



Integrated Eligibility and Enrollment Modernization Roadmap Report

Engrossed Substitute Senate Bill 5092; Section 214(3);
Chapter 334; Laws of 2021

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1. EXECUTIVE SUMMARY

The Washington Health and Human Services Enterprise Coalition (HHS Coalition) is submitting this Integrated Eligibility and Enrollment Modernization Report to the Washington State Legislature as required by Engrossed Substitute Senate Bill 5092 (2021).

The Engrossed Substitute Senate Bill 5092 (2021) reads:

“... [D]evelop a report on the next steps required for information technology solutions for an integrated health and human services eligibility solution. The report must include, but is not limited to a: (i) Technical approach and architecture; (ii) Roadmap and implementation plan for modernizing and integrating the information technology eligibility and enrollment system for including, but not limited to, medicaid, basic food, child care assistance, cash assistance, and other health and human service program benefits, beginning with classic medicaid; and (iii) Discussion of how an integrated health and human services solution would: (A) Comply with federal requirements; (B) Maximize efficient use of staff time; (C) Support accurate and secure client eligibility information; (D) Improve the client enrollment experience; and (E) Provide other notable coalition agency impacts.”

The HHS Coalition includes the Department of Children, Youth & Families, Department of Health, Department of Social and Health Services, Health Benefit Exchange, and the Health Care Authority. The Office of the Chief Information Officer and the Office of Financial Management are both ex-officio members that advise on issues around compliance with statewide Information Technology policies and state financial budget and legislative processes.

The HHS Coalition is a collaborative that provides IT strategic direction, cross-organizational IT project support, and IT federal funding guidance across each of Washington's HHS organizations. IT project collaboration results in better service coordination and public stewardship that improves the health and well-being of the people, families, and communities of Washington.

The HHS Coalition operates over 75 health and human service programs serving over 2.9 million Washingtonians. These programs are supported by a patchwork of IT systems. To apply for and maintain benefits, clients must navigate multiple online systems with lengthy applications, many of which are not accessible on smartphones, which are the primary form of internet access for low-income individuals. The core system supporting these programs – DSHS Automated Client Eligibility System – is a 30-year-old mainframe-based system with over 12 million lines of legacy code that has a risk of failure that significantly increases after 2025. When it fails, millions of Washingtonians won't receive the benefits they're eligible for and HHS Coalition organizations will have to shift to extremely labor-intensive manual processes to recover operations.

The HHS Coalition proposes to address these client and technology challenges through a set of enabling technologies known as Integrated Eligibility & Enrollment or IE&E. This will allow us to jointly deliver new and improved services to our clients, customer partners, and staff. We have listened to our diverse stakeholders to understand the problems they encounter. This report illustrates our vision of a world where Washingtonians tell their story once when applying for health and human services programs. Washingtonians won't need to know how their own story fits into the multiple HHS programs because the new system and underlying business processes will guide them through the possibilities that are available to them, in a 'one-stop-shop.'

We believe that by implementing the comprehensive roadmap documented in this report, we will increase value to Washingtonians while delivering incremental changes as we start small and build on our successes.

2. BACKGROUND

2.1. HHS COALITION IT STRATEGY

In 2018, to promote service coordination, the leaders of Washington's state health and human services organizations decided that increased collaboration on IT investments is critical to improving the health and well-being of the people, families, and communities of Washington. The decision established the HHS Coalition as a collaborative to govern IT project investments across Washington's state HHS organizations, and the Washington Legislature formally recognized the HHS Coalition in the 2019 legislative session.

In summer 2021, the HHS Coalition leaders finalized an [IT strategy for 2021 to 2024](#)¹. This strategy provides a common vision for IT project alignment and direction. The IT strategy includes seven vision goals and seven enabling strategies that guide how the HHS Coalition will frame IT projects, including the development and implementation of the IE&E solution described in this report. This report and the detailed roadmap are grounded in the goals and enabling strategies summarized below.

Image 1: HHS Coalition Vision

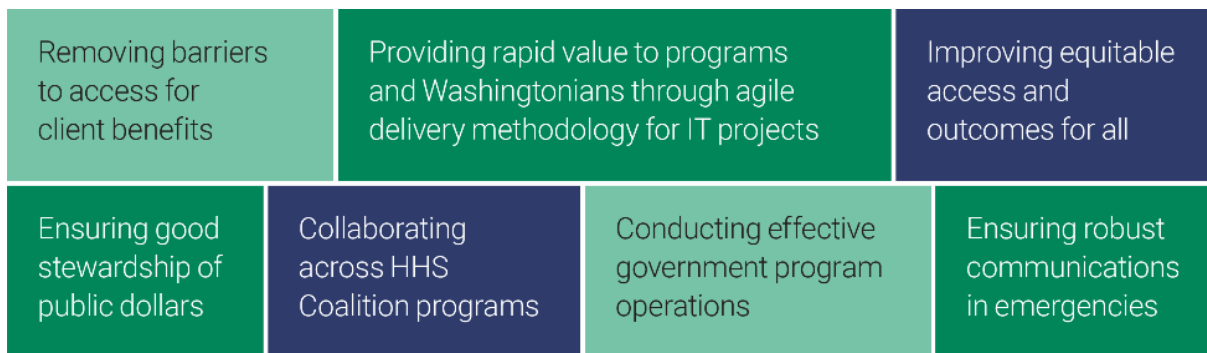
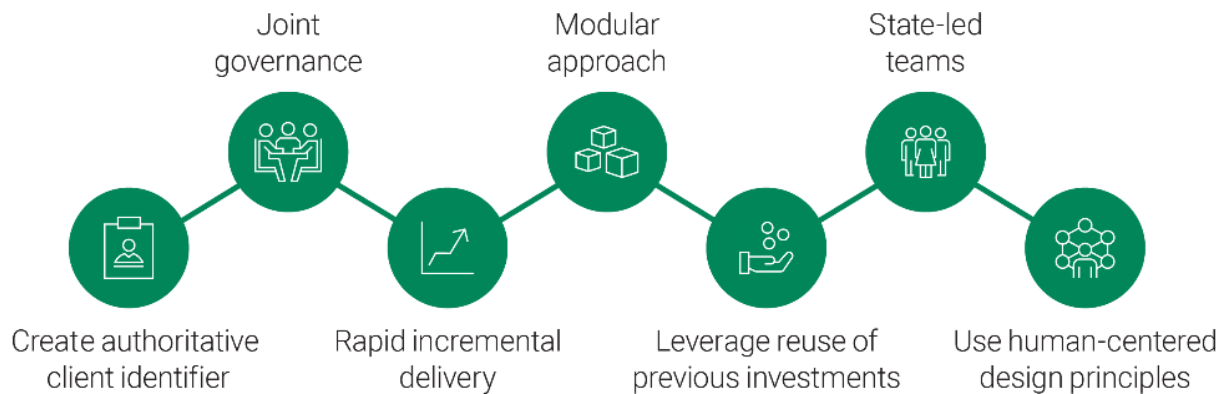


Image 2: Enabling Strategies



¹ Washington State Health and Human Services Enterprise Coalition, "HHS Coalition IT Strategy 2021-2024," 2021, <https://www.hca.wa.gov/assets/program/HHS-coalition-it-strategy-2021-2024.pdf>.

2.2. INTEGRATED ELIGIBILITY & ENROLLMENT BACKGROUND

The HHS Coalition has been working for several years to develop an approach for a health and human services integrated eligibility and enrollment solution. McKinsey & Company defines this as follows:

Integrated eligibility [and enrollment] systems (IESs) are the enabling technology behind state-level Medicaid and human services programs in the United States. The core of an IES is automated rules and a case management and workflow system that encodes logic to enable timely and accurate eligibility determinations for Medicaid and other human services programs.²

The specific implementation of IE&E solutions will vary from state to state and can have different technical components and staffing models. A driving goal for these solutions is to facilitate eligibility determinations and benefits enrollment for multiple programs in a streamlined fashion due to the overlap in program eligibility for many low-income individuals and families. According to McKinsey & Company (2019), the use of these systems allows states, “to avoid duplication of effort for case workers as well as individuals and families applying for such programs, reduce duplicative administrative costs, and ensure program integrity.” The opportunities for Washington in implementing an IE&E solution are further described in Section 4.

The HHS Coalition has dedicated its focused effort to delivering this report in response to Engrossed Substitute Senate Bill 5092 (2021). The HHS Coalition established a cross-organization collaboration to develop this report (see Appendix B for a list of contributors), including multiple workgroups that focused on business and IT visioning as well as supporting procurement and resourcing strategies. The workgroups were guided by a cross-organization team of executive champions. Additionally, the HHS Coalition engaged two external organizations as thought partners and guides in the development of this report:

- **18F** is a digital consultancy housed within the U.S. General Services Administration. It helps government agencies deliver exceptional digital experiences by practicing human-centered design, frequent product, and software releases, and deploying products in the open. 18F brings in-depth knowledge and hands-on experience working closely with multiple states on similar projects including Alaska, Vermont, and California.
- **Public Consulting Group** is a privately held company that helps primarily public sector health, education, and human services organizations make measurable improvements to their performance and processes. PCG brings a national perspective of large-scale HHS modernization projects, working closely with 45 state Medicaid agencies across the nation to provide project management, oversight, and advisory services. This includes knowledge and experience across the HHS Coalition organizations and the systems they support.

Washington State has been studying approaches to IE&E for a number of years. The HHS Coalition considered the analysis and recommendations from past studies conducted in Washington. This includes the following:

1. U.S. Digital Response. *Washington State Department of Social and Health Services ACES Upgrade Plan Third Party Review*. 2020.
2. Washington State Health and Human Services Enterprise Coalition. *Washington HHS Coalition Roadmap to Integrated Eligibility: Phase 1*. 2020.
3. Cognosante, LLC for Washington State Department of Social and Health Services. *RFP Writer for Business and Information Technology Transformation Business Case*. 2018.

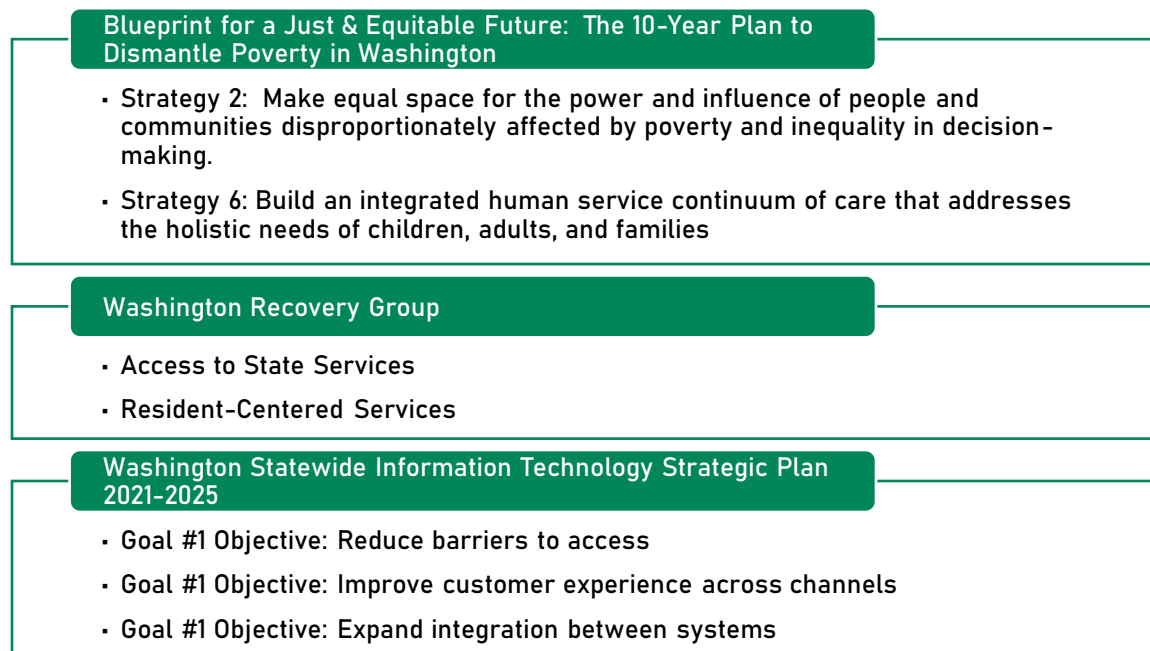
² McKinsey & Company, “Insights into better integrated eligibility systems,” 2019, <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/insights-into-better-integrated-eligibility-systems>.

4. Elyon Strategies for Washington State Office of the Chief Information Officer. *Transformation Strategy for Eligibility and Authorization Phase 2*. 2016.
5. Public Consulting Group for Washington State Office of Financial Management. *Medical and Public Assistance Eligibility Study Alternative Options and Recommendations Report*. 2014.

This report and associated roadmap reflect the current vision for the journey towards IE&E as of the time the report was submitted. The HHS Coalition does not expect the roadmap to stay static; instead, it will be a living document that we will maintain and update continually, capitalizing on lessons learned, business opportunities, technological advances, and other developments along the way.

This work is also informed by and aligned with other Washington state initiatives, including those led by the Poverty Reduction Work Group³, the Executive WorkFirst Task Poverty Reduction Oversight Task Force⁴, and the Office of the Chief Information Officer⁵. The IE&E roadmap supports the goals outlined in these related initiatives.

Image 3: Related Washington State Initiatives








³ Washington State Poverty Reduction Work Group, “Blueprint for a Just and Equitable Future: The 10-Year Plan to Dismantle Poverty in Washington,” 2020, <https://dismantlepovertyinwa.com/wp-content/uploads/2020/12/Final10yearPlan.pdf>.

⁴ Washington Legislative Executive WorkFirst Task Poverty Reduction Oversight Task Force, “WorkFirst Poverty Reduction Oversight Task Force, Legislative-Executive,” 2021, <https://www.governor.wa.gov/issues/issues/health-care-human-services/workfirst-poverty-reduction-task-force>.





⁵ Washington State Office of the Chief Information Officer, “Statewide Information Technology Strategic Plan 2021-2025,” 2021, <https://ocio.wa.gov/strategy>.

3. VISION

We envision a world where Washingtonians tell their story one time as the new system and underlying business processes securely guide them through the possibilities. This vision will be made possible by:

-  A singular, familiar experience for Washingtonians that is personalized, welcoming, and comprehensive.
-  An accessible experience for all that addresses physical barriers such as internet and device access and social barriers such as sex, gender identity, race, ethnicity, disability, and language.
-  An easier experience for Washingtonians in the eligibility and enrollment process so they feel empowered while also fully supported.
-  An improved user experience that better meets client and community-based assistor needs, designed in collaboration with Washingtonians using human-centered design practices.
-  An improved experience for Washington State's eligibility staff and case workers that better supports securely connecting eligible clients to the benefits and services they need.

We envision a world where HHS Coalition organizations can quickly respond to program, partner, client, and legislative needs, aided by improved technology and business processes, made possible by:

-  Designing processes and technology with an eye toward state ownership and self-service.
-  Enabling modernization while being mindful of the impact on security, systems, and programs.
-  Continuously integrating new and updated software through more frequent code delivery.
-  Engaging employees in the identification of streamlined business processes.

The HHS Coalition plans to achieve this vision incrementally. Each year, we will make both visible and measurable improvements. For example, by the end of year one, success from the Eligibility and Enrollment Status Tracker will provide more transparency for eligibility and enrollment activities, which will:

- Reduce phone calls to state staff,
- Improve application process time,
- Decrease abandoned and duplicate applications, and
- Validate successful implementation of the new IE&E platform.

Over the life of the project, our success measures include:

- Improved HHS program enrollment processes for eligible Washingtonians,
- Greater overlap of enrollees benefiting from multiple programs,
- The ability to complete an end-to-end application for all programs in less than 20 minutes, including the ability for mobile (e.g., phone, tablet) usability, and
- By the end of the calendar year 2025, a streamlined application process for Washington residents, implemented on a cloud platform that significantly reduces reliance on the aging ACES mainframe.

4. STATEMENT OF NEED

More than 75 health and human services programs in Washington deliver vital services supporting almost three million Washingtonians in reaching their full human potential through cash assistance, childcare subsidy, food assistance, health insurance programs, immigrant and refugee assistance, and medical assistance. Washington state agencies, public-private partnerships, and community, vendor, and contractor partners deliver the programs, which expend approximately \$17 billion annually. In addition, public health programs and services improve population health for all Washingtonians.

Of those almost three million Washingtonians, over one million are served by programs in at least two of the HHS Coalition organizations and more than 200,000 are served by at least three of the organizations. Clients, particularly those served by multiple organizations, are faced with providing the same information to multiple organizations through lengthy applications that are not all currently available online or in mobile-responsive formats.

The experience of poverty is not shared equally by all people. The challenges described in this section, among others faced by our clients, disproportionately impact Black, Indigenous, and People of Color communities as well as other groups, including women, children, seniors, individuals with disabilities, single parents, rural communities, the LGBTQ+ community, and immigrants and refugees. The overarching HHS Coalition vision and our vision for IE&E described in the sections highlight our deep commitment to equitable access to services.

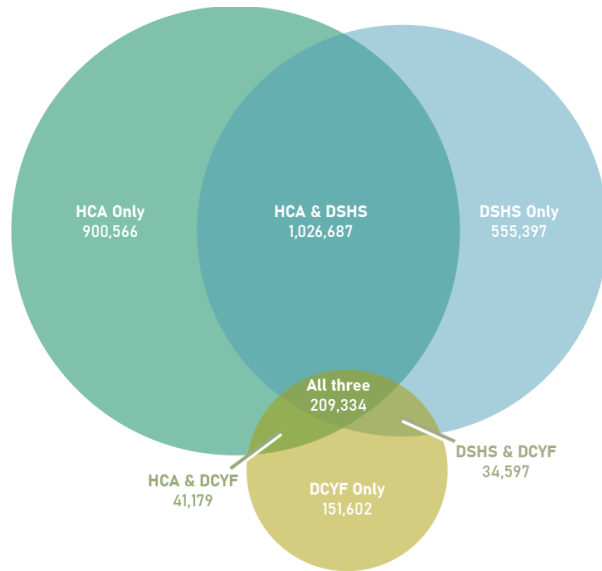
This crucial network is supported by a complex, interrelated web of IT systems that support a range of functions including eligibility; case management; benefit issuance; provider payments; public health activities; analytics; and other functions used by program beneficiaries; case workers; service providers and organizations; and program staff. While only a small portion of program expenditures, the spending on these systems runs tens of millions annually with significant federal funding investments. The legacy mainframe-based system is at end of life with the risk of failure. This presents an important opportunity to resolve over time as represented in the IE&E roadmap.

This section describes in greater detail the business, technology, and policy opportunities that demonstrate the need for improvements to processes and systems that support the variety of benefits that HHS Coalition organizations administer.

4.1. BUSINESS OPPORTUNITY

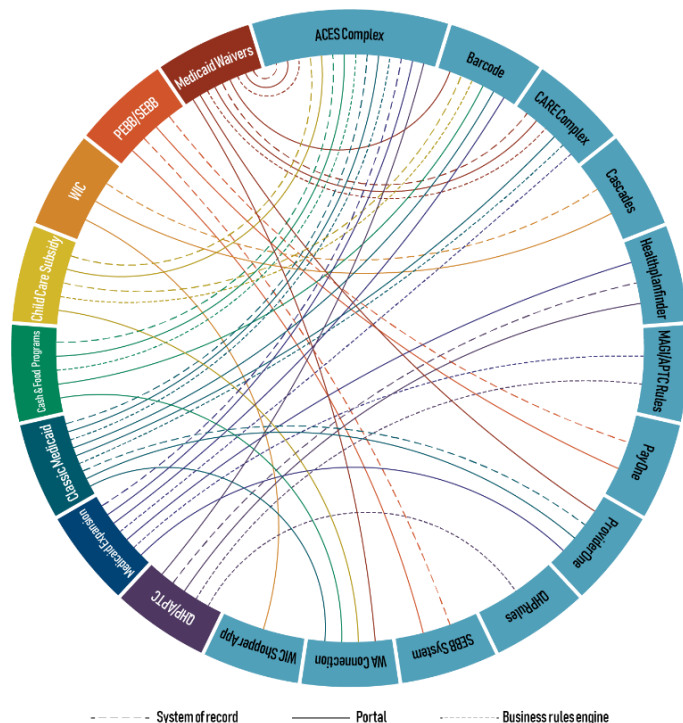
The image below illustrates the shared clients served by three of the five HHS Coalition organizations and the need to provide more integrated services across our organizations. IE&E modernization is driven to better serve Washingtonians and address the urgent need to replace a system at risk of failing.

Image 4: Shared Clients among Washington's HHS Organizations



Client eligibility, enrollment, and case management for all of the programs supported across the HHS Coalition organizations are each dependent on a complex web of IT systems. The image below depicts only a subset of the systems that support the various programs.

Image 5: Client Eligibility, Enrollment, and Case Management Systems



This complex web of systems among Washington's HHS Coalition organizations presents major challenges for clients, navigators, assisters, and state staff, including:

1. **Lengthy Online Application Challenges:** Code for America, a technology non-profit organization focused on improving digital government services, conducted an analysis of online benefits applications⁶ across all 50 states in 2018 and 2019. Washington is among 39 states with online applications for, at a minimum, Medicaid (Apple Health), Supplemental Nutrition Assistance Program (SNAP or Basic Food), and Temporary Assistance for Needy Families programs. However, Washington fares poorly in the time required to complete those applications. In the best instances, Code for America estimates that those applications could be completed in 25-30 minutes (Nevada, California, Montana, and New Hampshire) in a single application, whereas Washington requires two separate online applications (one for Medicaid expansion and one for programs such as child care subsidy, SNAP and TANF) and an estimated 65 minutes to apply. Not all Washington programs even offer an online application, such as the Women, Infants, and Children Nutrition Program, requiring even more time to apply for the program.
2. **Mobile Access Challenges:** Washington Connection is the client portal for many of the programs, particularly cash and food assistance, child care subsidy, and classic Medicaid programs. Washington Connection doesn't effectively support mobile applications and this limitation is a barrier to services for many in need. The system doesn't display application questions and navigation in a manner that's easily navigated by smartphones. In April 2021, the Pew Research Center reported that 46% of survey respondents making less than \$50,000 per year rely solely on a smartphone for access to the internet⁷. Mobile device accessibility would enable better online application access for Washingtonians who live in poverty and/or don't have access to a computer or tablet.
3. **Multiple Change or Verification Reporting Challenges:** Clients who seek services from multiple programs or agencies often have to provide the same or similar information multiple times to verify eligibility, which is a time burden and can reinforce the trauma of their circumstances.

4.2. TECHNOLOGY OPPORTUNITY

In addition to the business challenges, the complex IT environment in which eligibility and enrollment take place causes notable technology challenges, particularly around maintainability and longevity. The ACES complex Washingtonians rely on for eligibility and enrollment, including the Washington Connection portal, are developed, and maintained using legacy technologies that aren't flexible to meet changing program and customer needs. This makes the systems difficult and inefficient to support. Several of the systems and interfacing technologies are facing "end-of-life" or "end-of-support" in the coming years, placing eligibility, enrollment, and benefit issuance at risk.

These challenges apply particularly to the legacy mainframe-based DSHS ACES complex, which is the primary system of record for many programs and a source of information for dozens of other systems. The ACES system has been successfully operating over the past three decades, helping millions of Washingtonians through difficult times. However, recent assessments of the system predict a rapidly approaching end of life for this system, specifically for the mainframe-based hardware components. The U.S. Digital Response reviewed DSHS's plans⁸ to address the mainframe hardware issues in 2020 and determined that while the near-term risk of the ACES complex going offline due to hardware failure is

⁶ Code for America, "Bringing Social Safety Net Benefits Online: Examining online platforms for all 50 states," 2019, <https://www.codeforamerica.org/features/bringing-social-safety-net-benefits-online>.

⁷ Pew Research Center, "Demographics of Mobile Device Ownership and Adoption in the United States," 2021, <https://www.pewresearch.org/internet/fact-sheet/mobile/>.

⁸ U.S. Digital Response, "Washington State Department of Social and Health Services ACES Upgrade Plan Third Party Review," 2020.

low, it **rises significantly beyond 2025**. Because major technology transitions take time, there is an urgency to act now to start mitigating these risks before they lead to catastrophic failure.

Several aspects of this end-of-life scenario align with the “Situations which require modernization”⁹ in the well-known and widely used industry book on IT systems and modernization by Marianne Bellotti. In her book, Bellotti describes situations that warrant modernization such as code being difficult to understand, lack of qualified engineers, difficulty procuring hardware replacement parts, and underlying technology that no longer performs its functions efficiently. These aspects correspond to the current state of the ACES complex:

- The ACES current Maintenance and Operations vendor (IBM) contract expires in 2023. IBM has stated that parts of the mainframe hardware won't be supported after 2025.
- Some critical hardware components were replaced or upgraded (e.g., primary data storage and backup components and the central processing unit) to handle increased production due to COVID-19 and other enhancements. However, this does not fix the overall end-of-life scenario on the mainframe itself.
- The mainframe uses legacy computer code COmmon Business-Oriented Language – COBOL, which is a computer programming language developed in 1959. The scale is significant, with approximately 12 million lines of COBOL code supporting mainframe operations. As COBOL is used less and less like a programming language and replaced by modern code, COBOL programmers and developers are becoming harder (and expensive) to find and hire.

While the remainder of this report focuses on how to streamline and move away from the ACES complex technology environment, it is important to note that ongoing efforts to stabilize and operate ACES are essential to continue to serve Washingtonians. This stability will be critical for the multi-year duration of the IE&E roadmap and will require technology investment decisions, especially regarding hardware coming to its end-of-life in 2025. Thankfully, a number of previous ACES investments, funded by the Legislature in 2020 and 2021, will lead to increased hardware stability and database maintainability for the next few years. For more information on planned ACES legacy remediation and replacement activities, refer to Section 7.3 of this report.

4.3. POLICY OPPORTUNITY

Program policies and IT transformation go hand in hand. Some federal and state program policy requirements necessitate IT support (see #2 below). However, there are also underlying policies that are needed to have the authority to implement some of the programmatic improvements that will facilitate streamlined and seamless eligibility and enrollment customer experience. The COVID-19 pandemic provided federal flexibilities that model future opportunities to provide a fast path to new ways of conducting eligibility determinations, automating enrollments and renewals, and increasing reliance on virtual and cloud-based technologies. Some key examples from HHS Coalition organizations that can provide immediate impacts are listed below:

1. HCA and DSHS are working on a policy opportunity to streamline the enrollment process for classic Medicaid applications. Modified Adjusted Gross Income Medicaid applications through Washington Healthplanfinder use a self-attestation and post eligibility verification process for income requirements. Adopting this for classic Medicaid applications will connect customers more quickly with the care they need. Relieving seniors and individuals with disabilities from the burden of providing verification upfront expedites enrollment, improves work processes for state staff, and creates equity in access to critical health coverage for all Apple Health

⁹ Marianne Bellotti, *Kill It with Fire: Manage Aging Computer Systems (And Future Proof Modern Ones)* (San Francisco: No Starch Press, 2021), 38.



applicants. Use of the Asset Verification System implemented in January 2021 helps to ensure accurate post-enrollment review and paves the way for future opportunities such as automated renewals. HCA has submitted a decision package for the 2022 legislative session for funds to continue this process in a post-pandemic environment.

2. DSHS Community Services Division implemented software to permit the capture of signatures to support applications and recertifications verbally over the phone. This was a key element in helping CSD pivot to meet the needs of clients during the pandemic. The DCYF child care contact center also uses this same technology for families accessing child care subsidy. DSHS Aging and Long-Term Support Administration and Developmental Disabilities Administration are adopting this model in their systems to enable the capture of telephonic signatures from providers and customers on person-centered care plans, and plan to extend this functionality to Medicaid applications in 2022. Enabling clients to apply by phone is one additional way we are leveraging technology to remove barriers for clients and streamline the enrollment process. It relieves the burden of providing written applications and supports our long-term vision of providing multiple ways to apply for benefits.

These are just a few examples of immediate policy opportunities that show the correlation between big policy decisions and technical enhancements. As the HHS Coalition progresses through the IE&E roadmap, there will be more opportunities to request federal waivers or leverage existing authorities helping Washington streamline the way our organizations serve our clients and conduct our daily work. We must ensure our vision remains first and foremost as technical and policy-level ideas are identified and presented in the upcoming years.

5. ROADMAP IMPLEMENTATION ALTERNATIVES

As part of the planning process, the HHS Coalition consulted a broad set of parties to understand and assess IE&E modernization options. Discussions were held with 18F, CMS, the OCIO, and each of the HHS Coalition organizations to identify the potential modernization options that could be considered. In these discussions, two options emerged:

-  **Option 1 – Full Replacement:** The first option is a full replacement of the legacy system with a transfer system from another state or a single, commercial software product.
-  **Option 2 – Incremental Modernization:** The second option is an incremental modernization strategy. This approach is focused on building modern components while strategically moving dependency off of the ACES legacy system.

To assess both options, the HHS Coalition gathered applicable criteria corresponding to authorizing environment priorities and HHS Coalition priorities, as well as expertise from 18F in the form of their State Software Budgeting Handbook.¹⁰ Considering these three sets of inputs, we developed a set of criteria. The table included below provides a summary of our assessment findings and the risk to full replacement versus incremental modernization.

The assessment revealed that an incremental modernization approach is a better match with the assessment criteria than a full replacement. The following section provides a detailed recommendation relative to the IE&E roadmap.

Table 1: Roadmap Implementation Options Assessment

Assessment Criteria	Full Replacement	Incremental Modernization
Alignment with CMS, HHS IT Vision, and Statewide IT Strategic Plan ¹¹ : We reviewed the most recent authorizing environment principles to assess the alignment of each option. Full replacement does not meet CMS requirements for receipt of Federal funding.	Low alignment	High alignment
Benefits issuance risk: We considered how the approach mitigates the risk of disruption to the flow of benefits to Washingtonians.	Medium risk	Medium risk
Delivering incremental business value: We assessed the frequency at which working products and business value would be provided to Washingtonians and eligibility workers throughout the course of the project.	Medium incremental business value	High incremental business value
Total costs: We considered the end-to-end project costs.	High costs	High costs
Claiming increased state ownership and reducing vendor lock-in: We considered how the options would allow the state to reduce its dependency on a single large vendor.	Low state ownership	High state ownership

¹⁰ U.S. General Services Administration, “State Software Budget Handbook: De-risking custom technology projects,” 2019, <https://derisking-guide.18f.gov/state-field-guide/>.

¹¹ Washington State Office of the Chief Information Officer, “Statewide Information Technology Strategic Plan 2021-2025,” 2021, <https://ocio.wa.gov/strategy>.

Assessment Criteria	Full Replacement	Incremental Modernization
Arriving at a sustainable technology solution: We considered how the options would provide the state with a technology solution that could be maintained, and continuously updated post-go-live, without large capital investments.	Low technology sustainability	High technology sustainability
Timeframe to transition from the legacy system: We considered how fast the full scope of the modern system would be live.	Medium timeframe to full implementation	Slower timeframe to full implementation
Flexibility with the ability to pivot: We considered scenarios where unplanned events may impact the project and how each option would enable us to pivot versus lead to waste.	Low flexibility	High flexibility
Scope of state responsibilities: We considered the level of responsibilities that would fall on state agency staff.	High scope of responsibilities	High scope of responsibilities

6. RECOMMENDATION

The HHS Coalition studied the business and technology challenges described in Section 4 and the alternatives and criteria assessed in Section 1 to establish this recommendation and the details for the remainder of the report. This report recommends a comprehensive multi-year IE&E roadmap to achieve a multi-program integrated health and human services eligibility and enrollment solution. To arrive at a detailed roadmap, we reviewed other state transformation projects, consulted with 18F, and reviewed numerous options with more than 50 managers and executives across the HHS Coalition organizations and the OCIO.

The roadmap begins with establishing the technical foundation for IE&E solution components and implementing modules that meet business and client needs in an iterative manner. With the above considerations in mind, we have developed a comprehensive roadmap to incrementally modernize IE&E while strategically unwinding off of the ACES mainframe, referred to in this report as legacy system remediation.

An incremental approach delivers value for Washingtonians with each incremental modernization investment while reducing risk and taking the necessary steps to separate off the aging ACES mainframe technology that supports almost all health and human services programs. This approach is recommended by 18F, our independent partner, and aligns with CMS regulations (42 C.F.R. § 433.112). The roadmap delivers an initial set of IE&E improvements by the end of the calendar year 2025, significantly reducing the state's reliance on the aging legacy mainframe ACES.

6.1. PRINCIPLES

Undertaking the IE&E roadmap as a coalition of organizations is a complex undertaking that will result in a product that all organizations depend upon. The HHS Coalition established business-driven and technology-focused principles to guide the journey along the roadmap, starting with an equity-focused, human-centered intent.

Equity-Focused and Human-Centered

The voices of the Washingtonians we serve must be heard and integrated into the journey towards an IE&E system. The eligibility and enrollment processes must be an accessible experience for all – actively addressing a variety of barriers ranging from limited internet access and device availability to other barriers specific to individuals with disabilities, and accessibility of languages. The HHS Coalition will use equity-focused and human-centered design practices, reducing barriers by engaging clients with lived experience in the design and prioritization of products and systems on the roadmap.

Business Principles

To guide the business aspects of the IE&E roadmap journey, the HHS Coalition will follow the Code for America's Principles of a Human-Centered Safety Net¹². As projects are undertaken it is important to have a set of business principles to guide decisions as choices are being made by the project staff. This set of business principles will be referenced as each product is developed.



Many Welcoming Doors – Provide an equitable and positive experience both online and in person.



Easy to Understand – Clients should be able to make it through the process with minimal case worker support.

¹² Code for America, "Blueprint for a Human-Centered Safety Net," 2020, <https://www.codeforamerica.org/safetynetblueprint/>.

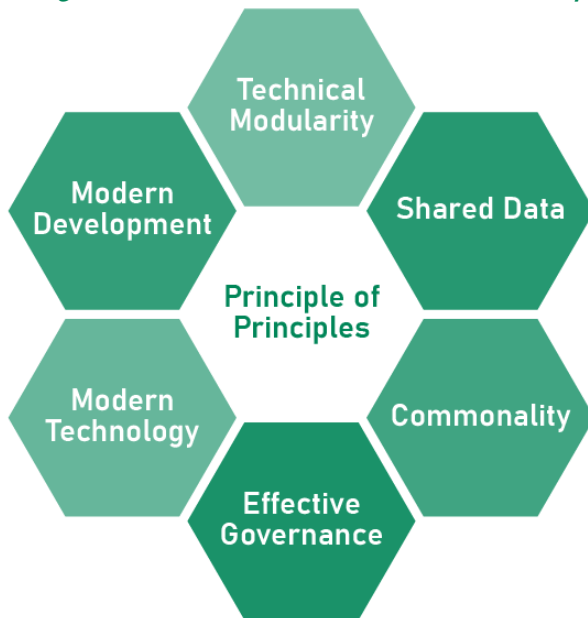


- Informed Decisions** – Clients should clearly understand the implications of all of the actions they have to take throughout the process.
- Responsive to Changing Needs** – Build things that can change based on clients' needs, as well as shifts in policy and budget.
- Simple Actions** – Each stage in the enrollment and eligibility process should be able to be completed in as few steps as possible.

Technology Principles

The technical concepts of this journey will be driven by two aspects – the enabling strategies from the HHS Coalition IT Strategy summarized in Section 1 of this report and a set of architectural principles. These architectural principles were developed in collaboration with architecture and IT leaders across the HHS Coalition and the OCIO, they are depicted in the image below.

Image 6: Technical Architectural Principles



The Principle of Principles: We use architectural principles to make decisions guided by the HHS Coalition IT Strategy and the State IT Strategic Plan. We'll revisit our principles in advance of major decisions and acquisition milestones.

The Principle of Business Value: We maximize business value through the use of human-centered design principles and adjust our priorities based on changes in business or client priorities.

The Principle of Technical Modularity: We use industry-standard approaches to minimize complexity and enable interoperability through flexible and configurable technology for components.

The Principle of Shared Data: Data is an asset; data is shared; and data is easily accessible, aligned with privacy and regulatory standards.

The Principle of Commonality: Components should be common unless there is a compelling business case for unique needs.

The Principle of Effective Governance: Roadmap will be governed by the HHS Coalition, with individual products stewarded by identified organizations; stewardship does not equate to ownership.

The Principle of Modern Technology: We strive to use modern technology that is cloud-native, extensible, interoperable, and secure.

The Principle of Modern Development: We leverage modern application development practices to deliver value in front of the customer quickly with business and technology teams working in tight tandems.

These principles will be maintained and governed by the HHS Coalition workgroup to ensure the roadmap components are designed and built in a manner that they can easily integrate with each other and with existing legacy systems and sub-systems. They will guide decision-making for the platform, all products, and legacy remediation activities.

6.2. BENEFITS FOR WASHINGTONIANS

The ultimate benefit of the IE&E roadmap approach and use of the principles outlined above is the ability to achieve our vision of the future described in Section 3. We also want to describe some of the more specific and tangible benefits for Washingtonians that will be achieved along the roadmap journey.

Image 7: IE&E Roadmap Benefits for Washingtonians



Consistent Experience: A common design system across digital experiences creates a consistent and familiar experience for Washingtonians that is personalized, accessible, and comprehensive.

- There is “no wrong door” in: Washingtonians and state staff are routed to the right places and never wonder what to do next.
- Applicants use their preferred methods of communication. For example, phone, mobile device, web, chat, paper, or in person.
- Washingtonians can talk to a person if they want to, not because they have to. They can access relevant information when it is convenient for them, even outside of contact center hours.
- Washingtonians accessing services without the internet observe a seamless eligibility and enrollment experience by phone or when visiting local offices.

Increased Support: The burden of interaction with Washington for eligibility and enrollment is limited so Washingtonians feel respected and supported.

- Every year Washingtonians will be given access to new capabilities. They will not have to wait until the end of the roadmap but will be able to benefit from increments along the way.
- The products and systems which will be built will better reflect the asks of Washingtonians through involvement in human-centered design.
- A streamlined set of eligibility criteria and one initial screening allows clients to find what they are qualified for and be screened for programs they may not have known about.
- Eligibility policies are streamlined across multiple programs to alleviate the burden of providing verification from the person and eliminate confusion between programs.
- Clients can report changes in their personal circumstances to a single place, rather than multiple times to different state agencies.

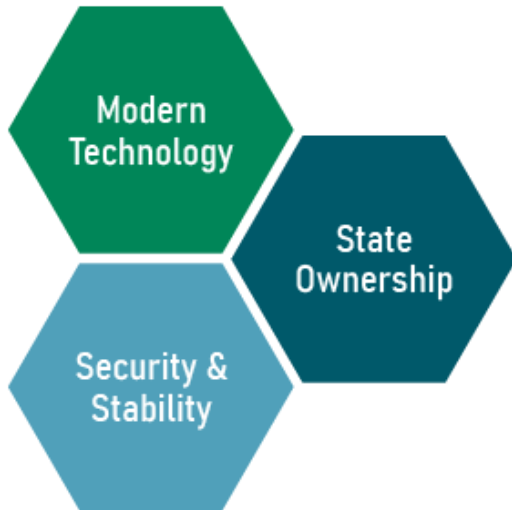
Shared Across Programs: Information provided by clients is used strategically and shared across programs.

- Washingtonians can submit a verification document or initial interview one time and have it accepted by multiple programs.
- Case information can be updated one time across programs.
- HHS Coalition organizations use data sources they already have access to first, rather than putting the burden on Washingtonians to provide it.
- Response time by HHS Coalition organizations is reduced, improving the overall experience for business partners, clients, and legislative staff.

6.3. BENEFITS FOR HHS COALITION ORGANIZATIONS

This modernization journey will provide a variety of benefits to the HHS Coalition organizations. While these benefits are framed in terms of the organizations, many also have downstream impacts on the client experience.

Image 8: IE&E Roadmap Benefits for HHS Coalition Organizations



Modern Technology: The use of modern development approaches allows us to unlock new technology capabilities and provide new opportunities to programs.

- Increased frequency of system changes is more responsive to the needs of organizations and Washingtonians.
- Cloud-based systems provide more predictable technology costs and shift costs from major capital expenditures to ongoing, operating expenses.
- Modern products and technologies allow for a greater pool of vendors able to maintain systems and also support a diversity of vendor sizes.

Security & Stability: These approaches improve the state's posture regarding the security of these systems.

- Improved system uptime and the ability to scale system capacity to address increased or decreased demand is both cost- effective and responsive to the needs of organizations.
- Disaster recovery timeframes can be achieved in hours, rather than days.
- The scope of data stored reduced security and privacy risks.

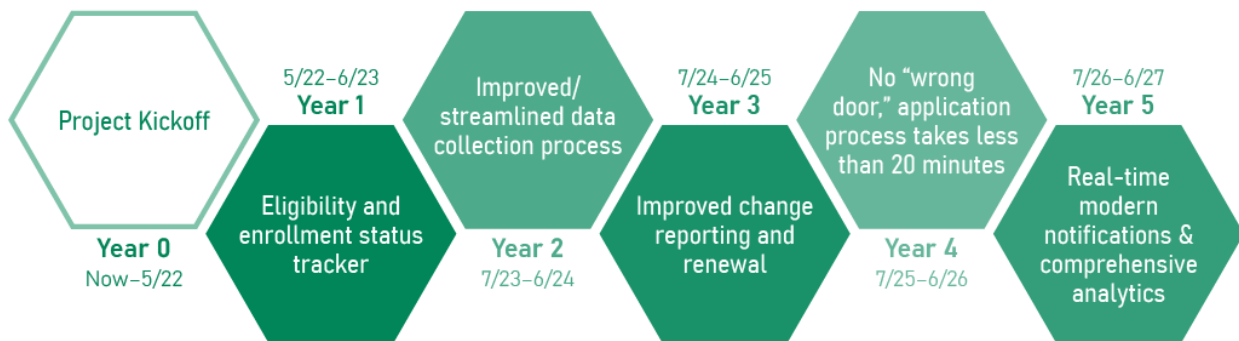
State Ownership: Technology and processes will be designed with an eye towards state ownership.

- This reduces reliance on vendor and contractor teams to make system changes, attracting new talent, and enabling the adoption of emerging technologies.
- Many components (such as updates to content) are configured by program teams in a low-code/no-code environment.
- Products and system development happens closer to programs and users to better align with their needs and priorities.

7. IE&E ROADMAP

The detailed IE&E roadmap we are proposing is a direct outcome of the alternatives we considered as described in Section 0 and our recommendation to incrementally modernize IE&E while moving off of ACES as described in Section 7.3. The roadmap provides our vision for implementing an IE&E solution across the HHS Coalition organizations. This section provides an overview of how the roadmap was developed and a year-by-year review of what the roadmap will deliver and how it will be delivered. The delivery of the roadmap will be through the establishment of a common technology platform (i.e., applications, processes, and technologies) to support the modernized system and the development of a series of “products” or system components that provide value. Each product will provide a feature or service that supports IE&E.

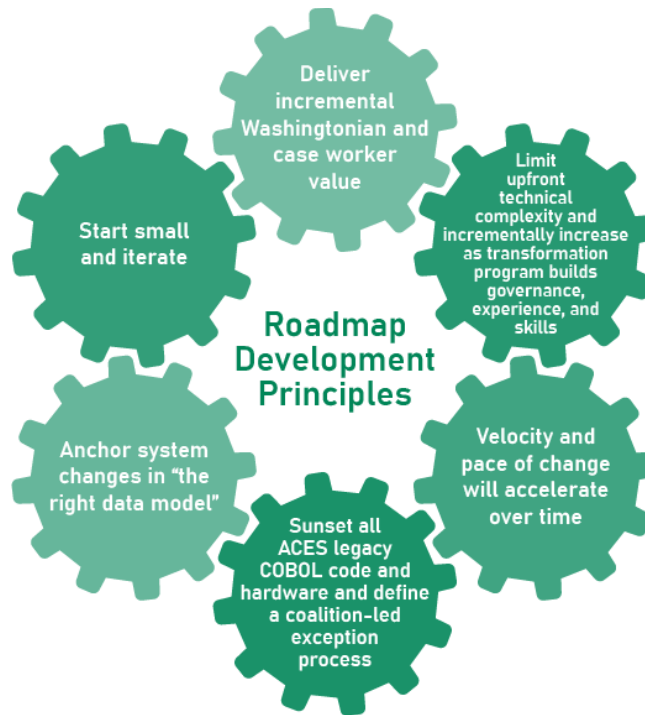
Image 9: IE&E Modernization Roadmap



Reliable projections beyond two years in IT are often educated guesses. Therefore, the roadmap we are proposing is hypothesis-driven and makes a series of assumptions that will need to be revisited each year to maintain and update the roadmap over time. We have defined a highly probable path for the roadmap, but we expect it to evolve and change in response to learning along the way, new technology opportunities, and changes in our authorizing environment.

The roadmap and its assumptions were developed with the following principles:

Image 10: IE&E Roadmap Development Principles



The work described in the roadmap will be guided and supported by several teams working in concert.

- **Roadmap Governance Team:** At the center of this transformation will be a governance structure to ensure modernization projects and legacy system remediation activities are coordinated. This will include consistent refinement of this roadmap as well as our approach to human-centered design, organizational change management, programmatic engagement, and agile at scale (the ability to drive agile at the team level). More details regarding the organization of this governance structure are described in Section 8.1.
- **Platform Team:** A single platform team will be responsible for building and operating an IE&E platform in the cloud.
- **Product Teams:** For the development of the products on the roadmap, we will use a scaled agile model with separate product teams working on building multiple products in parallel.
- **Legacy Remediation Team:** We'll work with the ACES M&O contract vendor to stand up a team focused on legacy ACES integration and synchronization as well as remediation and sunset of legacy code, software, and hardware. This will allow us to reduce mainframe failure risks sequentially.

Our initial focus in 2022 will be to create the roadmap governance team, the platform team, and an initial product team to develop the initial IE&E platform and the first product. The teams will extend to support multiple product teams working in parallel starting in July 2023.

Over the course of several year periods, the HHS Coalition will incrementally deliver the products shown below on a new modern platform. Each product will be built as a Minimum Viable Product, as “an MVP is the most straightforward way to restrict scope when an existing system looms in the

background.¹³ The MVP is a version of the product that includes enough features to be usable and also support a feedback process for additional product features. This feedback will support extending the MVP through continued development and maintenance activities. Each product will be built with consideration for programmatic readiness and sequencing.

Image 11: Product Portfolios



The number shown in front of the Individual Client Portfolio products and the Case Worker Portfolio products represent the sequencing in the roadmap. For example, the Eligibility and Enrollment Status Tracker is the first product introduced in the roadmap and the Data Warehouse Integrated to Modern Data Technologies is the last product.

Individual Client Portfolio

- Product #1 – Eligibility and Enrollment Status Tracker: Provides Washingtonians with a single point of access for eligibility and enrollment status across multiple HHS Coalition programs, beginning with Food, Cash, and Classic Medicaid programs. Additionally, it offers eligibility workers and applicants access to the same data, reducing confusion as they engage in discussions and support activities.
- Product #2 – IE&E Data Model and Data Technologies: Develops a relational and modular data model to support data collection across the HHS Coalition programs and systems.
- Product #3 – Streamlined Application Submission: Provides self-service and worker-based initial application entry that includes the facilitation of business discussions that supports streamlining of application data collection for Food, Cash, and Classic Medicaid programs.
- Product #5 – Classic Medicaid Consolidated into Health Portal: Includes the modernization of case management systems and processes with the ability to take advantage of the streamlined application data process.
- Product #6 – Change Reporting and Renewal Application: Extends the streamlined application data collection process to include change reporting and renewals.

¹³ Marianne Bellotti, *Kill It with Fire: Manage Aging Computer Systems (And Future Proof Modern Ones)* (San Francisco: No Starch Press, 2021), 76.

- **Product #7 – Modern Notifications and Client Communications:** Provides mechanisms for physical and electronic correspondence with clients (letters, emails, etc.).
- **Product #9 – Document Upload:** Provides clients, eligibility workers, and Washingtonians with the ability to upload documents online or through a mobile device (e.g., tablet, phone).
- **Product #12 – Fully Integrated Portal and Modern Business Rules:** Integrates application data collection, change reporting, and renewal with the new business rules engine.

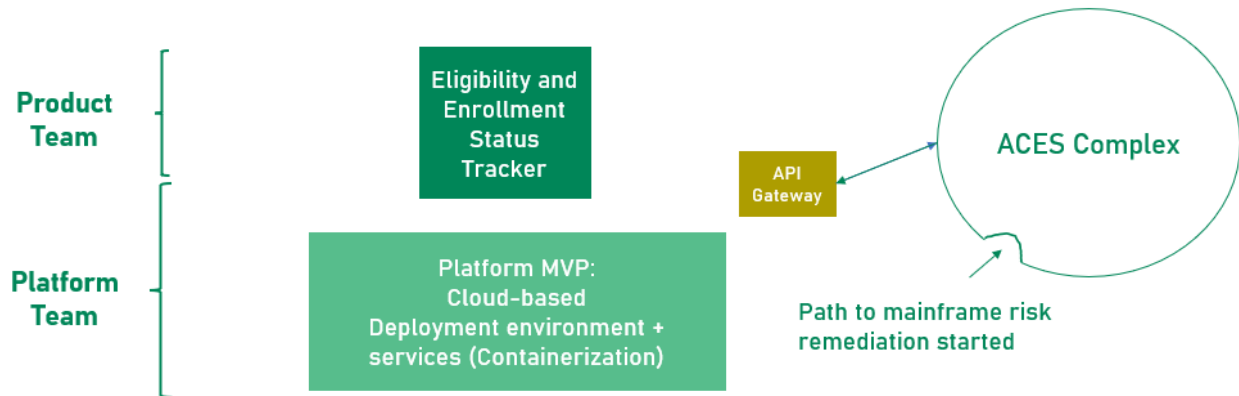
Case Worker Portfolio

- **Product #4 – Modern Case Management:** Includes the modernization of case management systems and processes with the ability to take advantage of the streamlined application data process. It will also include the implementation of legacy ACES integration for application data collection submissions.
- **Product #8 – Modernized Eligibility Business Rules:** Begins building eligibility rules in a modern business rules engine on the new IE&E platform, including MAGI and non-MAGI.
- **Product #10 – Modernized Enrollment and Other Business Rules:** Builds additional business rules in a modern business rules engine on our new IE&E platform.
- **Product #11 – Assistor Management and Support Products:** Provides new assistor management and support products.
- **Product #13 – Documents Management System:** Provides a new documents management system.
- **Product #14 – Data Warehouse Integrated to Modern Data Technologies:** Reprints the data warehouse to the new IE&E platform and takes advantage of new capabilities.

7.1. MODERN IE&E PLATFORM

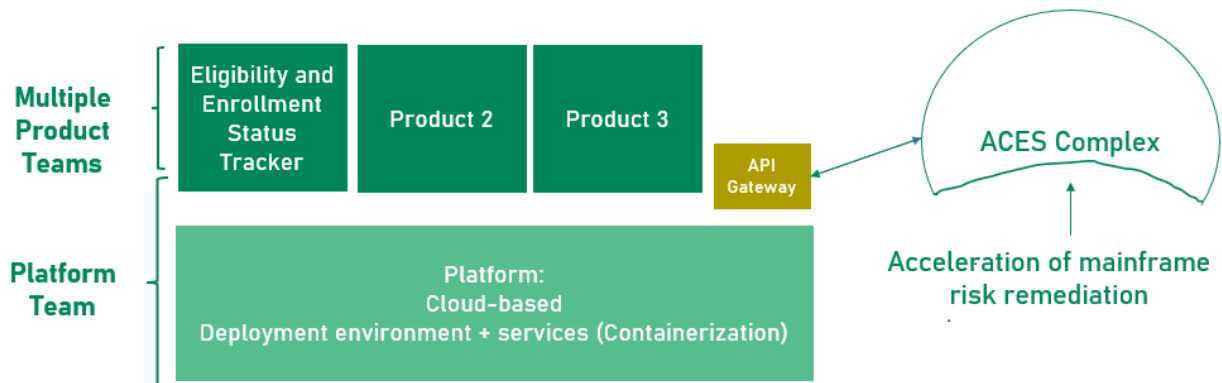
The scope of the initial decision package (see Appendix G for a copy of the decision package) includes two teams establishing a modern IE&E platform and creating the first product, the Eligibility and Enrollment Status Tracker.

Image 12: Establishment of Modern IE&E Platform



Beyond Product 1, we will extend the newly developed modern IE&E platform by adding additional product teams to build new modules and features that collectively will form the modern IE&E system. Over time, we'll reduce the use of the ACES mainframe and enable the sunsetting of features and functions, accelerating the mainframe risk remediation. By the end of the calendar year 2025, the combination of products, modules, and features will lead to a level of modernization that significantly reduces the reliance on the ACES mainframe.

Image 13: Extension of Modern IE&E Platform



7.2. YEAR-BY-YEAR ROADMAP

This section describes in year-by-year detail how the IE&E roadmap products will be designed and delivered. This includes the activities that will be carried out across the different teams and the required structures that must be in place to support overall project success. While this is a five-year roadmap, by December 2025 a first version of the end-to-end IE&E solution will be available to Washingtonians. It will not yet include all secondary and peripheral processes and technologies but will provide a modernized end-to-end experience.

Year 0 (Now – May 2022)

Year 0 focuses on setting up the project framework, strengthening roadmap governance, and building broad momentum. We will establish a team to support the design and implementation of our base platform and the Eligibility and Enrollment Status Tracker product. We will establish a strong project management foundation while continuously and critically monitoring that foundation and looking for areas for immediate improvement as we embark on a path that supports the implementation of a true IE&E solution. We will do this by closely tracking our performance metrics and refining our roadmap.

Table 2: IE&E Modernization – Year 0

IE&E Modernization – Year 0	
User and Business Experience Benefits	<ul style="list-style-type: none"> None during Year 0.
Governance	<ul style="list-style-type: none"> Establish an IE&E governance structure that builds on the HHS Coalition. Secure funding for Year 1 projects. Engage in regular legislative discussions. Establish program charter. Determine agile practices.
Client Products	<ul style="list-style-type: none"> Conduct human-centered design. Define product vision. Refine roadmap for Product 1. Develop product and platform roles and responsibilities. Assign key product and platform team members. Begin business discussions to create streamlined application data collection.
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> None during Year 0.
Platform and Technology	<ul style="list-style-type: none"> Draft enterprise architecture principles. Define technology, service, and data blueprint. Begin to prototype. Select cloud platform. Define Disaster Recovery and backup and recovery strategies. Define Security standards (e.g., design overlay), audit controls, and Continuity of Operations plans to ensure data integrity and security compliance standards are upheld.
Procurements	<ul style="list-style-type: none"> Update IT contract and procurement templates. Acquire platform and product vendors. Conduct ACES M&O reprocurement.
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> ACES ongoing system improvement, maintenance, enhancement activities. Complete ACES database consolidation and stabilization project. Lead ACES interface assessment and develop interface transition strategy: Start an exhaustive, comprehensive requirements gathering process with more than 100 interface partners to ensure a graceful migration. Lead ACES data and risk assessment. Assess legacy system remediation priorities.

IE&E Modernization – Year 0	
Prior Decisions Required	<ul style="list-style-type: none"> Should HHS continue to have two primary portals: HPF and WaConn? Define the scope of portal modernization activities. Agency steward decisions. Define Enterprise Architecture principles. Will the solution require SAW integration? Single application business, policy, and legislative strategy.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> Ensure new and/or improved ACES complex features and functions are portable, aligned with, and provide a bridge to the future state.
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> Ensuring a strong governance structure and project management process is in place as well as making sure we are able to recruit the needed resources with the required skills and experience. These will all be part of our mitigation strategy to set up that strong foundation. We also recognize there are going to be risks associated with vendor participation and our ability to get the procurements completed timely.

Year 1 (May 2022 – June 2023)

Year 1 is where our established teams will begin working on building out a new modern IE&E platform and developing an Eligibility and Enrollment Status Tracker that can be used by our clients to check the status of their application for Classic Medicaid, Cash, and Food eligibility. Starting with these components will limit the risk and scope of the project while providing immediate value to our customers through 24/7 online visibility into eligibility and enrollment status. It will allow the HHS Coalition to expand on the existing governance and develop the core processes needed on a limited scale before scaling agile in the next years. Some of those processes will be the architectural standards and guidelines that will be paramount throughout the entire project. In addition, the read-only integration to the legacy system will provide teams the opportunity to fully assess legacy system remediation priorities and help plan future activities.

Table 3: IE&E Modernization – Year 1

IE&E Modernization – Year 1	
User and Business Experience Benefits	<ul style="list-style-type: none"> Single point of access for application, eligibility, and enrollment status across multiple HHS Coalition programs. Mobile-only users can view application, eligibility, and enrollment status information for the first time. Increased alignment between case workers and applicants.
Governance	<ul style="list-style-type: none"> Refine roadmap, initiate business process changes, organizational change management, etc. Launch governance to start prioritizing backlog and assigning work to legacy vs. new platform. Launch Architecture review committee, change control board, data governance committee. Continue leading human-centered design with individuals and workers. Identify agile training needs and define staff training and cultural change scope. Conduct an inventory of business processes and identify impacts.

IE&E Modernization – Year 1	
Client Products	<ul style="list-style-type: none"> • (Product 1) Create eligibility and enrollment status tracker service for Cash, Food, and Classic Medicaid including integration with legacy ACES. • Continue business discussions to create streamlined application data collection and prioritize policy changes.
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> • Identify and implement business process changes to take advantage of Tracker.
Platform and Technology	<ul style="list-style-type: none"> • (Platform) Build out the modern platform. <ul style="list-style-type: none"> ○ Including build out of service layer Minimum Viable Product ○ Including data layer MVP. ○ Including stack + platform MVP. • Foundations of interoperability <ul style="list-style-type: none"> ○ Shared definitions. ○ Refine architectural standards and define application, product, and service architecture standards. • (MPI Project) Build out the Master Person Index product and integration layer.
Procurements	<ul style="list-style-type: none"> • Conduct ACES M&O contract re-procurement and conduct contract transition, as needed. • Assess new product and platform skills and activity needs and procure accordingly. • Acquire change management, business process redesign, and program management.
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> • Create an ACES remediation team; focus on remediation, improvement, and integration activities. • Modify legacy ACES to expose relevant eligibility and enrollment data to Product 1. • ACES ongoing system maintenance, technical debt remediation, and enhancements. • Initiate data archival and conversion plans.
Prior Decisions Required	<ul style="list-style-type: none"> • Scope of tracker refined: <ul style="list-style-type: none"> ○ Programmatic, Functional. ○ Explore whether product 1 should focus on new applications or existing clients change reporting and renewing. ○ Identify groups to involve in human-centered design, including groups that may not currently be served by legacy systems. ○ Conduct client focus groups across the state to inform the human-centered design and user interface. • Scope the use of MPI. • Define Disaster Recovery Strategy.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> • Incorporate human-centered design principles into design discussions.

IE&E Modernization – Year 1	
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> The biggest barrier this year will be in the establishment and acceptance of the necessary architectural standards and guidelines that will be used to support design, development, and implementation for the rest of the project. To provide mitigation for developing these standards, we will work closely with each of the HHS Coalition organizations including the OCIO, and establish an IE&E Project technical advisory board that will ensure proper implementation, adherence, and ongoing improvements.

Year 2 (July 2023 – June 2024)

Year 2 we build upon our Eligibility and Enrollment Status Tracker and extend it to other programs and features. This will be the first year where multiple product teams operate in parallel to accelerate the transformation journey. Leveraging business discussions starting in Year 0, we will be defining a single streamlined application supported by an initial data model that is relational and modular for application data collection. This data model is set up to be the foundation for future API, User Interface, and data collection products and features. Additionally, we will assess and implement MPI connections to use the MPI client identifier that links clients across HHS Coalition systems. Using MPI will facilitate accurate and timely multi-program determination. This year we will also focus on analyzing existing case management systems (e.g., Washington Connection, Barcode), and processes to take advantage of the new single, streamlined application. Finally, we will be implementing a bidirectional data synchronization tool integrating the modern platform and products to the legacy ACES for bidirectional data synchronization.

Table 4: IE&E Modernization – Year 2

IE&E Modernization – Year 2	
User and Business Experience Benefits	<ul style="list-style-type: none"> Improved streamlined application data collection process for Washingtonians applying across multiple programs (faster application, reduction in duplicative data entry and storage). Improved case worker experience. Responsive and mobile-friendly application process. Common language and terms used across all programs.
Governance	<ul style="list-style-type: none"> Continue to maintain roadmap, initiate business process changes, organizational change management, etc. Support governance to continue prioritizing backlog and assigning work to legacy vs. new platform. Scale agile to support multiple product teams operating in parallel. Continue to operate key committees (e.g., architecture review, change control, data governance committee). Continue leading human-centered design with individuals and workers. Define agency stewardship for new products.

IE&E Modernization – Year 2	
Client Products	<ul style="list-style-type: none"> Extend eligibility and enrollment status tracker service to other programs. (Product 2) Create an initial data model for application data collection (relational and modular data model). Assume and leverage MPI for the unique identifier. (Product 3) Self-Service and Worker-based Initial Application Entry Functions: Create streamlined application data collection for Cash, Food, and Classic Medicaid (initial application only).
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> (Product 4) Modernize Case Management systems and processes and take advantage of streamlined application data.
Platform and Technology	<ul style="list-style-type: none"> (Platform) Extend Platform beyond initial MVP to support additional roadmap products and activities.
Procurements	<ul style="list-style-type: none"> Initiate new ACES M&O contract. Assess new product and platform skills and activity needs and procure accordingly.
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> Operated ACES remediation team focused on remediation, improvement, and integration tasks. Data synchronization: Implement legacy ACES integration for application data collection submissions. Build necessary integrations and legacy systems remediations for products 2, 3, 4. ACES ongoing system maintenance, technical debt remediation, and enhancements.
Prior Decisions Required	<ul style="list-style-type: none"> Scope of programs to include in a consolidated data application. Agency steward for additional product teams. Data system of record decision. Case Management system modernization strategy. Data Warehouse strategy. Define data conversion strategy and scope. Assess the urgency of correspondence engine replacement and adjust the implementation timeline accordingly. Explore features for community partners (e.g., assisting agencies or assistors). Define ACES interface transition strategy. Mobile application strategy.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> Paper applications updated and rolled out. Submit updated Washington Connection annual plan to legislature, including the proposed path.
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> Continue to conduct retrospectives with each phase and product and implement process improvements across the project.

Year 3 (July 2024 – June 2025)

Year 3 will continue to extend the previously built products to support additional programs such as Working Connections Child Care, Women, Infants, and Children, etc. This will improve integration and provide us with a comprehensive eligibility and enrollment experience across the majority of HHS programs. We will also logically extend our established data model to include change reporting and

renewals. It is also our intent to clarify delineations between the two front doors and to launch a revamped user experience across both Healthplanfinder as the health portal and a modernized Washington Connection. We also will continue to reduce our dependency on legacy systems by setting up a modern eligibility business rules engine on our platform that begins with both MAGI and Non-MAGI rules. Additionally, in conjunction with the ACES M&O vendor, we will clearly define how the remaining ACES components will remain supported post-2025, whether through hardware replacement, mainframe as a service or another strategy to be defined with the ACES M&O contract vendor.

Table 5: IE&E Modernization – Year 3

IE&E Modernization – Year 3	
User and Business Experience Benefits	<ul style="list-style-type: none"> Improved clarity for all Washingtonians: This is where I go for health, this is where I go for other HHS programs. Applicants can now submit first-time apps, changes, or renewals via a responsive mobile-friendly experience. Reduction in paper applications and increase in online applications. Case worker improvements in data consistency for households enrolled in different programs.
Governance	<ul style="list-style-type: none"> Continue to roadmap, initiate business process changes, organizational change management, etc. Support governance to continue prioritizing backlog and assigning work to legacy. Scale agile to support additional product teams. Continue to operate key committees (e.g., architecture review, change control, data governance committee). Continue leading human-centered design with individuals and workers. Define agency stewardship for new products.
Client Products	<ul style="list-style-type: none"> Extend products built to date to other HHS programs: Child Care, WIC, etc. (Product 5) Consolidate Classic Medicaid online experience into health portal. Including improved integration across HPF and Human Services portal. (Product 6) Extend data collection to change reporting and renewals. Including data model changes. (Product 7) Configure new correspondence engine, including email notifications.
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> (Product 8) Build or migrate the current modern business rules engine to the platform (including MAGI and non-MAGI). Modernize Case Management systems and processes and take advantage of streamlined change and renewal data.
Platform and Technology	<ul style="list-style-type: none"> (Platform) Extend Platform to support additional roadmap products and activities. (Platform) Migrate ESB integrations to the new platform, including remediation of legacy systems.
Procurements	<ul style="list-style-type: none"> Assess new product and platform skills and activity needs and procure accordingly.

IE&E Modernization – Year 3	
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> Operated ACES remediation team focused on remediation, improvement, and integration tasks. (Remediation acceleration) Initiate one of the remediation options: (Preferred) Proceed with incremental components roadmap and work with ACES M&O contract vendor to lift and shift any of the remaining mainframe components to the cloud while the work to reimagine ACES onto the new platform continues. Extend data synchronization. Build needed integrations and legacy systems remediations for products 5, 6, 7, 8. Optimize the integration of HPF and Human Services Portal. ACES ongoing system maintenance, technical debt remediation, and enhancements.
Prior Decisions Required	<ul style="list-style-type: none"> Define agency stewardship for new products. Clarify how business rules can be integrated and still increase program ownership and flexibility. Define Agency skills to acquire to manage program business rules. Remediation acceleration: Initiate selected remediation option. Determine which subset of Cash, Food, and other program rules should be developed as code or configured as a business rule. Define correspondence data archival and migration strategy.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> None identified at this time.
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> Continue to conduct retrospectives with each phase and product and implement process improvements across the project.

Year 4 (July 2025 – June 2026)

With the integrated portals live and supporting Washingtonians, in Year 4 we will continue to extend our platform to support additional products and legacy system modernization efforts as well as continue modernizing case worker systems. We will add a document upload capability to improve peripheral features and integrate our application data collection, change reporting, and renewal with our recently established modern business rules engine. We will further reduce back-end legacy system dependency by completing our business rules modernization and integration and will be able to accelerate legacy system remediation by sunseting legacy Washington Connection.

Table 6: IE&E Modernization – Year 4

IE&E Modernization – Year 4	
User and Business Experience Benefits	<ul style="list-style-type: none"> Washingtonians now have a comprehensive and modern no wrong door online experience. Washingtonians can report changes and renew on their mobile devices. Washingtonians can take pictures and upload documents from mobile devices. Application and eligibility determination is streamlined and significantly faster, and document requests are consolidated across programs.

IE&E Modernization – Year 4	
Governance	<ul style="list-style-type: none"> Continue to roadmap, initiate business process changes, OCM, etc. Support governance to continue prioritizing backlog and assigning work to legacy vs. new platform. Scale agile to support multiple product teams. Continue to operate key committees (e.g., Architecture review, change control, data governance committee). Continue leading human-centered design with individuals and workers. Define agency stewardship for new products.
Client Products	<ul style="list-style-type: none"> (Product 9) Create document upload component. (Product 12) Integrate application data collection, change reporting, and renewal with a modern business rules engine solution. Product Maintenance & Operations.
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> (Product 10) Build additional business rules on the modern business rules engine on the platform. Enrollment rules. Non-financial eligibility rules. (Product 11) Assistor Management and Support Product. Assistors Profile Management System (online registration + partner organization profile + public access directory). Assistors Online Submission System (for client's new application + eligibility reviews + change reports). Assistors Tracking System (for client search + client eligibility and enrollment tracker). Product maintenance and operations.
Platform and Technology	<ul style="list-style-type: none"> (Platform) Extend Platform to support additional roadmap products and activities. (Platform) Maintenance & Operations. (Platform) Migrate Enterprise Service Bus integrations to the new platform, including remediation of legacy systems.
Procurements	<ul style="list-style-type: none"> Assess new product and platform skills and activity needs and procure accordingly.
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> Operated ACES remediation team focused on remediation, improvement, and integration tasks. (Remediation acceleration) Decommission legacy Washington Connection and launch revamped front door, including comprehensive two-door integrations. (Remediation acceleration) Continue legacy remediations of COBOL code corresponding to business rules. Modern platform and products are now the system of record. ACES ongoing system maintenance, technical debt remediation, and enhancements.
Prior Decisions Required	<ul style="list-style-type: none"> Data conversion plan. Determine implementation approach. Define agency stewardship for new products.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> None identified at this time.

IE&E Modernization – Year 4	
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> Continue to conduct retrospectives with each phase and product and implement process improvements across the project.

Year 5 (July 2026 – June 2027)

In Year 5, we'll continue to extend the platform to support additional products and activities and establish a solid maintenance and operations process as we accelerate the decommissioning of legacy software and products. This year will also focus on data conversion and archival as well as continue setting up the peripheral components that will complement the core products built to date. We'll have a disaster recovery process in place including backup and recovery testing that ensures performance measures are fully supported in case of disaster. Additionally, we'll be supporting all of our data needs on the new IE&E platform with the completion of all legacy system data conversion and archival requirements. With that success, we'll archive the legacy data warehouse and remove temporary data synchronization steps previously established. We'll also conduct a retrospective, as we do each year of our modernization efforts, and document any discoveries made for continued refinement as we continue to extend our platform to support additional products and activities that will continue to improve and enhance the experience of our clients and case workers with a modern IE&E solution.

Table 7: IE&E Modernization – Year 5

IE&E Modernization – Year 5	
User and Business Experience Benefits	<ul style="list-style-type: none"> Users can apply to all programs in less than 20 minutes. Users can seek support through multiple channels. Case worker's view of a single record.
Governance	<ul style="list-style-type: none"> Continue to roadmap, initiate business process changes, OCM, etc. Support governance to continue prioritizing backlog and assigning work to legacy vs. new platform. Scale agile to support multiple product teams. Continue to operate key committees (e.g., Architecture review, change control, data governance committee). Continue leading human-centered design with individuals and workers. Define agency stewardship for new products.
Client Products	<ul style="list-style-type: none"> Product Maintenance & Operations.
Worker and Community-based Assistor Products	<ul style="list-style-type: none"> (Product 13) Configure new documents management system. (Product 14) Reprint the Data warehouse to the new platform and take advantage of new capabilities. Product Maintenance & Operations.
Platform and Technology	<ul style="list-style-type: none"> (Platform) Extend Platform to support additional roadmap products and activities. (Platform) Maintenance & Operations. (Platform) Migrate ESB integrations to the new platform, including remediation of legacy systems.
Procurements	<ul style="list-style-type: none"> Assess new product and platform skills and activity needs and procure accordingly.

IE&E Modernization – Year 5	
ACES Legacy Remediation & Replacement	<ul style="list-style-type: none"> Operated ACES remediation team focused on remediation, improvement, and integration activities. Migrate program correspondences to the correspondence engine on the new platform. Archive and/or migrate documents to documents management product on the new platform. Decommission ESB (incrementally as legacy integrations are sunset). Complete conversion, archival, and remediation strategy for all ACES data. Archive legacy data warehouse. Decommission data synchronization. ACES ongoing system maintenance, technical debt remediation, and enhancement activities.
Prior Decisions Required	<ul style="list-style-type: none"> Define agency stewardship for new products.
Additional Dependencies & Considerations	<ul style="list-style-type: none"> None identified at this time.
Barriers and Mitigation Strategies	<ul style="list-style-type: none"> Continue to conduct retrospectives with each phase and product and implement process improvements across the project. We continue to recognize data (e.g., conversion, sharing, archive) as the biggest point of potential failure for IE&E. As a mitigation strategy, we will ensure a strong risk and issue process remains in place and work closely with each of the HHS Coalition organizations to ensure data conversion and migration efforts are fully understood.

7.3. ACES LEGACY REMEDIATION AND REPLACEMENT

It is important to acknowledge that ACES has been a successful system and it has been critical to the lives of millions of Washingtonians over the past three decades. Throughout the duration of the project, especially in the first few years, ACES will continue to be updated to support new requests. These requests, as well as ACES legacy remediation, improvement, and migration activities, will be under DSHS stewardship to ensure continuity of business operations and benefit issuance to millions of Washingtonians.

Over time, most of the new requests will be implemented on the modern solution. The roadmap governance team will evaluate and determine that new reforms and enhancements are built in the right environment in response to business needs.

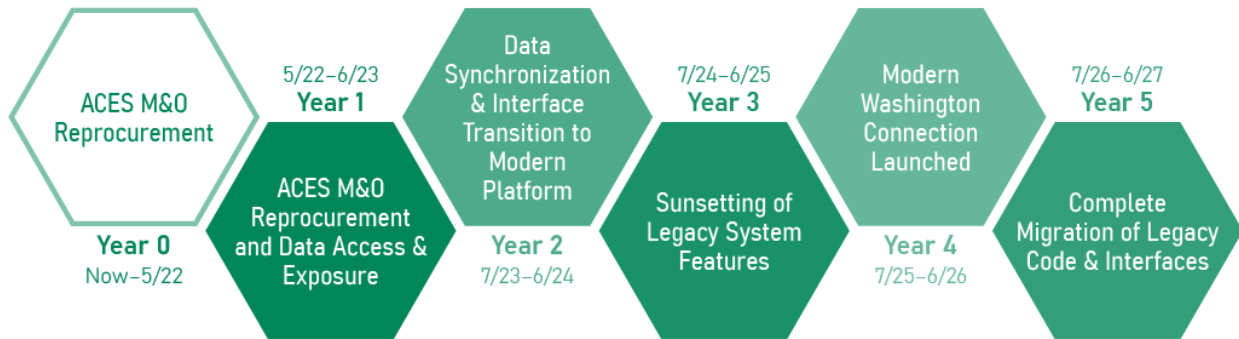
In the roadmap section, we highlighted the year-by-year activities to move off of the ACES mainframe. With guidance from 18F and using best practices referenced in Marianne Bellotti's book *Kill it with Fire*¹⁴, our plan is to approach the mainframe with considerate planning using an iterative approach. This approach is focused on building modern components while strategically unwinding off of the legacy system. With this approach, a subset of the legacy system may be refactored into modern, supportable language, supported by standardized toolsets and Software Development Life Cycle approaches.

¹⁴ Marianne Bellotti, *Kill It with Fire: Manage Aging Computer Systems (And Future Proof Modern Ones)* (San Francisco: No Starch Press, 2021).

We expect that as new modern products are built, the corresponding features in legacy ACES will be sunset. There may be existing features for which investing in building a corresponding modern product does not make sense (risks, costs, etc.) In these instances, an exception review process will be followed, and we'll define a modernization strategy so that the legacy feature can be migrated to a sustainable hosting solution (on the modern platform, as a standalone service, etc.) away from physical hardware.

A successful outcome will be the sustainability of crucial benefits to Washingtonians and enhanced efficiencies enabling the seamless delivery of those benefits without interruption to our clients. It includes the reimagining of ACES and shifting this critical functionality to the new IE&E platform as well as the decommissioning of the mainframe hardware and replacement of existing COBOL code.

Image 14: ACES Legacy Roadmap



In Year 0, the focus is on conducting the re-procurement of the ACES M&O contract vendor and ensuring DSHS has a vendor partner who can support ACES through the duration of this transformation. In addition, modernization and legacy system teams will focus on defining architecture principles, security standards (design overlay), audit controls, backup plans, disaster recovery plans, and Continuity of Operations plans to ensure data integrity and security compliance standards are upheld. Finally, an exhaustive requirements gathering process will be performed with the over 100 ACES interface partners to ensure a graceful migration of these interfaces to the new platform.

In Year 1, two parallel streams will be initiated:

- Creating an integration and remediation team that will be focused on ensuring the modern platform and products will have access to the relevant data stored in the legacy systems. This team will be expected to expose relevant data and integrate with modern APIs as well as remediate the corresponding code when no longer relevant.
- The second stream will be focused on diving deeper into ACES and developing a data, interfaces, and risk assessment to arrive at a more detailed legacy remediation roadmap. This roadmap will be a refined and detailed version of this report and will include the remediation of legacy code, as well as the strategy for migration to and integration with the new platform.

In addition, the data archival and migration will be defined, and implementation kicked off.

In Year 2, three parallel streams will be in flight:

- DSHS will have completed ACES M&O re-procurement and contracted with an ACES M&O vendor.
- A team will build a data synchronization feature that will allow both read and write capabilities across modern and legacy systems to remain in sync.
- Using the refined roadmap as a guide, a team will focus on sunsetting legacy system features as modern products are brought online. In addition, interfaces will be transitioned from ESB and legacy systems to the modern platform.

In Year 3, governance will have a clearer sense of the velocity at which ACES features are being sunset.

- Based on this information, governance will determine how to proceed with legacy hardware coming end-of-life in 2025 and COBOL code for which support will become more difficult to find.
- Working hand-in-hand with the ACES M&O contract vendor, project governance will develop an extension strategy (e.g., hardware parts replacement) to ensure legacy system stability can be sustained.

In addition, a team will focus on sunsetting legacy system features as modern products are brought online and migrating the prioritized data sets. Also, interfaces will be transitioned from ESB and legacy systems to the modern platform.

In Year 4 remediation activities will accelerate:

- A modern version of Washington Connection should be launched, and corresponding legacy code decommissioned consistent with portal decisions made in Year 0.
- Business rules will be configured in the modern rules engine and corresponding legacy COBOL code will be sunset.

In addition, using the refined roadmap as a guide a team will focus on sunsetting legacy system features as modern products are brought online and migrating the prioritized data sets. Interfaces will also continue to be transitioned from ESB and legacy systems to the modern platform.

In Year 5, remediation activities will continue to pick up the pace with a focus on:

- Fully decommissioning legacy code and rules engine as rules are now live in the modern rule's engine.
- Migrate correspondences as applicable, archive and sunset legacy correspondences as applicable.
- Migrate documents as applicable, archive and sunset legacy correspondences as applicable.
- Complete migration of all legacy interfaces and decommission the Enterprise Service Bus.
- Decommissioning legacy correspondence functionality, code, technologies, and documents management functionality, code, and technologies.
- Completing archival of all ACES data.
- Decommissioning the legacy data warehouse.
- Turning off the data synchronization bridge as data will no longer be exchanged between ACES and the modern platform and products.

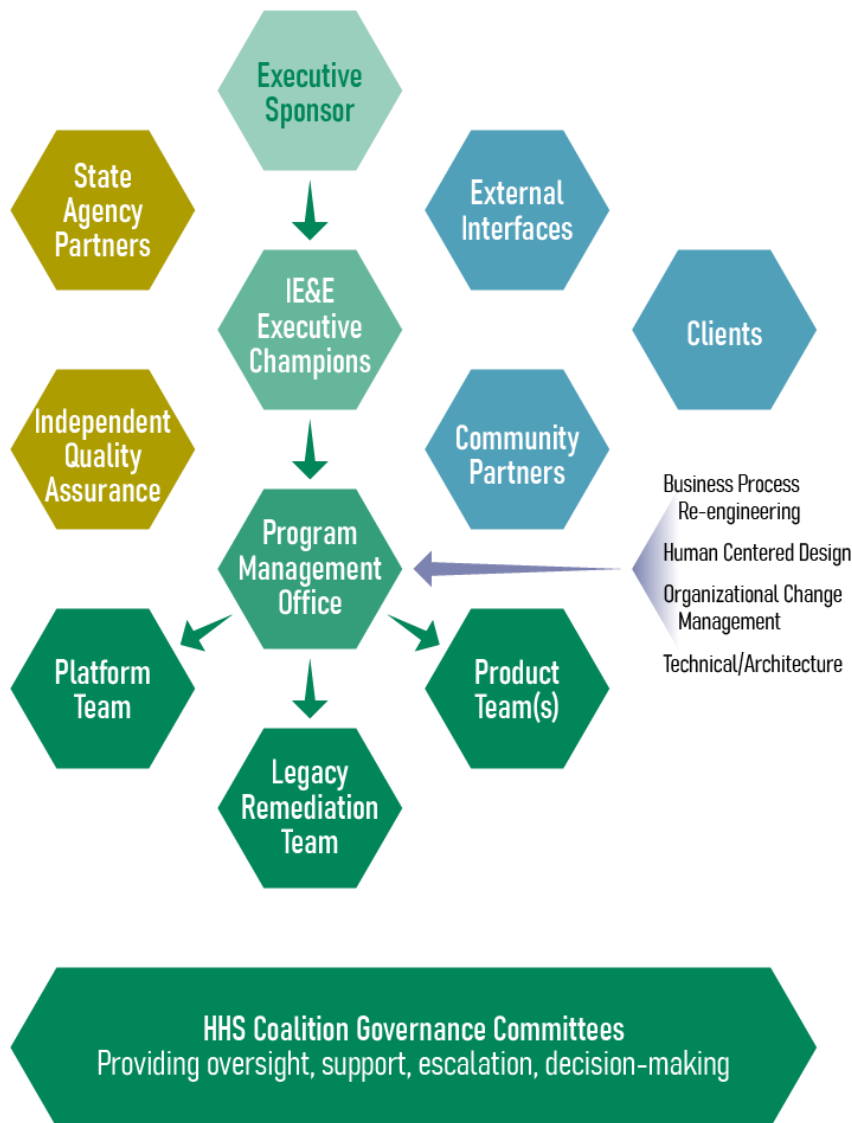
8. ORGANIZATION

The effective delivery of the IE&E roadmap will require a comprehensive organization structure comprised of leadership and members from the HHS Coalition organizations, and other state partners (e.g., OCIO, Office of Financial Management, Department of Enterprise Services, etc.) as well as multiple vendor teams. This section describes how this collaboration will be organized and supported through organizational change management approaches.

8.1. STRUCTURE AND GOVERNANCE

The image below depicts the overall structure and governance of the IE&E roadmap delivery efforts, with a more detailed description of the key elements below.

Image 15: IE&E Project Structure



- **HHS Coalition Governance Committees:** The HHS Coalition is committed to this roadmap at all levels, from the organization top executives and down. The governance committees of the HHS Coalition are engaging in providing oversight and support for this work and support escalated issues and decision-making for the roadmap as the work progresses.

- **Executive Sponsor:** Pam MacEwan, the CEO of the Health Benefit Exchange, has been designated by the HHS Coalition as the Executive Sponsor for this work, providing ultimate ownership, accountability, and decision-making.

- **IE&E Executive Champions:** The IE&E Executive Champions represent each of the HHS Coalition organizations to provide regular leadership, direction, guidance, and recommendation on the

roadmap work. As needed, for awareness and decision-making, they will reach out to G1, G2, and/or G3 as defined above, for input and support.

- **IE&E Program Management Office:** The IE&E PMO to be established in support of the roadmap is a critical team, responsible for day-to-day management across the project. Positions needed for this work include an IE&E Program Manager, Project Managers, and a Solution Architect. This includes defining project and technical standards, requirements, and processes that must be followed as well as supporting the management of resources and the training required to ensure we are set up for continued success. The HHS Coalition has identified DSHS as the steward organization for this team. This team also coordinates the work of several sub-teams.
 - **Business Process Reengineering Team:** The implementation of each product will require an analysis of existing processes and the implementation of new processes. This team will support this from a centralized, coordinated function.
 - **Human-Centered Design Team:** The IE&E roadmap products will be developed using human-centered design techniques, as described in Section 15.2. This team will provide centralized resources to support this strategy.
 - **Organizational Change Management Team:** This team will support change adoption and the success of the IE&E roadmap through structure change management techniques, further described in Section □.
 - **Technical and Architecture Team:** This team includes representation from each of the HHS Coalition organizations and the OCIO to guide the overarching architecture and to support technical decision-making. Sub-teams will be quickly created to coordinate agile at scale, implement a change control board, a data governance committee as well as other supporting technology teams.
- **Platform Team:** This team, stewarded by DSHS, will provide initial development and ongoing M&O of the common platform. They will support the continuous integration and continuous delivery pipeline for individual products, ensuring that all teams build features that can work hand-in-hand and minimize technical debt.
- **Product Team(s):** Each product will be built by a separate scrum team operating under the Scaled Agile Framework (SAFe) framework¹⁵. The product teams will be state-led with vendor staff augmentation. Each product team will be stewarded by a specific HHS Coalition organization to be determined during the roadmap maintenance and updates. In year 1 there will be a single Product Team stewarded by DSHS and focused on the Eligibility and Enrollment Status Tracker.
- **Legacy Remediation Team:** We'll work with the ACES M&O contract vendor to stand up a team focused on legacy ACES integration and synchronization as well as remediation and sunset of legacy code, software, and hardware. This will allow us to reduce mainframe failure risk sequentially.
- **State Agency Partners:** State agency partners from OCIO, OFM, and DES will provide support specific to their roles in the authorizing and operating environment around project oversight, statewide technical, security, and privacy reviews, state budget, and procurement guidance and oversight.
- **Independent Quality Assurance:** The HHS Coalition will engage a vendor team to provide an independent quality assurance review of the work on the IE&E roadmap.

¹⁵ Scaled Agile, Inc., "Scaled Agile Framework 5," 2020, <https://www.scaledagileframework.com/>.

- **External Interfaces:** ACES has close to 100 interfaces with state, federal, tribal, and other partners that will need to be managed with as little impact to them as possible throughout the IE&E modernization.
- **Community Partners:** The HHS Coalition prioritizes community engagement in the development of initiatives aimed at reducing poverty. We will engage community partners in the development of the IE&E products.
- **Clients:** It is our intent to have Washingtonians, including state staff, engaged with the Human-Centered Design Team to inform the development of the IE&E roadmap products. We will engage clients with an equity lens to ensure broad representation, especially of those disproportionately impacted by poverty.

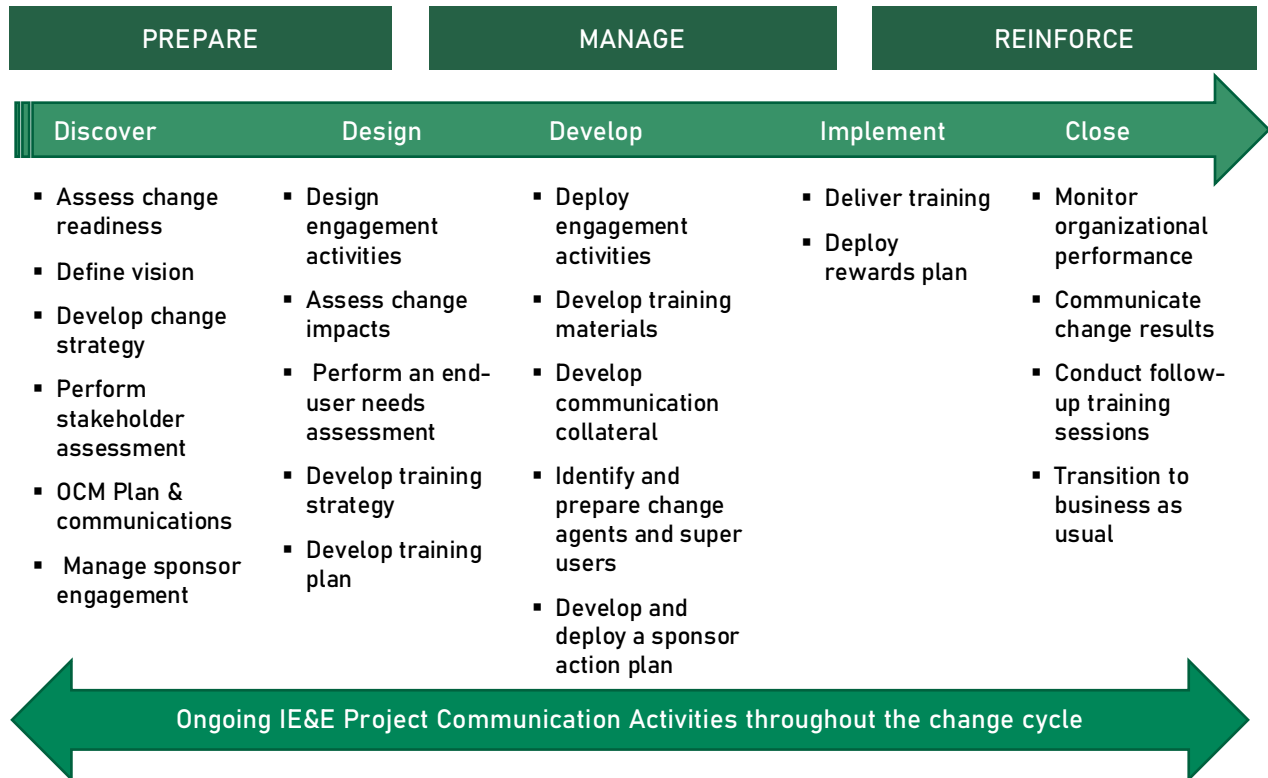
8.2. ORGANIZATIONAL CHANGE MANAGEMENT

The HHS Coalition understands and prioritizes the value of Organizational Change Management. We recognize this journey will require change for the HHS Coalition organizations, our clients, and our community and service delivery partners. As a result, we have made OCM a priority as we prepare, manage, and reinforce change throughout the implementation of a new IE&E solution for the state of Washington. The IE&E Program Management Office will have a team dedicated to OCM activities.

The OCM planning process undertaken to inform the roadmap ensured that program, operations, and technology stakeholders across each of the HHS Coalition organizations were each actively engaged in development efforts. Each component of the roadmap will include funding for professional OCM services to support adoption and business readiness.

The steps required to prepare, manage, and reinforce change are outlined in the table below, including steps for discovery, design, develop, implement, and close.

Image 16: OCM Process Phases and Steps



The HHS Coalition recognizes that change is difficult and that successful transformation is driven through acceptance of the change from each HHS Coalition organization member. They also understand there is a wealth of OCM expertise already within each of the HHS Coalition organizations and there are opportunities to use existing resources to collaborate on planning, managing, and reinforcing change.

Each phase of change will include HHS Coalition organization members and include specific tactics and the needed tools for success. For example, the tools that will be developed during Prepare (e.g., OCM Strategy, OCM Plan) will be used throughout the change cycle to manage and implement change.

Benefits of Organizational Change Management

Making organizational changes is not an easy task, but with a template to follow and a plan to execute, it can create a greater chance for success. A comprehensive set of OCM activities allows IE&E and the HHS Coalition to be in a better position to:

1. Support employees in HHS Coalition organizations in understanding the purpose of the HHS Coalition governance and oversight processes and their applicability to organizational work designed to minimize individual and organizational resistance to change.
2. Develop a better understanding of the need and the impact of business process changes, such as working with other HHS Coalition organizations on procurements for M&O of shared systems.
3. Bring clarity about why a specific change is necessary and what it will achieve in support of the HHS Coalition's IT Vision and the implementation of IE&E.
4. Address changes using established OCM principles from industry leaders, such as the Prosci ADKAR organizational change management model.

5. Help develop tools in support of project initiation and portfolio management processes and ensure impacted HHS Coalition staff have the tools accessible to support change.
6. Plan and execute an effective communication strategy using existing communication methods as well as existing HHS Coalition organization-specific communication methods.
7. Build a commitment to work together across organizational boundaries, to equip, prepare and support people affected by change, and march toward the same goals.

9. MARKET AND COST ANALYSIS

The HHS Coalition conducted a market analysis to inform a general understanding of the range of costs estimated to be associated with the IE&E modernization roadmap investments. This analysis is based on a series of assumptions and hypotheses that will be refined annually. This section describes the costing model and the supporting assumptions as well as funding strategies and potential future cost avoidance approaches.

9.1. COSTING ASSUMPTIONS

We identified teams and functions as the main driver of costs and have structured our market and cost analysis around these teams. Our costs for each team consider the number of staff and contractors who would need to perform the work, the supporting technology products, and other inputs. We have made the following assumptions around costs associated with central coordination, platform, products, legacy system integration and remediation work as well as external and interfacing systems:

- **General Assumptions**
 - The market analysis is built with 2021 costs and understands that these costs will likely evolve through the years, based on inflation and market forces. For example, the ongoing market rate for IT talent is evolving at a rapid pace and it is challenging to project the future trend for these labor costs.
 - The estimates for Years 1 and 2 have a relatively high degree of confidence. The years beyond that are hypothesis-driven and will be refined with our learnings over time.
 - With methodologies like SAFe¹⁶ and Leading Edge Structure Subsystem (LESS) as our guide, we have identified the number of teams that would be working in parallel to deliver the IE&E roadmap. A number of teams are considered shared services supporting the product teams, which would fluctuate in number each year depending on the number of products being built.
 - Additionally, there may be opportunities for savings through the decommissioning of ACES legacy components and the reuse of existing technologies found across the HHS Coalition organizations; these savings haven't been included in our estimates.
- **Central Coordination**
 - A central coordinating team will need to be established to be responsible for the overall program management of the transformation.
 - This team will coordinate a number of business activities:
 - Ongoing roadmap management and overall governance.
 - Project management office.
 - Organizational change management and training.
 - Human-centered design.
 - Business process redesign.
 - Project oversight (QA/IV&V).
 - Coordinate assessments and audits.
 - This team will also coordinate the scaled agile practices and shared services such as architecture, technical definitions, and other IT functions performed centrally rather than by individual product teams.
- **Platform Team**
 - This work will initially be built out in Years 1 and 2.

¹⁶ Scaled Agile, Inc., "Scaled Agile Framework 5," 2020, <https://www.scaledagileframework.com/>.

- After Year 3, this team will perform ongoing M&O throughout the life of the roadmap and beyond. There will be ongoing costs associated with software products, hosting, storage, data transfer, and state and vendor staff.
- **Products**
 - The assumptions regarding product teams are provided separately.
 - Following the scaled agile methodology, our transformation begins with a single product team and incrementally increases to four then five teams before slowly ramping down. As teams ramp down, maintenance and operations activities will increase.
 - After initial development, there will be M&O costs associated with the products.
- **ACES Legacy Remediation**
 - There will be legacy integration, remediation, and improvement activities, including exposing ACES data to integrate with new modern products, ensuring continued system stability, remediating, and decommissioning legacy code, modularizing, containerizing, and migrating eligibility and other key functionalities onto the new platform, migrating legacy databases, and sunseting legacy products.
 - This work will be performed by the legacy ACES M&O contract vendor in parallel to the ongoing ACES M&O.
- **External and Interfacing System Impacts**
 - Today, legacy ACES has close to 100 interfaces with external systems.
 - External and interfacing system impacts may be funded by this project or maybe funded through prioritization in existing interfacing system budgets.
 - ACES legacy integration work will be funded through separate contract change orders with the existing ACES M&O vendor.

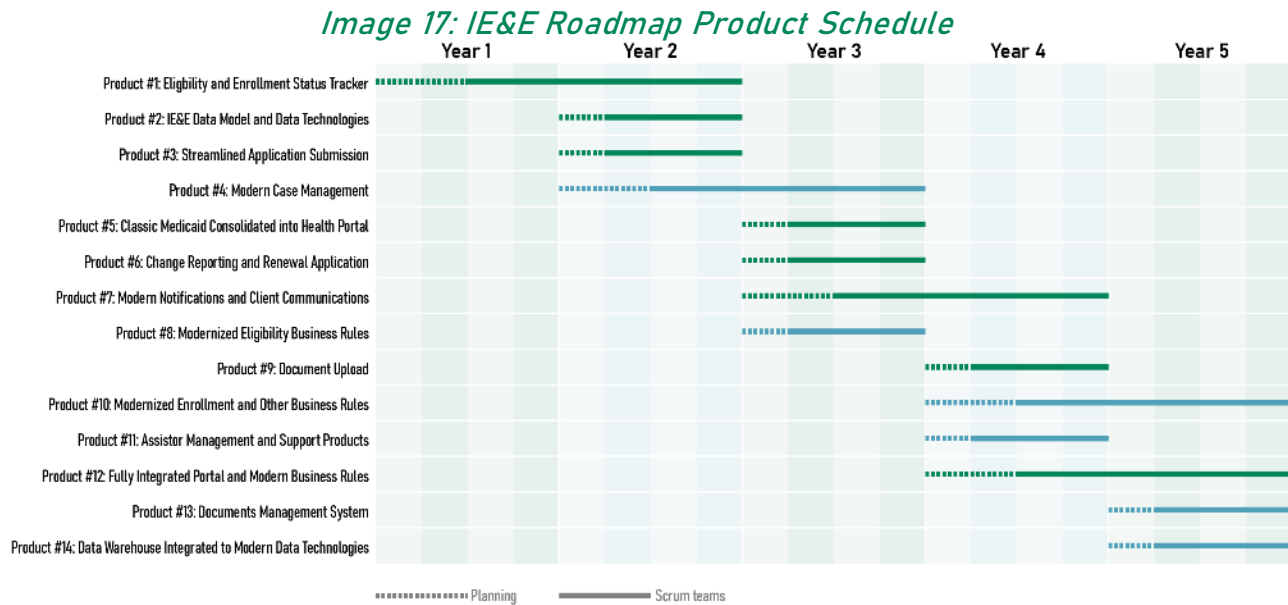
IE&E Product Team Assumptions

Our detailed roadmap identifies the sequential build out of a series of products. While we have identified high-level scope for each, their comprehensive requirements have not been defined. Below are assumptions about these products and the time and effort required to build them:

- Implementation duration will depend on product size.
- Durations assume a single product team working on the product and a range is provided to account for limited high-level requirements known to date:
 - Medium (1-2 years).
 - Large (2-3 years).
- Nine of the products (#2, 3, 5, 6, 8, 9, 11, 13, and 14) are considered of medium size.
 - Product #2: IE&E Data Model and Data Technologies
 - Product #3: Streamlined Application Submission
 - Product #5: Classic Medicaid Consolidated into Health Portal
 - Product #6: Change Reporting and renewal Application
 - Product #8: Modernized Eligibility Business Rules
 - Product #9: Document Upload
 - Product #11: Assistor Management and Support Products
 - Product #13: Documents Management System
 - Product #14: Data Warehouse Integrated to Modern Data Technologies
- Five of the products (#1, 4, 7, 10, and 12) are considered of large size.
 - Product #1: Eligibility and Enrollment Status Tracker

- Product #4: Modern Case Management
- Product #7: Modern Notifications and Client Communications
- Product #10: Modernized Enrollment and Other Business Rules
- Product #12: Fully Integrated Portal and Modern Business Rules
- Planning activities will include two to three product team members.
- During implementation, the size of each product scrum team will be eight to 12 members.
- Not all products will require the same number of supporting team members.
- Not all products will require the same level of skill, knowledge, and experience.
- Product team shared services have also been considered and are an additional Product Scrum Teams cost applicable to all years starting in Year 2.

The IE&E Roadmap Product Schedule shown below provides the proposed sequencing of products and the duration of teams working on each product.



9.2. COSTING MODEL

Based on the above assumptions, we have developed a cost model that estimated the range of costs to support the full IE&E roadmap. The analysis is categorized based on the following cost categories:

- Central Coordination: Costs in support of the central coordinating functions as described in the assumptions.
- New Platform Build-out: Costs in support of ongoing design, development, and implementation efforts of the new platform.
- New Platform M&O: Costs in support of ongoing M&O for the platform shared by all products.
- Product Scrum Teams: Costs in support of new product development.
- New Product M&O: Costs in support of ongoing M&O for the individual products and their initial release to production.
- ACES Legacy Remediation: Costs in support of ACES legacy remediation as described in the assumptions above.

- External and Interfacing System Impacts: Costs in support of changes related to impacts for external and interfacing systems.

Table 8: IE&E Cost Model

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Central Coordination	\$700K	\$5M	\$8M-\$13M	\$9M-\$13M	\$10M-\$15M	\$9M-\$13M
New Platform Build-out and DDI	\$0	\$6M	\$6M-\$9M	\$4M-\$7M	\$1.5M-\$3M	\$1.5M-\$3M
New Platform M&O	\$0	\$0	\$0	\$0	\$3M-\$6M	\$3M-\$6M
Product Scrum Teams/DDI	\$0	\$4M	\$13M-\$23M*	\$17.5M-\$32M*	\$15M-\$27M*	\$13M-\$23M**
New Product M&O	\$0	\$0	\$0	\$0	\$2.5M-\$5M	\$5M-\$7M
ACES Legacy Remediation	\$0	\$4M	\$6M-\$9M	\$6M-\$9M	\$10M-\$13M	\$10M-\$13M
External and Interfacing System Impacts	\$0	\$0	\$8M-\$12M	\$8M - \$14M	\$10M - \$16M	\$10M - \$16M
Total \$209M-\$327M***	\$700K	\$19M	\$41M-\$66M	\$44.5M-\$75M	\$52M-\$85M	\$51.5M-\$81M

* Assuming one product from the previous year has a two-year duration.

** Assuming two products from the previous year have a two-year duration.

*** Assuming ACES Legacy work and interfacing systems work is funded through existing budget streams, then total cost becomes \$209M-\$327M.

9.3. FUNDING STRATEGY

This represents a significant investment on the part of the state of Washington. We've developed a funding strategy to address these costs and demonstrate value to the authorizing environment. Our funding strategy is threefold:

1. Optimize Federal Funds
2. Two-year Iterations
3. Maximize Partnerships and In-Kind Investments

This project will be eligible for federal matching funds across a variety of federal programs. We'll seek to optimize the use of these federal matching funds in alignment with client impact and programmatic goals and cost allocated according to federal guidelines. The specific state and federal cost shares aren't included in the cost model above, but we anticipate significant federal financial participation. As we undertake the build-out of new products, we will evaluate the best way to maximize federal funds as part of our criteria to sequence program build-out. The intent will be to minimize state spending as we build foundational components of the solution.

Our state funding requests will be formulated every two years through decision packages. These requests will include the updated roadmap and necessary details to identify how funds will be spent. Submitting funding requests on a biennial basis will allow the authorizing environment to evaluate the progress and value being delivered as they consider subsequent funding requests.

In addition, we'll be looking to take advantage of services provided by nonprofit partners and mission-driven organizations. For example, when drafting the roadmap, we secured services from 18F, a federal government subsidiary that offers services at a highly competitive rate. The HHS Coalition is also in discussion with other non-profit organizations to consider partnerships that would support this work.

9.4. FUTURE COST AVOIDANCE AND OPPORTUNITIES

There may be an opportunity as the roadmap progresses to shift funds to support work in the modern environment as we slowly decommission off of legacy ACES and modernize eligibility and enrollment with a new IE&E solution.

Once the roadmap has been fully implemented, there will no longer be the need to purchase hardware to support ACES or the need to make frequent capital expenditure investments.

Once the roadmap has been implemented, modules support can be procured independently. This will mean reduced dependency on a single vendor and greater competition, including price competition.

10. CONCLUSION

The achievement of this IE&E roadmap will achieve significant aspects of the HHS Coalition IT Strategy and positively impact the nearly three million Washingtonians that receive vital services from the HHS Coalition that allow them to reach their full human potential. Washingtonians will:

- Interact with systems designed with an equity lens for access to and benefit from HHS Coalition programs.
- Be able to apply “seamlessly” for multiple programs using mobile devices in less than 20 minutes and immediately know their eligibility status.
- Proactively be notified of other benefits they may qualify to receive across agency boundaries.
- Be able to report changes in their personal circumstances to a single place, rather than multiple times to different state agencies.
- Receive services in a way that is relevant to them, focused on the services they need and want.

Image 18: IE&E Vision Summary



Moving to a modern IE&E solution for the HHS Coalition organizations will ensure that Washington has a stable and reliable system through which the state can deliver needed services. This investment will provide continuity of services and promote the maintenance of a system that can be efficiently maintained over time in response to policy and program needs and technological advances.

11. APPENDIX A. GLOSSARY

The table below provides a list of the acronyms used in this report.

Table 9: Acronyms List

Acronym	Definition
ABD	Aged, Blind, and Disabled
ACES	Automated Client Eligibility System
ADA	Americans with Disabilities Act
ALTSA	Aging and Long-Term Support Administration
APD	Advance Planning Document
API	Application programming Interfaces
CAPEX	Capital Expenditures
CARE	Comprehensive Assessment Reporting Evaluation
CD	Continuous Delivery
CFR	Code of Federal Regulations
CI	Continuous Integration
CMS	Centers for Medicare and Medicaid Services
COBOL	Common Business-Oriented Language
COTS	Commercial off-the-Shelf
COVID	Coronavirus Disease
CSD	Community Services Division
DCYF	Department of Children, Youth, and Families
DDA	Developmental Disabilities Administration
DES	Department of Enterprise Services
DOH	Department of Health
DSHS	Department of Social and Health Services
ESB	Enterprise Service Bus
FTE	Full-Time Employee
HBE	Health Benefit Exchange
HCA	Health Care Authority
HHS	Health and Human Services
HPF	Healthplanfinder
IBM	International Business Machines
IE&E	Integrated Eligibility and Enrollment
IES	Integrated Eligibility (and enrollment) Systems

Acronym	Definition
IT	Information Technology
IV&V	Independent Verification & Validation
LESS	Leading Edge Structure Subsystem
LGBTQ	Lesbian, Gay, Bisexual, Transgender
M&O	Maintenance and Operations
MAGI	Modified Adjusted Gross Income
MITA	Medicaid Information Technology Architecture
MPI	Master Person Index
MSP	Medicare Savings Program
MVP	Minimum Viable Product
OBC	Outcomes Based Certification
OCIO	Office of the Chief Information Officer
OCM	Organizational Change Management
OFM	Office of Financial Management
OPEX	Operating Expenses
PCG	Public Consulting Group
PHI	Personal Health Information
PMO	Program Management Office
QA	Quality Assurance
RFP	Request for Proposal
SAFe	Scaled Agile Framework
SDLC	Software Development Life Cycle
SFY	State Fiscal Year
SNAP	Supplemental Nutrition Assistance Program
SSA	Social Security Administration
TANF	Temporary Assistance for Needy Families
WACONN	Washington Connection
WIC	Women, Infants, and Children

12. APPENDIX B. REPORT COLLABORATION

This report was developed with the support and input of a broad team of HHS Coalition members. The list below identifies the individuals who were involved in some aspect of the planning, development, and review of the detailed roadmap and this report.

Aaseby, Nick	Eyles, Lu	MacEwan, Pam	Peterson, Erik
Altman, Joan	Ferguson, Jennifer	McDonald, Logan	Peterson, Kristin
Anderson, Sheila	Forrester, Sydney	McGill, Jason	Phelps, Dana
Ashida, Amy	Frank, Kydee	McKay, Ron	Ramynke, Jason
Astarita, Geno	Frost, Debbie	McLean, Dana	Renfroe, Dan
Barabe, Mike	Gray, Adriane	McNerney, Jacqu�e	Rose, Nicole
Barrailler, Vincent	Hamilton, Erin	Mohninger, Bret	Ross, Nicole
Becker, Leslie	Hansen, Barb	Monroe, Shannon	Schmitt, Kelly
Birdsall, Marcie	Hart, Randy	Morris, Bob	Smith, Chris
Campbell, Richard	Hatam, Bobby	Neumiller, Bob	Stehr, Chris
Chea, Kim	Hornburg, Tom	Nielsen, Stephanie	Stowe, Nick
Cipolla, Brandon	Hoseth, Jim	Nolan, Christine	Svidenko, Andrey
Cooper, Kelly	James, Kelly	Norman, Allison	Tang, Sara
Courogen, Maria	Jenkins, Happy	O'Brien, Steve	Taplin, William
Deaton, Tom	Kehoe, Bill	O'Neill, Shawn	Taylor, Amber
Denney, Rachel	Kent, Jack	Olson, Stu	Walch, Christian
Dillon, Jennifer	Kinnaman, Cathy	Ott, Cathie	Warwick, Mary
Dobbins, Amy	Krutsinger, Allison	Palma, Sergio	West, Norah
Eliason, Mark	Langen, Sue	Parks, Troy	Zuch, Graham
Emans, Todd	Lindeblom, Erik	Pearson, Amy	

13. APPENDIX C. HHS COALITION LESSONS LEARNED

In planning for IE&E and in the development of a comprehensive IE&E roadmap, retrospectives and lessons learned were assessed across the HHS Coalition organizations. We looked at several recent projects, including:

- DSHS Eligibility Service and ACES Remediation Project
- DSHS Asset Verification System Project
- DSHS Business & IT Transformation Project

The HHS Coalition organizations looked at things that went well for these projects and things that could have been done better. In doing so, we identified things that needed to be included during planning and implementation for the comprehensive IE&E roadmap.

Image 19: Lessons Learned

Technical Architecture Board

A technical architecture board is needed to set guiding principles for the project (e.g., Principle of Technical Modularity). This will set standards and guidelines and a review board that protects the greater vision of the HHS Coalition.

Schedule Management

A dedicated schedule manager is needed to support development and maintenance of a true integrated project schedule. This would provide us with a knowledge of the project's critical path, understanding of dependencies between tasks, late and missed tasks, and resource conflicts, as well as an awareness of where we are at any given point and time.



Vendor Management

Strong vendor support and management is needed throughout the entire life of the project. Ensuring a solid requirements base is included in the vendor contract as well as expectations for performance. This will provide a basis for regular contract management that includes demonstrations by the vendor of completed work.

Project Reuse

Look for areas of reuse across the HHS Coalition organizations and take advantage of prior work efforts that would support IE&E.

The HHS Coalition organizations each recognize the importance of including regular retrospectives and lessons learned throughout the implementation of IE&E. This will enable us to continually improve areas where needed and recognize those things that we are doing right. Our first scheduled lessons learned is at the completion of the roadmap and report development phase. This will help inform the future evolution of the IE&E roadmap.

14. APPENDIX D. HEALTH AND HUMAN SERVICES PROGRAMS AND IT SYSTEMS

The table below details the results of a Washington State environmental scan conducted in 2020 of the health and human services programs and the associated portals and systems of record for eligibility and care management.

Table 10: Health and Human Services Programs and IT Systems

Program Category	Programs	Eligibility Portal	Eligibility System of Record (SOR)	Care Management Portal	Care Management SOR
QHP and APTC Programs	QHP, APTC, COFA Islander	HPF	HPF	Customer Support Tool, HPF	HPF
MAGI Medicaid and CHIP	Apple Health, Expansion Adults, Alien Emergency Medical (AEM)*	HPF	ACES	Customer Support Tool, HPF, Barcode, MVP, ProviderOne	ACES
Classic Medicaid and Other Apple Health	SSI Medicaid, SSI-related Medicaid, Medicare Savings Programs, TSOA, Refugee Medical Assistance, Breast and cervical, Community First Choice, Alien Emergency Medical (AEM)*, Medically Intensive Children's Program (MICP)	ACES	ACES	CARE, Barcode, MVP	CARE, Barcode
Medicaid Waiver Programs	Take Charge, Family Planning Only, HCBS waivers (COPEs, New Freedom, Residential Services), DDA waivers (Basic Plus, Individual and Family Services, Children's Intensive In-Home Behavioral Support, Community Protection, Core)	Washington Connection (Clients)	ACES, CARE	CARE, Barcode	ACES, CARE
Medicaid Waiver Programs	1115 waiver – Foundational community support	Washington Connection (Clients), ACES, CARE, ProviderOne, Barcode	ACES, CARE	ACES, CARE	ACES, CARE

Program Category	Programs	Eligibility Portal	Eligibility System of Record (SOR)	Care Management Portal	Care Management SOR
Medicaid Waiver Programs	1115 waiver – Medicaid Alternative Care and Tailored Supports for Older Adults	Washington connection (Clients), Area Agency on Aging network	ACES, GetCare	GetCare	GetCare
Food Programs (for ESA)	Federal Supplemental Nutrition Assistance Program or SNAP, Food Assistance for Legal Immigrants or FAP, Basic Food and Employment Training Services, Basic Food Outreach and Assistance, SNAP-Ed, Transitional Food Assistance, Washington Combined Application Project (WASHCAP)	Washington Connection, SAW (Identity Management and Communication)	ACES	Barcode	Barcode
Cash Assistance Programs	Temporary Assistance for Needy Families (TANF), State Family Assistance (SFA), WorkFirst Employment and Training, Diversion Cash Assistance (DCA), Additional Requirements for Emergent Needs (AREN), Consolidated Emergency Assistance Program (CEAP), Aged, Blind, or Disabled (ABD) Cash Assistance, Housing and Essential Needs (HEN) Referral, Pregnant Women Assistance, State Supplemental Payment, Refugee Cash Assistance	Washington Connection, SAW (Identity Management and Communication)	ACES	Barcode	Barcode

Program Category	Programs	Eligibility Portal	Eligibility System of Record (SOR)	Care Management Portal	Care Management SOR
Immigrant and Refugee Programs	Naturalization Program, Limited English Proficiency Pathway Employment and ESL Programs, Basic Food Employment & Training, Career Ladder for Educated and/or Vocationally Experienced Refugees (CLEVER), Naturalization Services Program, Promoting Refugee Integration, Mobility and Empowerment (PRIME) Program offering immigration, case management, and self-sufficiency services, Refugee School Impact Program, Unaccompanied Refugee Minor Program, Services for Older Refugees, Refugee Health Promotion Program, Refugee Health Screening Program, Refugee Mental Health Program, Refugee Youth Mentoring Program, Washington Immigrant Relief Fund <i>Note: Basic needs assistance programs are under food and cash programs.</i>	N/A – handled through external providers and contractors	ACES, eJAS, and other external (non-ESA) systems	N/A – handled through external providers and contractors	eJAS, MYRIA and other external (non-ESA) systems
Child Care Subsidy Programs	Working Connections, Seasonal Child Care	Barcode, ACES (staff) Washington Connection (clients)	Barcode, ACES	Barcode, SSPS	Barcode, SSPS
Child Care Subsidy Programs	Child welfare childcare (CPS, CWS, FAR child care)	Famlink	Famlink	Famlink	Famlink
Food Programs (WIC)	Women, Infants, and Children Nutrition Program	Cascades WIC Shopper App (client)	Cascades	Cascades	Cascades
Other Programs	U.S. Repatriation Program, Indian Health Services and Urban and Indian Health Services				

15. APPENDIX E. BEST PRACTICES

15.1. GOVERNMENT PLAYBOOKS AND REFERENCES

The following playbooks are documents that we have leveraged in the development of the IE&E roadmap. Key learnings and best practices have been integrated into this project, but we're providing these three references for ongoing guidance and support.

- State Software Budget Handbook: De-risking custom technology projects¹⁷: Written by members of 18F, part of the Technology Transformation Services team at the U.S. General Services Administration, this handbook provides guidance on how to reduce the risks of procuring custom software through the adoption of modern principles of software design and best practices to budget for and provide oversight of technology projects.
- Digital Services Playbook¹⁸: Written by members of the U.S. Digital Service, this playbook describes 13 key plays, or digital service design approaches, that help with the design of effective digital services.
- United Kingdom Service Standard¹⁹: Similar to the U.S. Digital Services Playbook, this publication by the United Kingdom's government provides a set of standards for how governments should design and operate digital services.

15.2. HUMAN-CENTERED DESIGN

A significant focus for the IE&E roadmap, heavily supported by the references above, is in the use of human-centered design approaches. This focus, with an equity lens, is crucial to the development of digital services that support individuals interacting with government services and supports. The general process for this type of design is outlined by the U.S. Department of Health and Human Services.²⁰ as follows:

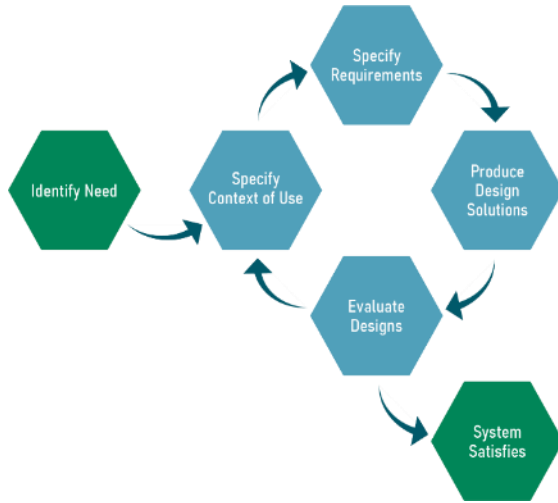
¹⁷U.S. General Services Administration, "State Software Budget Handbook: De-risking custom technology projects," 2019, <https://derisking-guide.18f.gov/state-field-guide/>.

¹⁸ U.S. Digital Service, "Digital Services Playbook," 2019, <https://playbook.cio.gov/>.

¹⁹ United Kingdom Government Digital Service, "Service Standard," 2019, <https://www.gov.uk/service-manual/service-standard>.

²⁰ U.S. Dept. of Health and Human Services, "The Research-Based Web Design & Usability Guidelines, Enlarged and Expanded edition," Washington: U.S. Government Printing Office, 2006, <https://www.usability.gov/>.

Image 20: Human-centered Design Process



- Specify the context of use: Identify the people who will use the product, what they will use it for, and under what conditions they will use it.
- Specify requirements: Identify any business requirements or user goals that must be met for the product to be successful.
- Produce design solutions: This part of the process may be done in stages, building from a rough concept to a complete design.
- Evaluate designs: Evaluation - ideally through usability testing with actual users - is as integral as quality testing is to good software development.

Human-centered design has been broadly adopted within the public sector. The process outlined above doesn't specify exact methods for each phase, or product, but allows flexibility as we manage implementation and rollout. The HHS Coalition anticipates leveraging expert support to inform our approach, as well-established references from other public sector organizations, such as those listed below.

- Colorado's User Experience Playbook²¹
- New York City Mayor's Office of Economic Opportunity Civic Service Design Toolkit²²
- Building a User-Centered Data Strategy²³

Defining and Measuring Success

In addition, there are many ways we will monitor and measure success that is directly related to our goals. For each product, we will assess these goals and identify specific targets to measure our performance. Listed in the table below are some of the examples.

Table 1f: New Products and Improvement Goals

Products	Goals	Measurement Targets	Baselines (Nov '20-Oct '21 Average)
Eligibility and Enrollment Status Tracker	Increase user satisfaction	10% decrease in the percent of phone calls questioning about case status	Approx. 34% of the total incoming volume of phone calls (CSD data)

²¹ State of Colorado Governor's Office of Information Technology, "User Experience Playbook," Accessed 2021, <https://oit.colorado.gov/standards-policies-guides/user-experience-playbook>.

²² New York City Mayor's Office of Economic Opportunity, "NYC Civic Service Design Tools + Tactics," Accessed 2021, <https://www.nyc.gov/assets/service/design>.

²³ U.S. General Services Administration, "Building a user-centered data strategy," 2021, https://18f.gsa.gov/2021/04/01/building_a_user-centered_data_strategy/.

Products	Goals	Measurement Targets	Baselines (Nov '20-Oct '21 Average)
Modernized Data Model for Application Data Collection	Improve efficiency	10% reduction in process time to determine eligibility for SNAP 10% increase in the percent of Classic Medicaid applications processed within 20 days	11.4 days on average (CSD data) 41% on average (Long-Term Services and Supports data, SFY 2021)
Streamlined Application Process	Increase ease of use	10% decrease in abandoned applications for SNAP, TANF, and ABD	24% of applications denied for failure to complete interview (CSD data)
Modernized Notifications and Client Communications	Improve client communication	10% decrease in duplicate applications for SNAP, TANF, and ABD	16% of households that submit a new application within 2 months of the month of denial (CSD data)

16. APPENDIX F. BIBLIOGRAPHY

- Bellotti, Marianne. 2021. *Kill It with Fire: Manage Aging Computer Systems (and Future Proof Modern Ones)*. San Francisco: No Starch Press.
- Code for America. 2020. "Blueprint for a Human-Centered Safety Net."
<https://www.codeforamerica.org/safetynetblueprint/>.
- . 2019. *Bringing Social Safety Net Benefits Online: Examining online platforms for all 50 states*. Accessed 2022. <https://www.codeforamerica.org/features/bringing-social-safety-net-benefits-online>.
- Cognosante, LLC for Washington State Department of Social & Health Services. 2018. "RFP Writer for Business and Information Technology Transformation Business Case."
- McKinsey & Company. 2019. "Insights into better integrated eligibility systems."
<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/insights-into-better-integrated-eligibility-systems>.
- New York City Mayor's Office of Economic Opportunity. n.d. "NYC Civic Service Design Tools + Tactics." Accessed 2021. <https://www.nyc.gov/assets/servicedesign>.
- Pew Research Center. 2021. *Mobile Fact Sheet*. April 7. Accessed 2022.
<http://pewresearch.org/internet/fact-sheets/mobile/>.
- Public Consulting Group for Washington State Office of Financial Management. 2014. "Medical and Public Assistance Eligibility Study Alternative Options and Recommendations Report."
<https://www.ofm.wa.gov/sites/default/files/public/legacy/reports/medicalpublicassistancestudyreport.pdf>.
- Scaled Agile, Inc. 2020. "Scaled Agile Framework 5." <https://www.scaledagileframework.com/>.
- State of Colorado Governor's Office of Information Technology. n.d. "User Experience Playbook." Accessed 2021. <https://oit.colorado.gov/standards-policies-guides/user-experience-playbook>.
- U.S. Dept. of Health and Human Services. 2006. *The Research-Based Web Design & Usability Guidelines, Enlarged/Expanded edition*. Washington: U.S. Government Printing Office.
<https://www.usability.gov/>.
- U.S. Digital Response. 2020. "Washington State Department of Social and Human Services ACES Upgrade Plan Third Party Review."
- U.S. Digital Service. 2019. "Digital Services Playbook." <https://playbook.cio.gov>.
- U.S. General Services Administration. 2021. "Building a user-centered data strategy."
https://18f.gsa.gov/2021/04/01/building_a_user-centered_data_strategy/.
- U.S. General Services Administration. 2019. "State Software Budget Handbook: De-risking custom technology projects." <https://derisking-guide.18f.gov/state-field-guide/>.
- United Kingdom Government Digital Service. 2019. "Service Standard." <https://www.gov.uk/service-manual/service-standard>.
- Washington State Health and Human Services Enterprise Coalition. 2021. "HHS Coalition IT Strategy 2021-2024." <https://www.hca.wa.gov/assets/program/HHS-coalition-it-strategy-2021-2024.pdf>.

Washington State Health and Human Services Enterprise Coalition. 2020. "Washington HHS Coalition Roadmap to Integrated Eligibility: Phase 1."

Washington State Office of the Chief Information Officer. 2021. "Statewide Information Technology Strategic Plan 2021-2025." <https://ocio.wa.gov/strategy>.

Washington State Poverty Reduction Work Group. 2020. "Blueprint for a Just and Equitable Future: The 10-Year Plan to Dismantle Poverty in Washington." <https://dismantlepovertyinwa.com/wp-content/uploads/2020/12/Final10yearPlan.pdf>.

17. APPENDIX G. DECISION PACKAGE

17.1. DECISION PACKAGE



Dept of Social and Health Services
Program 060 - Economic Services Administration
2021-23 First Supplemental Budget Session
Policy Level - PQ - Integrated Eligibility System

Agency Recommendation Summary

The Department of Social and Health Services (DSHS), on behalf of the Health and Human Services Enterprise Coalition (HHS Coalition), requests \$16,285,000 (\$4,909,000 GF-State) and 7.8 FTE to increase client transparency for eligibility and enrollment activities for health and human services programs (i.e., Medicaid, Basic Food, child care, and cash assistance) and build the foundation of a complete integrated solution in a fiscally responsible manner. This will support the critical need to transition to a modern replacement of the State's essential financial eligibility and enrollment system for safety net programs and provide an equity-focused and improved experience with public benefits in Washington.

Fiscal Summary

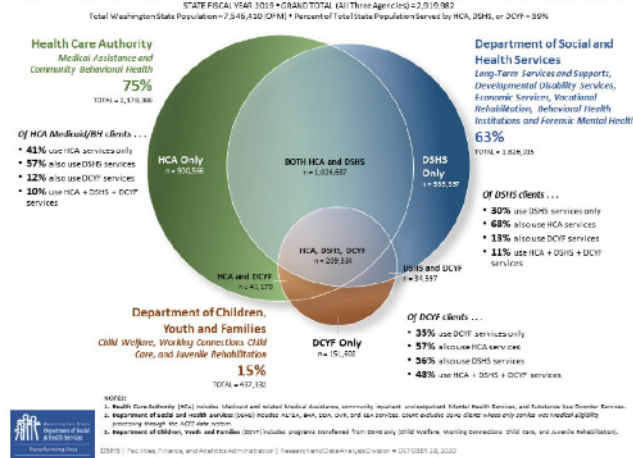
Fiscal Summary <i>Dollars in Thousands</i>	Fiscal Years		Biennial	Fiscal Years		Biennial
	2022	2023	2021-23	2024	2025	2023-25
Staffing						
FTEs	1.7	14.0	7.85	0.0	0.0	0.0
Operating Expenditures						
Fund 001 - 1	\$736	\$4,173	\$4,909	\$332	\$332	\$664
Fund 001 - 2	\$426	\$2,419	\$2,845	\$192	\$192	\$384
Fund 001 - C	\$1,279	\$7,252	\$8,531	\$576	\$576	\$1,152
Total Expenditures	\$2,441	\$13,844	\$16,285	\$1,100	\$1,100	\$2,200
Revenue						
001 - 0310	\$426	\$2,419	\$2,845	\$192	\$192	\$384
001 - 0393	\$1,279	\$7,252	\$8,531	\$576	\$576	\$1,152
Total Revenue	\$1,705	\$9,671	\$11,376	\$768	\$768	\$1,536

Decision Package Description

PROBLEM STATEMENT:

More than 2.9 million vulnerable Washingtonians reach their full potential through over 75 health and human services programs, such as Medicaid, Basic Food, child care, and cash assistance. Over one million Washingtonians are served by programs from at least two HHS Coalition agencies and more than 200,000 clients are served by at least three agencies. It is essential that these programs provide equitable access, especially for particularly vulnerable populations.

Shared Clients among Washington's Health and Human Service Agencies



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The five HHS Coalition organizations – the Department of Children, Youth & Families (DCYF), the Department of Health (DOH), DSHS, the Health Benefit Exchange (HBE), and the Health Care Authority (HCA) administer these programs. Client eligibility, enrollment, and case management for these programs is dependent on a complex web of seven information technology (IT) systems. These disparate systems have several major challenges for clients and long-term supportability.

1. Washington Connection, the client portal for many of the programs, doesn't effectively support mobile applications, which is a barrier to services for many in need. The [Pew Research Center](#) reports that 46% of survey respondents making less than \$50,000 per year rely solely on a smartphone for access to the internet in 2021.
2. A number of the systems are developed and maintained using legacy technologies that aren't flexible to meet changing program and customer needs and are difficult to support. This is particularly true of the mainframe-based DSHS Automated Client Eligibility System (ACES) complex, which is primary system of record for many programs. Several of the systems and interfacing technologies are facing "end of life" or "end of support" situations in the next several years, placing eligibility, enrollment, and benefit issuance at risk.
3. Clients face barriers seeking information on the status of applications and current benefits across the various programs and systems, resulting in the need to reach out to customer service and case workers that may delay eligibility decisions.

In the Summer of 2021, the HHS Coalition leaders developed an IT Strategy for 2021-2024. This document outlines a vision for services to Washingtonians enabled by technology and supporting strategies. This budget request is an initial step to realizing aspects of this vision. In addition, the HHS Coalition is developing a report to be delivered to the Legislature in January 2022 on the next steps required for IT solutions for an Integrated Eligibility & Enrollment (IE&E) solution for health and human services, including a technical approach and roadmap. This report and associated roadmap align with the **Blueprint for a Just & Equitable Future** Recommendation 6c: *Develop a universal intake, data sharing, and technology platform so that we can share essential information on people across agencies, systems, and sectors.*

This budget request is the first step for the IE&E solution, focused on addressing an initial set of customer needs and establishing the technical foundation for this and future IE&E solution components. Near-term investment is needed to start implementing on modern and supported computing software and infrastructure. The HHS Coalition and its member organizations will submit future budget requests to complete the full roadmap.

The HHS Coalition intends to address these challenges in an incremental manner to reduce the risk for each investment. The HHS Coalition will first focus on improving the transparency for the client on the status of their eligibility and enrollment. Currently, clients and their navigators/assisters can't easily check on the status of applications, submitted documentation, or if eligibility is approved or denied. Individuals apply and wait for a response, without clarity on which agency is responsible and when a response might be received. Case workers are also challenged in supporting individuals, as they must access several systems to view information to determine eligibility and aren't always able to view status of applications or benefits for programs outside their agency. Clients also are confused about who to call to get information regarding program eligibility and this results in multiple phone contacts by individuals applying for programs, and submission of duplicate applications. This creates additional work for staff and still does not help clients get what they need any sooner.

PROPOSED SOLUTION:

The HHS Coalition requests \$16,285,000 (\$4,909,000 GF-State) to increase client transparency for eligibility and enrollment activities for health and human services programs and build the foundation for a complete IE&E solution. This proposal funds 7.8 FTEs, contractor support, and software services to achieve the results and performance measures identified below.

The HHS Coalition will approach the needs around client transparency for eligibility and enrollment activities consistent with the **Blueprint for a Just & Equitable Future** Strategy 2: *Make equal space for the power and influence of people and communities disproportionately affected by poverty and inequality in decision-making.* The HHS Coalition will engage people experiencing poverty in human-centered design approaches to understand and co-develop IT solutions that will help them effectively navigate the process after they apply for benefits. The conceptual solution is a comprehensive application and benefit status tracker for multiple programs, and we anticipate this concept will evolve through the human-centered design process. This will cover new customer applications, annual eligibility review, mid-certification report and other case actions necessary for eligibility determinations. The intent is to provide comprehensive transparency for the status of benefits applications and related actions. This will be deployed in a phased manner across programs in 14 months.

This client need will be built upon a foundational IE&E platform that will be established with this funding request. This platform will be built in the

Dept of Social and Health Services
Program 060 - Economic Services Administration
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cloud and designed to be scalable and support future IE&E components. This modular approach will support the long-term IE&E solution roadmap and reduce implementation risk by building and releasing components in short increments. This first component will also establish effective practices that will support this business need and the full IE&E solution, including agile software development and product management processes and change management.

EXPECTED RESULTS:

This proposal begins the modernization of the underlying systems supporting vital services to more than 2.9 million Washingtonians. This request will deliver the first step of the HHS Coalition's vision of an integrated health and human services IT system. Increasing client transparency for benefit applications will produce several specific outcomes for clients and organizations:

- Washingtonians will have more transparency for eligibility and enrollment activities, which should reduce calls to case workers and contact center staff.
- Washingtonians will more clearly understand actions they need to take to complete applications or reviews, which should lead to decreased days to process.
- The 46% of low-income Washingtonians who only use cell phones for internet access will now have the ability to view the status of their eligibility and enrollment across multiple HHS programs.
- Duplicate applications will be reduced.
- Clients and staff will have increased satisfaction by having more information available on status and next steps.

Delaying this investment increases the risk of eventual system failure, which will impact cash assistance, child care, food assistance, health insurance programs, immigrant/refugee assistance, and medical assistance. This proposal implements an equity-focused improvement to the public benefits experience in Washington, addressing the needs of vulnerable populations that have been disproportionately impacted by the COVID-19 pandemic and other economic impacts.

Agency Contact: Dana Phelps (DSHS), (360) 902-7812 and Cathie Ott (HCA), (360) 725-2116

Agency Budget Contact: Doug Hoffer, (360)-902-8187

Program Budget Contact: Thomas Deaton, (360) 725-4515

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Assumptions and Calculations

Expansion, Reduction, Elimination or Alteration of a current program or service:

See attached 060 - PL - PQ - Integrated Eligibility System.xlsx

Detailed Assumptions and Calculations:

See attached 060 - PL - PQ - Integrated Eligibility System.xlsx

Workforce Assumptions:

See attached 060 - PL - PQ - Integrated Eligibility System.xlsx

How is your proposal impacting equity in the state?

This request favorably impacts service delivery access and workforce equity by improving consistency, accuracy, and timeliness in benefits application and administration. This is a critical infrastructure improvement for the most vulnerable Washingtonians including those with sensory differences, intellectual disabilities and neurodivergencies by ensuring an integrated application and communications process as well as providing a simplified and accessible transparency about benefits status. For those needing basic life sustaining benefits, reducing the time, and increasing communication between application for and receipt of benefits is essential. This request will mitigate unintended consequences by using human-centered approaches with under-represented communities to ensure the development of a solution that addresses their lived experiences. Moreover, this request advances workforce equity by improving streamlined processes across state agencies, reducing redundancies, and giving all state employees in designated roles equitable access to modern technology and efficient processes. We also expect that this will support the **Blueprint for a Just & Equitable Future Strategy 2: Make equal space for the power and influence of people and communities disproportionately affected by poverty and inequality in decision-making by engaging people in the design of this solution.**

Strategic and Performance Outcomes

Strategic Framework:

GOVERNOR’S RESULT WASHINGTON GOALS:

Goal 4: Healthy & Safe Communities Support People Help - the most vulnerable people become independent and self-sufficient.

Goal 5: Efficient, Effective & Accountable Government Resource Stewardship Ensure that funding is used responsibly.

Goal 5: Efficient, Effective & Accountable Government Transparency and Accountability Ensure efficiency, performance, and accountability to the public by providing transparency and accountability in state agency operations.

This program fosters the Governor’s Results Washington Goals for supporting people, resource stewardship, and transparency and accountability through:

- Improving the client experience through the transparency into government operations, and
- Creating a foundation that supports the IE&E strategic direction and the HHS Coalition IT Strategy.

ESA 3.1 - Modernize technology and architecture, prioritized by business needs, in a constantly changing operating environment.

Performance Measures	Incremental Changes 2022	Incremental Changes 2023	Incremental Changes 2024	Incremental Changes 2025
002208 - Rate of Residents in Advanced Phases of Treatment	0%	0%	0%	0%

Performance Outcomes:

See Expected Results

Dept of Social and Health Services
Program 060 - Economic Services Administration
Policy Level - PQ - Integrated Eligibility System

Other Collateral Connections

Puget Sound Recovery:

Not applicable

State Workforce Impacts:

None

Intergovernmental:

As an HHS Coalition project, this request involves all five organizations, which have participated in its planning and submission. City, county, and tribal government sponsored programs assisting clients navigating multiple programs will gain greater transparency into the status of a customer's eligibility determination.

Specific HHS Coalition impacts are described below:

- **DCYF:** The solution fills an unmet need for families applying for child care subsidy, by providing them with easily accessible information about their application status in a way that works for them. It also benefits contact center staff and Washington Connections partners, known as application assisters, allowing them to quickly see client's application status.
- **DOH:** The solution will provide clients of public health programs (such as the Special Supplemental Nutrition Program for Women, Infants, and Children, WIC) easier access to information about their application status. It will also allow the community-based workforce, such as community health workers, the ability to more easily access and track state agency benefits in support of the individuals and families they are helping.
- **DSHS:** The solution creates greater transparency for applicants for Cash, Food, and Classic Medicaid, as well as other services and supports available to individuals with physical, intellectual, and developmental disabilities. The modernization of the foundational and underlying platform stabilizes the system on which these benefit programs depend.
- **HBE:** The solution has a direct positive impact on contracted call center staff and navigators (including tribal navigators) by providing transparency into Apple Health (Medicaid) inquiries, which are currently difficult to manage given the lack of insight into the status of a particular application or requested document.
- **HCA:** Access to real-time eligibility status will benefit HCA Medical Eligibility Determination Services (MEDS) and Medical Assistance Customer Service Center (MACSC) staff as they manage medical coverage for Medicaid programs and respond to client inquiries regarding the status of their eligibility.

Legal or Administrative Mandates:

None

Stakeholder Response:

The impacts of the proposed solution are of a positive nature. A variety of community-based organizations, application assisters, health care navigators and many more assist in the application process for programs administered through all five organizations. The proposed solution in this request will vastly improve their ability to manage cases and help clients gain valuable insight into where they are in the eligibility process, when the information may be completed, and the next steps.

Changes from Current Law:

None

State Facilities Impacts:

None

Dept of Social and Health Services
Program 060 - Economic Services Administration
Policy Level - PQ - Integrated Eligibility System

Reference Documents

- 060 - PL - PQ - Integrated Eligibility System.xlsx
- 060- PL - PQ - Integrated Eligibility IT Addendum.docx
- HHS Coalition IT Strategy Refresh 1.1.pdf

IT Addendum

Does this Decision Package include funding for any IT-related costs, including hardware, software, (including cloud-based services), contracts or IT staff?

Yes

Objects of Expenditure

Objects of Expenditure <i>Dollars in Thousands</i>	Fiscal Years		Biennial	Fiscal Years		Biennial
	2022	2023	2021-23	2024	2025	2023-25
Obj. A	\$182	\$1,502	\$1,684	\$0	\$0	\$0
Obj. B	\$54	\$476	\$530	\$0	\$0	\$0
Obj. E	\$2,160	\$11,801	\$13,961	\$1,100	\$1,100	\$2,200
Obj. G	\$1	\$5	\$6	\$0	\$0	\$0
Obj. P	\$1	\$6	\$7	\$0	\$0	\$0
Obj. T	\$43	\$54	\$97	\$0	\$0	\$0

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