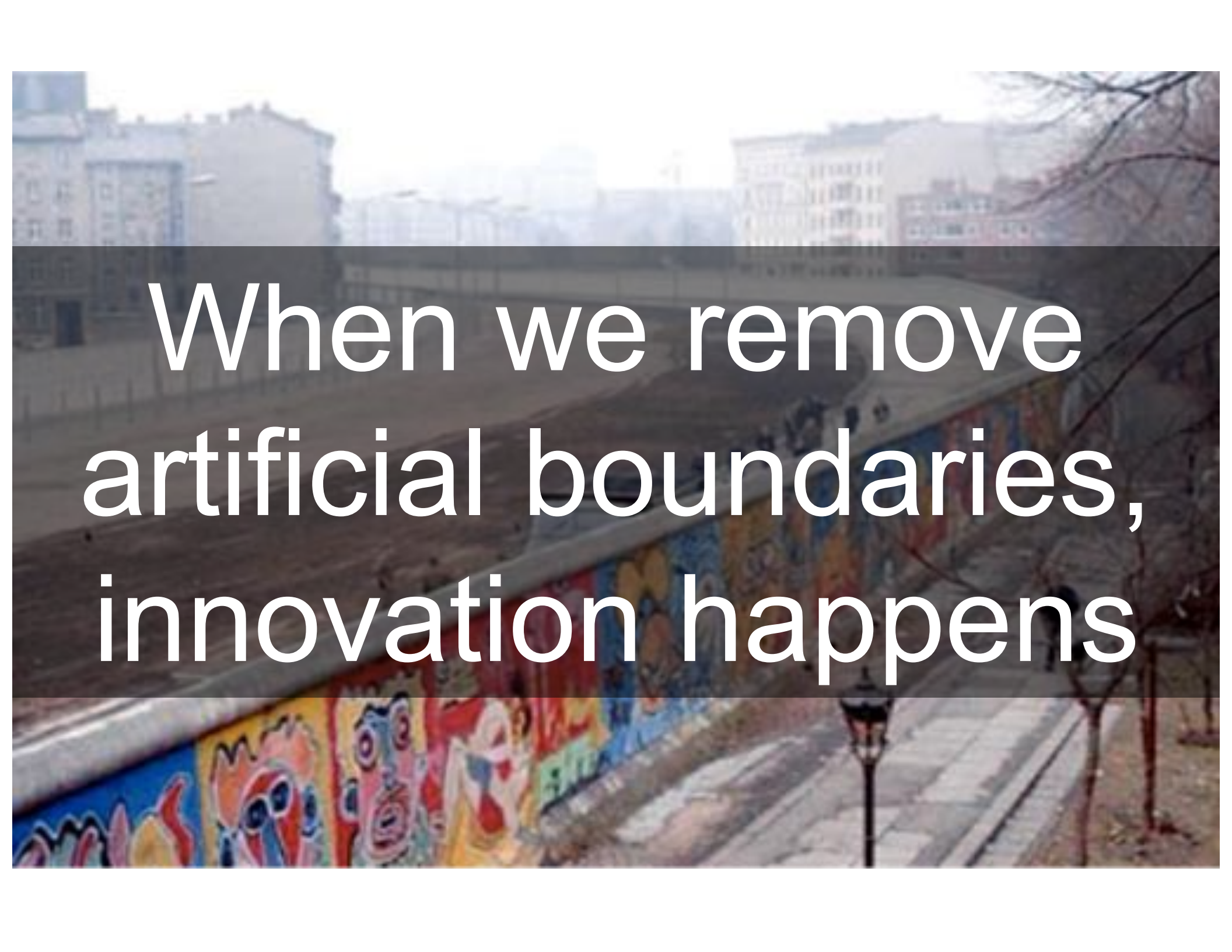


Where Innovation Begins

Agenda

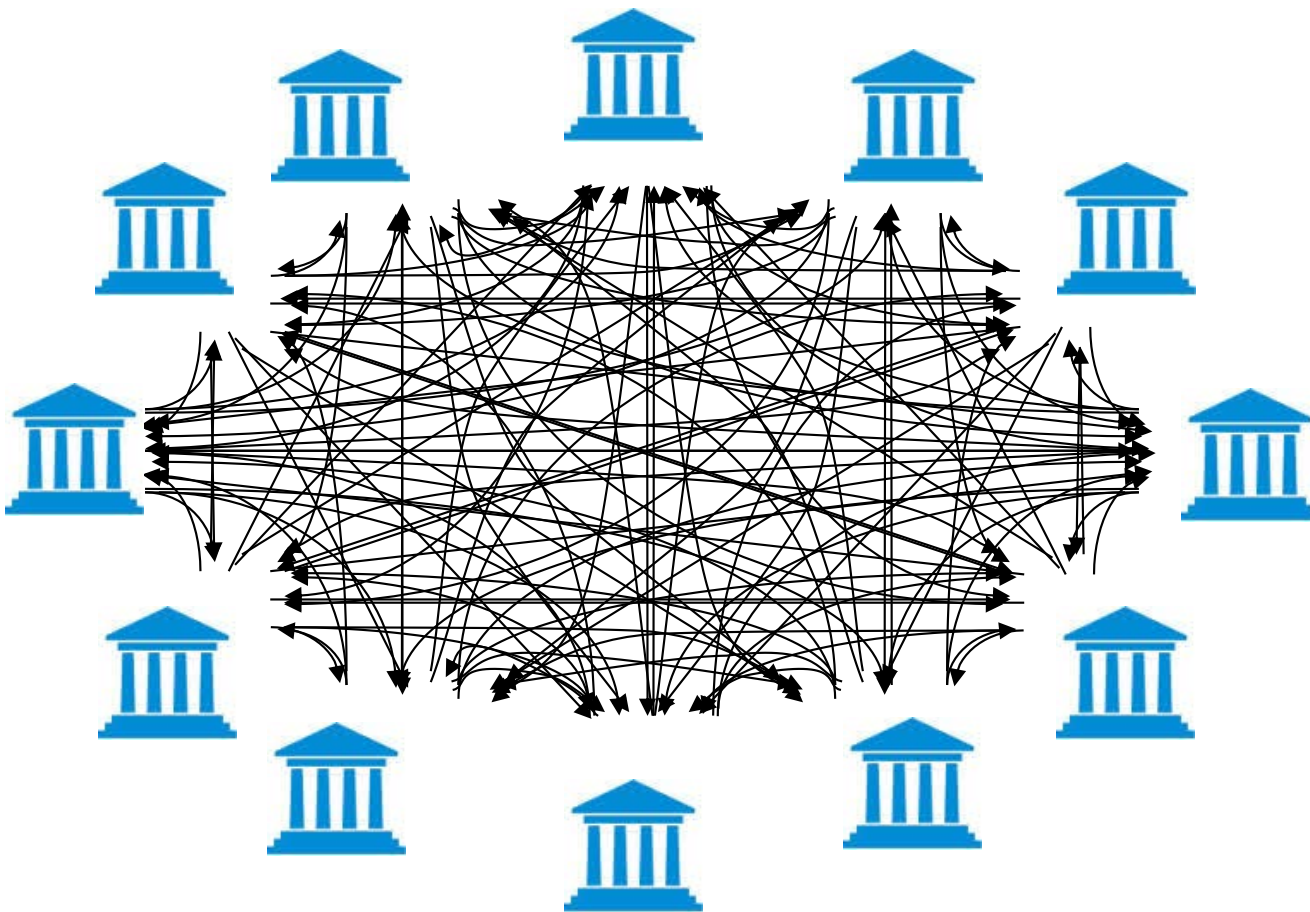
- Who I am/What I believe
- The State of the US Federal Government
Human Resources Data Standard
 - v1, v2, and beyond
- Applying the Data Standard to a real Business Problem
- Takeaways



A photograph of a city street scene. In the foreground, there is a wall covered in vibrant, colorful graffiti, featuring stylized faces and abstract shapes. The wall runs along a sidewalk. In the background, there are several multi-story buildings, some with many windows, under a slightly overcast sky. A few trees without leaves are visible on the right side. The overall atmosphere is urban and creative.

When we remove
artificial boundaries,
innovation happens

Current State



Current State Issues:

- Redundant systems for same function across government (e.g., LMS)
- HR systems lack integration and interoperability within and between agencies and service providers
- Lack of complete and current employee lifecycle data for efficient human capital decision making

Business Impacts of Issues:

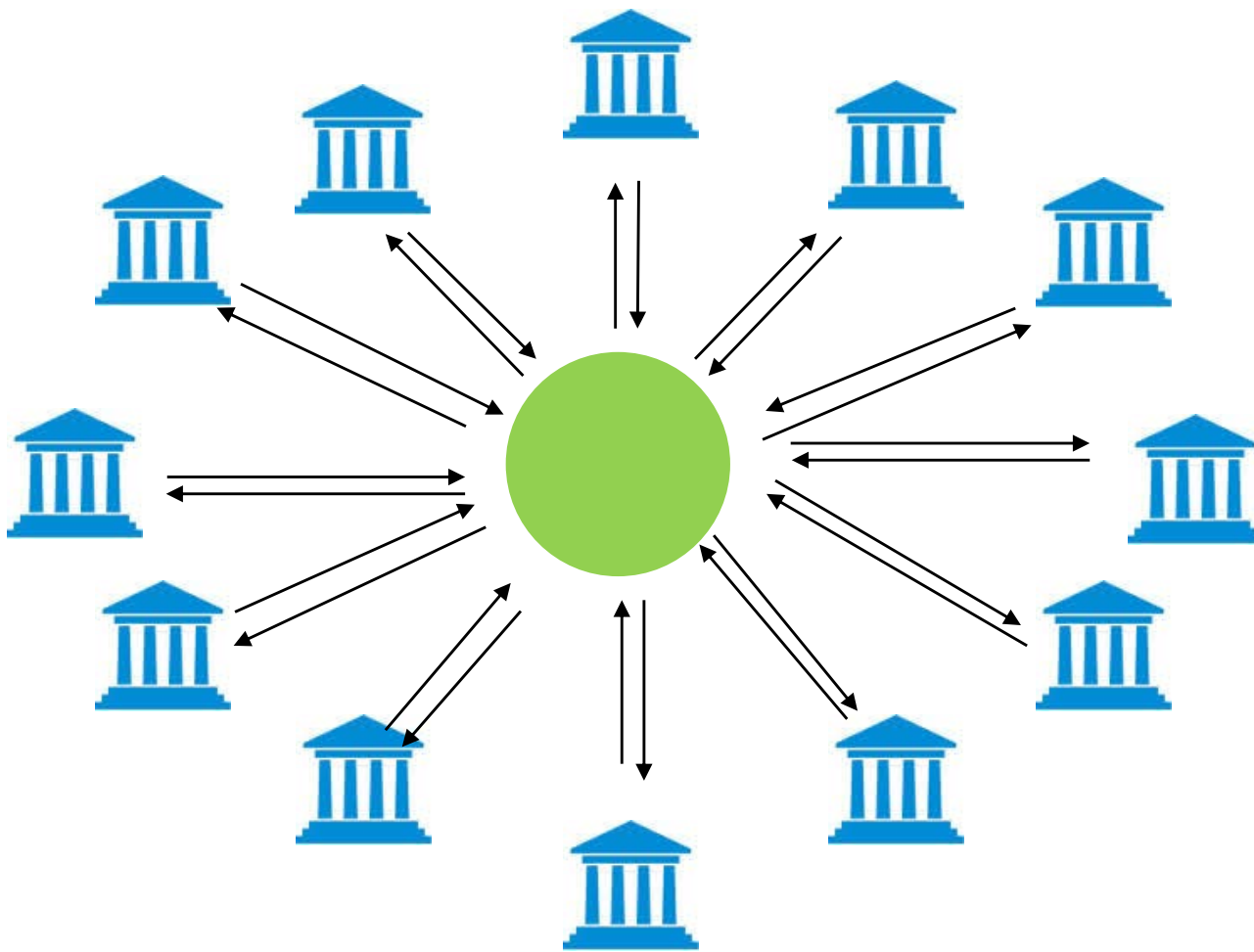
- HR focuses on transactional work rather than strategic mission support
- Inefficient and inaccurate reporting creating decision-making challenges
- Inefficiencies associated with duplicative data entry and error corrections
- Complex and costly vendor management

The Federal government currently does not have a government-wide approach to managing approximately 2.1M Federal employee HR records.

Other challenges include:

- Lack of data standards or inconsistent application of existing standards
- Unstructured data transformation
- Data security and privacy concerns
- Cost and operational burden of modernizing government-wide legacy HR Information Technology (IT) systems
- Redundant Human Capital data across multiple systems across the Federal government, shared service providers, and OPM

Future State



Purpose

- Common language
- Common outcomes
- Common rules
- Common services

Efficiency

- Lower total cost of ownership
- Mission enabling
- Focus on Business Capability

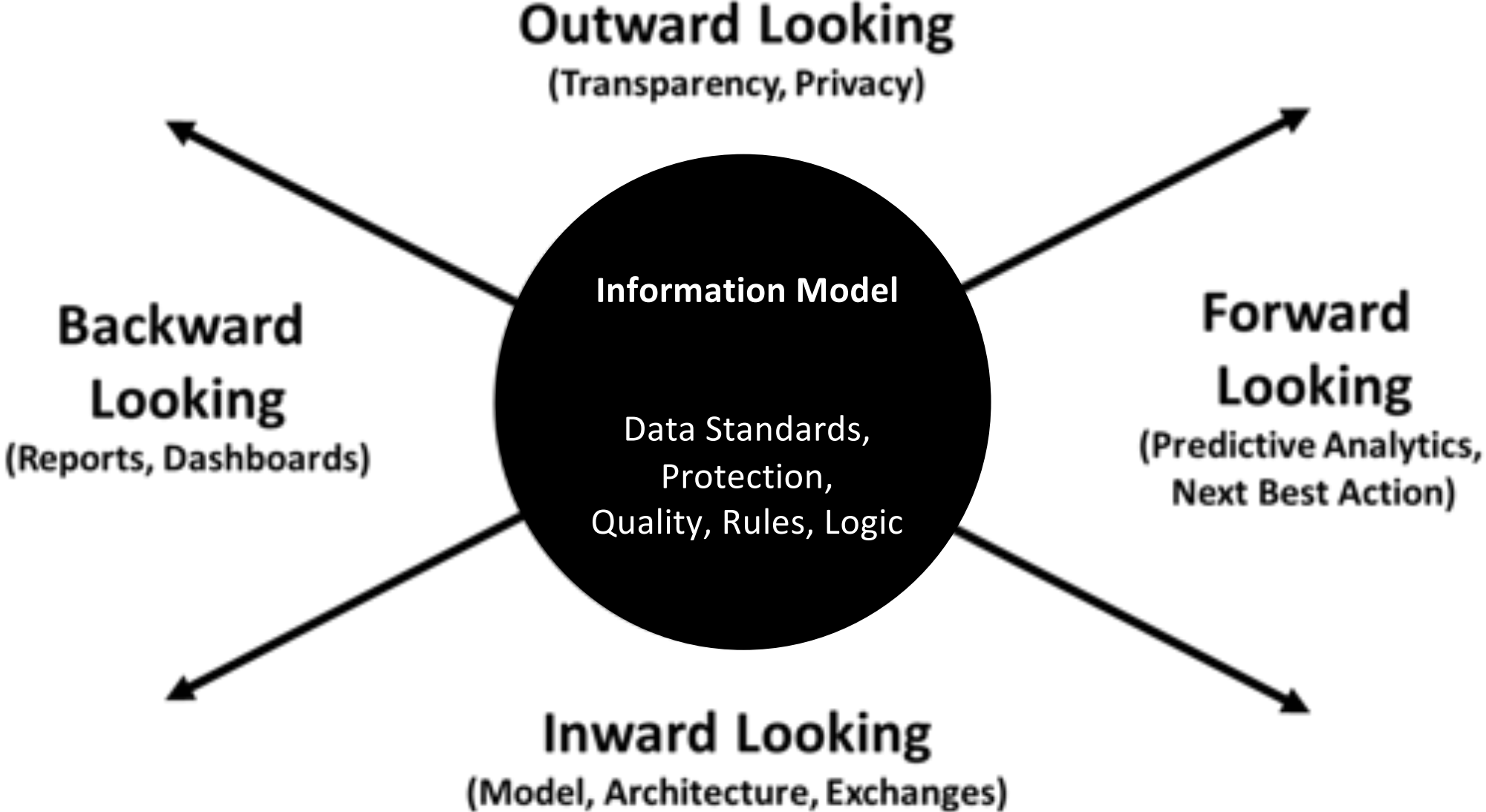
Effective

- Enables Employee/Supervisor self-service
- Future-proofing HR SaaS

Benefits

- Enable better decision-making

Data Perspectives



Data is a means
to an end.

Enabling Capabilities

Speed of Delivery

- Rethink data architecture and data exchange capabilities

Digitization of the Business

- Redesign value chain to accelerate time to value

Becoming Data Centric

- Redefine value away from systems-centric focus to integrated data-centric focus

Building Public Trust

- Reinvigorate employees and rewrite processes with new thinking

Implementing Innovative Technology

- Reimagine solutions for the next generation, next century

Guiding Principles

Design data better

- Common language for interoperability and interconnectedness
- Cultivate holistic thinking and integrated value

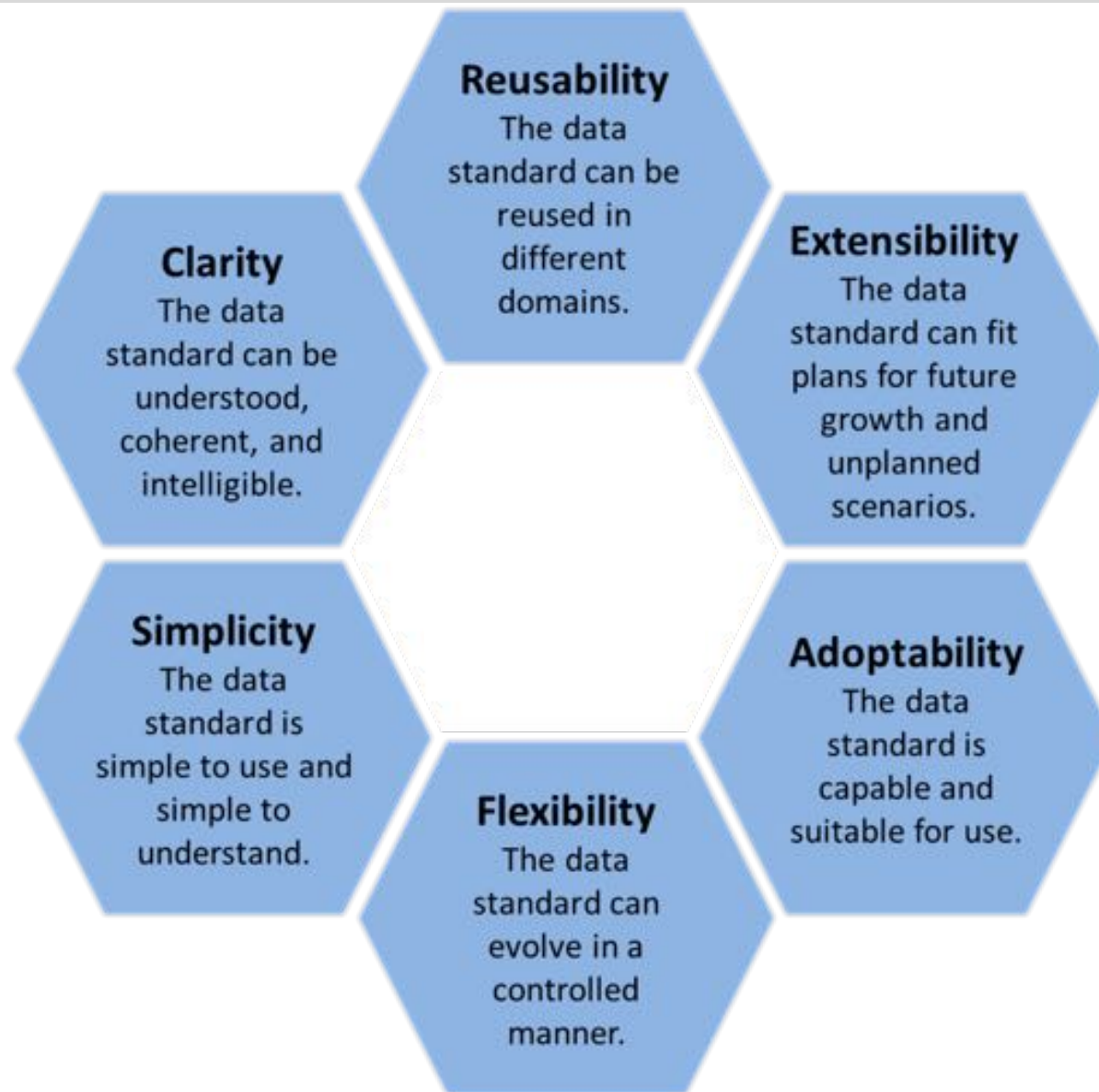
Share data smarter

- Accelerate time to value – enter data once, then reuse
- Reduce the cost of data ownership

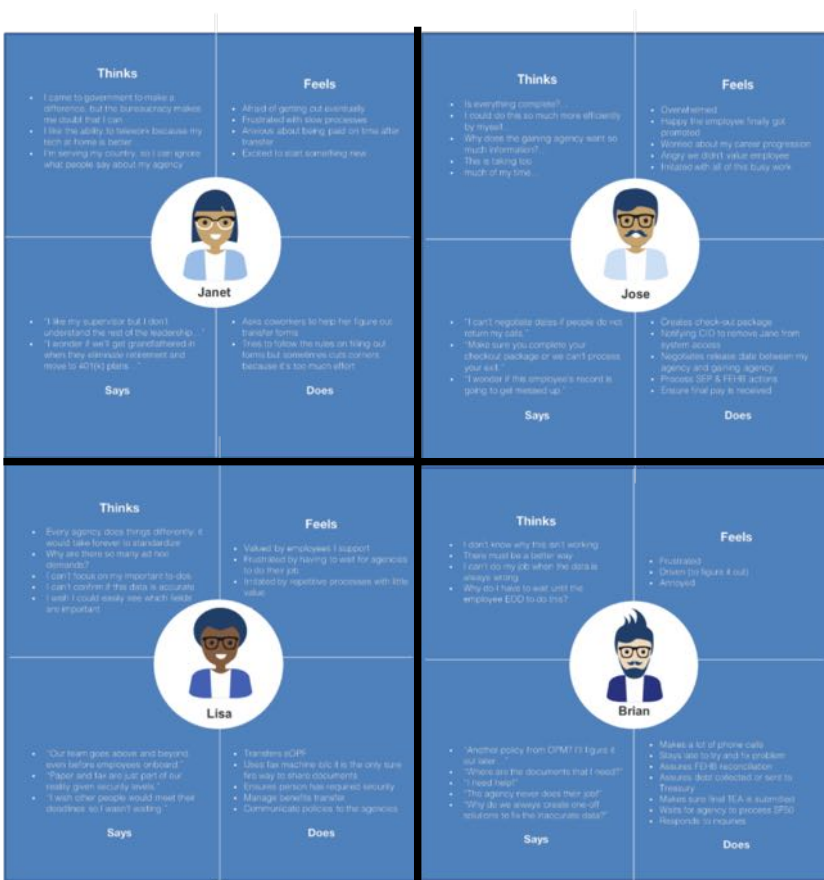
Use data more

- Establish meaningful information as the new currency of government
- Enable data perspectives – knowns and unknowns

Data Standards Success Metrics



Design Process – Personas



Personas

Share a common view of the target customer and collaborate effectively to meet that customers' needs

Help team members share a specific, consistent understanding of various audience groups. Data about the groups can be put in a proper context and can be understood and remembered in coherent stories.

Proposed solutions can be guided by how well they meet the needs of individual user personas. Features can be prioritized based on how well they address the needs of one or more personas.

Provide a human "face" so as to focus empathy on the persons represented by the demographics.

Personas are used in User Scenarios, Journey Mappings, and other Design Thinking and Agile artifacts

Design Process - Scenarios



Requirements based on user scenarios
Prioritize based on personas

Use personas to think about entries, transitions, and edge cases
Personas drive design choices

Personas shared with developers
Assess feasibility based on value to key personas
Personas determine accessibility requirements



Usability test based on personas
Use personas to prioritize bug fixes

Advertising plans based on persona research
Messaging designed to personas

Support staff help validate personas
Support content designed to personas

Design Process – Journey Map

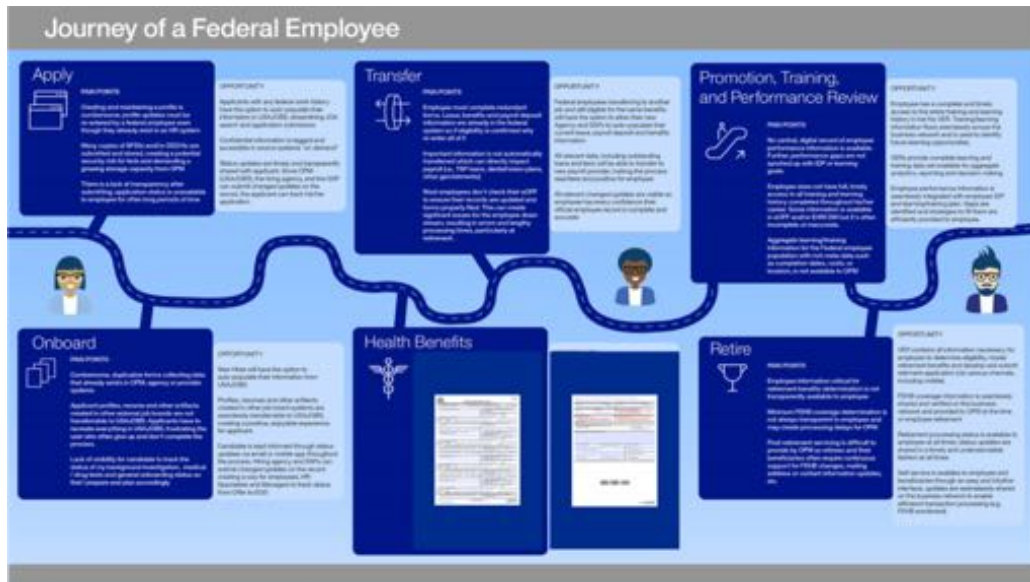
Journey Map

Visually illustrate customers' processes, needs, and perceptions throughout their relationships with a company.

When used effectively, journey maps help to plan improvement projects and reframe discussions in terms of customer experiences rather than internal operations

To include outside-in thinking not just inside-out thinking

To better understand how behind-the-scenes activities connect to customer interactions



Design Process

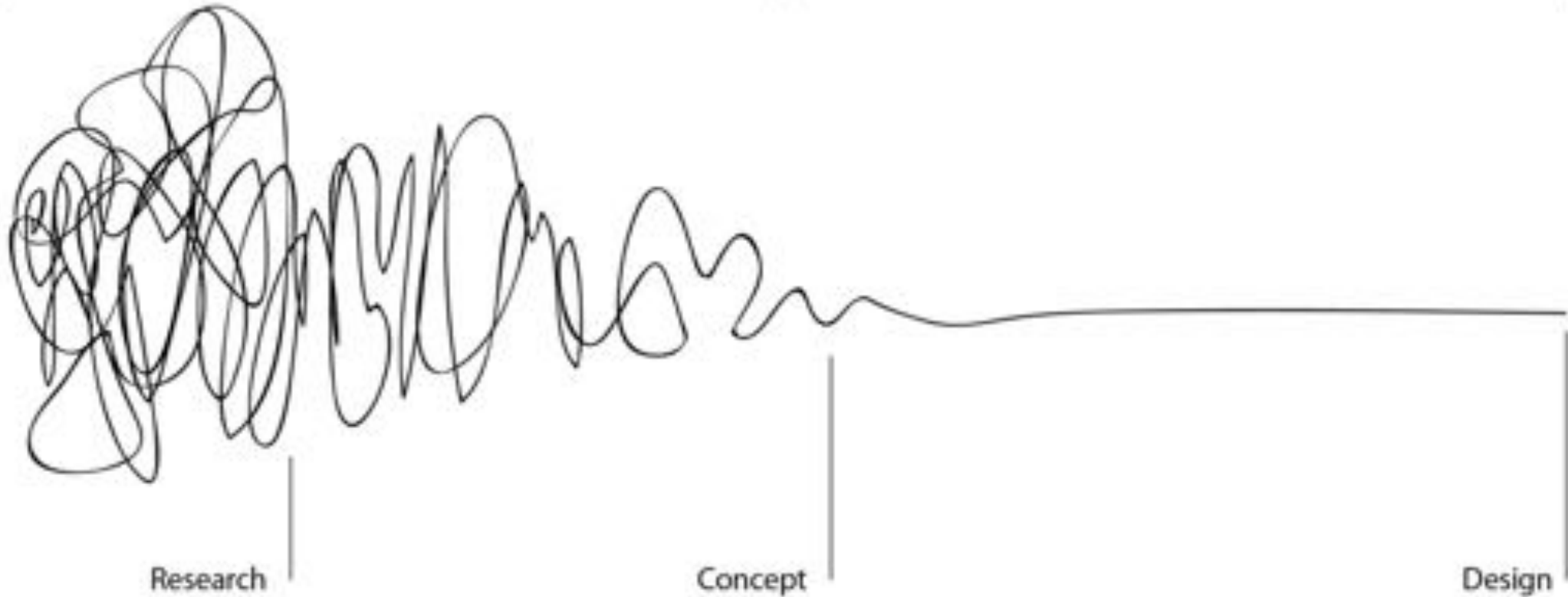
Uncertainty / patterns / insights

Clarity / Focus

Research

Concept

Design



Standard Form (SF) Analysis and Data Exchange



SF-75 (Sections A,B,E)
63 data elements

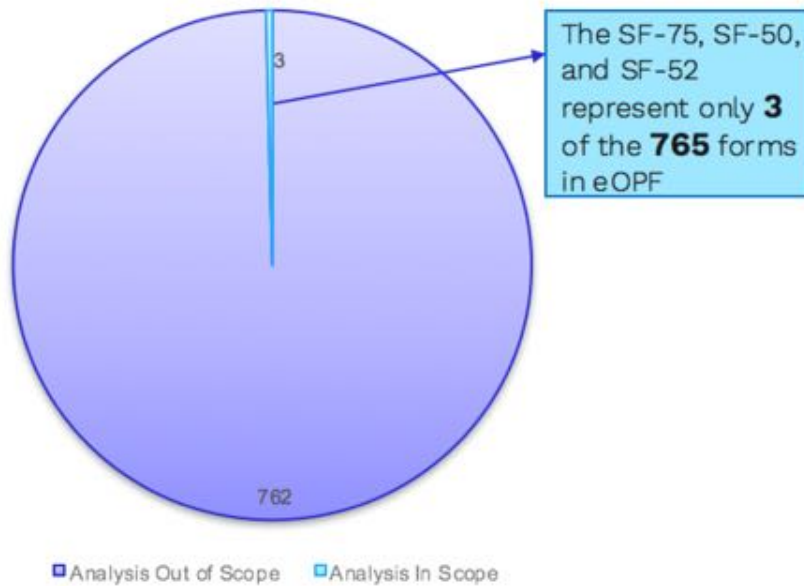


SF-52
124 data elements



SF-50
79 data elements

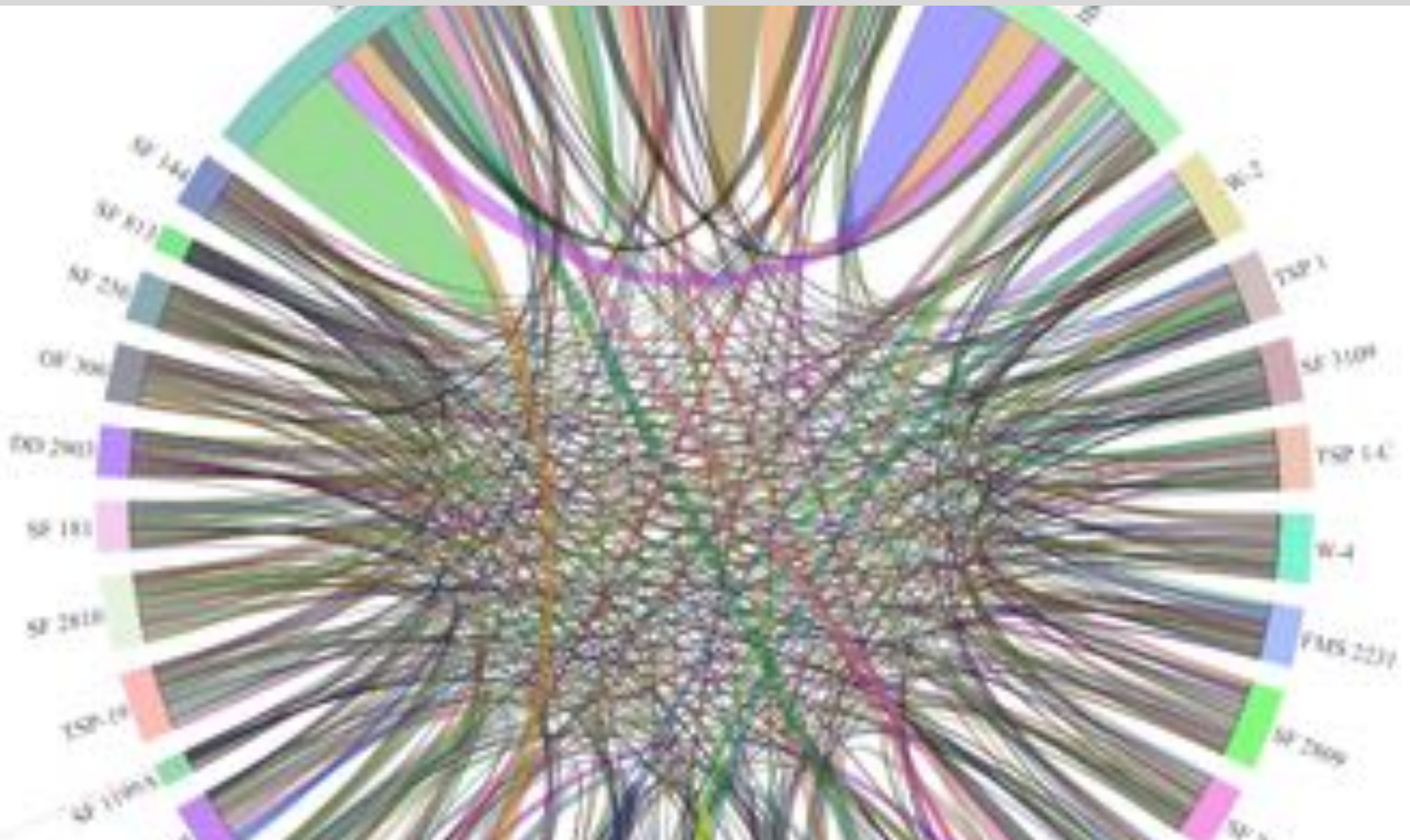
eOPF Master Form Population*



- There are **226 data elements** within the SF-50, SF-52, SF-75
- **99 of the 226** data elements are **duplicates**

*Form totals derived from [eOPF Master Forms List](#) and includes agency and process specific forms in addition to government wide forms.

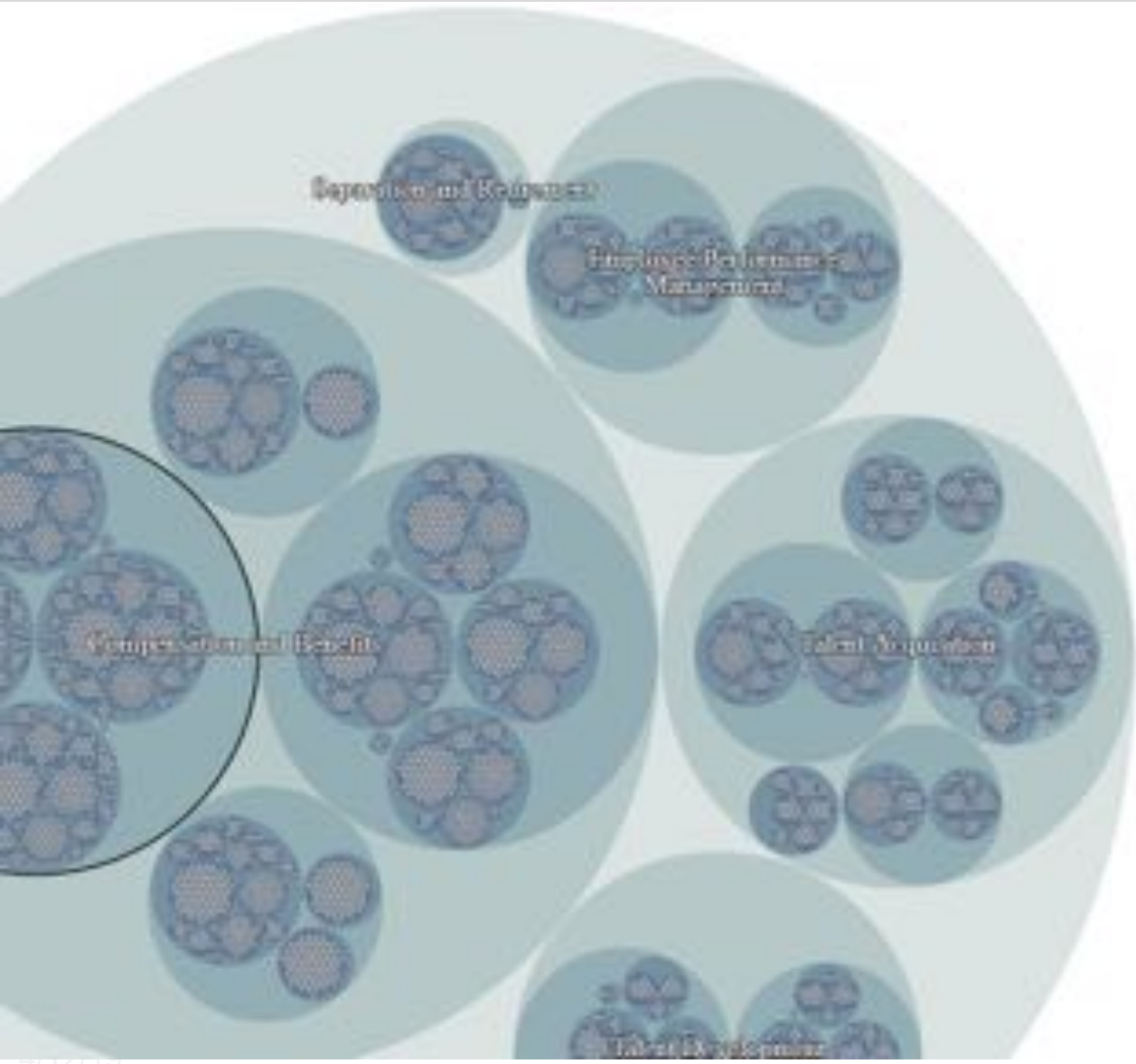
Business Registry (Chord Diagram)



Business Registry (Zoomable Icicle)



Business Registry (Circle Pack)



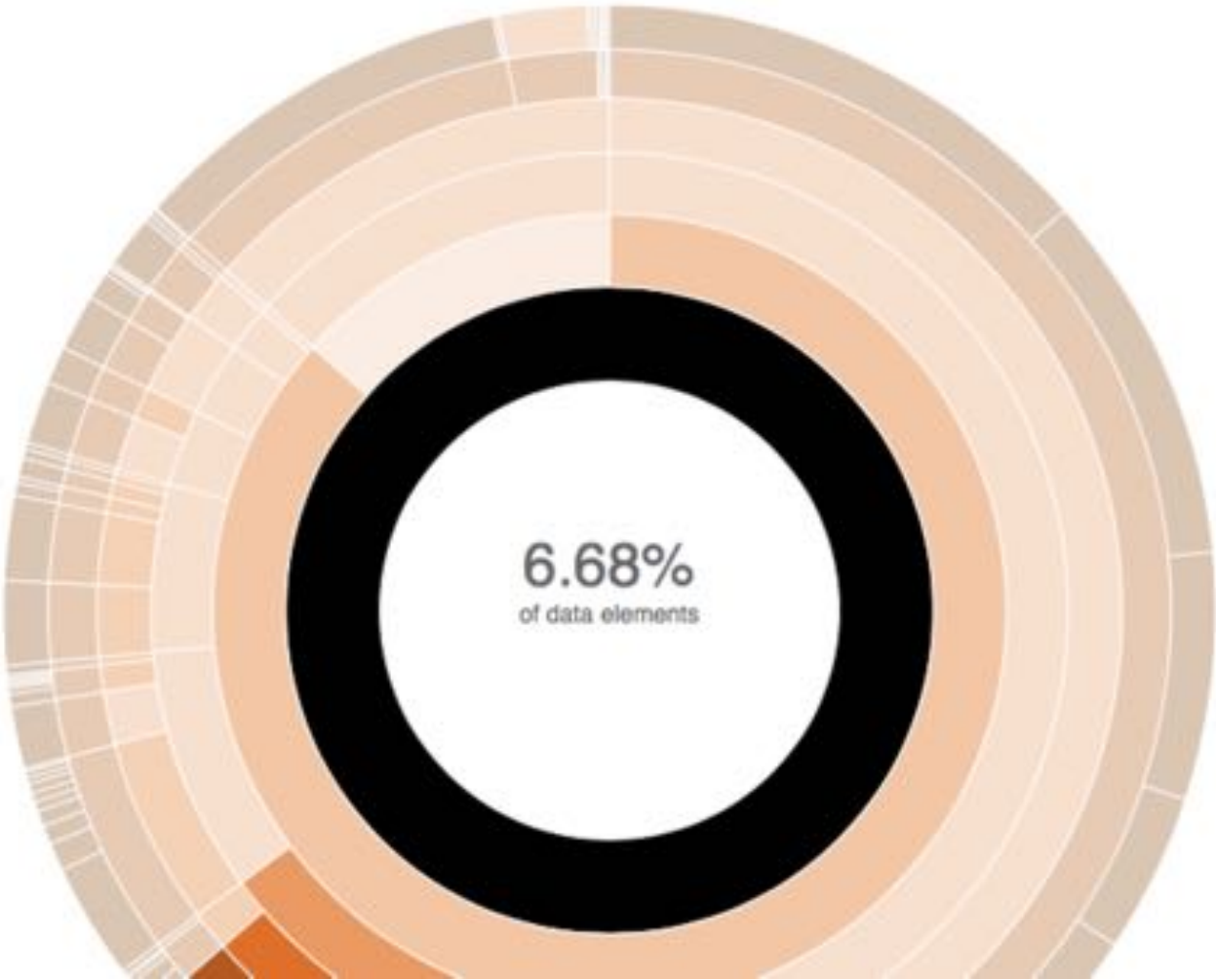
HCBRM

- Talent Acquisition
- Talent Development
- Employee Performance Management
- Compensation and Benefits
- Separation and Retirement

HCBRM	Function	SubFunction	Service	Class		
	Talent Acquisition	Talent Acquisition Management	Talent Acquisition System Administration and Records Management	Address		
1: Address City Name Text (ID:1)						
2: Address Full Address Text (ID:2)						
3: Address Line Text (ID:3)						
4: Address State Code (ID:4)						
5: Address Postal Code (ID:5)						
6: Address Postal Extension Code (ID:6)						
7: Foreign Address Postal Code (ID:45)						
8: Foreign Address State/Province Code (ID:46)						
9: Address Country Code (ID:355)						
10: Address Line Extension Text (ID:372)						
Address State Code						
Base	Agency	Tax	Employer	Employee	Submitter	Home
<p>Object Class: Address</p> <p>Definition: The postal abbreviation assigned to the state of an address.</p> <p>Form Mapping: SF50*</p> <p>HCDRM: C1 - HC Core*</p> <p>Exchange: LES*</p> <p>Example Value: Example value for: State Code*</p> <p>Managing Partner: FMLOB*</p> <p>OPM Standard Mapping: GDS*</p> <p>Owner: Health Insurance*</p> <p>SORN: OPM INTERNAL-5*</p>						
*placeholder data						

Data contexts for this element

Business Registry (Sunburst Diagram)



So what did we do..

The US Federal Government funded a project to see what it would take to deliver an HR solution powered by Blockchain. Here's why:

- Multiple business ecosystem partners
- Need to have data (timely, accurate, and relevant)
- Currently, centralized HR reporting is inefficiently processed, managed, and delivered – leads to a negative experience and missed opportunities

Keys to success include:

- Data standards (common language)
- Business capability standards (common logic/rules)
- Common outcomes
- Common services

Meet Sofia.



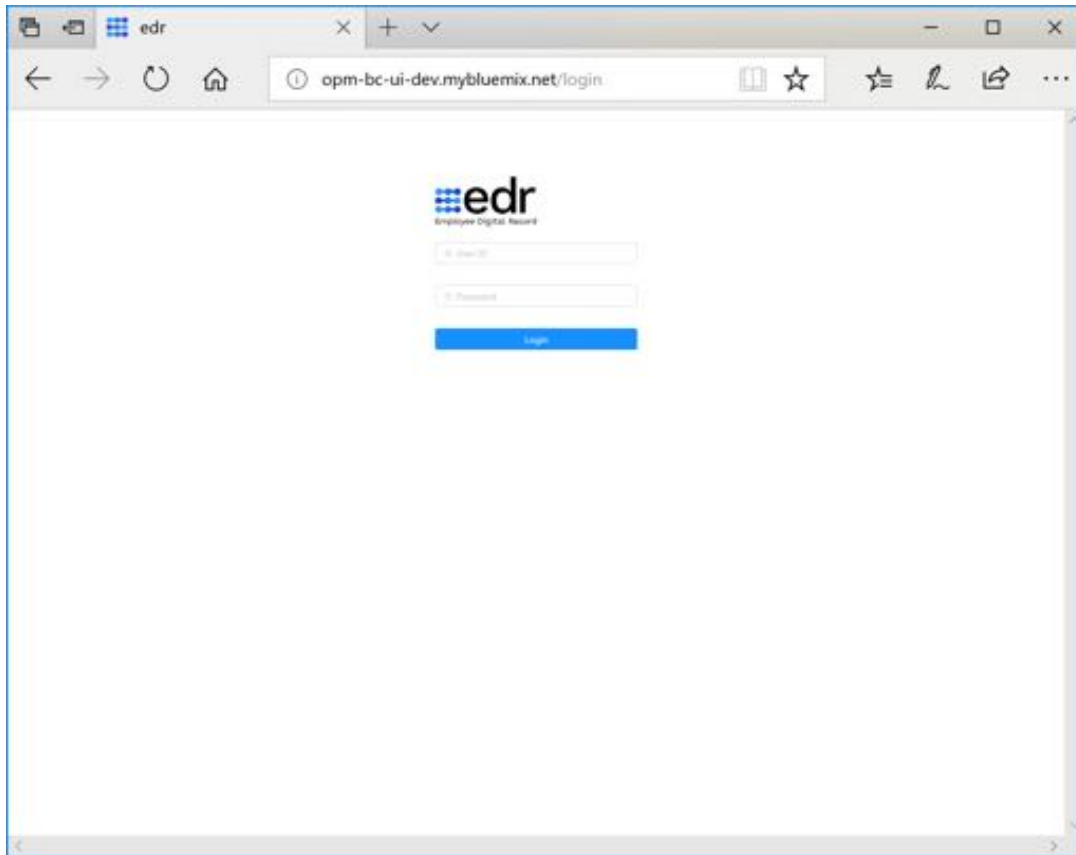
Sofia is a doctor, a veteran, a wife, a mother, and a Federal employee. And her employee digital record reflects all of this – and more.

Sofia is preparing to transfer from Veterans Affairs (VA) to Health and Human Services (HHS), moving her career and her family from Florida to Arizona.

Employee Transfer Process

Sofia has already applied to the position through USA Jobs and has accepted an offer. In our demo, we will pick up at the point in the on-boarding process where HHS, the gaining agency, needs to request preliminary employment data from Sofia's current agency, VA.

Employee Transfer Process



The HR specialist from HHS logs onto edr to initiate the personnel action on Sofia's behalf.

Employee Transfer Process

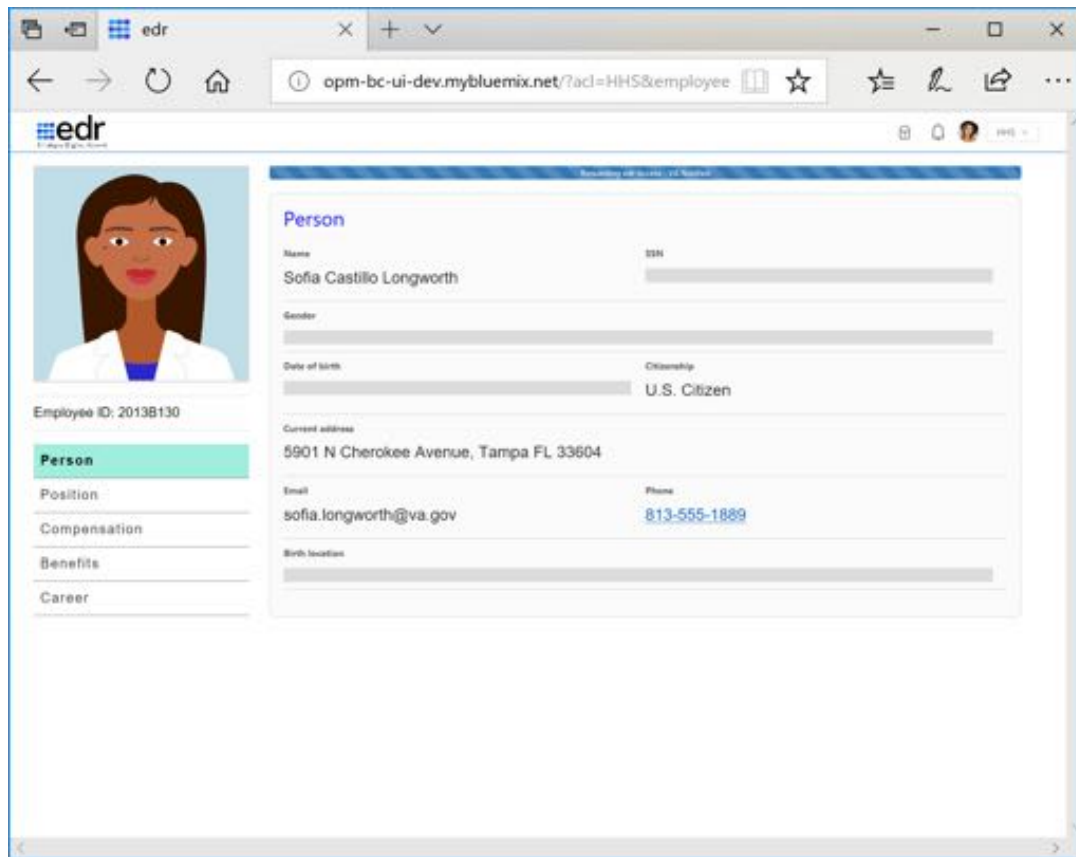
The screenshot shows a web browser window with the URL `opm-bc-ui-dev.mybluemix.net/?acl=HHS&employee`. The page displays a profile for a person named Sofia Castillo Longworth. The profile includes a photo placeholder, an employee ID of 2013B130, and a list of tabs: Person, Position, Compensation, Benefits, and Career. The main content area shows the following information:

Person	
Name	Sofia Castillo Longworth
SSN	[Redacted]
Gender	[Redacted]
Date of birth	[Redacted]
Citizenship	U.S. Citizen
Current address	5901 N Cherokee Avenue, Tampa FL 33604
Email	sofia.longworth@va.gov
Phone	813-555-1889
Birth location	[Redacted]

A blue button labeled "Request Access" is located at the bottom right of the record.

Sofia's employee record is located by the HHS HR specialist. However, because Sofia is not yet an HHS employee, the majority of the information appears redacted to HHS and cannot be accessed. The HHS HR specialist clicks "Request Access."

Employee Transfer Process

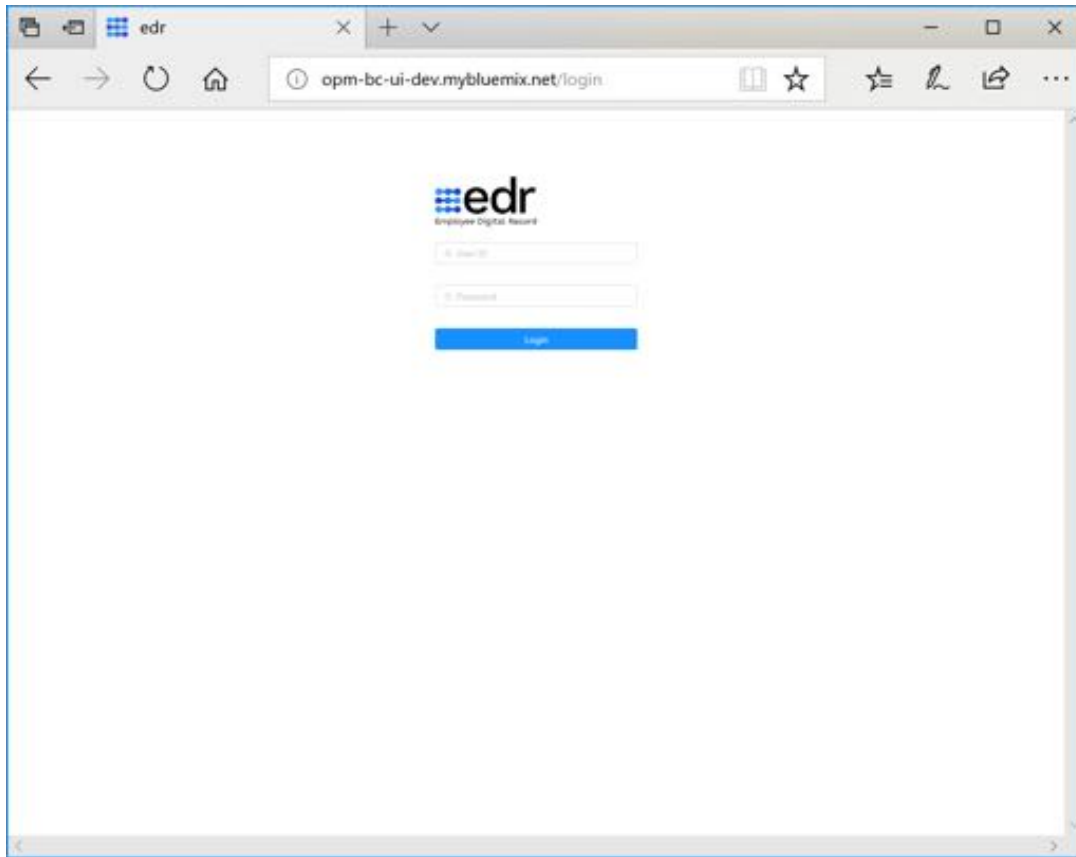


The screenshot displays a web browser window with the URL `opm-bc-ui-dev.mybluemix.net/?acl=HHS&employee`. The page title is "edr" and the user is logged in as "HHS". The main content area shows a "Person" profile for Sofia Castillo Longworth. The profile includes a photo placeholder, an "Employee ID: 2013B130", and a sidebar menu with options: "Person", "Position", "Compensation", "Benefits", and "Career". The main profile details are as follows:

Person	
Name	SSN
Sofia Castillo Longworth	
Gender	
Date of Birth	Citizenship
	U.S. Citizen
Current address	
5901 N Cherokee Avenue, Tampa FL 33604	
Email	Phone
sofia.longworth@va.gov	813-555-1889
Birth location	

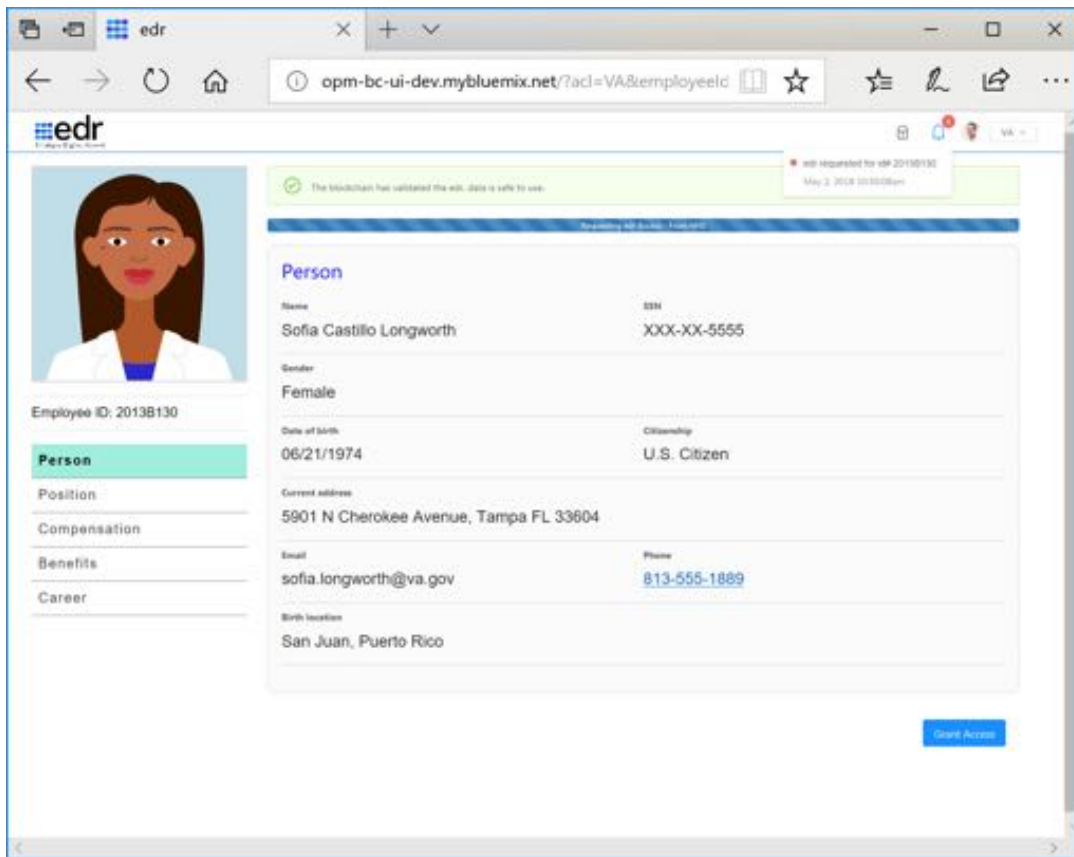
edr confirms to the HHS HR specialist that VA has been notified of the request for access.

Employee Transfer Process



The HR specialist from VA logs onto edr.

Employee Transfer Process

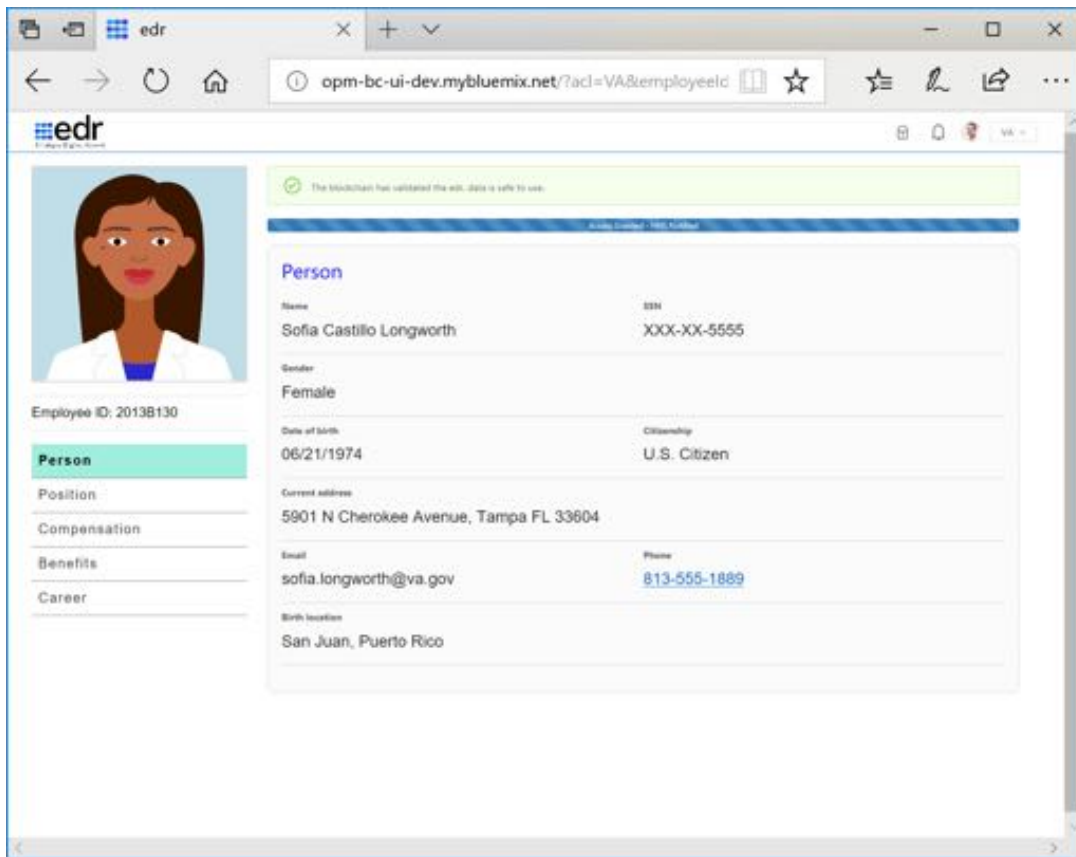


The screenshot shows a web browser window with the URL `opm-bc-ui-dev.mybluemix.net/?acl=VA&employeeid`. The page displays the profile of an employee named Sofia Castillo Longworth. The interface includes a navigation menu on the left with options like 'Person', 'Position', 'Compensation', 'Benefits', and 'Career'. The main content area shows personal details such as SSN, gender, date of birth, citizenship, current address, email, phone, and birth location. A 'Grant Access' button is visible at the bottom right of the profile card.

Person	
Name	Sofia Castillo Longworth
SSN	XXX-XX-5555
Gender	Female
Date of Birth	06/21/1974
Citizenship	U.S. Citizen
Current address	5901 N Cherokee Avenue, Tampa FL 33604
Email	sofia.longworth@va.gov
Phone	813-555-1889
Birth location	San Juan, Puerto Rico

The VA HR specialist has a notification, which directs them to Sofia's record. The HR specialist grants HHS access to Sofia's record by clicking "Grant Access." A smart contract run by the edr blockchain ensures that all requirements are in place to allow access.

Employee Transfer Process

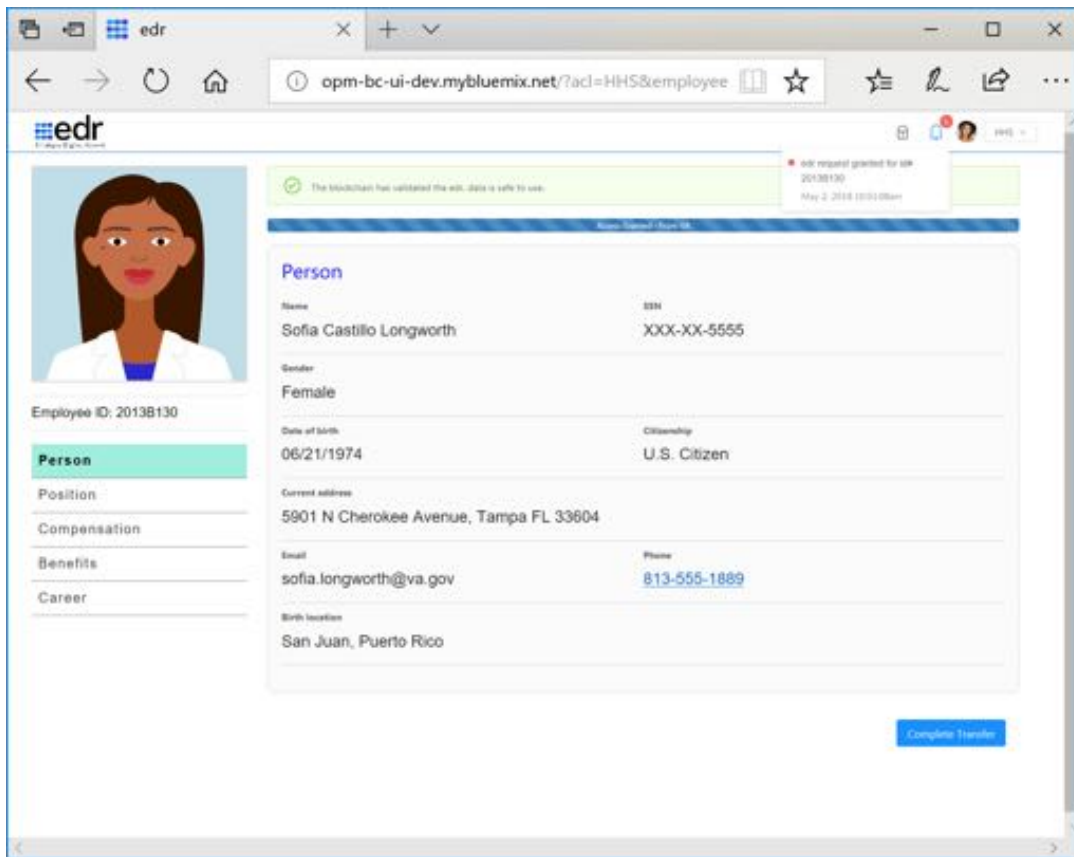


The screenshot shows a web browser window displaying the 'edr' system. The browser address bar shows 'opm-bc-ui-dev.mybluemix.net/?acl=VA&employeeid'. The page features a navigation menu on the left with options: 'Person', 'Position', 'Compensation', 'Benefits', and 'Career'. The 'Person' option is selected and highlighted in green. The main content area displays a profile for Sofia Castillo Longworth, including her name, SSN (XXX-XX-5555), gender (Female), date of birth (06/21/1974), citizenship (U.S. Citizen), current address (5901 N Cherokee Avenue, Tampa FL 33604), email (sofia.longworth@va.gov), phone (813-555-1889), and birth location (San Juan, Puerto Rico). A green notification banner at the top of the profile area states: 'The technician has updated the emp. data is safe to use.'

Person	
Name	SSN
Sofia Castillo Longworth	XXX-XX-5555
Gender	
Female	
Date of Birth	Citizenship
06/21/1974	U.S. Citizen
Current address	
5901 N Cherokee Avenue, Tampa FL 33604	
Email	Phone
sofia.longworth@va.gov	813-555-1889
Birth location	
San Juan, Puerto Rico	

edr confirms that HHS has been notified of their new level of access to Sofia's record.

Employee Transfer Process



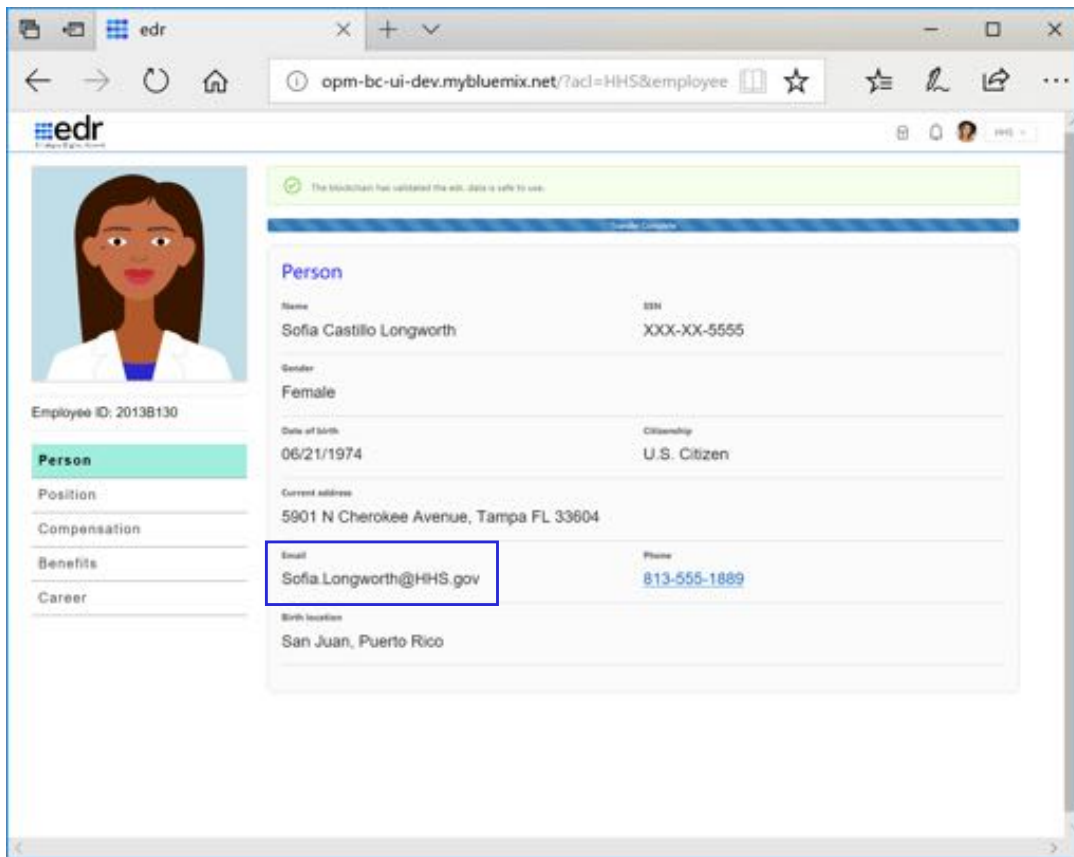
The screenshot displays the EDR system interface. At the top, there is a navigation bar with the 'edr' logo and a breadcrumb trail: 'opm-bc-ui-dev.mybluemix.net/?acl=HHS&employee'. Below the navigation bar, there is a profile card for Sofia Castillo Longworth. The profile card includes a placeholder image, the employee ID '2013B130', and a list of tabs: 'Person', 'Position', 'Compensation', 'Benefits', and 'Career'. The 'Person' tab is selected, showing the following information:

Person	
Name	SSN
Sofia Castillo Longworth	XXX-XX-5555
Gender	
Female	
Date of Birth	Citizenship
06/21/1974	U.S. Citizen
Current address	
5901 N Cherokee Avenue, Tampa FL 33604	
Email	Phone
sofia.longworth@va.gov	813-555-1889
Birth location	
San Juan, Puerto Rico	

A blue button labeled 'Complete Transfer' is located at the bottom right of the profile section. A notification banner at the top of the profile area states: 'The workstation has validated the emp. data is safe to use.' and 'SSN request granted for emp 2013B130 May 2 2016 10:01:08am'.

While working on a different employee's record, the HHS HR specialist receives a notification. They've been granted access to Sofia's record. They click on the notification, directing them to Sofia's record. Her information is now visible. They accept the transfer by clicking "Complete Transfer."

Employee Transfer Process



The screenshot shows a web browser window with the URL `opm-bc-ui-dev.mybluemix.net/?acl=HHS&employee`. The page displays the profile of an employee named Sofia Castillo Longworth. A green notification bar at the top states: "The administrator has updated the emp. data is safe to use." The profile includes a photo of a woman with dark hair, a white lab coat, and a blue background. Below the photo, the employee ID is 2013B130. The main profile section is titled "Person" and contains the following information:

Name	SSN
Sofia Castillo Longworth	XXX-XX-5555
Gender	
Female	
Date of Birth	Citizenship
06/21/1974	U.S. Citizen
Current address	
5901 N Cherokee Avenue, Tampa FL 33604	
Email	Phone
Sofia.Longworth@HHS.gov	813-555-1889
Birth location	
San Juan, Puerto Rico	

edr sends confirmation to the HHS HR specialist that the transfer has been successfully completed. Sofia's record is updated with her new contact information.

Employee Transfer Process

The screenshot displays the Employee Data Record (EDR) system interface. On the left, a navigation menu includes 'Person', 'Position', 'Compensation', 'Benefits', and 'Career'. The 'Position' tab is selected, showing a table of the employee's career history. The current position is 'Physician (Orthopedic Surgery)' at HHS, Indian Health Service, Occupational Series 0602, with a work schedule code of F and a position service designator of 1. The employee's official title is also 'Physician (Orthopedic Surgery)'. A notification at the top indicates that the information has been updated.

Employee ID: 2013B130

Person

Position

Compensation

Benefits

Career

The information has been updated. The data is safe to use.

Position

Official title
Physician (Orthopedic Surgery)

Official title	Agency code	Start date
Physician (Orthopedic Surgery)	VA	03/08/2018
Physician (Orthopedic Surgery)	VA	09/05/2010
General Medical Officer- AOC 62B	DOO	06/28/2006
Orthopedic Surgeon (Resident)	DOO	07/06/2000

Agency organization name
HHS

Assigned Department
Indian Health Service

Occupational series
0602

Organization location duty station code	Employee location duty station code	Agency code
673	673	VATA

Work schedule code
F

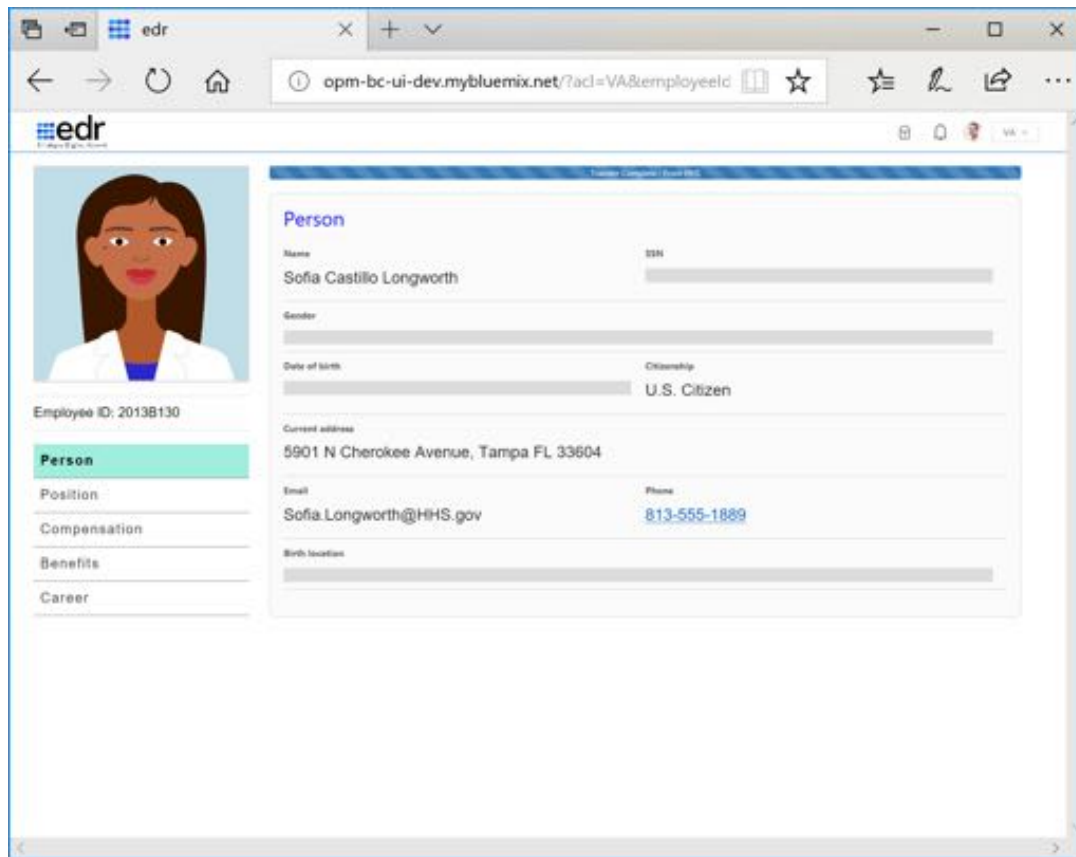
Position service designator
1

Personnel office id
4922

On-file in this office

Her employee record is also updated with her new position information, including her official title and salary. HHS now has access to Sofia's entire career history.

Employee Transfer Process



The screenshot shows a web browser window displaying the EDR system. The browser address bar shows the URL: `opm-bc-ui-dev.mybluemix.net/?acl=VA&employeeid`. The page title is "Person" and the employee ID is 2013B130. The record displays the following information:

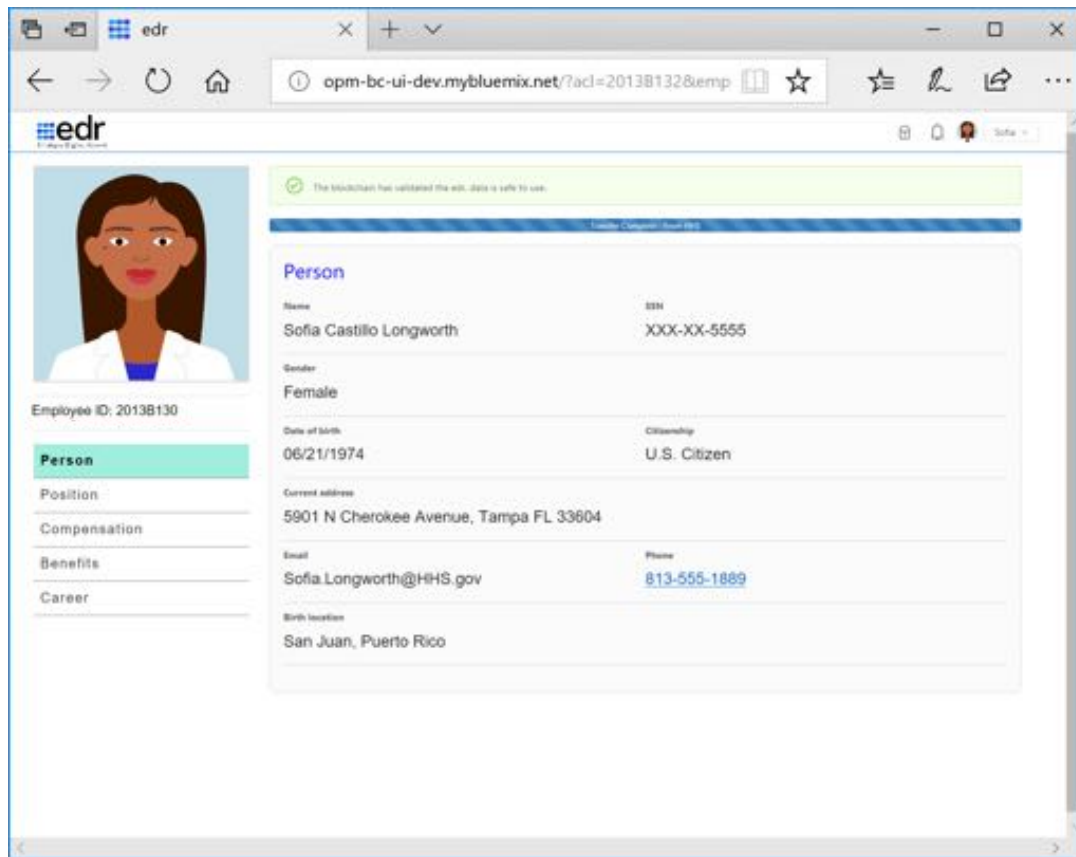
Person	
Name	SSN
Sofia Castillo Longworth	
Gender	
Date of Birth	Citizenship
	U.S. Citizen
Current address	
5901 N Cherokee Avenue, Tampa FL 33604	
Email	Phone
Sofia.Longworth@HHS.gov	813-555-1889
Birth location	

If the VA HR specialist tries to access Sofia's record, they will see that the transfer has been completed. As a result, VA no longer has full access to Sofia's record.

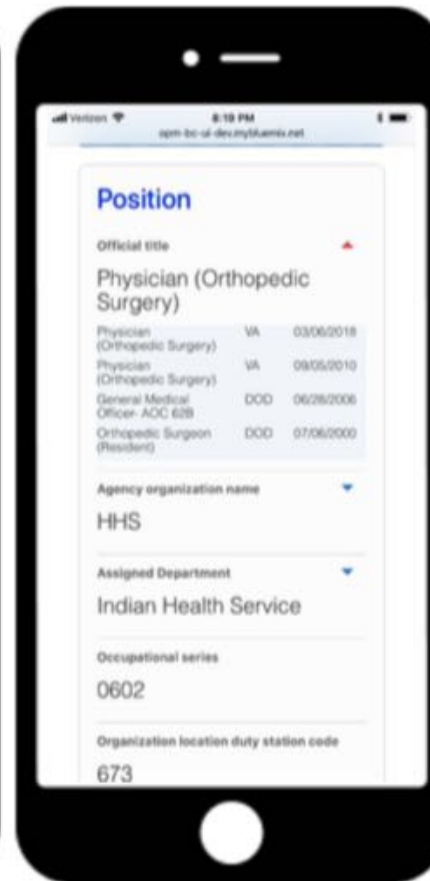
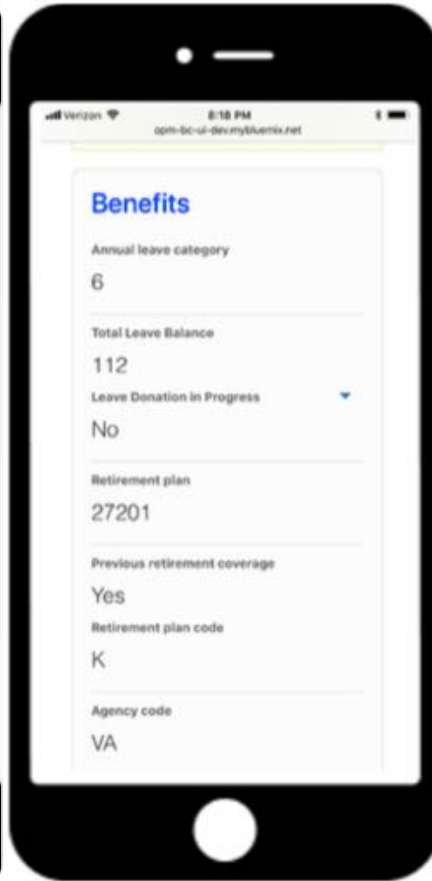
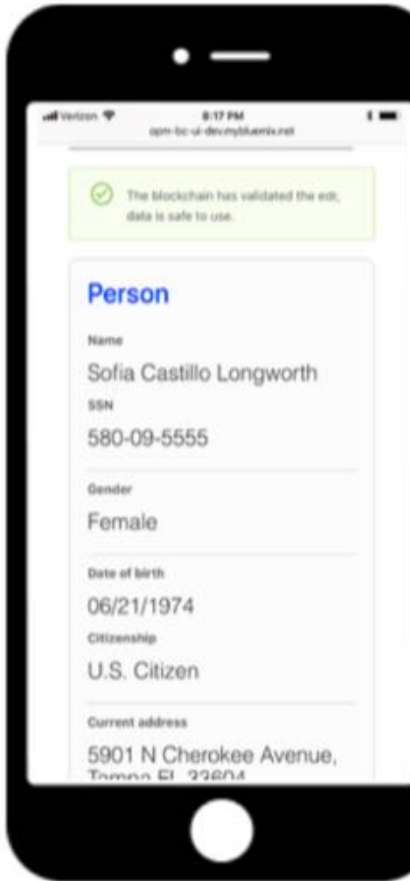
Sofia's Perspective

edr streamlines Human Resources functions. But how does it help the Federal employee?

Sofia's Perspective



Sofia always has access to her complete, up-to-date employee record, which is divided into five tabs representing the five categories of information stored in her record. Sofia knows this information is correct, because her record shows that it has been verified by the edr blockchain.





Takeaways

Data Philosophy – knowns, unknowns, unknown unknowns

Value of data is in the use of data

US Federal Government/Pew Research