

## National Human Services Interoperability Architecture (NHSIA)

# Capability and Business Viewpoints

June 2012

NHSIA Webinar Series  
Overview  
Key Concepts  
**Capability & Business  
Viewpoints**  
Information &  
Infrastructure  
Viewpoints  
Systems Viewpoint and  
Wrap-Up

ADMINISTRATION FOR  
**CHILDREN & FAMILIES**

**JOHNS HOPKINS**  
UNIVERSITY

# Webinars will be held Thursdays at 1 PM Eastern

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#	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>

# Outline

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- **Introduction and Welcome by ACF**
- **Capability Viewpoint**
  - **Capabilities**
  - **NHSIA Scorecard**
- **Business Viewpoint**
  - **Business Model**
  - **Scenarios and Vignettes**
- **Questions and next steps**

## **Learning Objective for this Webinar**

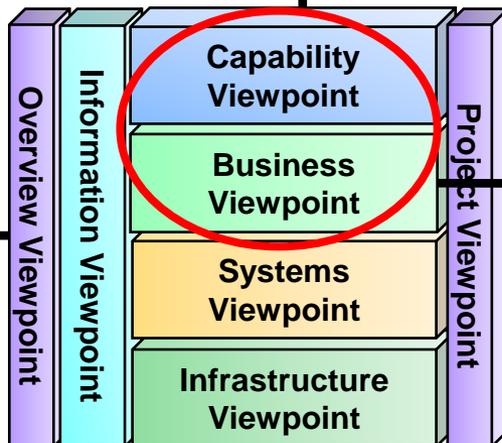
Understand the NHSIA  
Capability Viewpoint and  
Business Viewpoint

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.

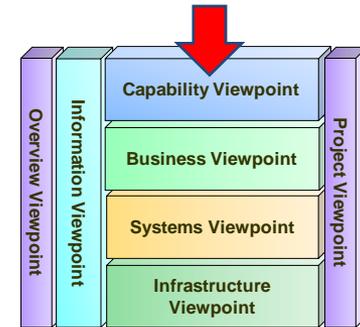
This webinar focuses on the Capability and Business Viewpoint artifacts.

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

- **C-01-CapabilityViewpointDescription-D0.2.docx**
- **C-02-CapabilitiesList-D0.2.xlsx**
- **C-03-NHSIAPerformanceReferenceModel-D0.2.docx**
- **C-04-PRMAppA-SelectedHHSPerformanceMeasures-D0.2.pdf**
- **C-05-PRMAppB-MajorSystemsDatabasesACF-D0.2.pdf**
- **C-06-PRMAppC-PerformanceIndicatorsACF-D0.2**
- **C-07-PRMAppD-PerformanceIndicatorsStateCountyCityDashboards-D0.2.pdf**



- **B-01-BusinessViewpointDescription-D0.2.docx**
- **B-02-ProcessesMappedToHumanServiceDomains-D0.2.xlsx**
- **B-03-ClientManagementBusinessProcesses-D0.2.xlsx**
- **B-04-EligibilityAndEnrollmentBusinessProcesses-D0.2.xlsx**
- **B-05-ProviderManagementBusinessProcesses-D0.2.xlsx**
- **B-06-ServiceManagementBusinessProcesses-D0.2.xlsx**
- **B-ScenariosAndVignettes-D0.1.docx**



## Capability Viewpoint

The Capability Viewpoint defines the new operational capabilities to be provided by NHSIA in high-level, user-oriented terms.

# The Capability Viewpoint Comprises 3 Primary Components

## ➤ Capabilities List

A list of each capability to be provided by the architecture along with a brief narrative description.

High Level Capability	Capability ID	Capability Name	Primary Actor	Capability Description
Multi-Program Eligibility Determination	10	Apply for Multiple Programs - Electronically	An applicant or client can ...	Investigate or apply for multiple programs via a single electronic entry point.
Multi-Program Eligibility Determination	8	Real-Time Eligibility Check	An applicant or client can ...	Obtain a real-time, preliminary, eligibility determination for multiple programs via a single application process.
Convenient Access to Services for Clients	11	Apply for Multiple Programs - Physically	An applicant or client can ...	Investigate or apply for multiple programs at a single office or location.
Multi-Program Eligibility Determination	56	Enroll in Programs	An applicant or client can ...	Enroll in programs following eligibility determination in a seamless process that transfers data electronically from the eligibility function to the enrollment function.
Convenient Access to Services for Clients	12	Access via Internet	An applicant or client can ...	Access application and other client services provided by human service systems from anywhere with Internet access.
Electronic Workflow	5	Enter Information Once	An applicant or client can ...	Enter information once and have it available to all programs.
Electronic Workflow	6	Store Permanent Documents	An applicant or client can ...	Store permanent documents (e.g., birth certificates) electronically once and have them available to all programs.

## ➤ NHSIA Scorecard

A spreadsheet which provides visibility into where progress is being made in implementing NHSIA capabilities and where gaps remain.

High Level Capability	Capability ID	Capability Name	Medicaid	TANF	SNAP	Child Care	Child Protection	Child Support	Program Z	Average Level	\$-Weighted Avg
Multi-Program Eligibility Determination	10	Apply for Multiple Programs - Electronically	5	4	4	3	2	1	0	2.7	3.9
Multi-Program Eligibility Determination	8	Real-Time Eligibility Check	5	4	4	3	3	2	0	3.0	4.0
Convenient Access to Services for Clients	11	Apply for Multiple Programs - Physically	5	4	4	3	2	1	0	2.7	3.9
Multi-Program Eligibility Determination	56	Enroll in Programs	5	4	4	3	2	1	0	2.7	3.9
Convenient Access to Services for Clients	12	Access via Internet	5	4	4	3	2	1	0	2.7	3.9
Electronic Workflow	5	Enter Information Once	5	4	4	3	2	1	0	2.7	3.9
Electronic Workflow	6	Store Permanent Documents	5	4	4	3	2	1	0	2.7	3.9

## ➤ Performance Reference Model (PRM)

An organizing framework and associated lists of performance metrics that are to be collected in the to-be architecture which can be used to evaluate program performance.



# Audience for the Capability Viewpoint

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

*A capability is the ability to achieve a desired objective in the human services domain under specified standards and conditions.*

*The NHSIA Capability Viewpoint defines the desired new operational capabilities in high-level, user-oriented terms.*

# Capabilities List

# The Capability Viewpoint Describes the Envisioned Future (the “To-Be State”)

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**The Capability Viewpoint defines ~ 50 detailed capabilities, grouped into these 8 high-level categories:**

- **Access to Systems and Data**
- **Electronic Workflow**
- **Multi-Program Eligibility Determination**
- **Integrated Service Management**
- **Convenient Access for Clients**
- **Proactive Client Communications**
- **Automated Monitoring and Reporting**
- **Info-Based Performance Management**

The Capability Viewpoint defines the new operational capabilities to be provided by NHSIA in high-level, user-oriented terms.

# ~50 Detailed Capabilities Have Been Defined

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Some examples of detailed capabilities:

1<sup>st</sup> Example Detailed Capability: Apply for Multiple Programs  
An applicant can investigate or apply for multiple programs via a single electronic entry point.

2<sup>nd</sup> Example Detailed Capability: Coordinate Service Mgmt  
A case worker can coordinate service management across multiple human services and access an integrated view of all the information concerning client needs and services available to provide comprehensive assistance.

3<sup>rd</sup> Example Detailed Capability: Share Provider Information  
A service provider can share clinical and care information and documents on a client electronically with authorized users in government or private organizations.

Capabilities are defined for various actors:

- Applicants
- Clients
- Assistors
- Case Workers
- State/Local Agencies
- Providers
- Program Analysts
- Auditors
- Systems

# The Capabilities List Artifact is an Excel Spreadsheet

High Level Capability	Capability ID	Capability Name	Primary Actor	Capability Description	Classification (Foundational, Basic, Advanced)	Rationale/Source
Multi-Program Eligibility Determination	10	Apply for Multiple Programs - Electronically	An applicant or client can ...	Investigate or apply for multiple programs via a single electronic entry point.	Basic	Derived from <i>Assessment of One-e-App</i> , p 85-86
Multi-Program Eligibility Determination	8	Real-Time Eligibility Check	An applicant or client can ...	Obtain a real-time, preliminary, eligibility determination for multiple programs via a single application process.	Basic	Derived from <i>Assessment of One-e-App</i> , p 35
Convenient Access to Services for Clients	11	Apply for Multiple Programs - Physically	An applicant or client can ...	Investigate or apply for multiple programs at a single	Basic	Derived from <i>Assessment of One-e-</i>
Multi-Program Eligibility Determination	56	Enroll in Programs	An applicant or client can ...			
Convenient Access to Services for Clients	12	Access via Internet	An applicant or client can ...			
Electronic Workflow	5	Enter Information Once	An applicant or client can ...			
Electronic Workflow	6	Store Permanent Documents	An applicant or client can ...			
Electronic Workflow	7	Interview-Based Applications	An applicant or client can ...			
Multi-Program Eligibility Determination	9	Save Partial Applications	An applicant or client can ...			
Convenient Access to Services for Clients	13	Apply for Family or Household	An applicant or client can ...			
Convenient Access to Services for Clients	14	Access Administrative Status	An applicant or client can ...			

The Capabilities List can be sorted and filtered to support analysis.

New columns can be added to map to other viewpoints. Future mappings may include:

- Capabilities mapped to stakeholder groups
- Capabilities mapped to business areas/processes
- Capabilities mapped to applications
- Capabilities mapped to services
- Others ...

# NHSIA Scorecard

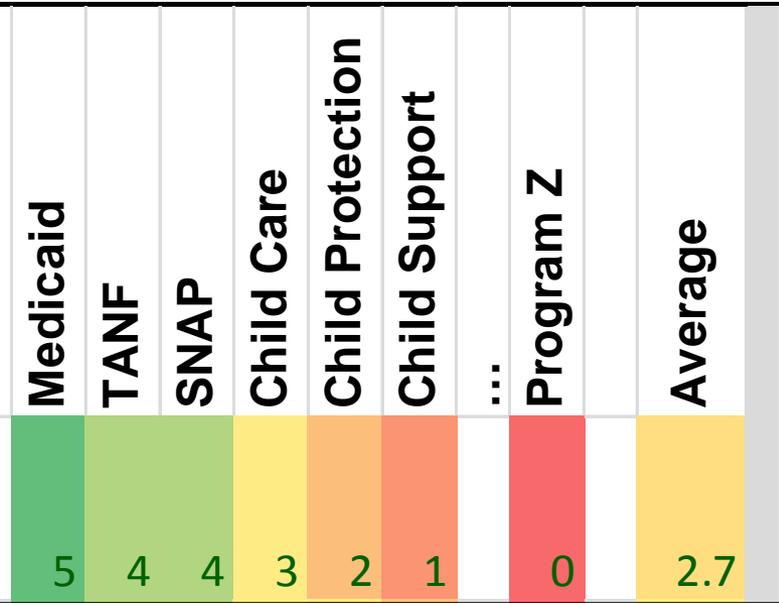
# Each Program & Jurisdiction Uses a Scorecard to Summarize Implementation Status

## Human Services Programs

### NHSIA Capabilities

An example:

Investigate or apply for multiple programs via a single electronic entry point.



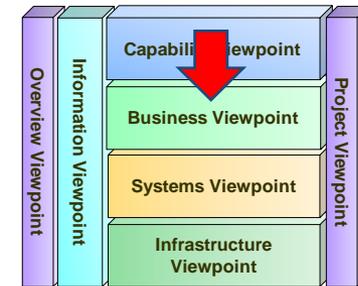
Each jurisdiction (e.g., county) would rate the implementation status of each capability for each human services program.

# Notional Scorecard – Achievement Level Definitions

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Level	Description
0	No capability
1	A strategy and implementation plan is documented
2	Funding is in place for at least the initial operational capability
3	Initial operational capability achieved – plans exist for full capability
4	~ 80% of the value of the capability has been attained
5	Full capability (~95% of the value attained)

A generic scale of 6 levels can be applied to any capability.



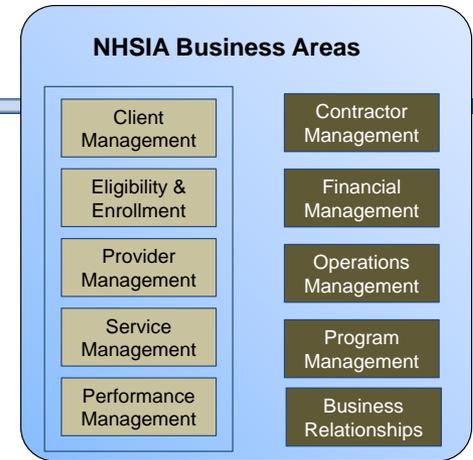
## Business Viewpoint

The Business Viewpoint provides a functional, technology-independent model of the human services “business”.

# The Business Viewpoint : 3 Primary Components

## ➤ Business Model

A business model (based on MITA 3.0) comprised of 10 business areas with descriptions of business processes for 5 areas.



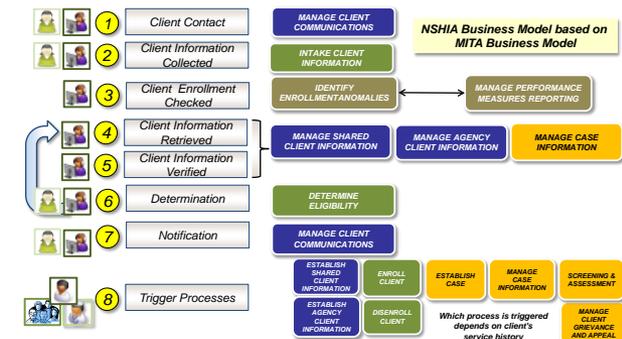
## ➤ Mapping of Business Processes to Human Services Domains

A spreadsheet that maps business processes to human services programs (e.g., food assistance.) The mapping highlights commonality in processes.

ID	Process Name	Medicaid (MITA)	IR (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
<b>Client Management (CM)</b>										
<b>Client Information Management</b>										
CM1	Establish Shared Client Information	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
CM2	Manage Shared Client Information	MITA (SAMHSA)	SAMHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
CM3	Establish Agency Client Information	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
CM4	Manage Agency Client Information	MITA (SAMHSA)	SAMHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
CM5	Find Client Information	MITA	SAMHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
<b>Client Support</b>										
CM6	Manage Client Communications	MITA	SAMHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA	NHSA
CM7	Perform Population and Client Outreach	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD

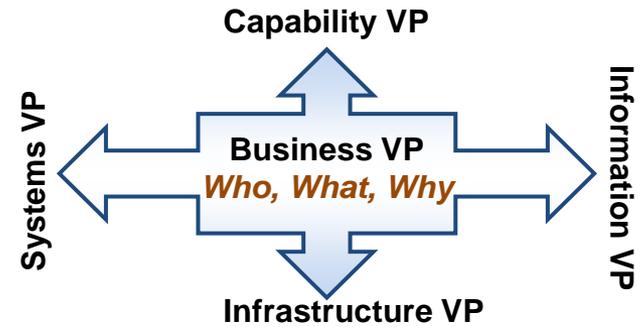
## ➤ Scenarios and Vignettes

Real-world situations that illustrate how NHSIA is expected to enable human services operations.



# Audience for the Business Viewpoint

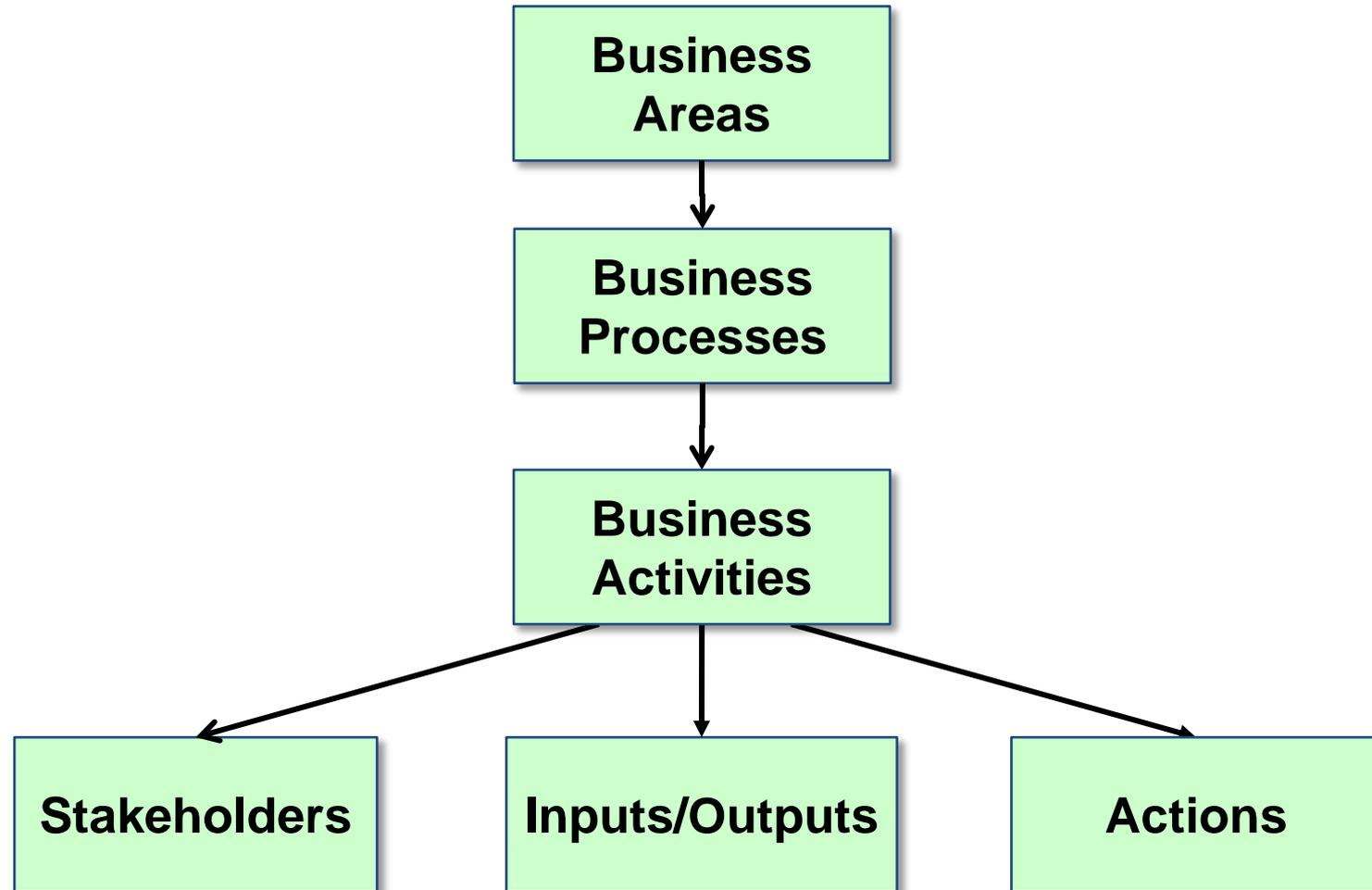
- **Developers of the other NHSIA Viewpoints**
- **State, local, and private provider planners and system architects**
- **Federal Program Managers**



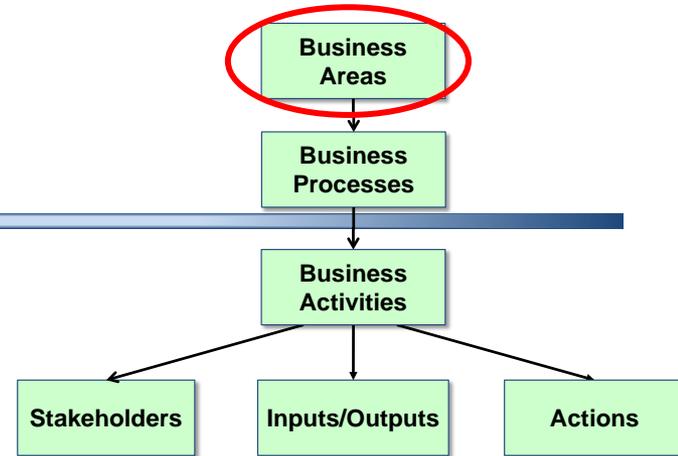
# Business Model

# NHSIA Business Model: Components

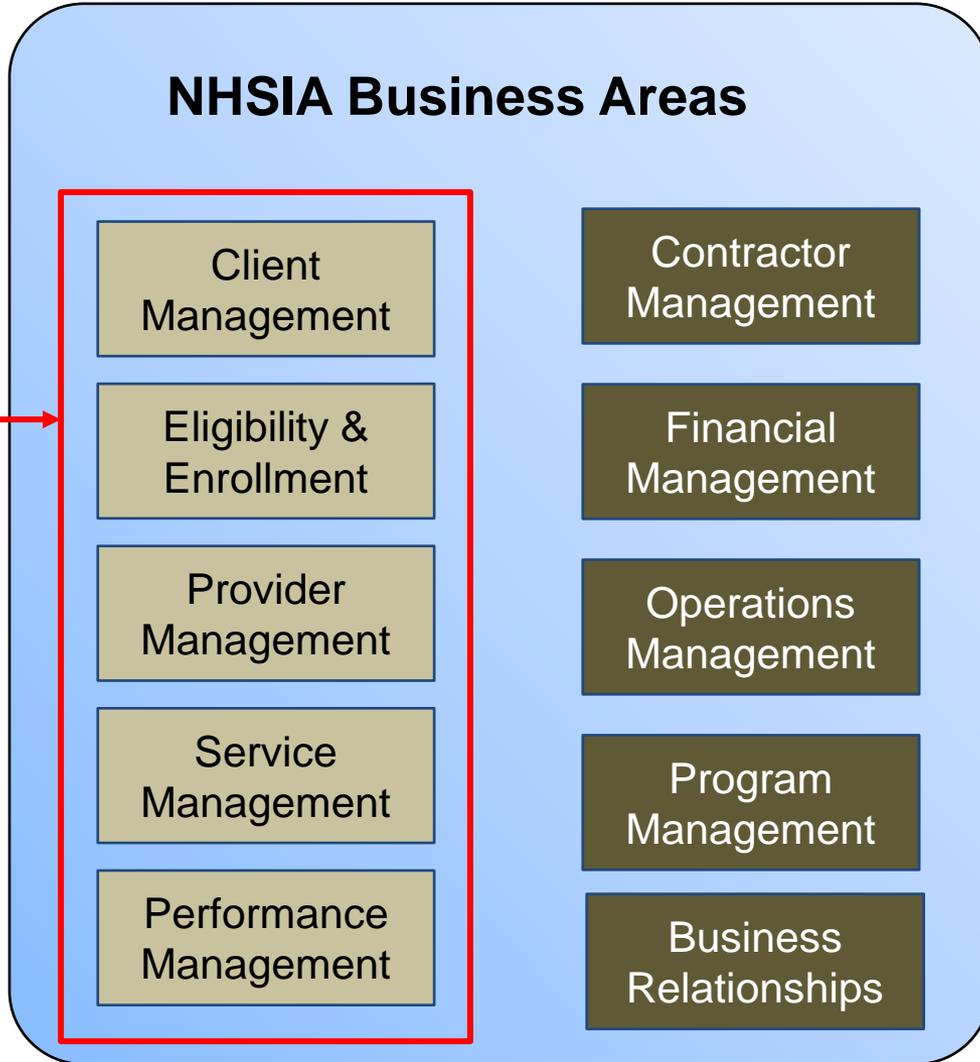
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# NHSIA Business Model: Business Areas



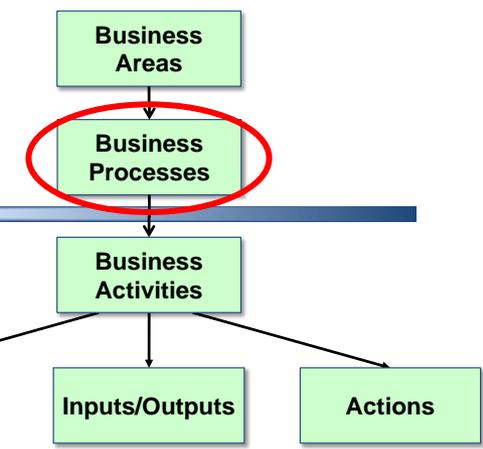
Initial focus of NHSIA →



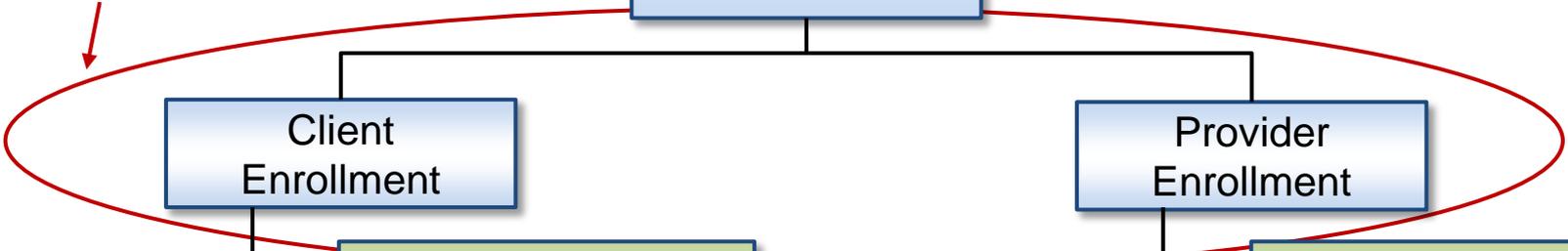
***NHSIA Business Model aligns with MITA 3.0, with the following mappings:***

NHSIA	MITA
Client Management	Member Management
Service Management	Care Management
Program Management	Plan Management

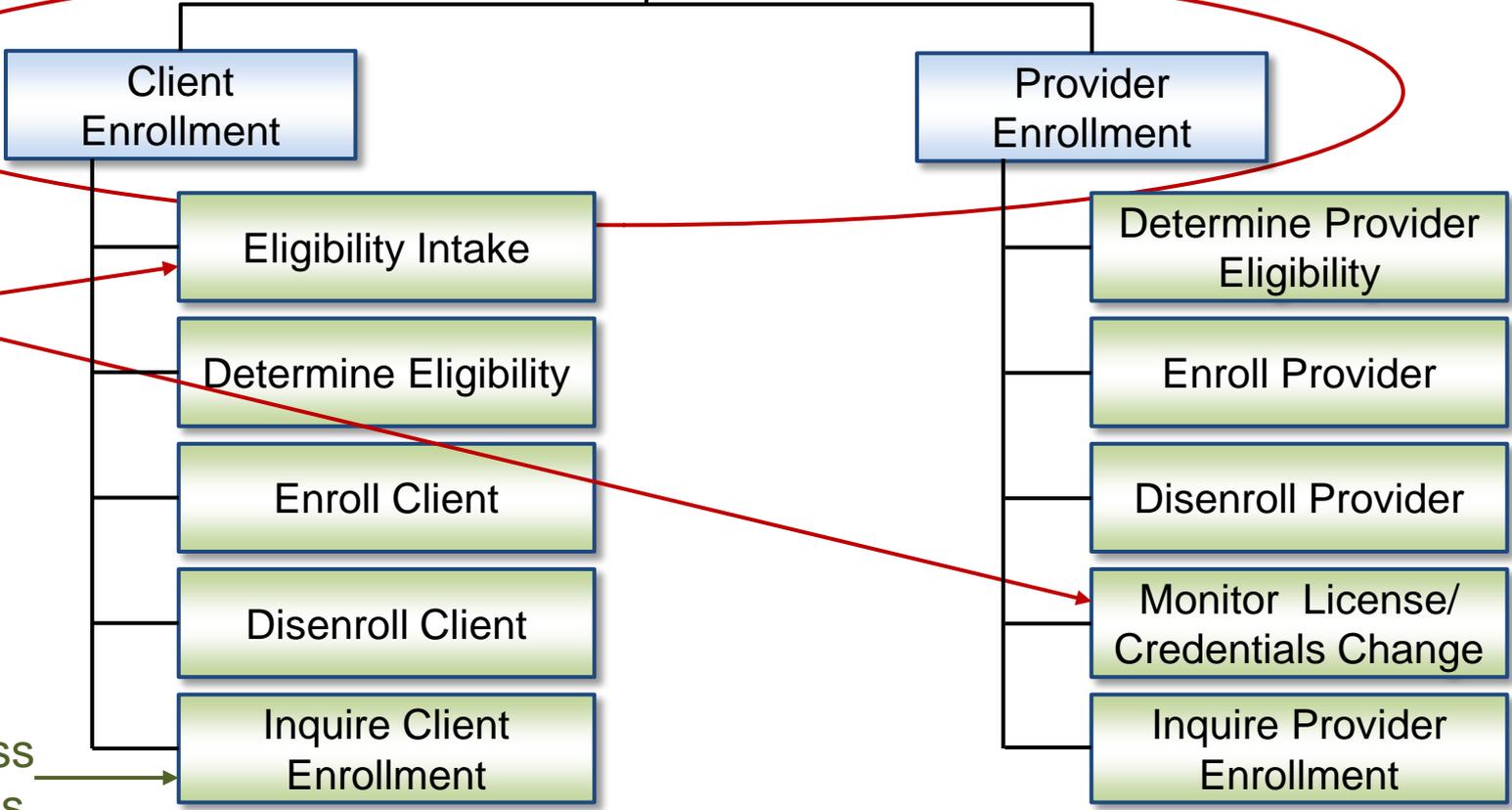
# Business Processes Examples: Eligibility and Enrollment Processes



**MITA 3.0 Structure**

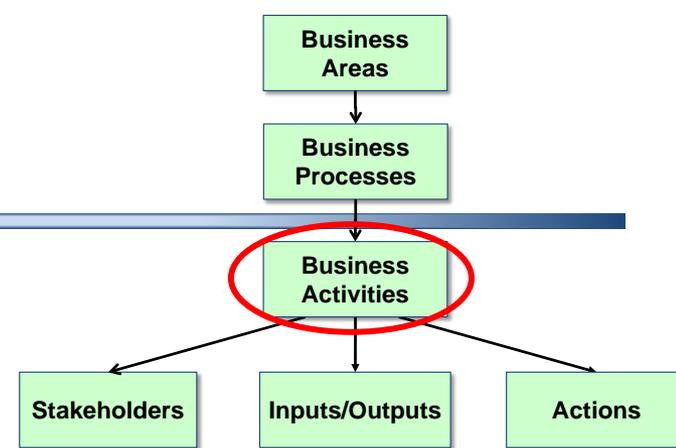


**NHSIA extension**



**Business Process**

# Example Activity: Interview Client



## ➤ Business Area: Eligibility and Enrollment

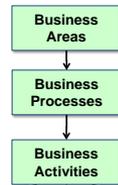
### • Business Process: Eligibility intake

This process addresses actions related to interactions with the client to collect information relevant to needs and eligibility status. Interactions can occur directly between client and worker (e.g., eligibility worker, benefits navigator, caseworker) or through an electronic interface accessed by the client (e.g., benefits portal).

#### - Business Activity: Interview client

- Stakeholders Engaged in Activity: client, worker, service provider, program/agency staff
- Actions: interview, enter, record, request, respond, retrieve, verify
- Stakeholder: Object of Action: client
- Processes Triggered: Manage Shared Client Information, Manage Agency Client Information, Intake Client
- Activity Inputs: Rules/ Policies/ Procedures, query (person), etc.
- Activity Outputs: person demographics, person health, person finances, etc.
- Structures Used in Activity: Master Person Index (MPI), Confidentiality and Privacy Authorization, Shared Person Record

# NHSIA Business Model: Stakeholders



- Individual, family, household
- The public



**Client**

- Service provider
- Service contractor



**Provider**

- Assistor
- Caseworker
- Community Partner
- Eligibility Worker
- Others –
  - Auditor
  - Legal Staff
  - Program/ agency staff
  - Researcher



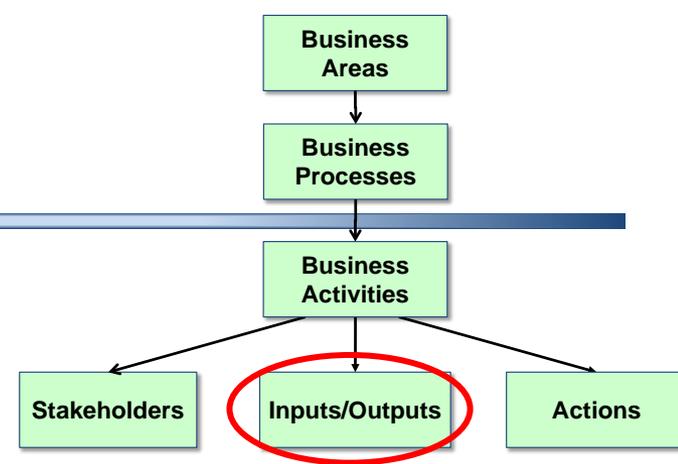
**Worker**



**Agency**

- Federal, State, County, Local, Tribal Governments
- Private Organizations
  - Court
  - Educational institution
  - Financial institution
  - Health institution
  - Insurance company
  - Legislative, regulatory body
  - National association
  - Other private company
  - Research institution

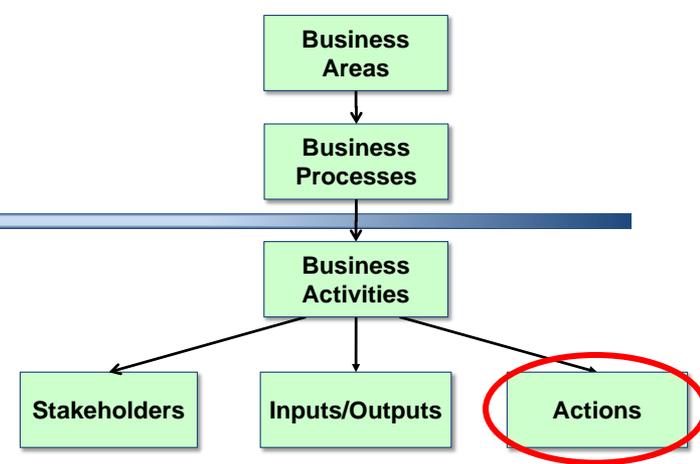
# NHSIA Business Model: Activity Inputs and Outputs



Title	Description
<b>Access authorization</b>	Whether or not an individual or system has the necessary permission to create, read, update, and/or delete information
<b>Alert</b>	Time-sensitive information, disseminated to individuals/ agencies who have a need to know; immediate action may be required
<b>Case</b>	A set of information related to a particular human service for a particular client. A case is normally associated with a human services program. The term “case person” associates a person with a case.
...	...

NHSIA includes a set of ~ 75 phrases describing information exchanged among processes.

# NHSIA Business Model: Actions



Title	Description
<b>Approve</b>	Approve services, enrollment, etc. Involves decision
<b>Authorize</b>	Allow / give permission to access data; used in context of security, i.e., access authorization
<b>Evaluate</b>	Assess client situation to determine needs, risk, etc.
...	...

NHSIA includes a set of ~ 25 action verbs to use in documenting activities

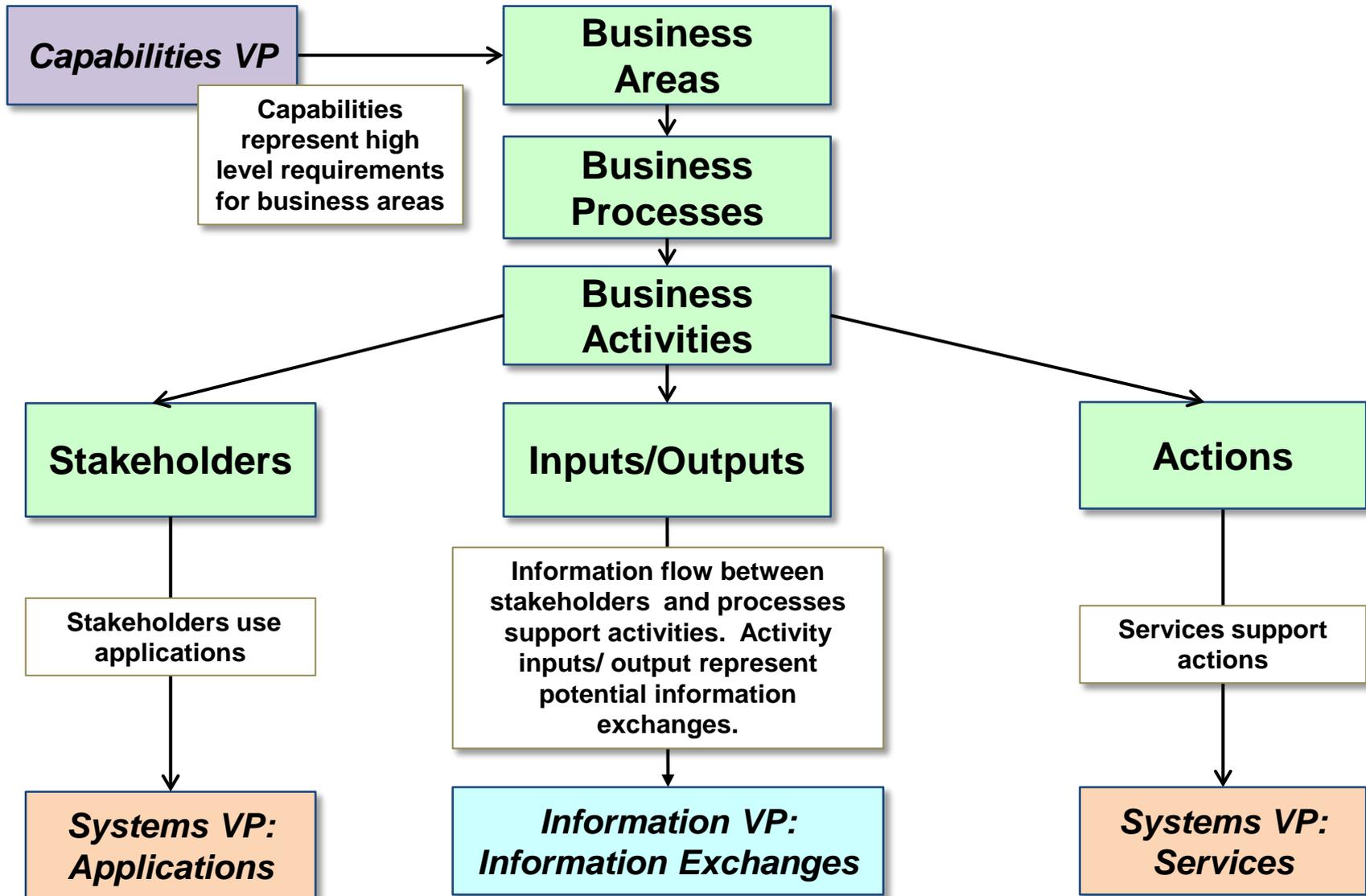
# Business Processes Mapped to Human Services Domains (partial)

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
<b>Client Management (CM)</b>										
Client Information Management										
CM1	Establish Shared Client Information	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM2	Manage Shared Client Information	MITA (CM2+CM4)	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM3	Establish Agency Client Information	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM4	Manage Agency Client Information	MITA (CM2+CM4)	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM5	Find Client Information	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
Client Support										
CM6	Manage Client Communications	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM7	Perform Population and Client Outreach	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD

## Key

Label	Meaning
NHSIA	Applies to program based on NHSIA analysis
MITA	Applies to program based on MITA docs
SAMHSA	Applies to program based on SAMHSA, VA MITA Self-Assessment / BH docs
NA	Current assessment - does not apply
TBD	Not yet determined if applies or not

# How NHSIA Business Model Relates to the Other Architecture Viewpoints



# Scenarios and Vignettes

# Scenarios Define a Real-World Situation to Use as Context for Analysis

## Client in Need Scenario



- 42-year old non-English speaking recent immigrant
- Tests indicate she has tuberculosis
- 2 year old needs child care, family can not afford it
- 6 year old has special needs and housing is unstable

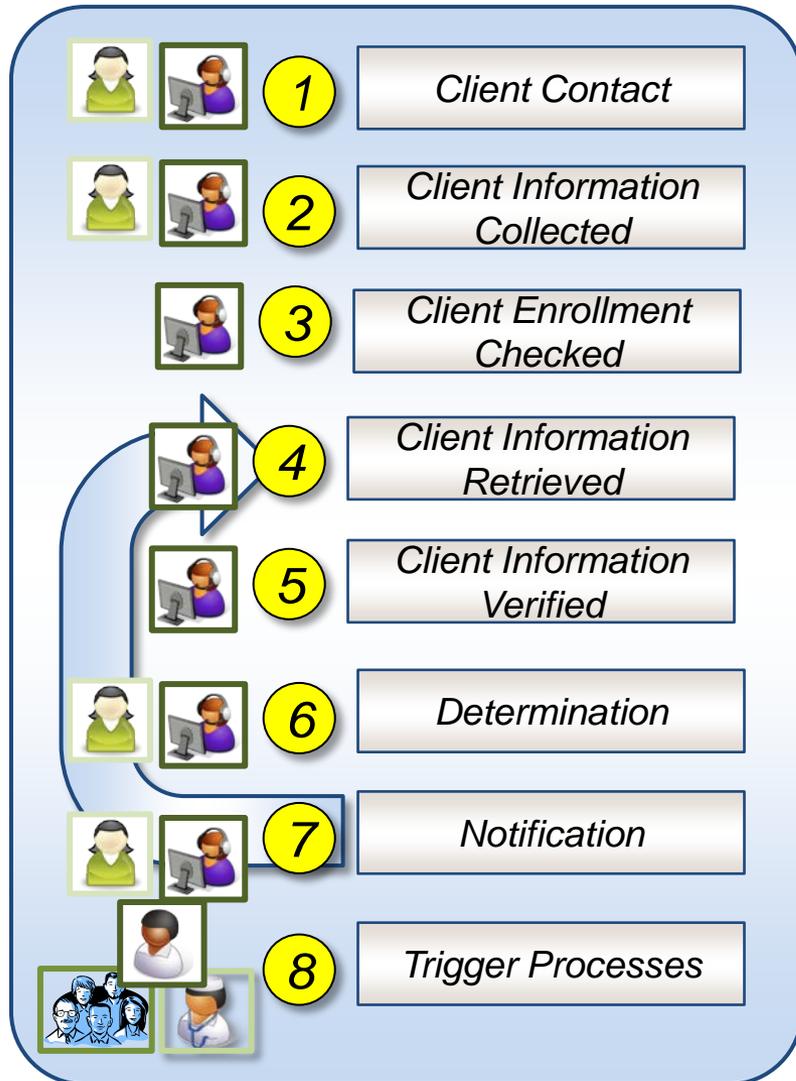
Adapted from Montgomery County, MD

## Effective Program Operations Scenario



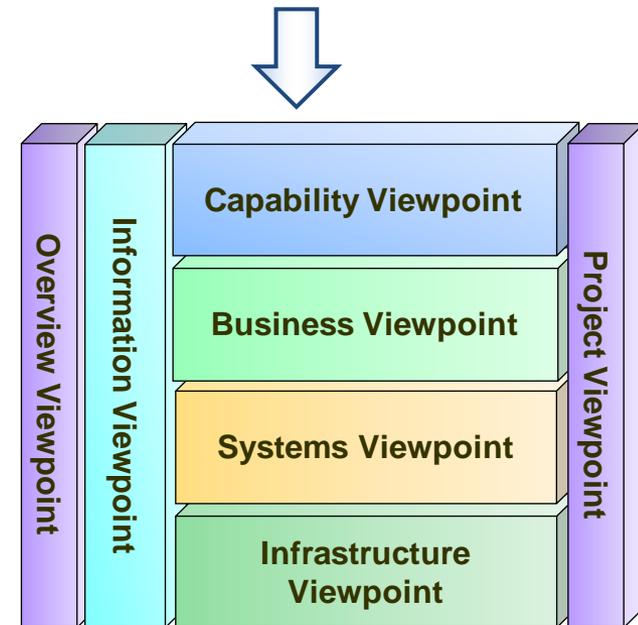
- A multi-jurisdiction region is experiencing financial challenges
- Human service agencies are under pressure to report performance outcomes
- Clients frequently relocate among states and localities
- Concerns of fraud and abuse

# Vignettes Analyze a Specific Operational Thread Based on a Scenario



Define an operational thread

Look at how each viewpoint supports the vignette



Adjust viewpoints and iterate

# Summary

# Capability and Business Viewpoint Summary

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## Capability Viewpoint

- **Capability List**
  - Defines high-level requirements
  - Focused on interoperability
  - ~50 capabilities grouped into 8 categories
- **NHSIA Scorecard**
  - Based on the Capabilities List
  - A mechanism for tracking progress in implementing capabilities
  - Includes a 6-level scale for evaluating progress
- **Performance Reference Model (PRM)**
  - A framework for defining metrics

## Business Viewpoint

- **Business Model**
  - A hierarchical model of business areas, processes, and activities
  - Describes stakeholders, inputs and outputs, and actions of each activity
  - Provides a vocabulary and basis for developing other viewpoints
- **Map of Business Processes to Human Services Domains**
  - Validates common processes exist across human service programs
  - Identifies potential areas for sharing processes and IT
- **Scenarios and Vignettes**
  - Describe real-world situations
  - Allow detailed analysis of the architecture

# Questions and Next Steps

# Questions?

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- **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](mailto: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.**

# NHSIA Documents Related To This Webinar

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- **Capability Viewpoint Description**
- **Capabilities List (spreadsheet)**
- **Performance Reference Model and appendices**
- **Business Viewpoint Description**
- **Spreadsheets:**
  - **Processes Mapped To Human Service Domains**
  - **Client Management Business Processes**
  - **Eligibility And Enrollment Business Processes**
  - **Provider Management Business Processes**
  - **Service Management Business Processes**
- **Scenarios and Vignettes**
- **White Papers:**
  - **How the Client and Case Management are Addressed in NHSIA**
  - **Business Rules**

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# Next Webinar:

## Information & Infrastructure Viewpoints

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- **Introduction and welcome by ACF**
- **Information Viewpoint**
  - **Conceptual data model (CDM)**
  - **Information exchanges**
  - **NHSIA and the National Information Exchange Model (NIEM)**
- **Infrastructure Viewpoint**
  - **Fundamental infrastructure concepts**
  - **Architecture patterns**
- **Questions and next steps**

# Thank you for participating and see you next time!

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- **Information and Infrastructure Viewpoints**
- **Thursday, July 12 at 1 PM Eastern**