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
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

Outward Looking
(Transparency, Privacy)

Backward Looking
(Reports, Dashboards)

Information Model
Data Standards,
Protection,
Quality, Rules, Logic

Forward Looking
(Predictive Analytics,
Next Best Action)

Inward Looking
(Model, Architecture, Exchanges)
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

- **Clarity**: The data standard can be understood, coherent, and intelligible.
- **Simplicity**: The data standard is simple to use and simple to understand.
- **Reusability**: The data standard can be reused in different domains.
- **Extensibility**: The data standard can fit plans for future growth and unplanned scenarios.
- **Flexibility**: The data standard can evolve in a controlled manner.
- **Adoptability**: The data standard is capable and suitable for use.
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

Define | Design | Build | Test | Launch | Support

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

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

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<th>Form</th>
<th>Data Elements</th>
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<tr>
<td>SF-75 (Sections A,B,E)</td>
<td>63</td>
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<td>SF-52</td>
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<td>SF-50</td>
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*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)

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<thead>
<tr>
<th>Non-CPM</th>
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<th>Amount</th>
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<tr>
<td>Work Schedule</td>
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</table>
Business Registry (Circle Pack)
Business Registry (Sankey Diagram)
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.
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

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

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

<table>
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<th>Details</th>
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</thead>
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<tr>
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<tr>
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</tr>
<tr>
<td>Date of birth</td>
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</tr>
<tr>
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<td>Email</td>
<td><a href="mailto:sofia.longworth@va.gov">sofia.longworth@va.gov</a></td>
</tr>
<tr>
<td>Phone</td>
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</tr>
</tbody>
</table>
Employee Transfer Process

The HR specialist from VA logs onto edr.
Employee Transfer Process

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.
edr confirms that HHS has been notified of their new level of access to Sofia’s record.
Employee Transfer Process

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

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

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

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.
**Person**

Name: Sofia Castillo Longworth

SSN: 580-09-5555

Gender: Female

Date of birth: 06/21/1974

Citizenship: U.S. Citizen

Current address: 5901 N Cherokee Avenue, Tampa, FL 33601

**Benefits**

Annual leave category: 6

Total Leave Balance: 112

Leave Donation in Progress: Yes

Retirement plan: 27201

Previous retirement coverage: Yes

Retirement plan code: K

Agency code: VA

**Position**

Official title: Physician (Orthopedic Surgery)

Position: General Medical Officer - ACC 629

Agency organization name: HHS

Assigned Department: Indian Health Service

Occupational series: 0602

Organization location duty station code: 673

An update has been made to edit #70930. Please log in using the link below to review these changes.
Using information from edr, forms—like the SF-75—can be pre-populated with the employee's information, improving accuracy and efficiency while decreasing the need to ask for the same data (redundant data).
Takeaways

Data Philosophy – knowns, unknowns, unknown unknowns

Value of data is in the use of data

US Federal Government/Pew Research