human Services Software Applications at a High Level

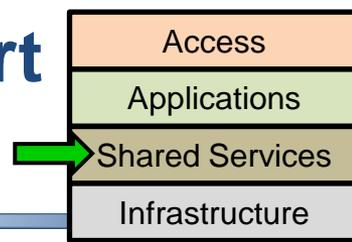
- **Description.** The Enrollment/ Disenrollment application would typically be triggered by either the Eligibility Determination or Needs Assessment applications. The Enrollment/ Disenrollment application checks for potential fraud before enrolling the client in a program. This application completes the enrollment or disenrollment process, notifies stakeholders, and updates program-related data for reporting purposes.
- **Domain Applicability.** Anywhere “enrollment” applies.
- **Stakeholder Applicability.** Used by workers to support enrollment programs
- **Major Functions**
 - Check the client against lists of already-enrolled clients
 - Check the client against lists of disqualified clients
 - Confirm eligibility status
 - If client is to be disqualified from future enrollment, update a “disqualified” list
 - Enroll or disenroll client and update the appropriate enrollment status
 - Update client records
 - Update program records

Example



Shared IT Services

Reusable, Shared IT Services Will Support Interoperable Applications



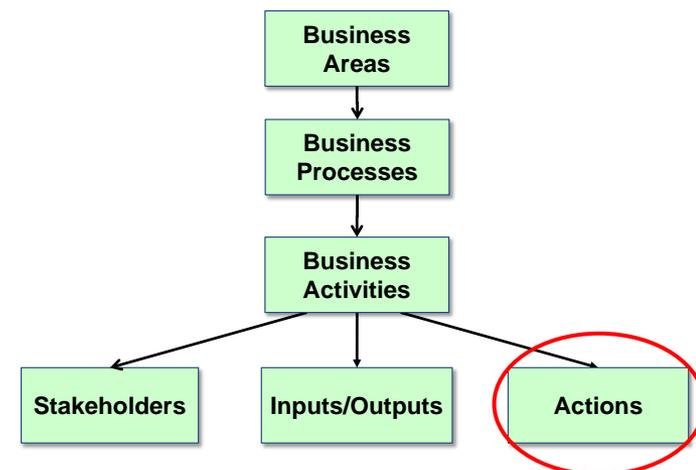
Interoperable Applications

- **Integrated Eligibility**
- **Case Management**
- ...
- **Document Management**
- **Warehouse/Analytics**
- ...



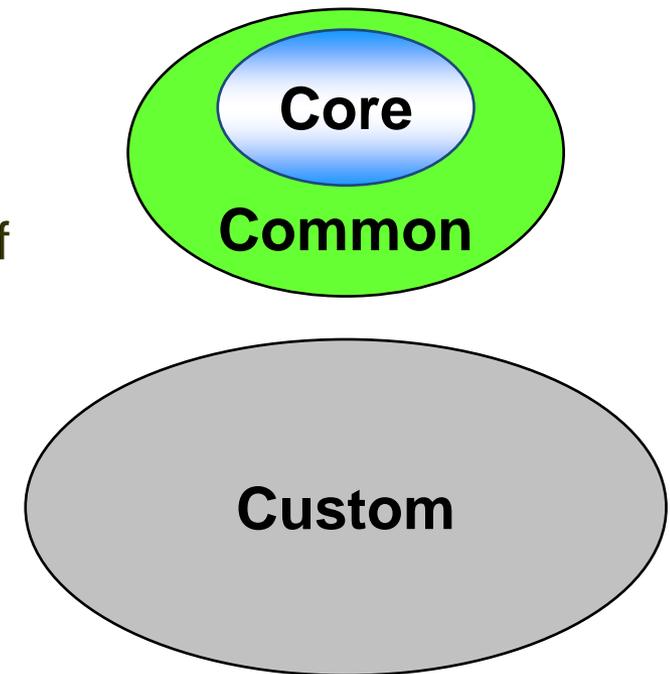
Shared IT Services Align with Business “Actions”

- **Services are grouped according to the action terms from the business model. For example:**
 - **Business action: Enter**
 - **Term definition: Insert client, provider, case information into physical or electronic record.**
 - **The “Enter” services allow people to update information in existing records. The assumption is that a record was created via one of the “Initiate” services. The “Enter” services should be used in concert with the “Verify” services to ensure data quality.**
 - Update Person Information
 - Register Person Data
 - Update Person Identifying Information
 - Update Provider Information
 - Update Case
 - ...

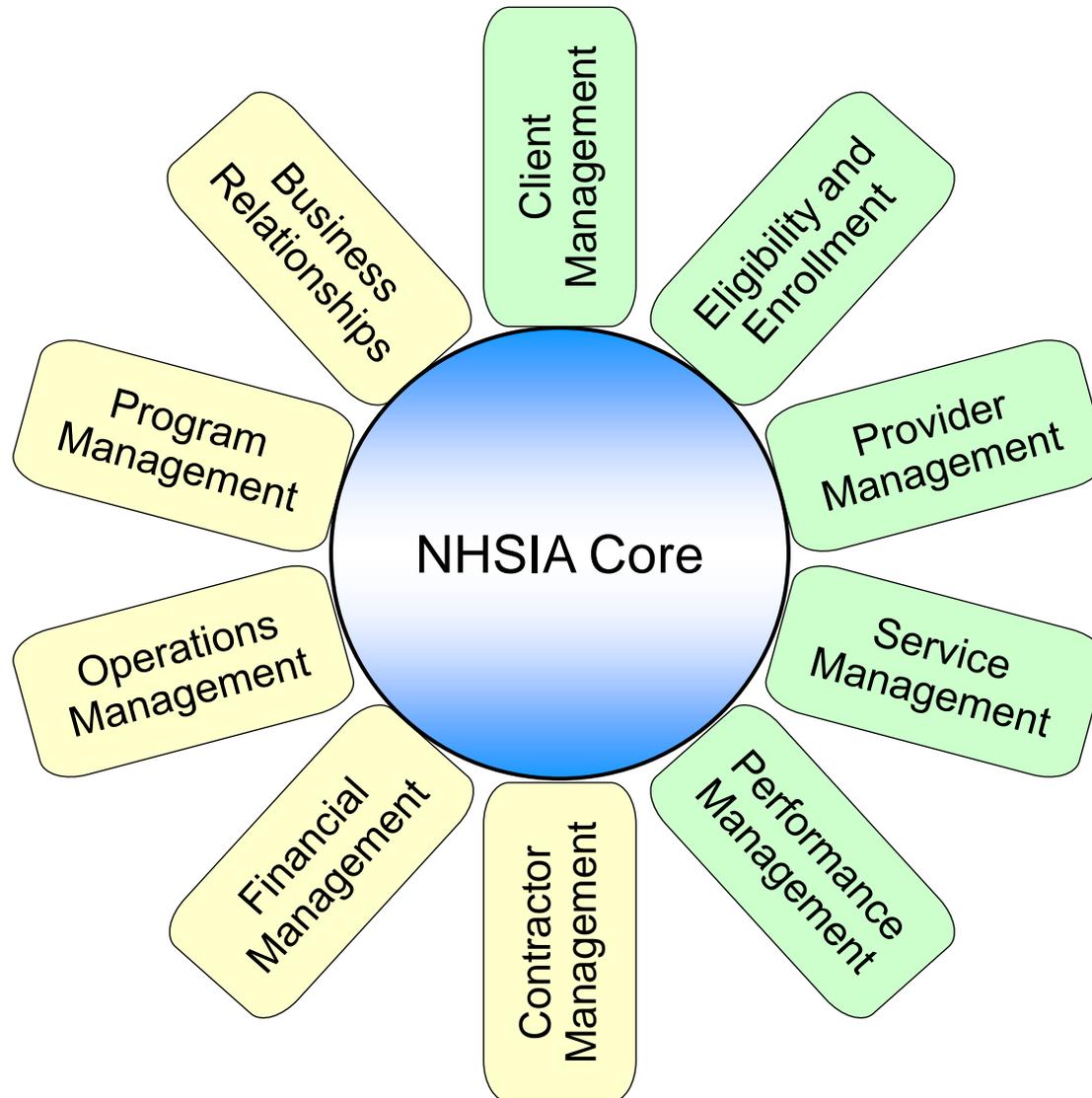


Services Classified as Common, Core, or Custom

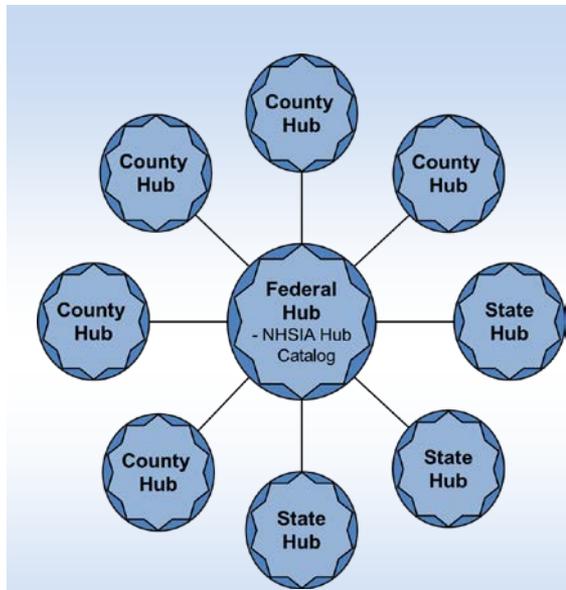
- **Common IT services** support cross-jurisdiction information sharing and/or cross-program or agency information-sharing
- **Core IT services** are a foundational subset of the common IT services that enable a basic level of interoperability.
- **Custom IT services** are the other services that jurisdictions will implement to support their own human services operations.



Core Capabilities Support All the Business Areas



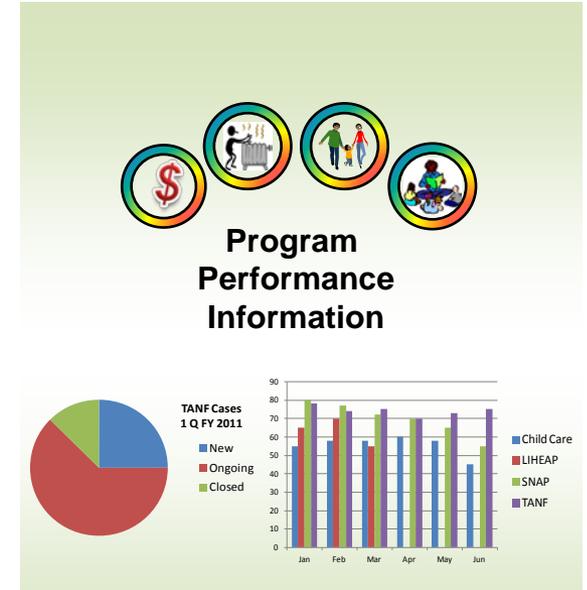
NHSIA Core IT Components



Hubs



Core IT Services



Repositories

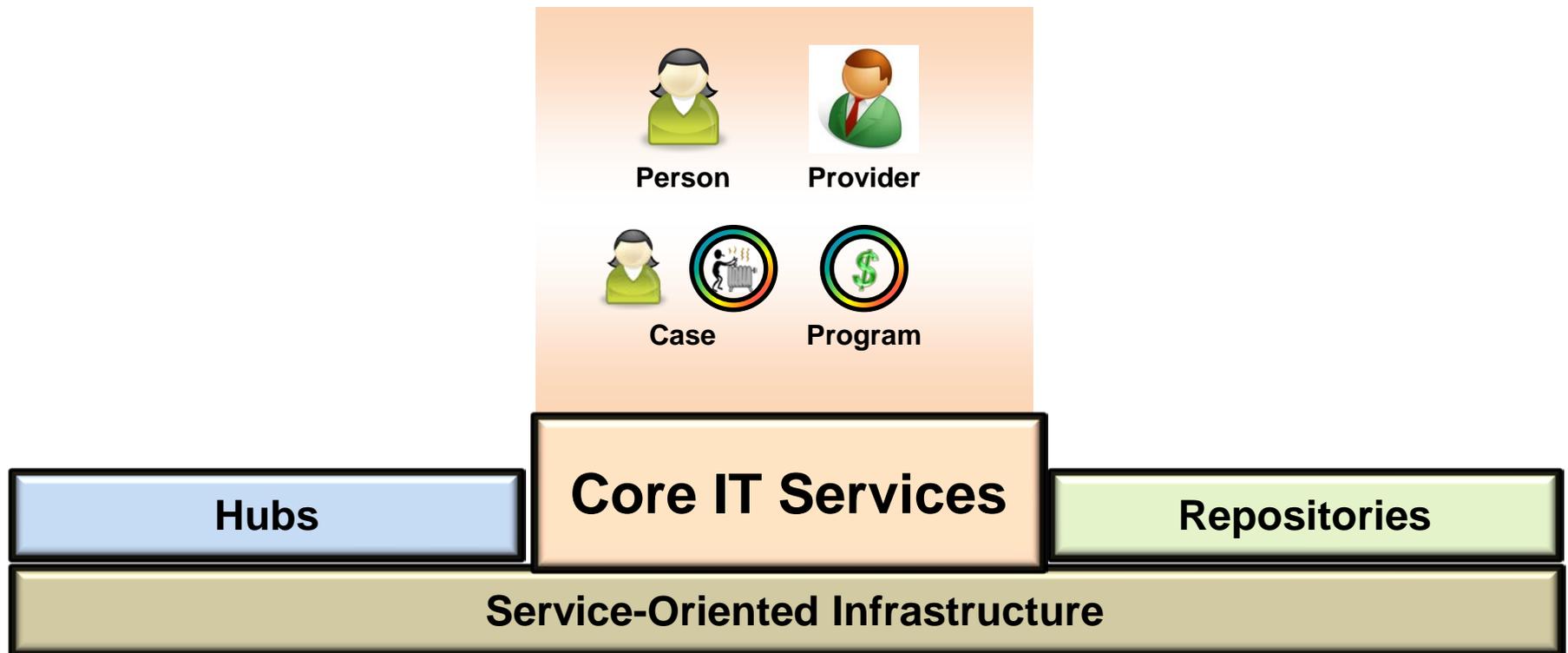
Service-Oriented Infrastructure

Establishing the NHSIA core enables subsequent incremental improvements in human services systems

NHSIA Core IT Services Provide a Solid Foundation for Better Programs and Integrated Human Services

The Core IT services can be used to ...

- Find and access basic information about key entities
- Verify information against authoritative sources
- Collect performance information



Connections and Relationships

Software Applications Are Mapped To Business Processes (partial)

ID	Process Name	Eligibility Determination	Enrollment/Disenrollment	Needs Assessment	Case Management	Service Planning and Coordination	Document Management
Client Management (CM)							
Client Information Management							
CM1	Establish Shared Client Information	P	X	X	X		
CM2	Manage Shared Client Information	X	X	X	X	X	X
CM3	Establish Agency Client Information						
CM4	Manage Agency Client Information						
CM5	Find Client Information	X	X	X	X	X	X
Client Support							
CM6	Manage Client Communications				P	P	
CM7	Perform Population and Client Outreach						

Service Matrix Spreadsheet Provides Details

Service Matrix

- Names the service
- Identifies the core information exchange that supports the service
- Maps each service to one or more business activities
- Maps each service to one or more software applications
- Describes the service
- Classifies the service (common, core, custom)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Service Designator	Action (from Business Model)	Service Name part 1: Service Function	Service Name part 2: Object of service	Standard Information Exchange	Business Activity: CM (Client Mgt)	Business Activity: SM (Service Mgt)	Business Activity: EE (Eligibility & Enrollment)	E	E	N	C	S	D	Description	Federal	Classification (Common, Core, Custom)
1	CS-MPI-006	Enter	Update	Person Identifying Information	CI-MPI-001	CM2a, CM2b	SM2b; SM4a	EE5a; EE2a; EE3a	X	X	X	X	X	X	Update an existing MPI entry to modify or add to the information that identifies the person (e.g., name or address).		Core
33	CS-PROVREG-006	Enter	Update	Provider Information	CI-PROVREG-001										Update an existing provider registry entry to modify or add to the information about the provider (e.g., facility or affiliation).		Core
34		Enter	Update	Case			SM1b; SM2b; SM5a, SM5b; SM5c, SM5d; SM8d	EE5a, EE1b; EE1c, EE1d; EE2a, EE2b; EE3a, EE3b	X	X	X	X	X	X	Update the record for a particular case to reflect initial or revised information. "Case information" may include any or all of the categories of information stored in the record (simply labeled as "case entry" for now).		Common
35																	

Summary

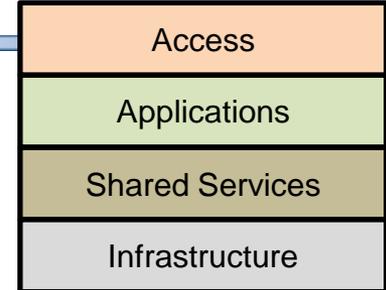
Systems Viewpoint Summary

➤ 4-layer Systems Reference Model

- **Access layer** provides a variety of options to enter the systems.
- **Interoperable software applications** support multiple human services programs
- **Reusable shared IT services** can support multiple interoperable applications within a jurisdiction. (~ 100 candidate services proposed)
 - **Core services** lay the foundation for **sharing information** among to authorized users.

➤ Connections & Relationships

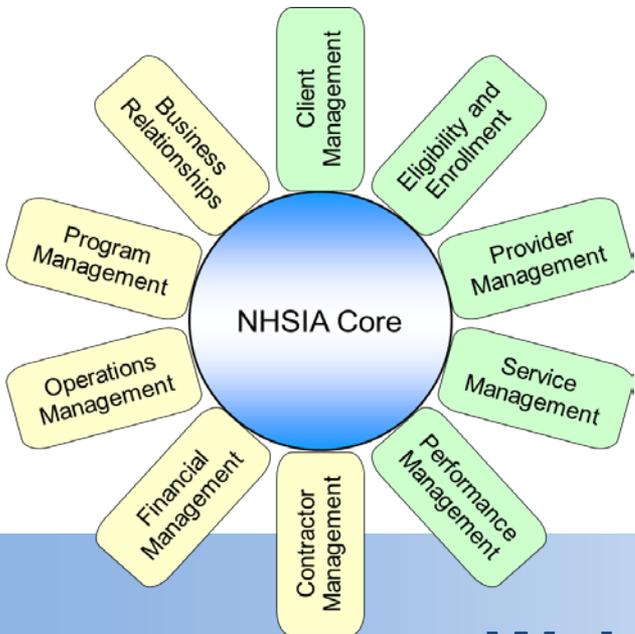
- Software applications are mapped to business processes.
- The Service Matrix provides additional details about candidate IT services and links each one to the business model's activities and to notional software applications.



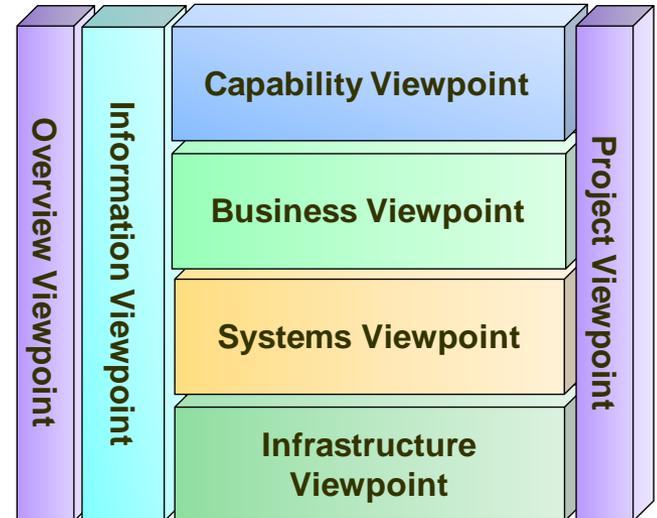
NHSIA Documents Related To This Webinar

- **Systems Viewpoint Description**
- **Spreadsheets:**
 - **Services Matrix**
 - **Applications Mapped to Business Processes**
- **White Papers:**
 - **Client Management and Case Management**
 - **Rules**
 - **Security**
 - **Master Person Index Services**

These documents will be available on the ACF Interoperability website:
<http://transition.acf.hhs.gov/about/interoperability>

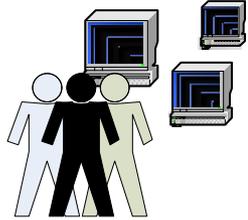


Webinar Series Wrap-up



NHSIA Concept

People and systems

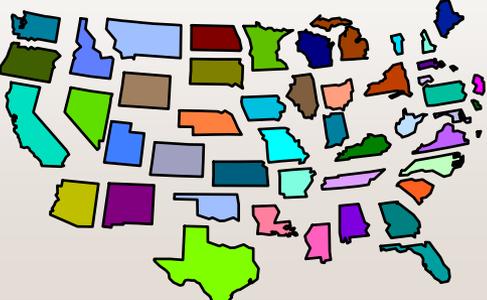
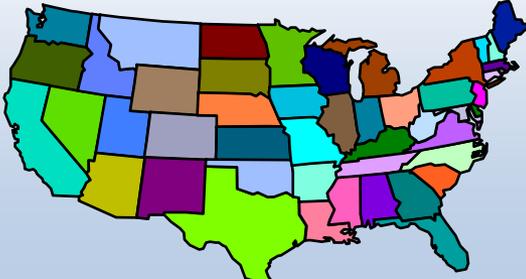


Use interoperable technologies and standards

To collect and share information and take action



NHSIA Provides a *Framework* and *Roadmap* To Achieve Common Goals

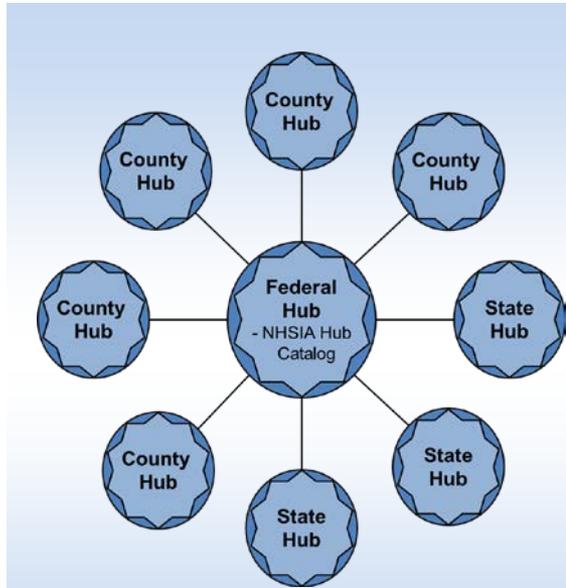
As-Is	 NHSIA	To-Be  Results	NHSIA Goals
<ul style="list-style-type: none"> • Unique business processes 	<ul style="list-style-type: none"> • Common business processes 	<ul style="list-style-type: none"> • Improved processes 	
<ul style="list-style-type: none"> • Fragmented information 	<ul style="list-style-type: none"> • Standard information exchanges (NIEM) 	<ul style="list-style-type: none"> • Accessible information 	
<ul style="list-style-type: none"> • Duplicate systems, infrastructure, & development 	<ul style="list-style-type: none"> • Shared information technology (IT) services & infrastructure 	<ul style="list-style-type: none"> • Improved efficiency and effectiveness 	
<ul style="list-style-type: none"> • Limited performance information 	<ul style="list-style-type: none"> • Comprehensive performance management 	<ul style="list-style-type: none"> • Fraud detection and prevention • Improved decisions • Better outcomes 	
			

Summary of NHSIA Features

- **NHSIA is a community architecture to enable sharing:**
 - **Business processes**
 - **Information**
 - **Applications & IT services**
 - **Infrastructure**
- **NHSIA builds on prior efforts**
 - **MITA, NIEM, GRA, GFIPM**
 - **Thought-leading implementations**
- **Comprehensive approach to performance management**
- **Service-oriented architecture**
- **Identity management and attribute-based access control**
- **Core services for finding and accessing information about clients, cases, providers, and programs**
- **Function-oriented applications vs. program-oriented (e.g., integrated eligibility)**
- **Shared supporting applications (e.g., document management)**
- **Can be implemented incrementally**

Improved information supports improved decision making at all levels.

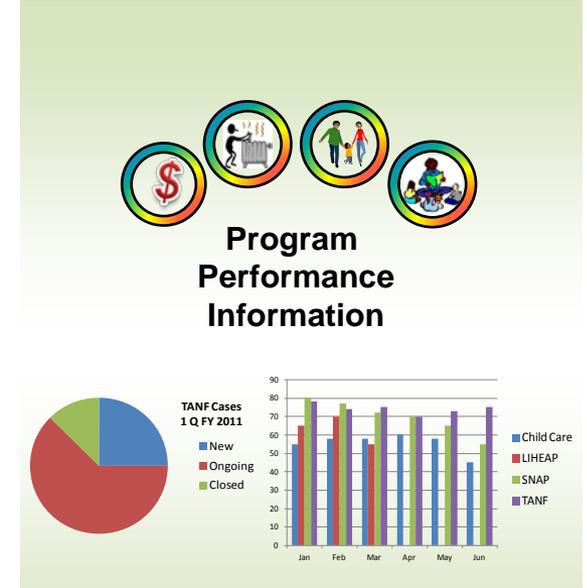
NHSIA Core IT Components



Hubs



Core IT Services

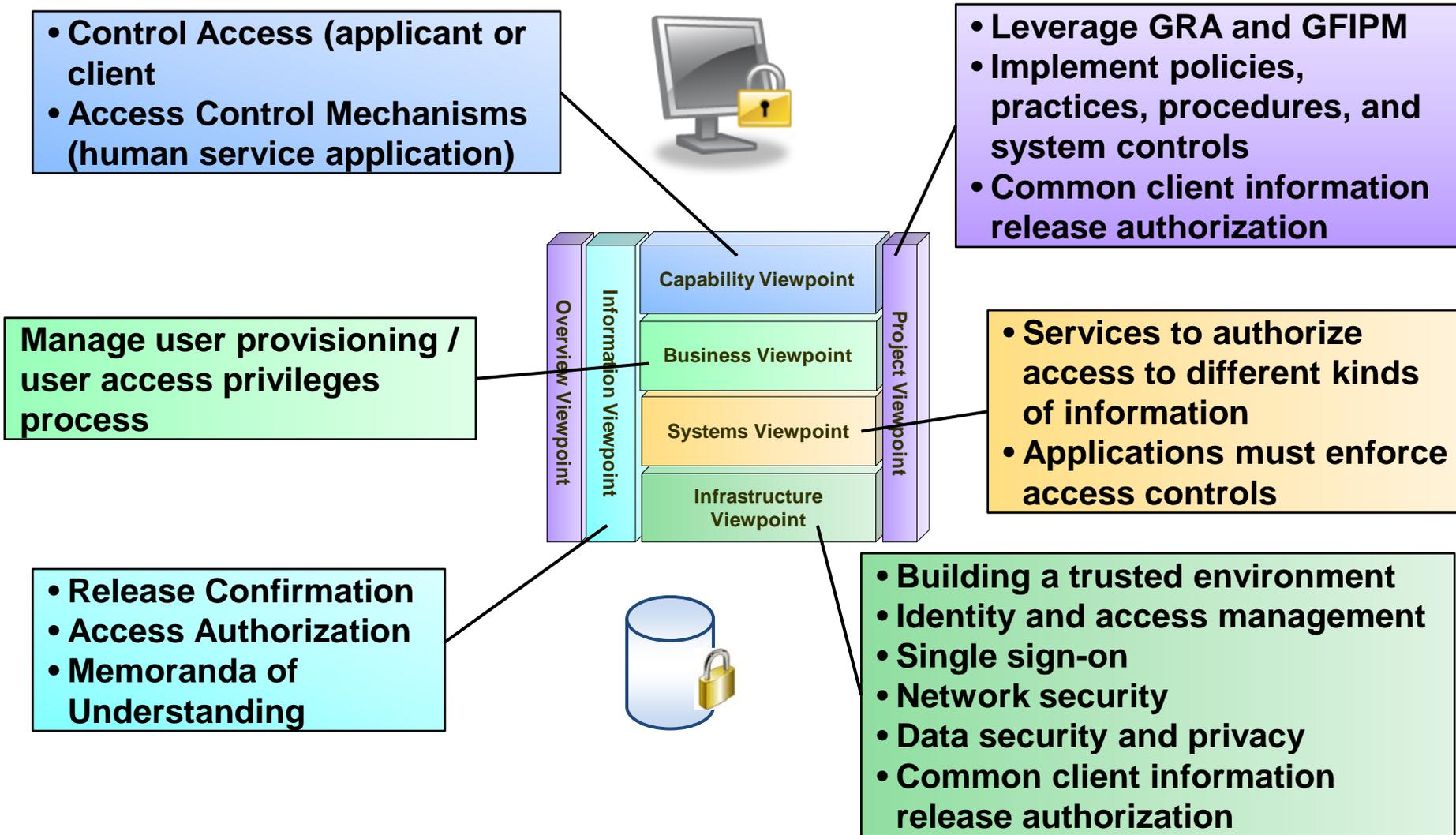


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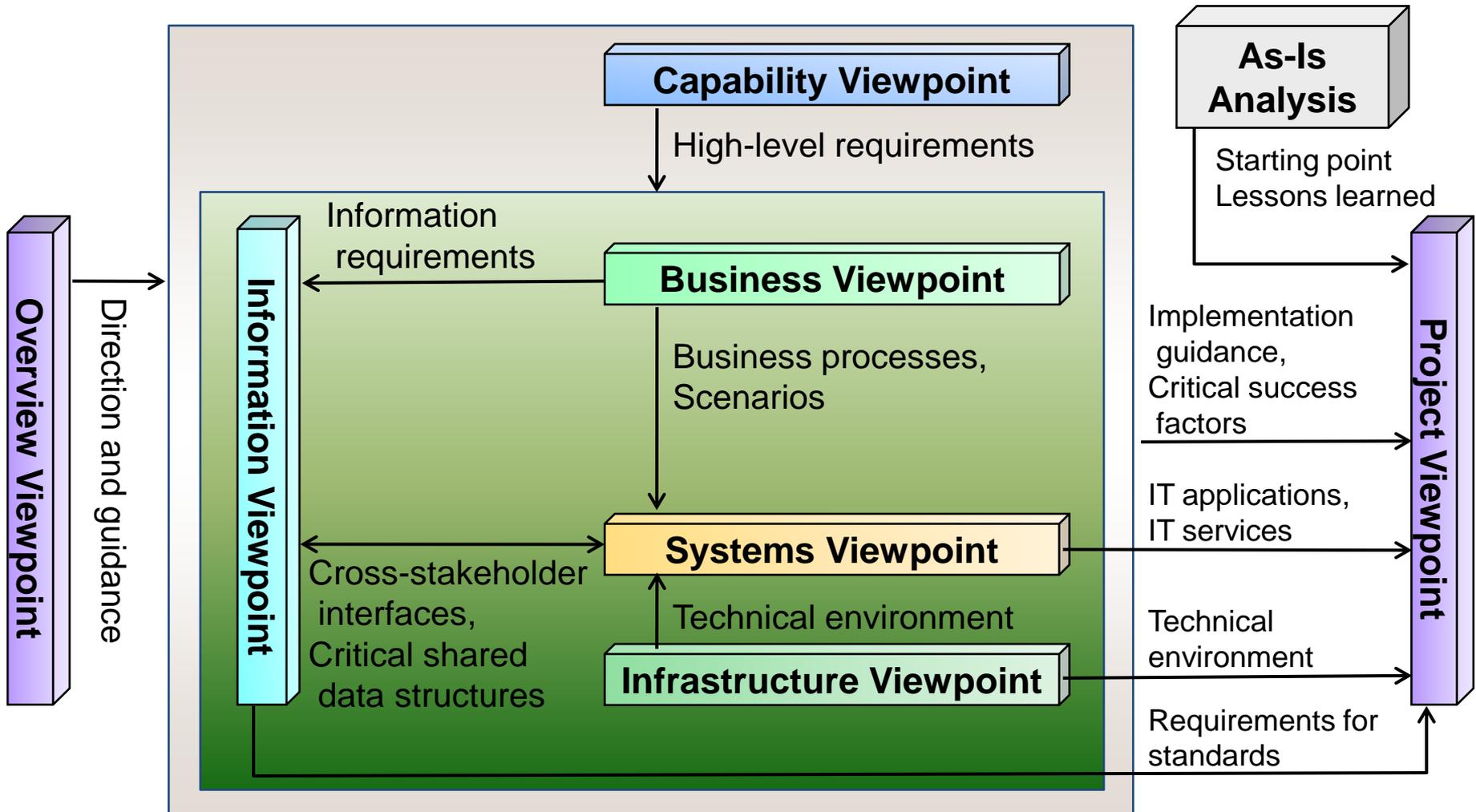
Service-Oriented Infrastructure

Establishing the NHSIA core enables subsequent incremental improvements in human services systems

Security Aspects Are Addressed Across the Viewpoints



Viewpoint Relationships



Questions and Next Steps

Questions?

- **Chat window**
 - **If we don't have time to answer all the questions during the webinar time window, we will post answers on the ACF Interoperability site**
- **Email: joseph.bodmer@acf.hhs.gov**
- **Telephone: Joe Bodmer 202-690-1234**

- **Note: If you are not speaking, please mute your phones by pressing *6. To speak, press *6 again.**

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ACF Home » ACF Interoperability Initiative

ACF Interoperability Initiative

Too many barriers stand in the way of clients getting the services they need. "Interoperability"—a national effort of technological and programmatic coordination—is poised to eliminate many of those barriers. Today, the emergence of "interoperable technology" offers an unprecedented opportunity to connect systems across traditional boundaries in exciting and rewarding ways. This interconnectivity represents the cutting edge for development of new service models and approaches to maximize positive outcomes for children, families and communities.

What is Interoperability?

Interoperability is the ability of two or more systems or components to exchange information and to use the information to make better decisions. The term is often used in a technical engineering sense and also in a broader sense, taking into account social, political, and organizational factors that impact performance.

ACF Announces the publication of a Funding Opportunity Announcement, "State Systems Interoperability and Integration Projects"

The Office of Management and Budget (OMB) Partnership Fund for Program Integrity Innovation provided the Department of Health and Human Services/Administration for Children and Families (HHS/ACF) funding for the State Systems Interoperability and Integration Projects. HHS/ACF, through the Office of Child Support Enforcement (OCSE), will award and monitor the grants. The State Systems Interoperability and Integration Projects opportunity will fund 12-month grants to explore and plan improved interoperability and integration in eligibility and enrollment, case management, and other related functions across health and human services information technology systems.

Grantees will plan to achieve one or more of the following OMB Partnership Fund goals:

Success Story [VIEW ALL](#)



Montana Language Survival School Creates Tools to Ensure Future Success

Montana | Administration for Native Americans

Text4baby sends free maternal and child health tips to moms



[READ ABOUT TEXT4BABY](#)

From The Family Room [VISIT THE BLOG](#)



Thank you for participating

Review NHSIA documents on the new ACF interoperability website:
<http://transition.acf.hhs.gov/about/interoperability>

National Human Services Interoperability Architecture

- **Overview Viewpoint**

The Overview Viewpoint provides an introduction and a high-level summary of the National Human Services Interoperability Architecture (NHSIA).

- **Information Viewpoint**

The Information Viewpoint describes the business information requirements for the NHSIA architecture. The Information Viewpoint leverages existing data standards and ongoing standardization efforts in the area of health and human services. The National Information Exchange Model (NIEM), as defined and governed by the Department of Homeland Security, is one example of the standards used in building this architecture.

- **Systems Viewpoint**

The Systems Viewpoint describes new and legacy system components in the layers of the to-be architecture. The focus is on the desired end-state functionality of human services systems to improve the outcomes for clients and streamline operations for staff.

- **Business Viewpoint**

The NHSIA Business Viewpoint provides a high-level, yet specific description of the processes that characterize human services operations. A typical process description includes stakeholders involved, activities and actions, information flow and interactions between processes.

- **Capability Viewpoint**

The Capability Viewpoint provides a high-level, yet specific description of what new or improved capabilities would result from the implementation of the NHSIA.