

# NILE

## TEAM 007'S JOURNEY TO THE NILE



# TEAM 007



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Industrial & Systems  
Engineering



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Master of Business  
Administration  
Master of Public  
Administration



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Chemical &  
Biomolecular  
Engineering



**Maya Perlmutter**  
Psychology and  
Japanese

# TEAM 007



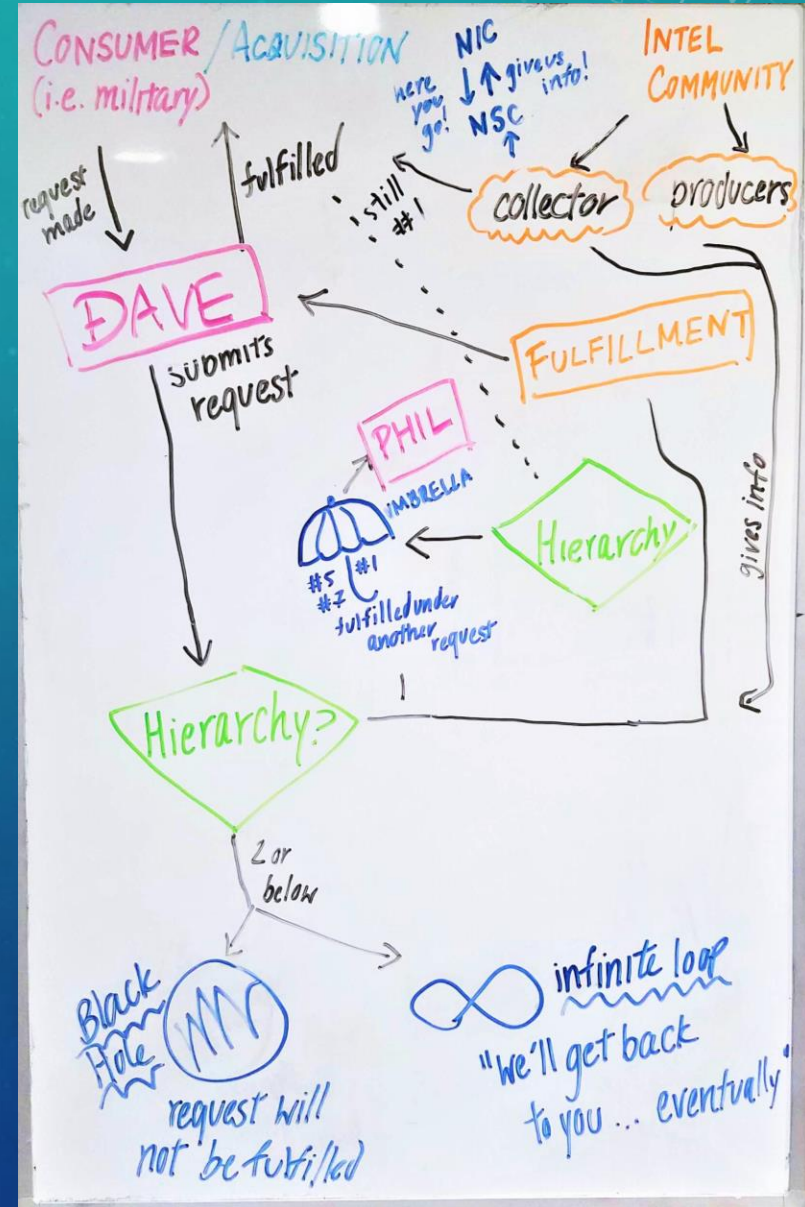
**Project Sponsor:**  
**Andrew Defler**  
Office of the  
Undersecretary of  
Defense for Intelligence  
and Security

# PROBLEM DISCOVERY

A lack of visibility into the intelligence fulfillment process



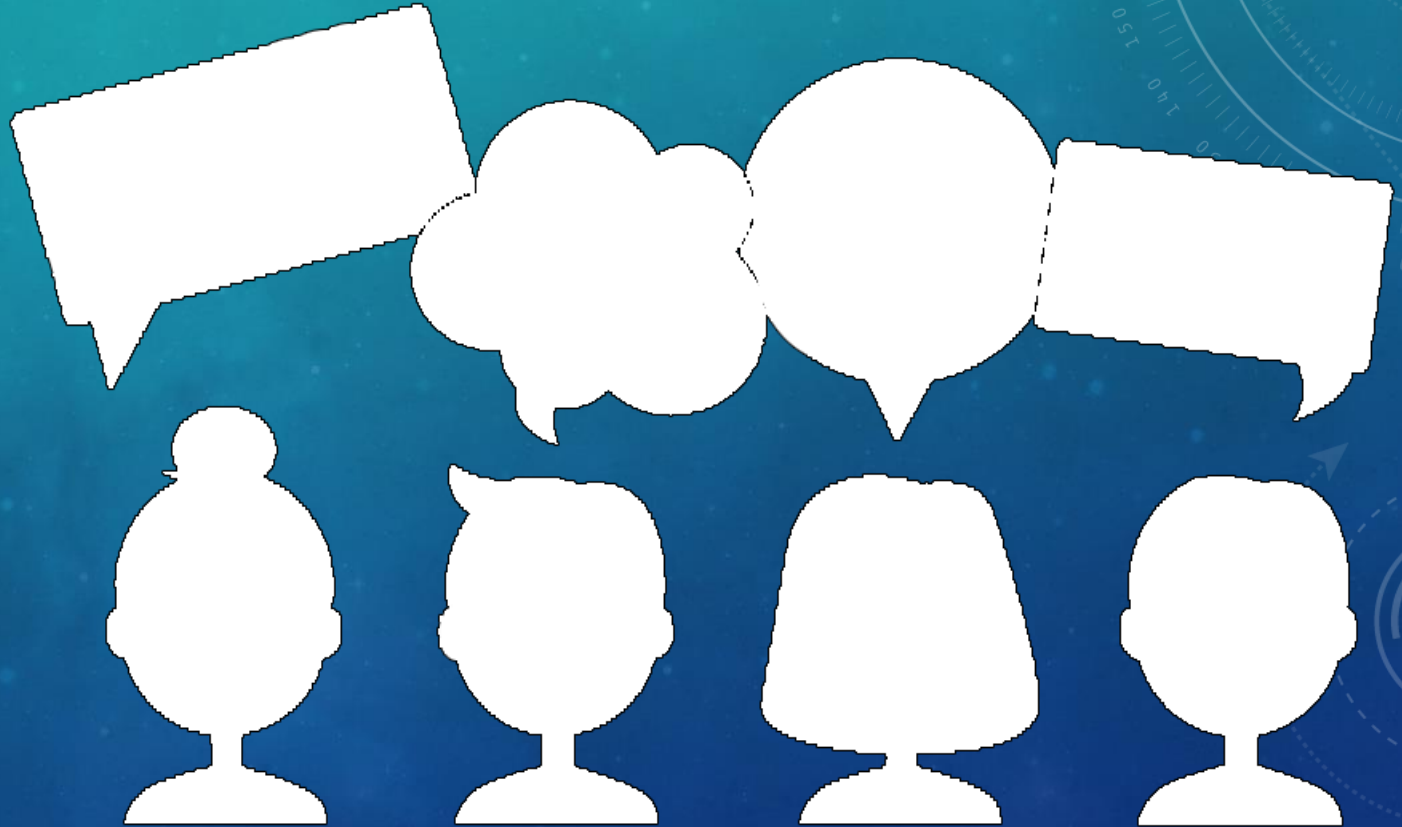
Comes from incompatible management and collaboration systems



# THE PROBLEM (AS OF WEEK 5)



Siloed communication leads to conflicting "truths"



# THE PROBLEM (AS OF WEEK 5)



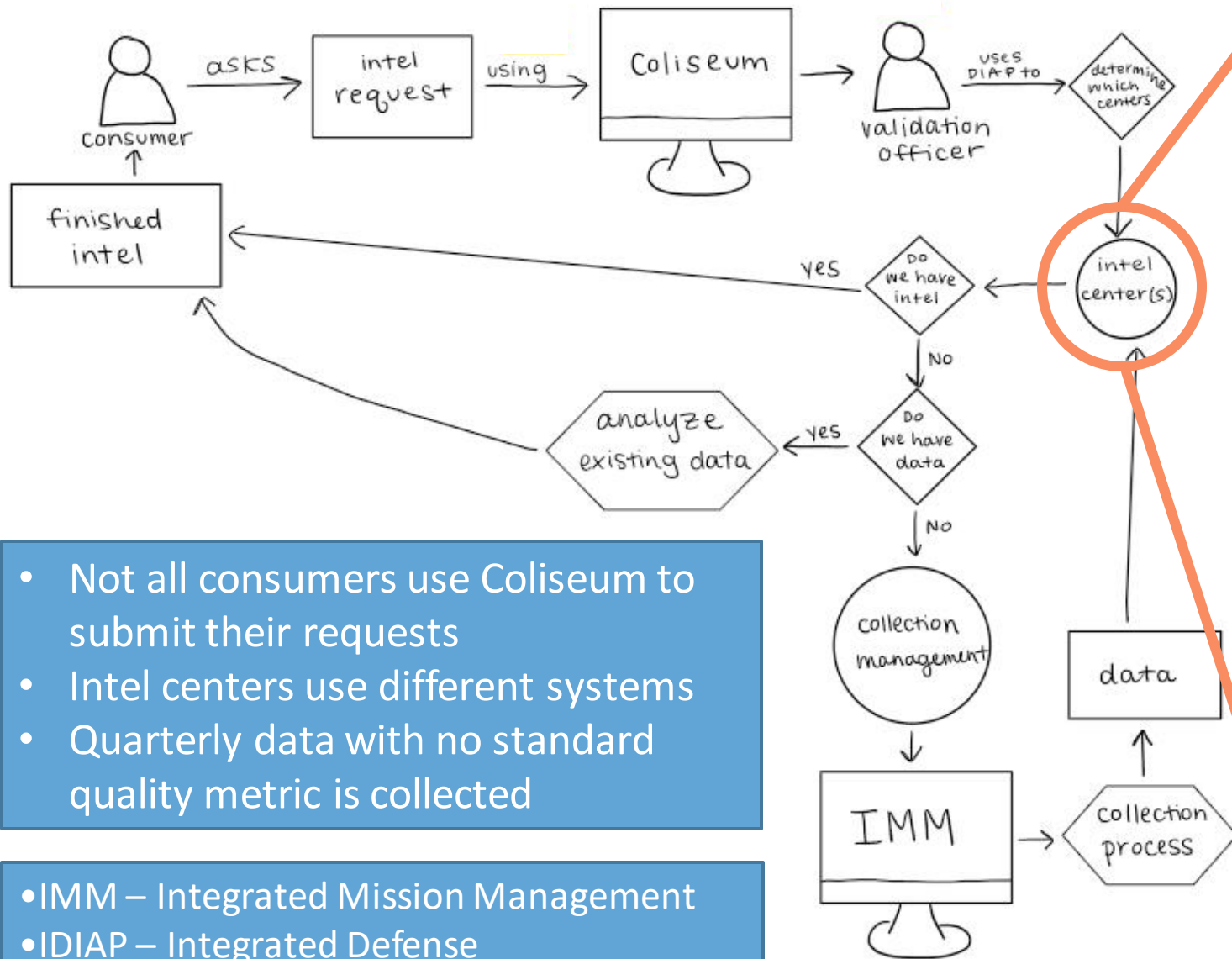
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# TARGET BENEFICIARY

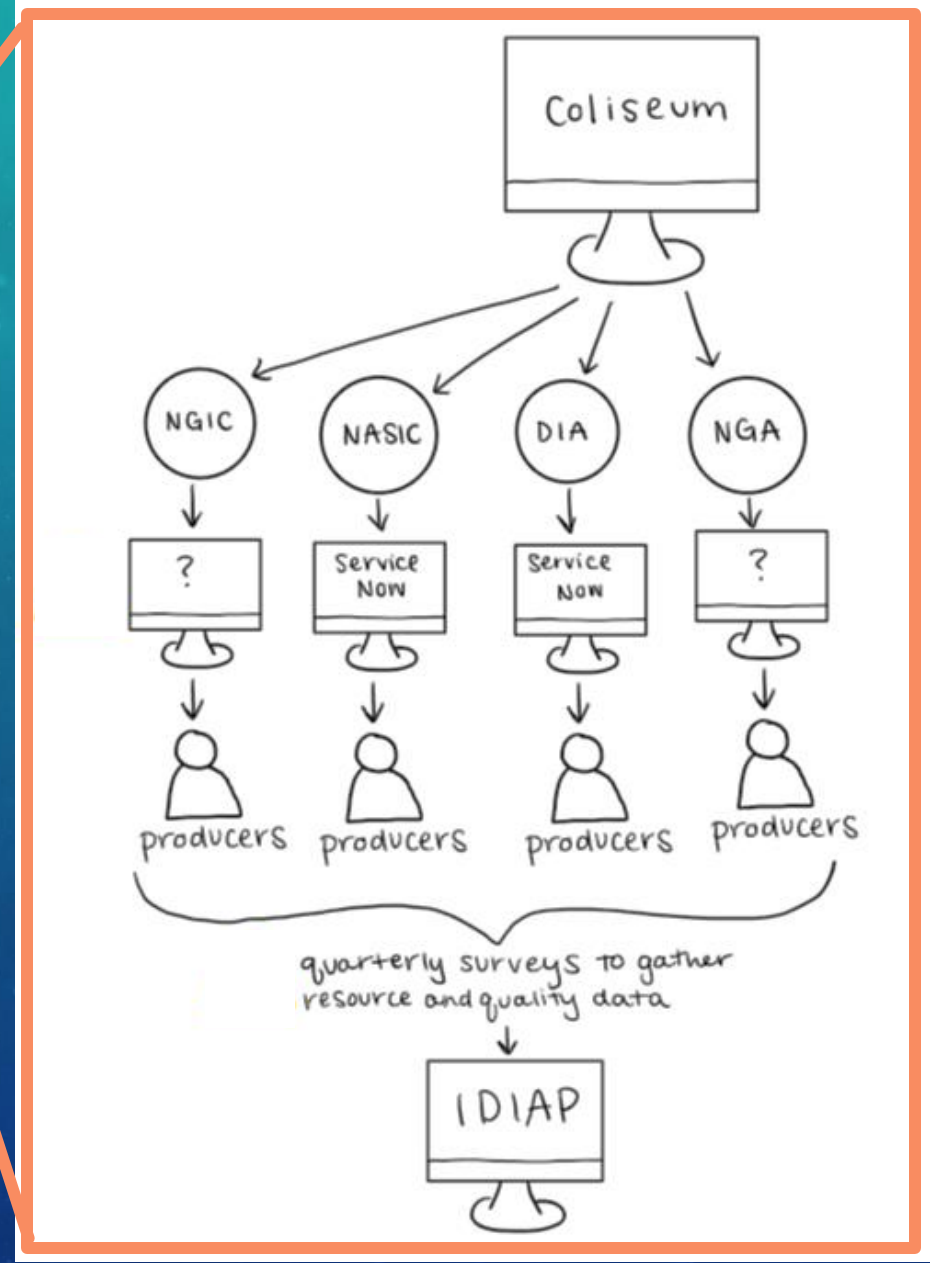
- Intelligence Analysts
  - Works at one of the 17 Intelligence agencies
- Suffers from
  - Limited communication tools
  - No insight to shared levels of effort
  - Potentially overwhelmed by tasks
  - No knowledge management tools



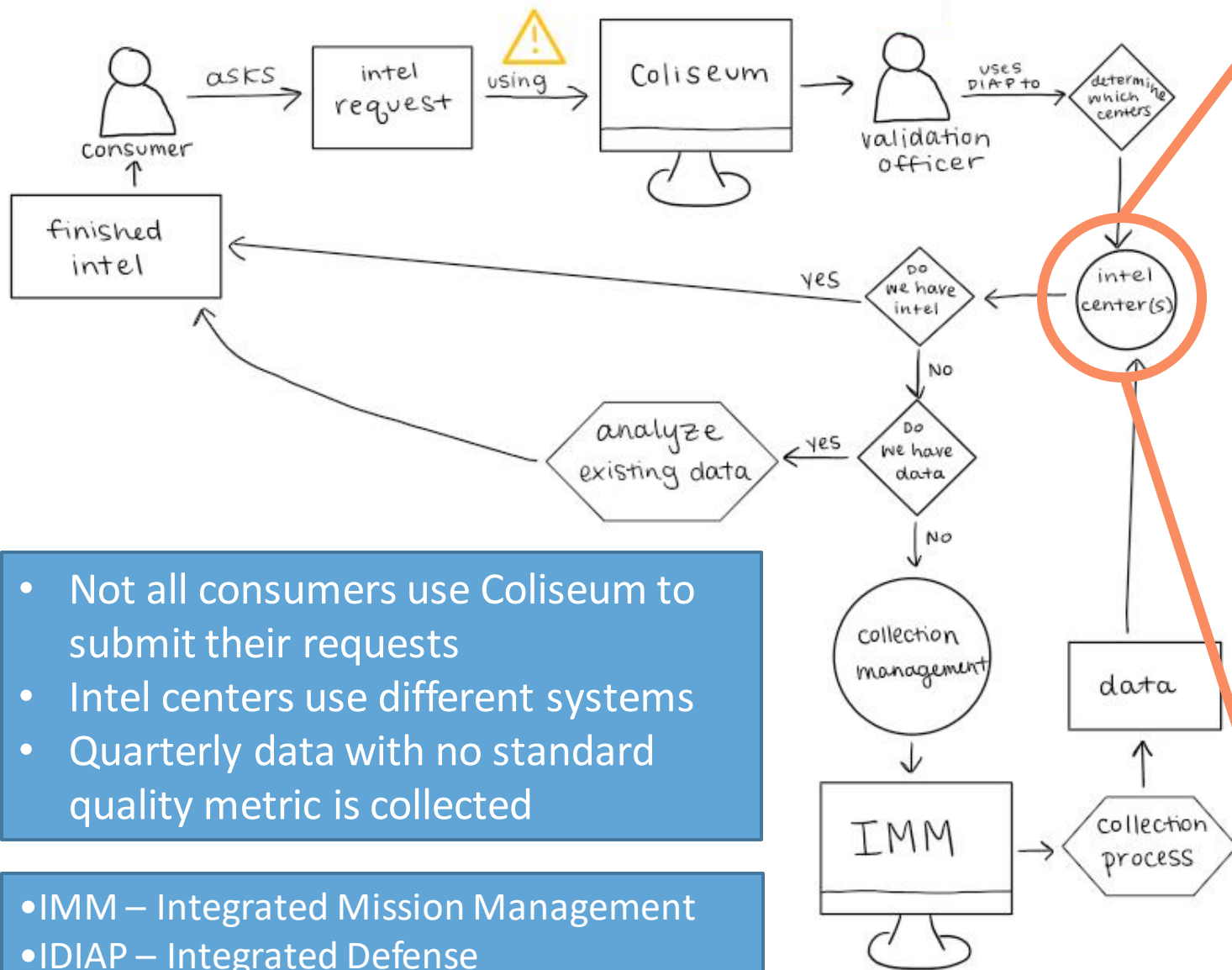


- Not all consumers use Coliseum to submit their requests
- Intel centers use different systems
- Quarterly data with no standard quality metric is collected

- IMM – Integrated Mission Management
- IDIAP – Integrated Defense Intelligence Analysis Program

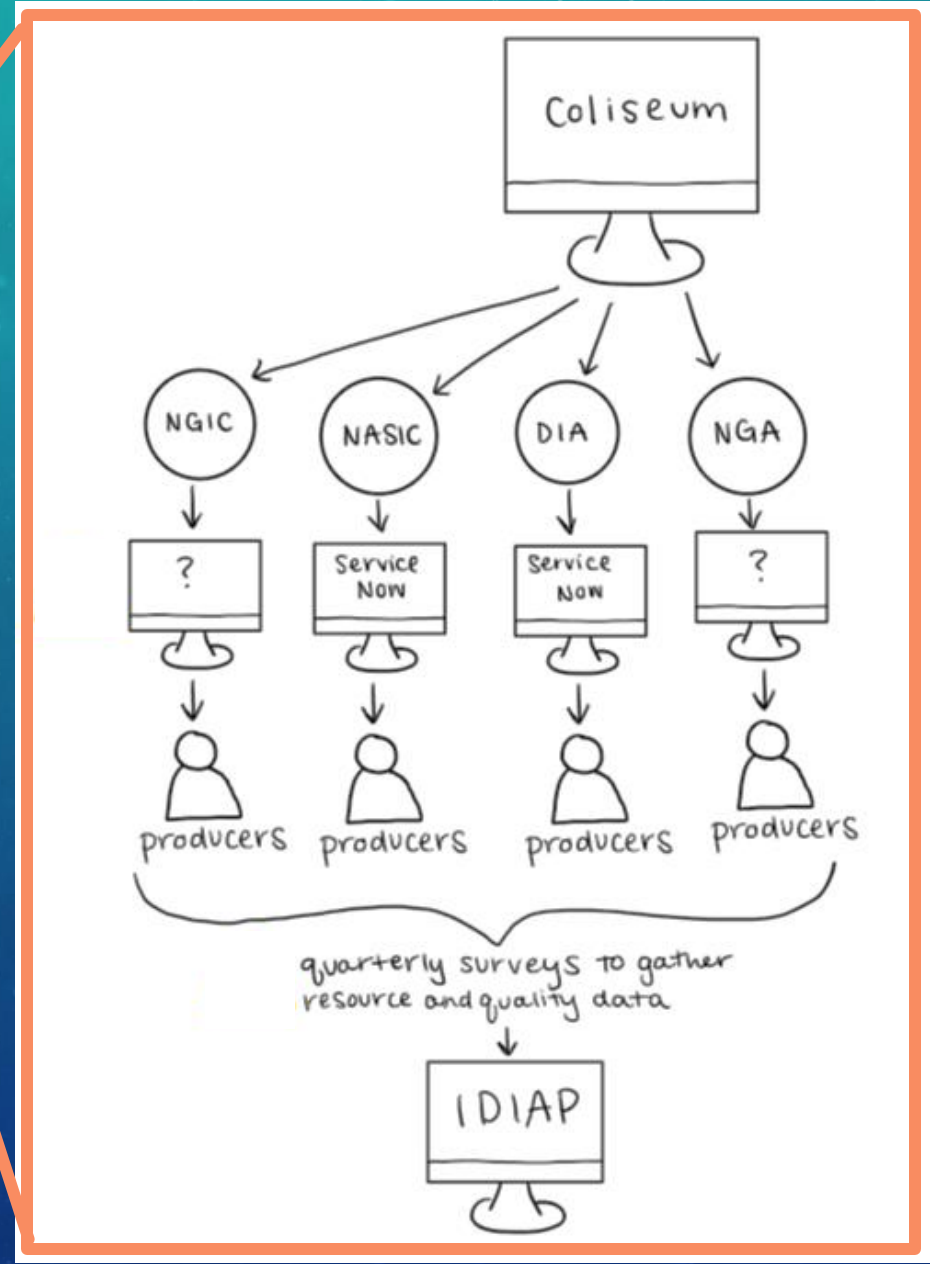


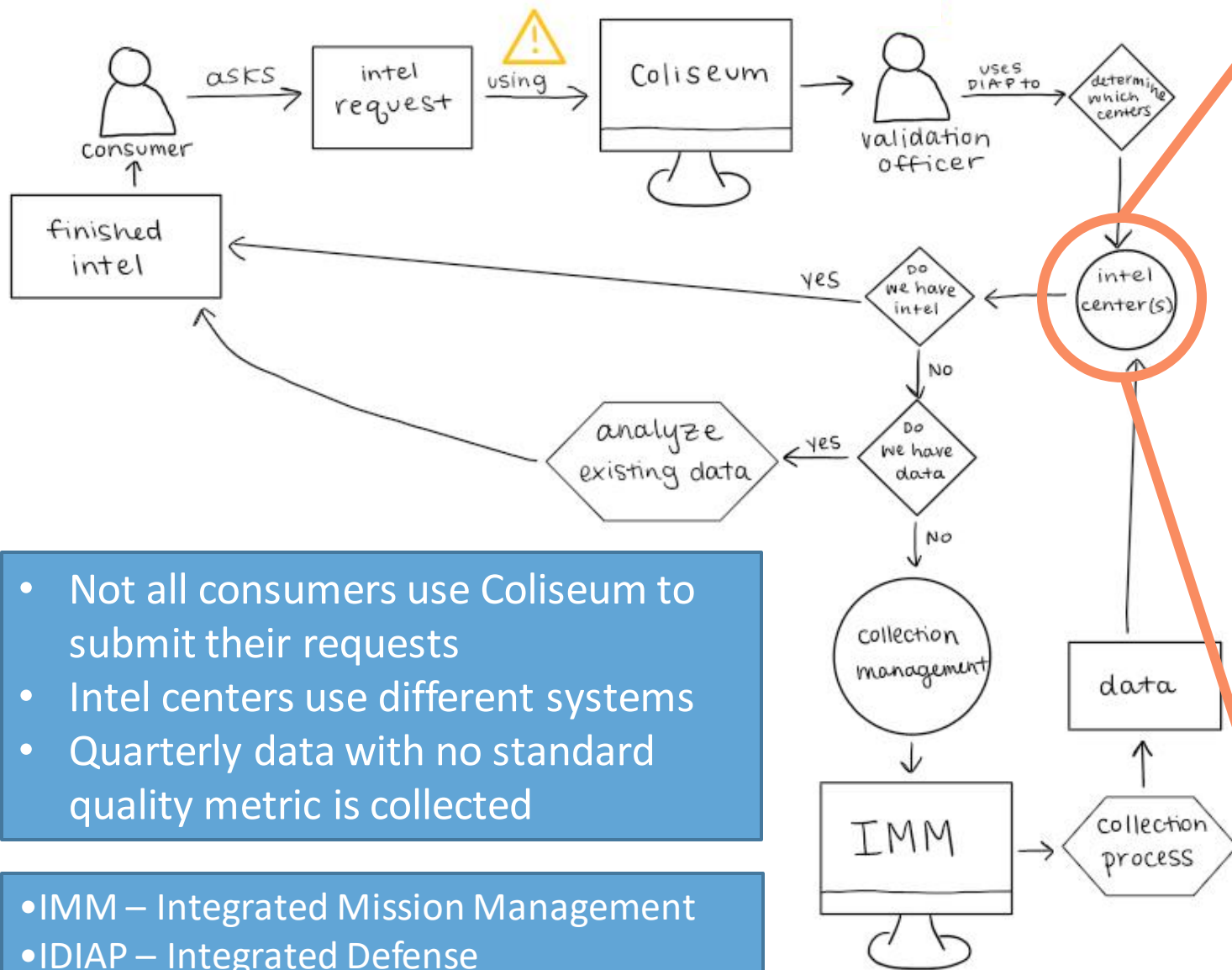




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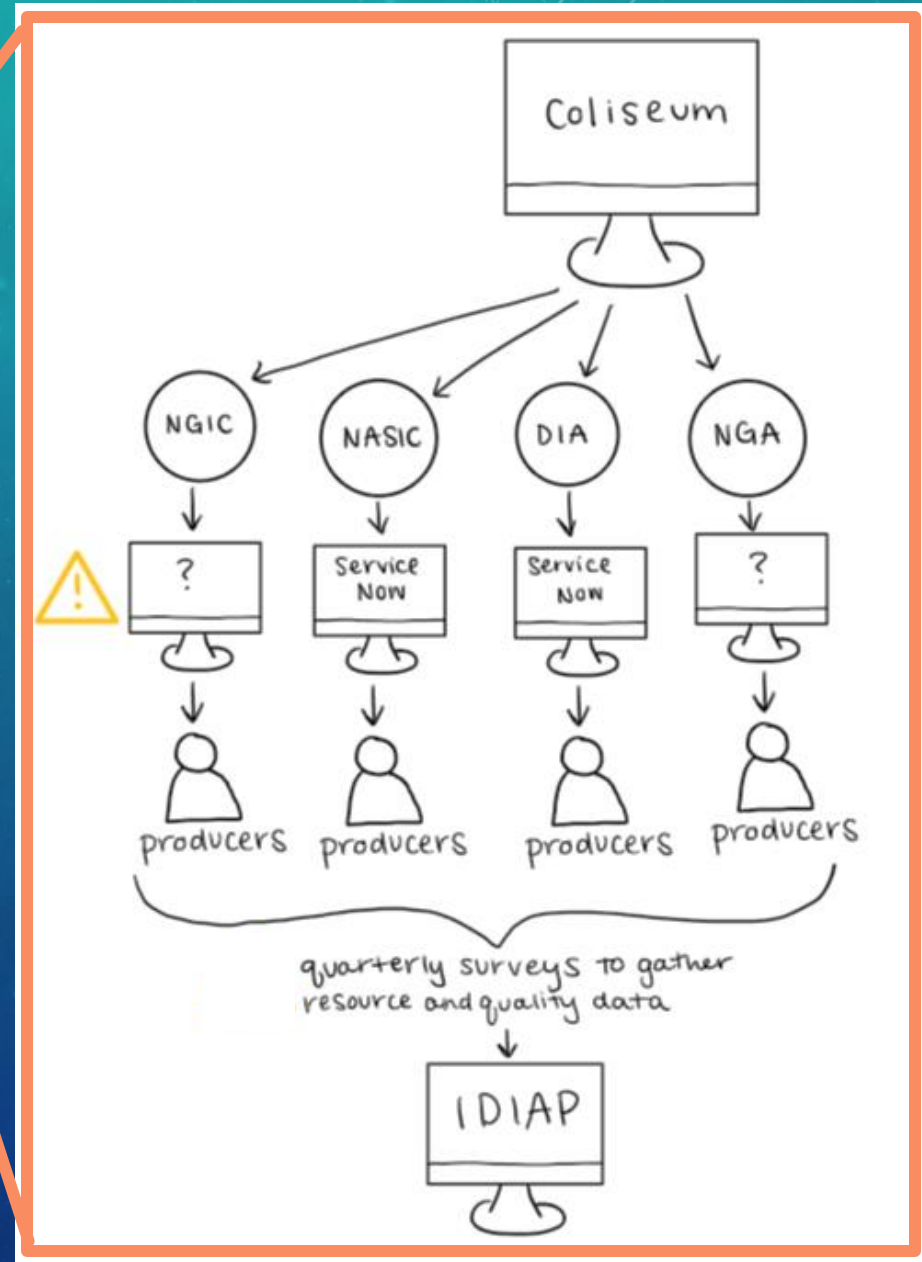
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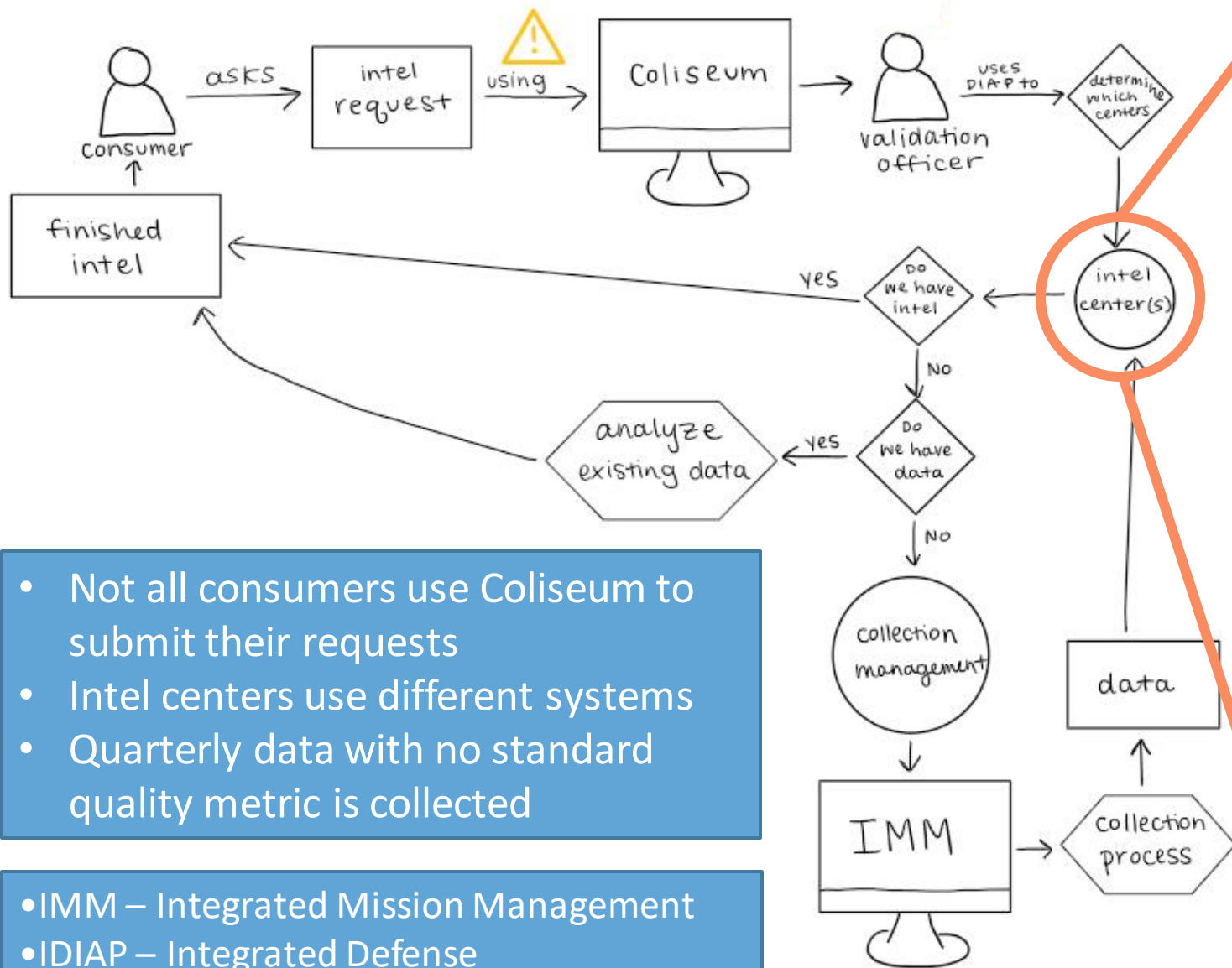




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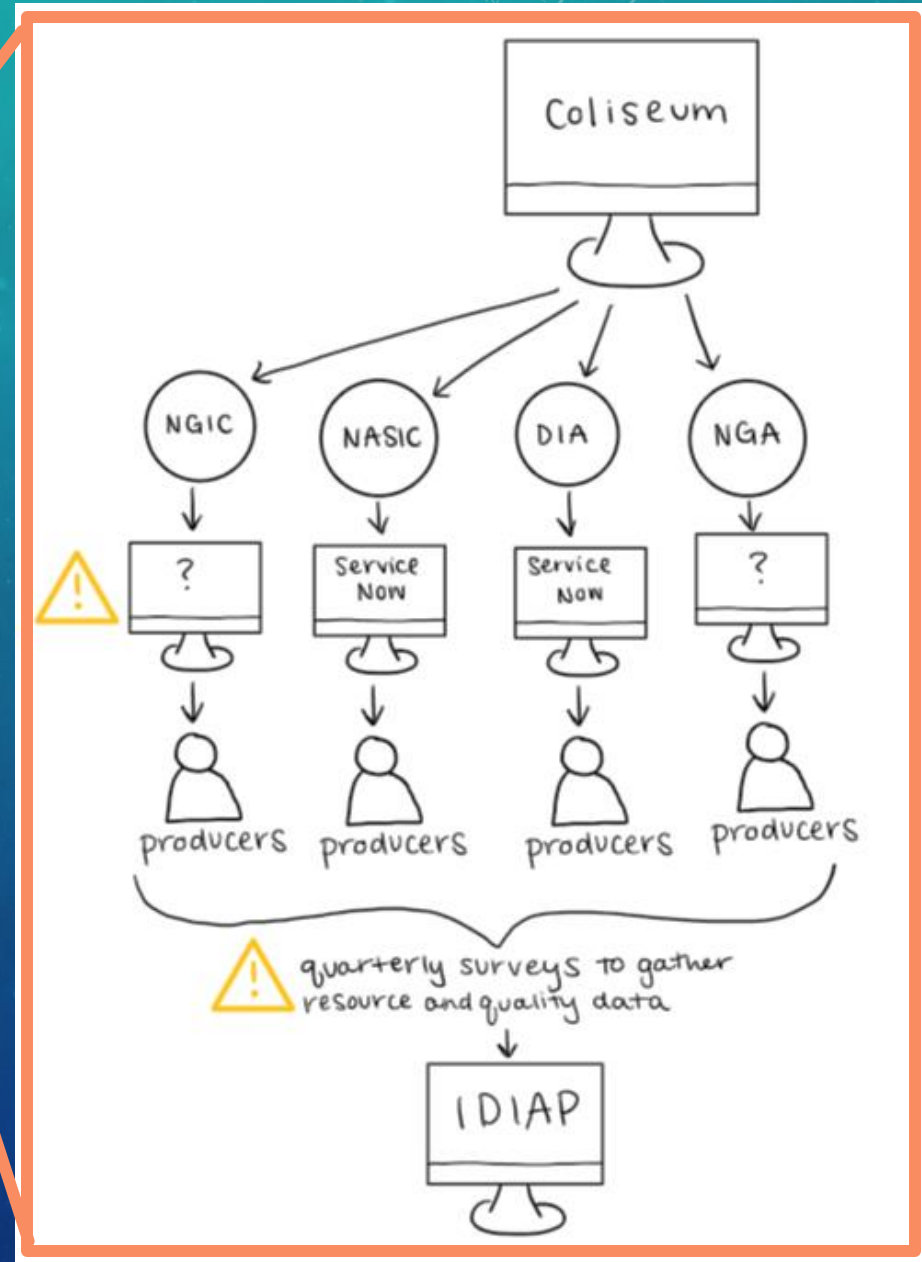
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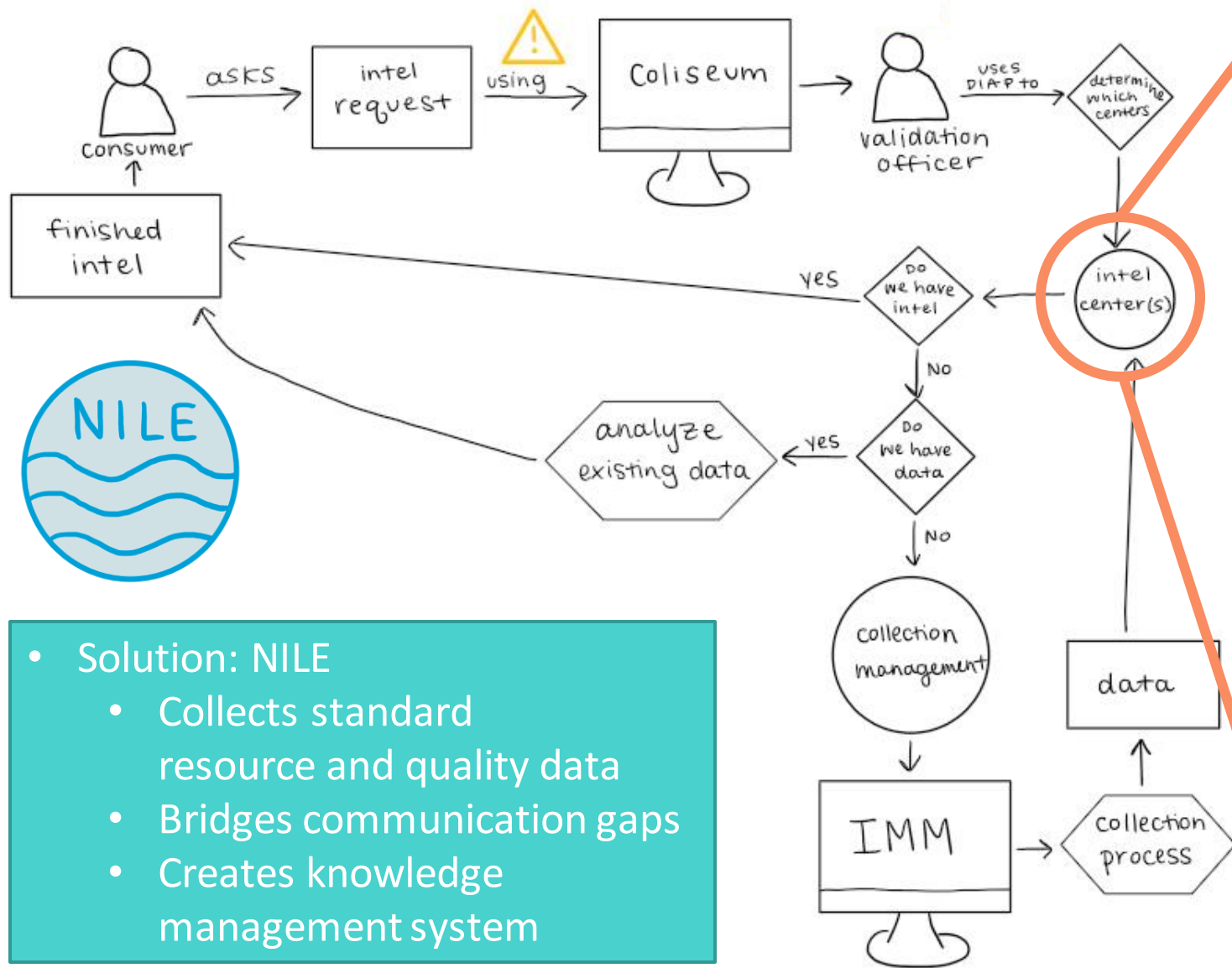




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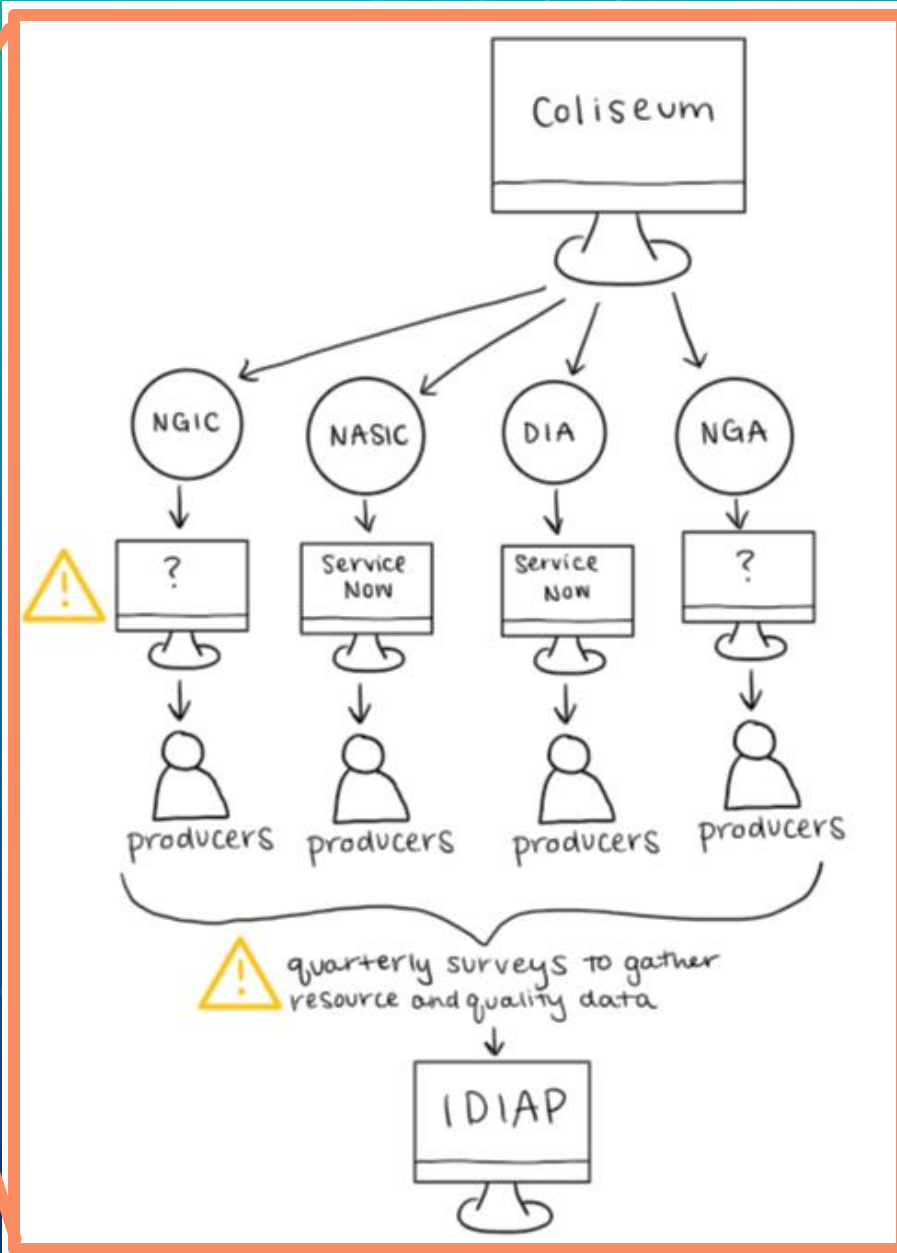
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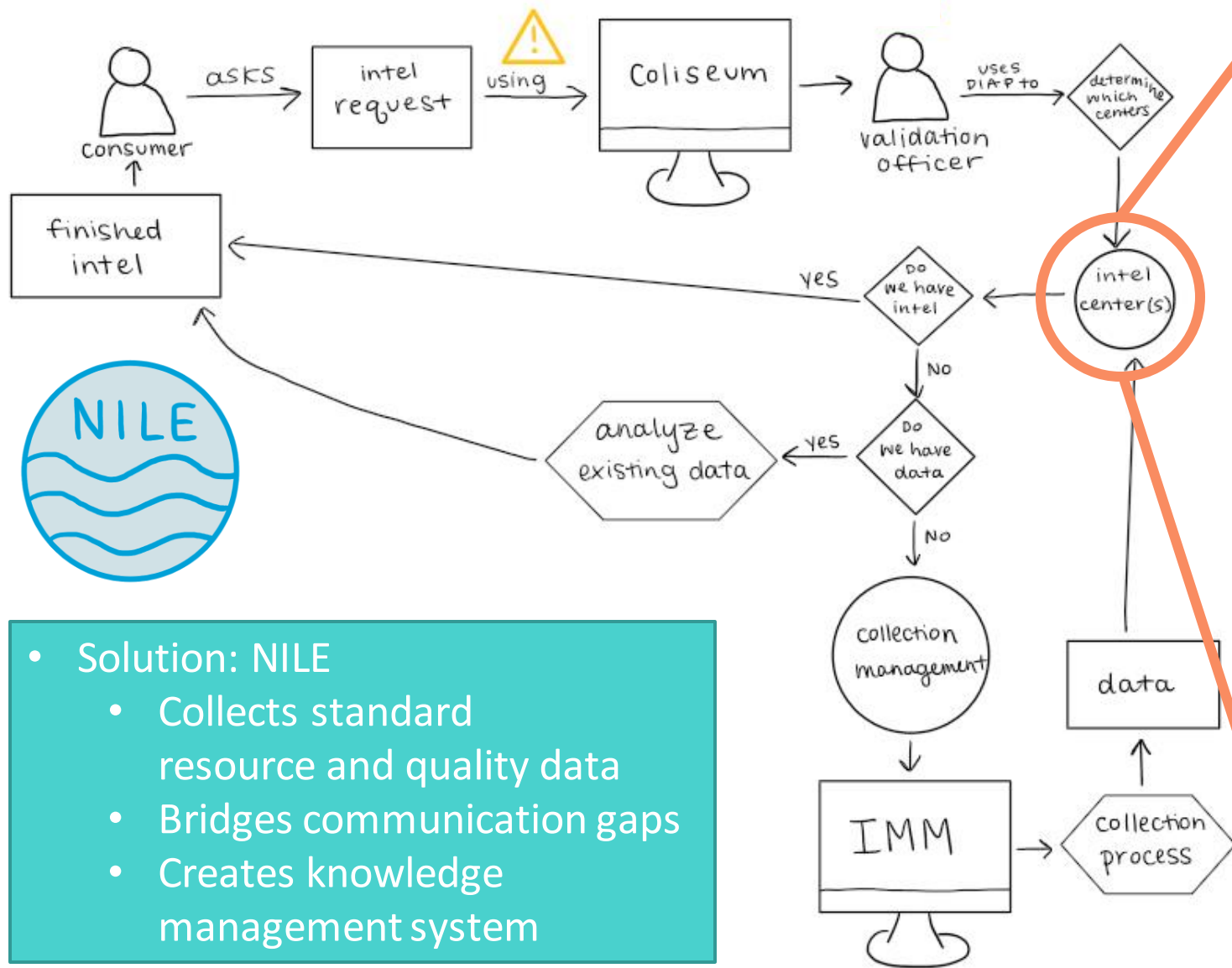




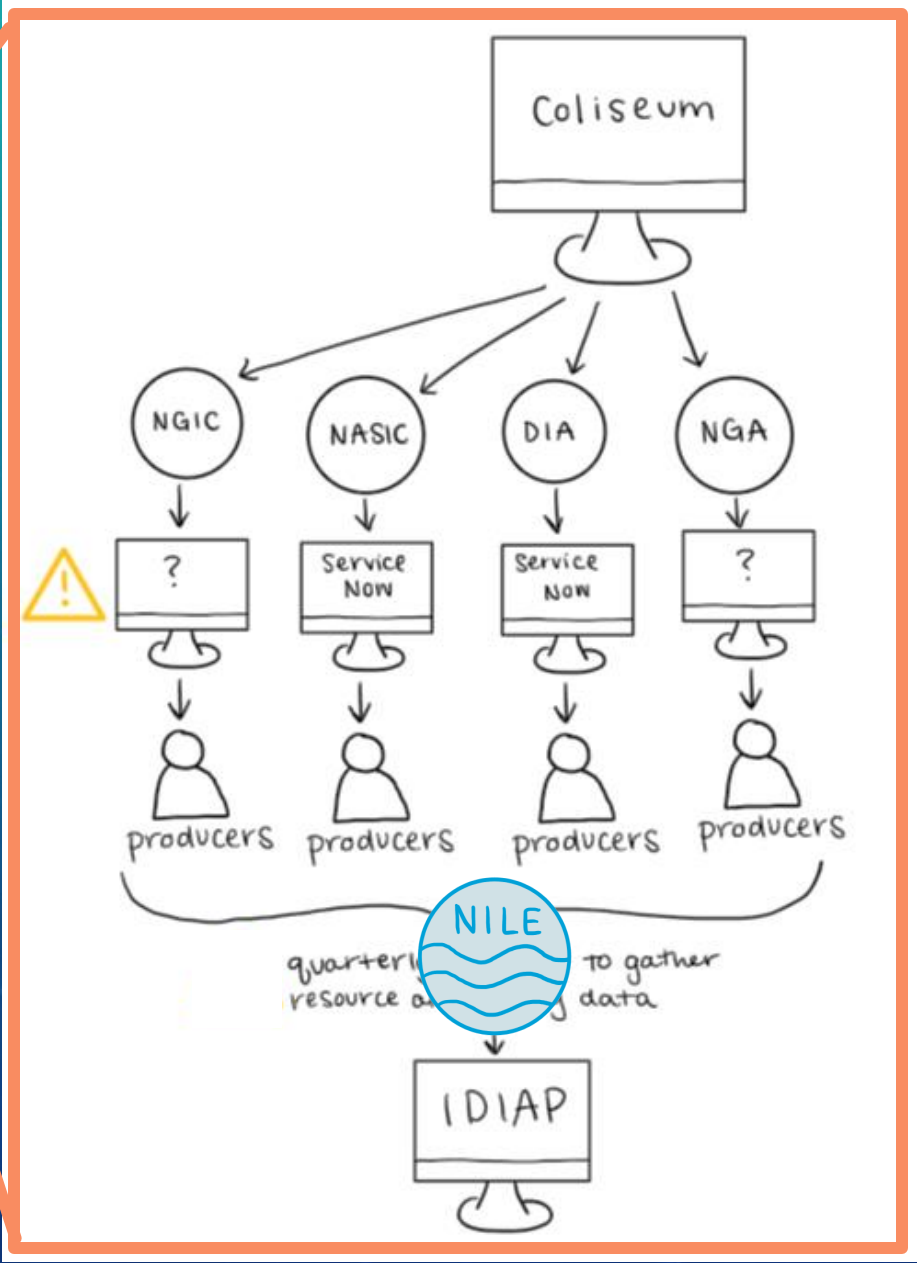
- **Solution: NILE**

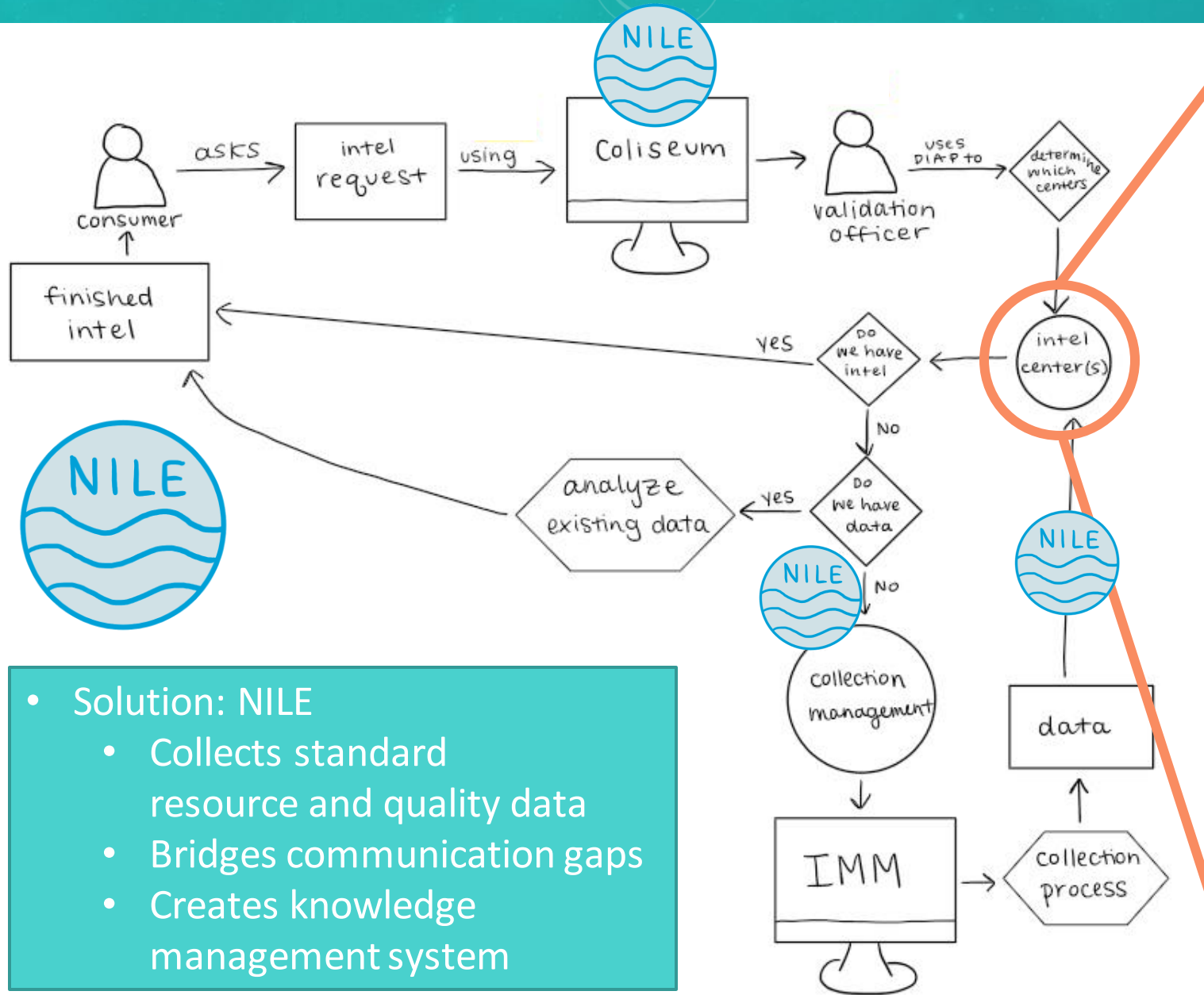
- Collects standard resource and quality data
- Bridges communication gaps
- Creates knowledge management system



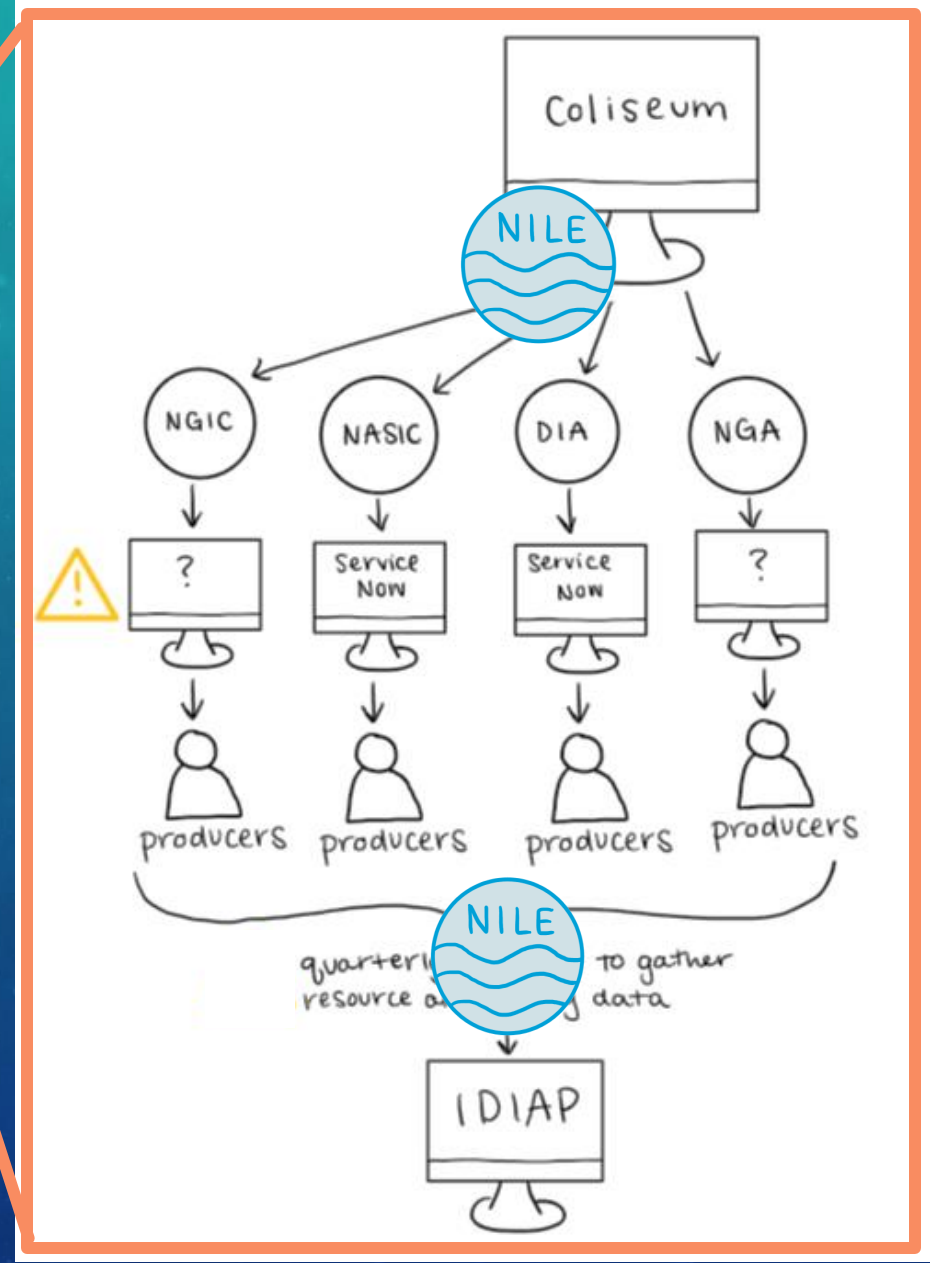


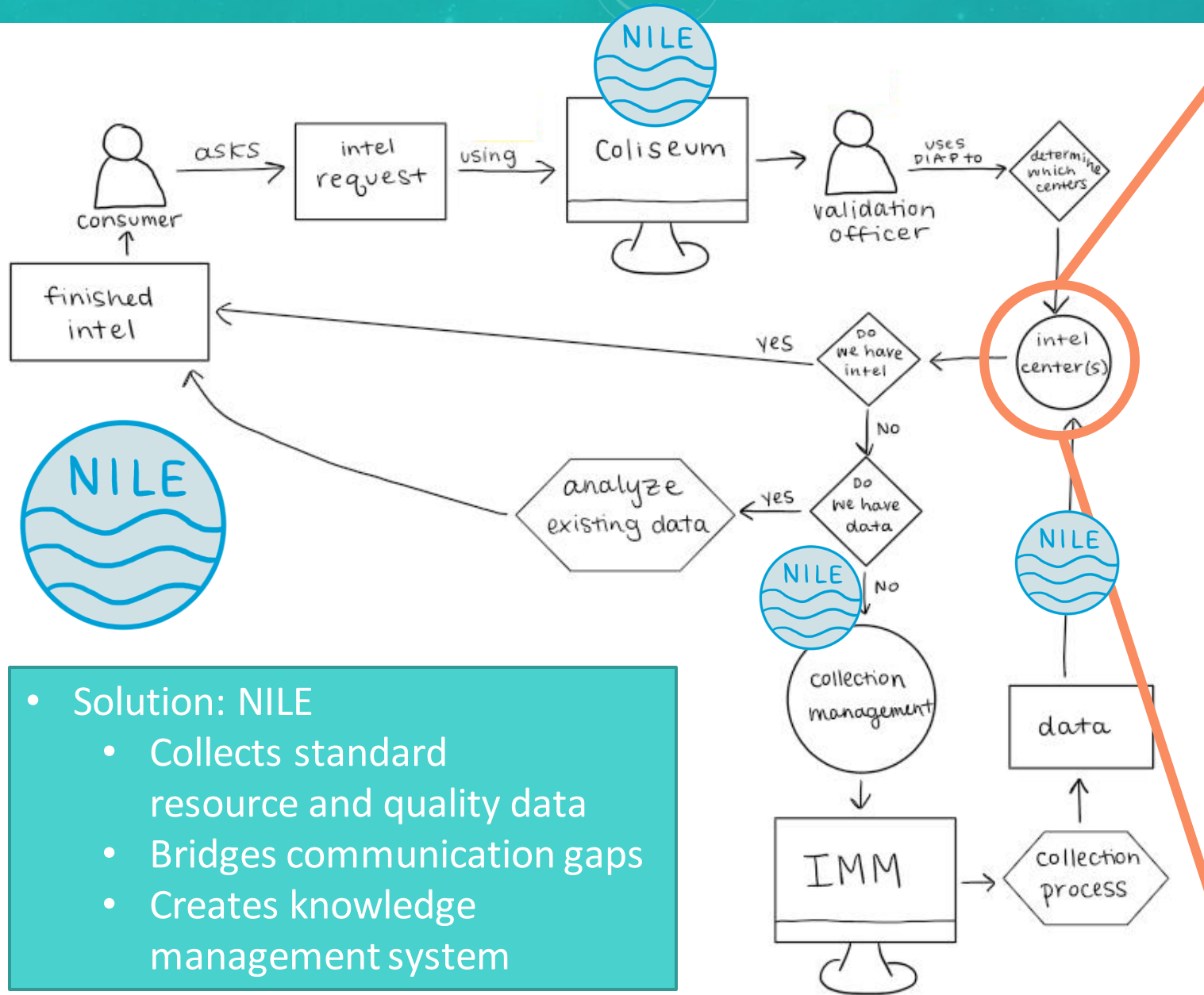
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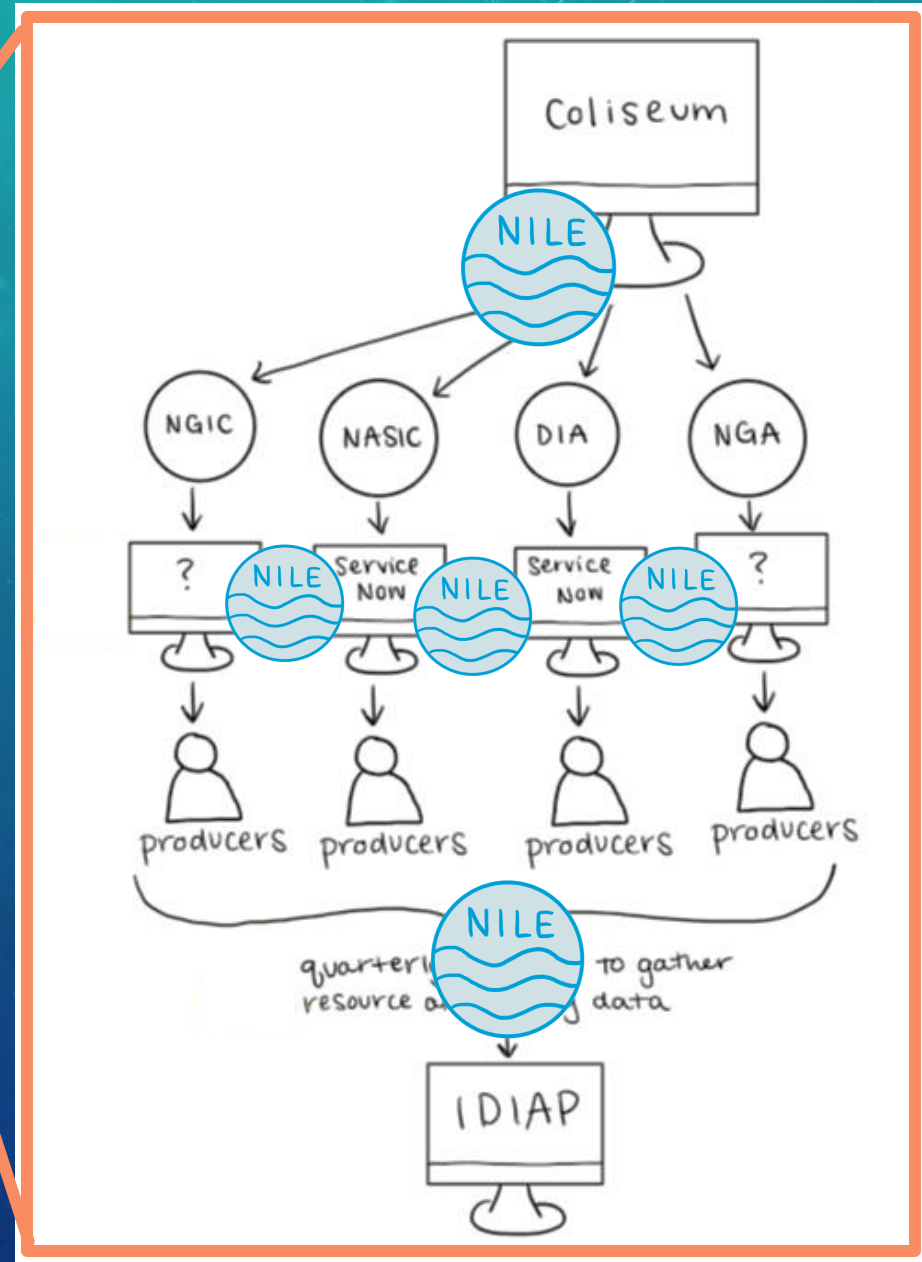


- Solution: NILE
  - Collects standard resource and quality data
  - Bridges communication gaps
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- Solution: NILE
  - Collects standard resource and quality data
  - Bridges communication gaps
  - Creates knowledge management system



# KNOWLEDGE MANAGEMENT

- Poor knowledge management leads to inefficiencies in the intelligence process
  - Duplication
  - Excessive use of resources
  - Increased analysis efforts



- NILE's solution
  - Project workspace
    - Collaborate with others
    - History of past communications
  - Task list
    - Individual analyst view

This screenshot shows the 'PROJECT #48273' workspace. At the top, there are navigation icons for user, settings, and search, along with a profile picture. Below the title, a subtitle reads 'View details of project and teammates involved'. The interface is divided into two main sections: 'Topics' and 'Members'. The 'Topics' section lists 'IFC #131E', 'North Korea', and 'Missile'. The 'Members' section lists 'Holt', 'Peralta', 'Santiago', and 'Diaz'. Each member name is followed by a card containing three icons: a speech bubble, a document, and a globe. At the bottom, a navigation bar includes a puzzle piece icon, a globe icon, the NILE logo, a bell icon, and a globe icon.

This screenshot shows the 'TASK LIST' interface. At the top, there are navigation icons for user, settings, and search, along with a profile picture. Below the title, a subtitle reads 'Your To Dos'. The interface features a 'Criteria' section on the left with a list of items: 'IFC #131E' (red dot), 'IFC #125H' (blue dot), 'IFC #140H' (grey dot), 'North Korea' (green dot), 'Missile' (yellow dot), 'BE #2' (teal dot), and 'BE #4' (blue dot). On the right, there are three task cards: 'Task #1' with a grey, green, and blue dot; 'Task #2' with a red, green, and blue dot; and 'Task #3' with a blue, green, and yellow dot. At the bottom, a navigation bar includes a puzzle piece icon, a globe icon, the NILE logo, a bell icon, and a globe icon.

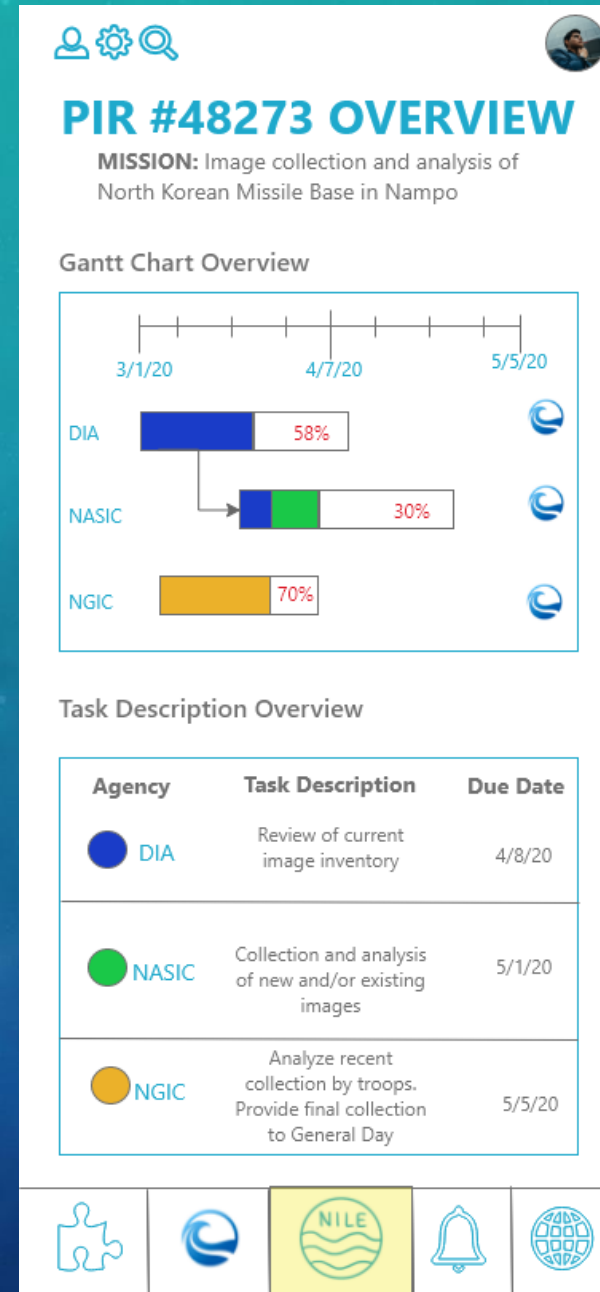


# COMMUNICATION

- Poor communication is caused by incompatible systems across the intelligence community
  - Leads to different "truths"
  - Misunderstanding of tasks



- NILE's solution
  - Project overview
    - Gantt chart
    - Communication tools
  - Profile details



**PIR #48273 OVERVIEW**

**MISSION:** Image collection and analysis of North Korean Missile Base in Nampo

**Gantt Chart Overview**

Agency	Progress
DIA	58%
NASIC	30%
NGIC	70%

**Task Description Overview**

Agency	Task Description	Due Date
DIA	Review of current image inventory	4/8/20
NASIC	Collection and analysis of new and/or existing images	5/1/20
NGIC	Analyze recent collection by troops. Provide final collection to General Day	5/5/20



**Captain Jack Sparrow**  
PACCOM

**Permissions** - Top Secret Clearance

**Region** - PACCOM

**Role** - Military Intelligence

# COMMUNICATION

"Collaboration would be so much easier if I even had the name of another analyst working on this topic"

-Former Intelligence Analyst

**COMMUNITY**  
Connect with others

**IFC #**  
IFC #100  
IFC #100A  
IFC #100B  
IFC #110

**Country**  
Afghanistan  
Albania  
Algeria  
Andorra

**Object**  
Missile  
Tank  
Personnel

**BE #**  
BE #1  
BE #2  
BE #3  
BE #4

Charles Boyle

Raymond Holt

Jacob Peralta

Amy Santiago

Rosa Diaz

Terry Jeffords

Norm Scully

Navigation icons: puzzle, globe, NILE, bell, globe

**COMMUNITY**  
Connect with others

**IFC #**  
IFC #100  
IFC #100A  
IFC #100B  
IFC #110

**Agency**  
Defense Intelligence Agency

**Contact Info**

+1 (555) 423-4920

Jason.mendoza@army.mil

+1 (555) 423-4921

**Country**  
Afghanistan  
Iran  
North Korea  
Russia

**Object**  
Air Combat  
Missile  
Personnel  
Tank

**BE #**  
BE #1  
BE #2  
BE #3  
BE #4

Navigation icons: puzzle, globe, NILE, bell, globe

# FEEDBACK

- Standardized and consistent feedback contributes to continuous improvement
  - Increased quality
  - Efficient use of resources
  - Reduces stress of employees



- NILE's solution
  - Standardized surveys sent out after the completion of each project
    - For producers and consumers
    - Collect specific information on time allocation and quality



# IMPORTANCE OF NILE



CREATES A KNOWLEDGE  
MANAGEMENT SYSTEM



LINKS TOGETHER EXISTING SYSTEMS  
AND FOSTERS COLLABORATION



COLLECTS FEEDBACK TO PROMOTE  
CONTINUOUS QUALITY  
IMPROVEMENT



# IMPACT

- Timely and accurate completion of intelligence requests
- Protects the lives of US military members, allies and civilians



# THANK YOU!

**PROJECT SPONSOR**  
ANDREW DEFLER, OUSD(I&S)

**PROJECT MENTORS**  
FRITZ BARTH, OUSD(I&S)

JOSEPH HERRMANN, NASIC  
MARTY KRIZAN, NSA

# APPENDIX

# ACRONYMS

OUSD(I&S)

• Office of the Undersecretary of Defense for Intelligence and Security

IC

• Intelligence Community

NASIC

• National Air and Space Intelligence Center

IDIAP

• Integrated Defense Intelligence Analysis Program

IMM

• Integrated Mission Management

DIA

• Defense Intelligence Agency

JWICS

• Joint Worldwide Intelligence Communications System

JCIDS

• Joint Capabilities Integration and Development System

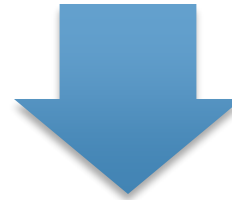
ISR

• Intelligence, Surveillance, and Reconnaissance



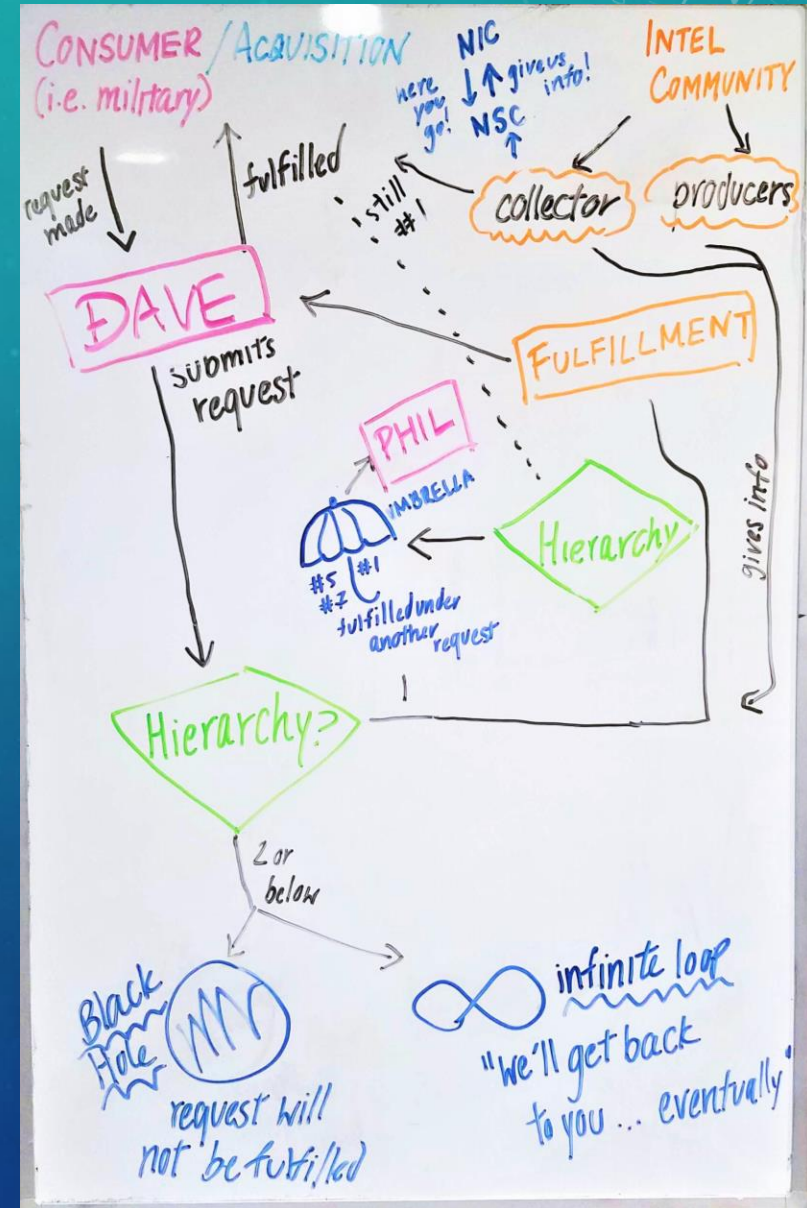
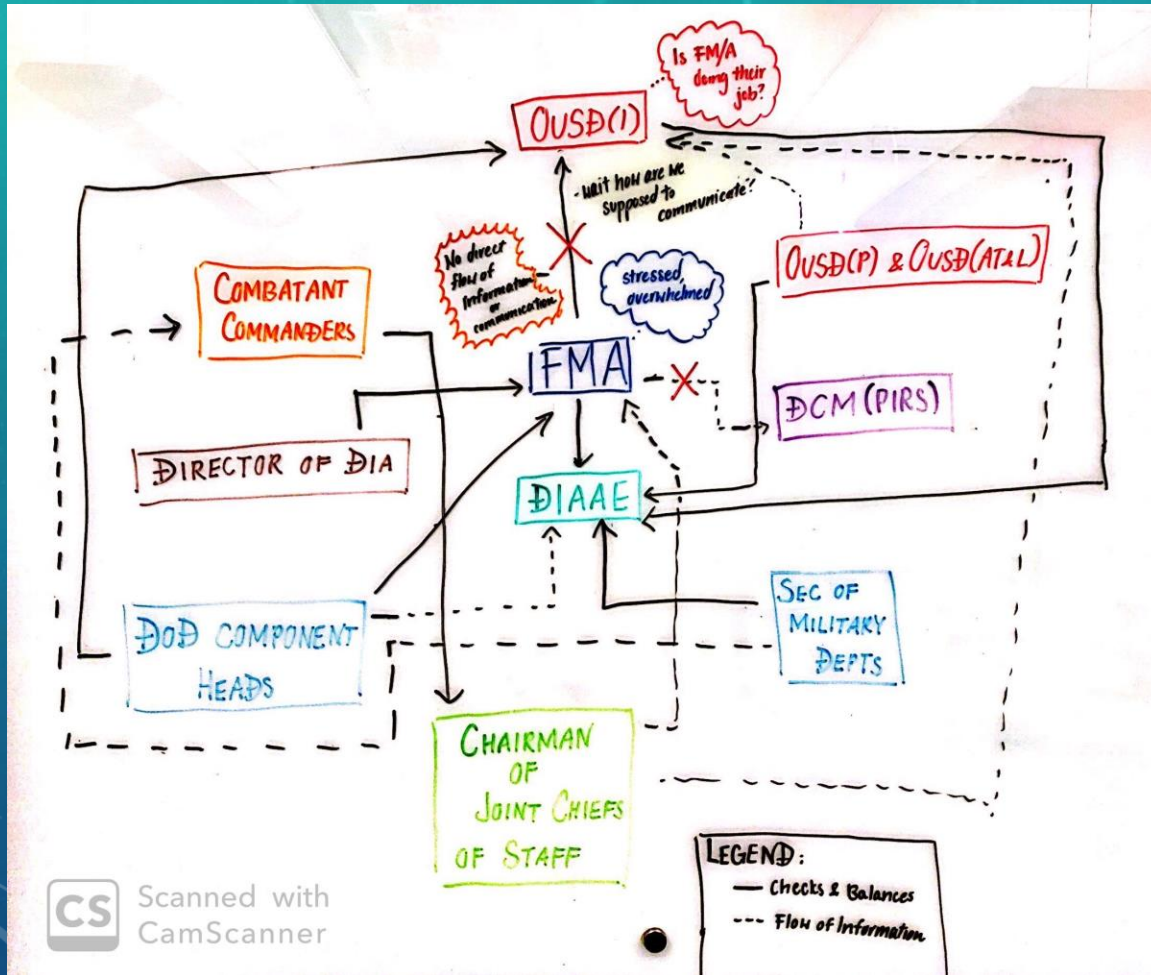
## PROBLEM INTRODUCTION

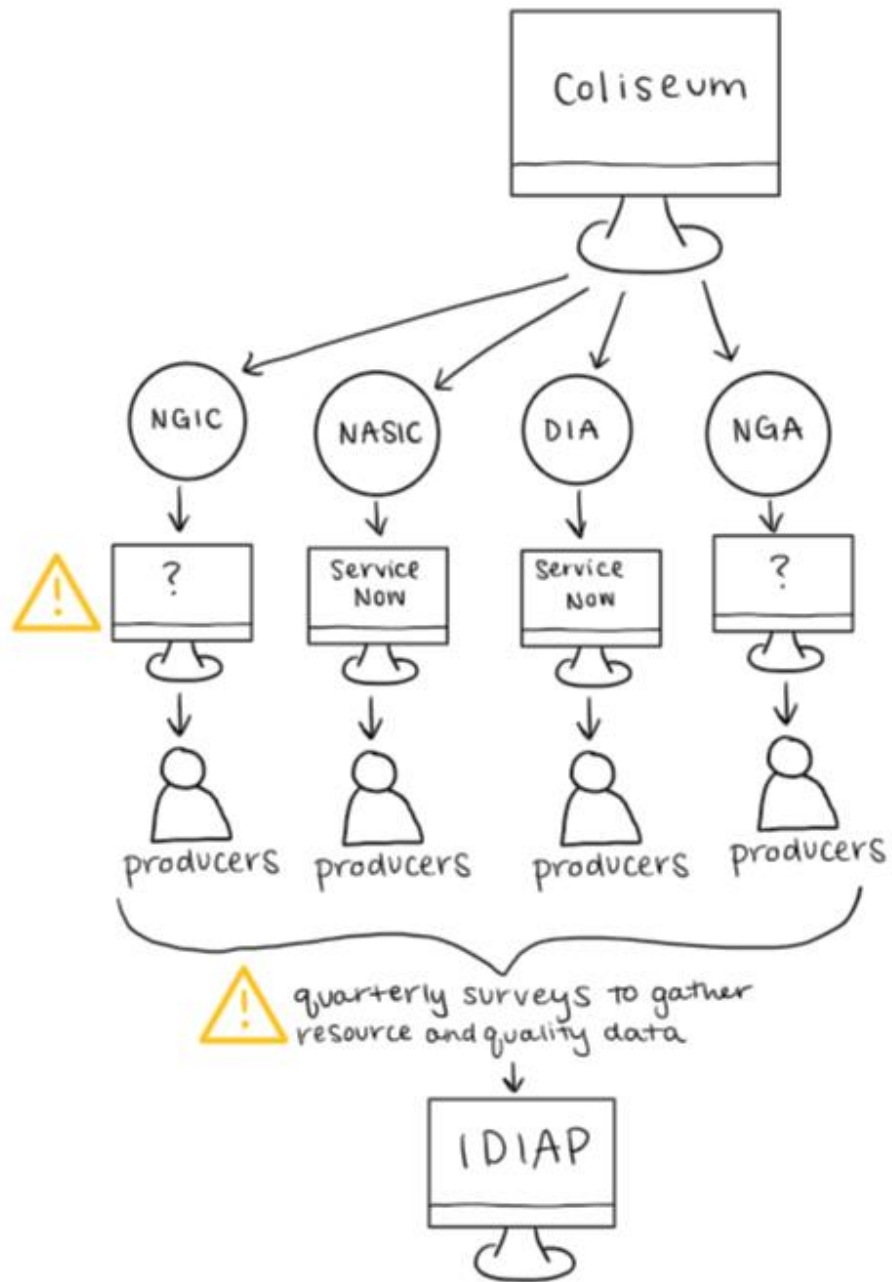
The Office of the Undersecretary of Defense for Intelligence and Security needs visibility into the intelligence fulfillment process in order to confidently respond to requests for information.



Lack of visibility comes from incompatible management and collaboration systems across the Intelligence Community

# PROBLEM DISCOVERY





- Intel centers use different systems for production management, communication, and analysis
- Quarterly data with no standard quality metric is collected



# STAKEHOLDER DESIRABILITY

# COMMUNICATION

**WAVE**  
Direct messaging to the analysts working on your request

**Topics**

- IFC #131E
- North Korea
- Missile

Conversation with R. Holt

Conversation with R. Diaz

Conversation with J. Peralta

Conversation with A. Santiago

Oversight View

**REQUEST SUBMISSION**  
Fill out the fields below to submit a request

**Request Details**

PIR #:

Stakeholder:

Assets Needed:

IFC(s):

Region:

Urgency:

Due Date:

**Contact Info**

+1 (555) 423-4920

Jason.meridoza@army.mil

+1 (555) 423-4921

**SUBMIT**

Consumer View

**PIR #48273 OVERVIEW**  
**MISSION:** Image collection and analysis of North Korean Missile Base in Nampo

**Gantt Chart Overview**

3/1/20 4/7/20 5/5/20

DIA +

NASIC

NGIC

**Task Description Overview**

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Validation Officer Views

**PIR #48273 ASSIGNMENT**  
Assign projects and view available analysts

**Recommended Analysts**

- Senior Analyst Jason Mendoza Army +
- Senior Analyst Michael Diablo Army +

**Available Analysts**

# STAKEHOLDER DESIRABILITY FEEDBACK

## Analyst Questionnaire:

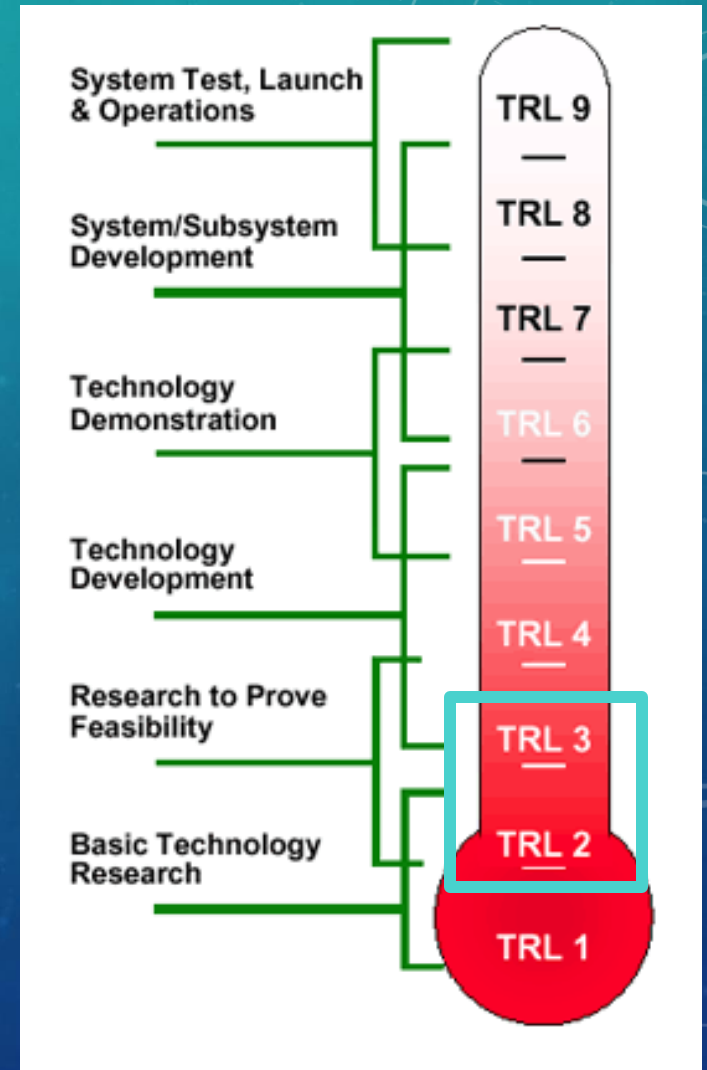
- How many hours did you spend on this project?
- On average, how many hours did you spend on this project each day?
- On a scale of 1 (not at all) to 10 (extremely difficult), rate how difficult this project was?
- What made this project difficult? Please select all that apply:
  - Did not have enough information to fulfill request
  - Request was too vague
  - Other: (text box)
- Are you satisfied with the product that your team submitted? (Y/N)
- Is there anything that could have made this project easier to complete? (text box)
- Do you have any comments?

## Consumer Questionnaire:

- Did this product meet one of your priorities? (Y/N)
- On a scale of 1 (not at all) to 10 (very helpful), how useful was this product?

# TECHNICAL FEASIBILITY

- "Piggyback" off Integrated Mission Management
  - General coding and logic
  - Add analysis-specific extensions
- Ensure interaction with existing systems
  - Coliseum, ServiceNow, etc.
- Build to run on all security level networks
  - JWICS - Joint Worldwide Intelligence Communications System



# ECONOMIC VIABILITY

## Estimated Cost

- \$1-6 million

## Possible Sources of Funding

- ISR Transfer Funds
- Unfunded Requirements
- Requirements Definition Packages



# ESTIMATED COSTS

## Total: \$1 - 6 million

- \$500,000 - 2 million per year
- 2 to 3 years for completion

## Criteria

- Who builds it?
- How quickly does it need to be completed?
- What type of system integrations are performed?
- What type of networks will it run on?

# POTENTIAL ROADBLOCKS

## Security Risk

- The more people have information, the greater the risk of a data breach

## "Elimination" of Existing Systems

- People work on and pay for the existing systems
- Might not like the idea of NILE overriding their work

## Culture

- The IC is protective of their information
- Agencies tend to "compete" with each other