



**STATE OF WASHINGTON**  
**DEPARTMENT OF SOCIAL AND HEALTH SERVICES**  
**PO Box 45811, Olympia WA 98504-5811**

DATE: August 16, 2022

TO: RFP # 2223-814 Bidders

FROM: William Taplin, Solicitation Coordinator  
DSHS Central Contracts and Legal Services

SUBJECT: Amendment No. 02 – Change to the RFP Minimum Qualifications, Bidder's Q & A, and Pre-Bid Conference Presentation

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DSHS amends the RFP # 2223-814 procurement document to include:

- Updates to RFP 2223-814 Section A.9. Bidder Minimum Qualifications;
- Bidder's Questions and Answers;
- Addendum A: RFP 2223-814 Pre-Bid Conference Presentation;
- Addendum B: ACES Technical Information

**All other terms and conditions in this Solicitation remain the same.**

## **Update to Bidder Minimum Qualifications RFP 2223-814**

RFP 2223-814, Section A.9. Bidder Minimum Qualifications, bullet 4, and all other references to Section A.9. Bidder Minimum Qualifications included in the RFP are amended to read:

### **9. Bidder Minimum Qualifications**

All Bidders must meet the following minimum qualifications. Bidders must have provided design, DevSecOps, and implementation services for Agile development frameworks and services on a similar size and complexity project within the last three years.

- Expertise programming in scripting languages -- creating and consuming web services using REST and AJAX; and applying unit and system level testing methodologies to test web applications similar to the scope and size of this project, over the past 3 years.
- Expertise designing relational database systems to reduce application downtime during database migrations; and writing queries, procedures, functions, and triggers to extract, manipulate, and save data.
- Expertise developing software applications along the Software Development Life Cycle (SDLC) according to DevSecOps and scrum-based Agile methodologies, including requirements gathering, functional design, architecture design, implementation, and testing.
- Experience with containerization, modular and/or microservices architecture.

Bidders failing to demonstrate in their Bids that they meet these minimum qualifications will be considered non-responsive and will therefore be disqualified from further consideration.

| # | Question  | Response  |
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| 1 | Solicitation Document, General: Is it the state's intention to use Product #1 as the baseline Client access point and architecture to support subsequent Products where the client engages with Washington? In other words, will the Product #1 capabilities be expanded to support other client access components in later product deployments?  | The goal of the IE&E project is to create a "one-stop-shop" for clients to view information about their benefits, we anticipate that some future products may be integrated into the Eligibility and Enrollment Status tracker to become a self-service portal for clients, however we are not sure at this point to what extent future products will be integrated.                                      |
| 2 | Exhibit 2, Modernization Roadmap, Page 46: Can the State provide the annual budgets for each of the Products across the timeline provided in Table 8: IE&E Cost Model?  | The information provided in Section 9 of the IE&E Modernization Roadmap Report is the information we are ready to share at this time. Annual costs for each product are based on many factors, including current priorities, business needs, state mandates, etc. These factors are regularly reviewed by the IE&E Governance Roadmap team which could include changes to how we address future products. |
| 3 | <p>Solicitation Document, Page 6: Page 6 States: <i>"The services to be provided will include all aspects of the software development process, including initial planning, design to include user research conducted by the HHS Coalition, software development and coding, prototyping, documentation, testing, and configuration, as well as ongoing refinement and maintenance."</i></p> <p>There is no further information which clarifies the detail requested to support the maintenance of Product #1. Should bidders provide the state a detailed description of the services required to support maintenance of the product and include as a separate proposed cost?</p> | The state is not looking for a separate proposed cost for maintenance; however, as part of bidder response to Section 3, Case Study 1 within Product 1 RFP Attachment D Bidder Response, we are looking for bidders to explain how you would "Collaborate with the state to build alignment with those standards and capacity for long-term ownership and maintenance of this system".                    |
| 4 | <p>Solicitation Document, Page 5: Page 5 States: <i>"Staff need to be able to have access to the same information as customers, and they need to be able to troubleshoot if a customer has a question about the status tracker."</i></p> <p>Do you envision that they login to the same site that citizens login or as a separate case worker application?</p>  | We anticipate that there will be different access based on the user roles. Staff will need to have additional access to information so they can troubleshoot client access issues, etc. The eligibility system will be separate and feed information into the tracker.  |
| 5 | <p>Solicitation Document, Page 6: Page 6 States: <i>"Note that the DSHS Product team is standing up the agile process for the first time, so the Contractor will need to be responsible and accountable in support of our transition from waterfall to agile methodologies."</i></p> <p>When you say "accountable" what factors should be considered within a bidder's response?</p>  | Our transition to agile methodologies touches nearly every aspect of the Product #1 Team. As a result, we are looking for the vendor to propose the right people, processes, strategy, structure, and technology to support working in an agile way. We are looking for bidders to include how they will measure agile effectiveness, to increase transparency as part of accountability.                 |
| 6 | For non-English language services, is there a certain number of languages included here? (RFP p. 8)   | We have not made that determination yet. There is some analysis that we need to complete still to know the number of languages that will need to be included here.  |
| 7 | Are the "2-4 additional non-scrum team staff" included in the total team count of ≤ 12? (RFP p. 10)   | We want the vendor to propose the number of resources that you feel is needed to complete the work. The total number in the solicitation documents is an estimate. Please provide the total you feel is needed to complete the work requested.  |
| 8 | There is a provision in the RFP that states, If Bidder believes that this Solicitation contains requirements which would unreasonably prohibit or restrict Bidder's participation, or believes that different requirements would provide better value to the State... With that backdrop, here is the question/ - The way the RFP is written, it appears the DSHS would like the product to be developed from scratch. Would DSHS entertain bids from vendors that have intellectual property of a highly configurable, existing cloud-based solution that will meet the HHS coalition vision.  | DSHS is looking for state ownership of the solution implemented. A vendor owned solution would need to be transitioned to the state including any intellectual property associated with the solution.   |

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| 9  | Could more information be provided on the functionalities and architecture of the legacy mainframe hosted DSHS Automated Client Eligibility System (ACES)?  | This information will be provided to the winning vendor as necessary. The data for the status tracker will come from ACES but the connection will already be established for the product vendor, that will be established with the platform vendor through the API gateway.  |
| 10 | Will the E&E status tracker include a mobile client and as well Interactive Voice Response support?   | At this point, this is not built into the MVP, that may be considered in the future, but is not at this point.   |
| 11 | Is SCRUM the selected agile methodology or will you be open to other agile methodologies?   | We are open to other Agile methodologies. We are currently training staff in SCRUM, but if there is a reason to go a different route we are open to that.  |
| 12 | You've mentioned the Status Tracker will start with Cash, Food, and SSI medical. When you say "Cash" and "Food", are you using those terms generally, to include programs beyond TANF and SNAP in those categories?   | The tracker will include all DSHS administered cash and food programs, including those that are state-funded.  |
| 13 | Is one of the objectives a common user view across multiple organizations through shared data? If so has the common data model been defined?  | A long term objective is to have shared data across multiple organizations through the APIs; however, a common data model has not yet been defined. That is not part of the Product #1 MVP.  |
| 14 | Are you expecting the vendor to create UX / wireframe and Visual Design as part of the program or is the vendor restricted to integrate the UX / VD as part of front end development?   | We have some wireframes and some design of what Product #1 might look like. This will be part of the initial planning before we start to develop with the vendor. We've started some of this work, but want to collaborate with a vendor to further develop this.  |
| 15 | How are the users registered and authenticated with the E&E status tracker?   | We are working through this now. Our authentication strategy will be worked through on the platform side, and authorization on the application side. Our authentication strategy recommendation is still being developed.  |
| 16 | Was the prototype and design document included as exhibit 5 to the RFP created internally by HHS or by a vendor? And if a vendor, what vendor?  | It was created in collaboration with the HHS Coalition and 18F. 18F is a technology and design consultancy organization for the U.S. Government inside the government. We partnered with them to define the roadmap and set up some of the foundational elements of the project.   |
| 17 | Can we propose changes to the prescribed team size in the RFP?  | We are looking to the vendor as a subject matter expert, we expect that you know what the team size will need to be to complete the work needed. We have recommendations for key resources; however, we are looking to you to propose. We are open to any prescribed team size, but these were created to follow Agile best practices.   |
| 18 | Is usability testing a part of the extended prototype exercise?   | We do not anticipate an extended prototype exercise with this Product #1.  |
| 19 | Incremental modernization strategy can have multiple impact points such as 1) Concurrently maintaining and enhancing both the legacy and the modern platforms 2) Data, UI and Security interchange across legacy and modern platform 3) Complex release roadmap as modernized components are released and legacy components are retired. Has there been any planning and risk analysis been done so far ? | This RFP is for the Eligibility and Enrollment Status tracker. You will come onboard and implement the tracker on our new modern cloud platform. Risk analysis across all products, is part of the everyday work of the project and the Roadmap Governance team specifically. Although the vendor will be expected to identify risks just like any other project team member, the Eligibility and Enrollment Status Tracker vendor team will not be responsible for risk analysis of the project overall and how the state will support incremental modernization efforts. |
| 20 | I believe we need to have an inclusive design for all kinds of user groups which also includes accessibility. Please let me know.   | Yes, part of the vision is to have a system that is accessible for all.  |
| 21 | Do we have a design system in place to build the prototypes?  | We currently do not have any specific robust tools for prototype builds. That would be part of the vendor proposal. A prototype would be built into the system that you are proposing.   |

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| 22 | What is your recommended design software to build the prototypes? - We do use sketch, Invision, Adobe XD to build prototypes.   | We do not anticipate a prototype exercise to be part of Product #1. Sprint 1 will include the development of the prioritized features. This would include feedback on the design and functionality and any recommended changes will be entered into the backlog for prioritization. If design tools are anticipated, these should be proposed by the bidder. |
| 23 | Question about wanting responses from small/medium size vendors to respond.   | We want all vendors (small, medium, and large) to bid on this work. We will consider bids from any size vendor.  |
| 24 | Are you open for configurable solution?   | Similar to question earlier. Yes, we are open to a configurable solution, with the caveat that we would eventually take ownership at the state to eventually maintain and enhance ourselves. We are not looking for a proprietary solution to be proposed.   |
| 25 | Do you have any recommendation for the development language to be used (like Java, Node, PHP, Angular, React etc.) for frontend and backend?  | Modern frontend web application languages which may include JavaScript, python, Java, etc. Backend development tools may include NoSQL or SQL database types and languages.  |
| 26 | As it is mentioned to use MuleSoft Anypoint, can we propose a new API gateway if there is a technical advantage considering the new platform as well?   | It is our preference to use MuleSoft; however, the bidder should propose the software that best supports their solution.   |
| 27 | Related to Active Directory, do you want to use the existing Active Directory or can we propose the new Active Directory as part of the solution?   | We have an existing Active Directory for internal-to-internal access management. We are not looking for a new Active Directory solution.   |
| 28 | Do you have any preferred Content Management System (CMS) to be used in the solution?   | Content Management is a prioritized feature of Product #1 MVP; however, we do not have a preferred Content Management solution.  |
| 29 | What kind of staff facing features would you expect to be considered for the MVP?   | Staff will need to have the ability to reset passwords, manual account deactivation/reactivation, editing content on pages, etc.   |
| 30 | How many users are expected to access this MVP application?   | We do not have exact numbers, but there are 700,000 to a million potential client users.   |
| 31 | It is mentioned as "Users will be able to view the tracker in their preferred language". What are all languages would you prefer to provide for users to view the application?  | We have not made that determination yet. There is some analysis that we need to complete to determine the number of languages that will need to be included here.  |
| 32 | Would you expect any reports or certificates to be generated for the users?   | No, not for our clients as part of Product #1. However, analytic reports is desired for Product #1 management (e.g., demographics, metrics).   |
| 33 | Are there any specific reports required for the staff which are to be generated in the system?  | We anticipate that we will want reporting as part of the product, but do not know at what point in development we will add this feature. Examples of desired reports(e.g., Web users, Sessions, Session duration, Bounce rate, Engagement rate, Page views, Traffic by source, and Traffic by device).   |
| 34 | Along with this application, can the database also be moved to Cloud?   | Product #1 data storage needs will be hosted in the cloud.   |
| 35 | Will the selected vendor have the opportunity to conduct additional user research, or is it intended that it will leverage that already conducted by the HHS coalition?   | The intent is to leverage user research conducted by the coalition.  |
| 36 | Exhibit 1 indicates that the selected vendor for the Platform will design and develop a scalable set of technologies to run the IEE tracker. Have any of these been determined yet? How can we recommend technical personnel without knowing the particular technologies that will be utilized? | We are looking to you as subject matter experts to propose the technologies required for your solution within our Azure Cloud environment.   |
| 37 | Is the Coalition tied to the US Web Design System, or would it consider similar modular design systems that deliver similar usability and accessibility benefits while be potentially easier to implement?  | We are not tied to a specific design and would consider similar modular design systems that deliver similar usability and accessibility benefits.  |

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| 38 | Please clarify the use of Attachment E for Key Personnel. Is the "Contact" the person providing the reference? Do you need just one reference per Key Staff Member? The section titled "Names and Titles for Bidders Resource who Provided the Services" implies that more than one staff member could be referenced on the same form. Is this correct?   | This is correct, the top boxes on Attachment E refer to the person/organization providing the reference. The bottom box is used to identify the Bidder's resource(s) who provided the services related to the reference.<br><br>Bidders must provide at least one completed resource reference form for all Key Personnel and Product Team members identified in Attachment D Section 5. Bidders may use a single reference form for multiple staff if the reference identified is applicable to each of them. |
| 39 | Is it acceptable that the same reference contact be used on multiple Resource Reference Forms? (where multiple team members might have worked on the same project).   | This is acceptable.  |
| 40 | Do you have any specific requirements or specialty levels of staff needed at the oral presentations?  | DSHS does not have any specific requirements for Oral Presentations at this time. DSHS will provide requirements related to oral evaluations after bids are received and written evaluations are completed.  |
| 41 | Should the long term technical strategy consider all 14 products planned or just the eligibility tracker?   | Consideration should be for the Eligibility and Enrollment Status Tracker only.  |
| 42 | Should automated UI testing for long term system maintenance be included in the project scope?  | Please include all recommended automated testing in the proposed approach and methodology. Automated testing will be essential for our ability to make changes to the system and test and release quickly as part of the CICD pipeline.  |
| 43 | Each of the 5 organizations has a potentially different group of clients with varying needs, can you provide details as to how the different client agreed upon requirements?   | User stories and features are developed by the product team, and vetted by the HHS Coalition Executive champions, and appropriate subject matter expert groups. This process will continue throughout all phases of development.   |
| 44 | Will long-term support of this application be in –scope for this bid?   | The state is not looking for a separate proposed cost for maintenance; however, as part of bidder response to Section 3, Case Study 1 within Product 1 RFP Attachment D Bidder Response, we are looking for bidders to explain how you would "Collaborate with the state to build alignment with those standards and capacity for long-term ownership and maintenance of this system".   |
| 45 | Azure SLA details were provided, have SLA requirements been developed and defined by the organization regarding response times and issue definition?  | SLA requirements have not yet been developed and defined.  |
| 46 | Should agile training for the in-house team be included in scope?   | The in-house team will have completed some agile training, however guidance and direction in agile methodologies will be necessary as this is the coalition's first ever agile project.  |
| 47 | Regarding RFP Section A, Page 10, Please confirm if full name, names of household members and reason code are to be considered as CJIS data. Our understanding is that the name and eligibility status would constitute as PII, but without the context of Criminal History Records or other forms of CJI data, then this usage of PII would require the same controls as other sources of PII. | That is our understanding, without the context of Criminal history or related data, this would likely require the same controls as PII.  |
| 48 | Regarding Licenses and facilities, Please confirm that the State will be responsible for all licenses needed for the requirements, design, development, testing, deployment and support of the solution.  | All third party software will be the responsibility of the state.  |
| 49 | Regarding tools, Please confirm that the State will provide the tools needed for the requirements, design, development, testing, deployment and support of the solution, such as tools for automated testing or load testing, tools to keep track of development artifacts such as user stories and sprints, as well as tools to manage defects.  | All third party software will be the responsibility of the state.  |
| 50 | Regarding Environments, Please confirm that the State will provide the environments and networks needed for the requirements, design, development, testing, deployment and support of the solution.   | These are responsibilities of the Platform vendor. Collaboration with the Platform vendor will be required to ensure the Product solution environments and network requirements are available.   |

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| 51 | Regarding Middleware, Please clarify if the winning team is required to have someone with the skills in MuleSoft to consume what is produced by the State teams in the middleware layer. Or, would skills in using APIs be enough to meet this need of the team?   | MuleSoft experience would be a plus but API development experience should be enough to meet the team's needs.  |
| 52 | Regarding Features, Please confirm that the status of the items to be reported by the tracker are already available in the eligibility system or will be built by the eligibility system team. The tracker is only a reporting system.   | The Product #1 MVP will use data that is already available in the legacy ACES system to display the appropriate status in the tracker.   |
| 53 | Regarding Non-English Languages, Please confirm that the State will provide all the translated content.<br>Please provide vendors with the list of languages that will require translation.  | Please see question 70.  |
| 54 | Regarding Quality Assurance Surveillance Plan, Please confirm that the bidder will be responsible for items under its control and work with State teams and vendors as needed for other areas. The plan refers to "Critical requests, such as a production infrastructure outage, are addressed within two-hours" where the bidder has limited options.                    | Correct, the Contractor will be responsible for items under its control and will work with state and vendor teams as needed for other items.   |
| 55 | Regarding Quality Assurance Surveillance Plan, Please confirm that best IT practices and bidder recommendations will be considered to revise this plan. Sections such as "Teams can deploy to the environment of their choice at the time of their choice " may need to be revised to provide strict controls for certain environments such as Production.                 | As part of the onboarding process, the Contractor will work closely with the state's Program Management Office to create a detailed set of performance standards and methods of assessment. This includes, updating and finalizing the QASP.   |
| 56 | Regarding Place of Performance, This section limits the team to "the United States or its territories." Would the State consider continental North America to be permitted as a location as well to obtain qualified candidates for the work?  | You may obtain qualified candidates from wherever you would like as long as work is not performed outside of the United States or its territories  |
| 57 | Regarding Attachment D. Section 1.k and Section 2, Please note that the requirements in Attachment D, Section K.1 are repeated at the end of Attachment D Section 2. Due to the 15-page limit in Section 2, would the State consider deleting the duplicated requirements in Section 2 and allow bidders to respond to the requirements in Attachment D, Section 1.K only? | <p>In response to Question 1.k., bidders should confirm and fully describe how they meet the minimum bidder qualifications defined in the RFP Section A.9.</p> <p>In response to Section 2, bidders should include reference to how they meet the minimum qualifications in their technical response.</p> <p>These are not duplicate requests, and each should be responded to in the appropriate section.</p>   |
| 58 | Regarding RFP Section A.9 and Bidder Response Section 1, item k., Will the state consider minimum bidder qualifications to reflect "Experience with containerization, modular <b>and/or</b> microservices architecture"?   | Yes.   |
| 59 | RFP Page 7, Section 4, Paragraph: As an applicant whose first language is not English, I need the site to support multiple languages so that I can use the site. Question: Can DSHS provide the list of languages that is expected for IE&E vendor to support?   | We have not made that determination yet. There is some analysis that we need to complete still to know which languages will be supported in the tracker.   |
| 60 | RFP Page 7, Section 4, Paragraph: As an applicant, I need to be able to authorize a representative to assist me using the site so that I can get help managing my application. Question: Could DSHS explain how this authorization process would work?   | <p>If a client has an authorized representative, that information is currently captured in ACES. For MVP, we anticipate that the tracker will interface with ACES and validate the information in order to create an account for the authorized representative and grant access to the client information.</p> <p>In the future, the Tracker will have a page for the applicant/client that will allow them to enter the authorized representative's information. This information will be passed to ACES. ACES will take this information and populate the applicant's case record. However, this requirement is not part of MVP.</p> |

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| 61 | RFP Page 9, Section 4, Paragraph: Allow agencies and non-IT staff the ability to update announcements and messages on the site in real time with a simple user interface. Question: Would there be an approval / verification process prior pushing the change live to users? Can DSHS elaborate on the requirements?  | We anticipate that new business processes will need to be established to ensure appropriate review/approvals of content updated on the site. We would like these updates to be in real time (not tied to a specific release cycle) and managed by the business, where possible.   |
| 62 | RFP Page 5, Section 2, Paragraph: Beyond Product #1, the Platform vendor should expect to extend the newly developed modern IE&E Platform to support additional product teams to build new modules/features which collectively will form the modern IE&E system. Over time, DSHS will reduce the use of the Automated Client Eligibility System (ACES) mainframe and enable the sun setting of features and functions, accelerating the mainframe risk remediation. Question: The RFP mentions adding additional product teams over time in several places. Who will own the overall program and corresponding vision? Is DSHS planning to include a program manager to oversee all aspects of the engagement, including potential multiple-vendor management? | RFP Page 5, Section 2, Paragraph: Beyond Product #1, the Platform vendor... is found in the Platform RFP 2223-807 solicitation and is not part of RFP 2223-814.<br><br>The overall program and corresponding vision is under the HHS Coalition. DSHS will share the specific program team structure including any overall program manager and vendor management accountabilities with the awarded vendor.   |
| 63 | Regarding the RFP Page 14, Section 3, Paragraph: (4) Will provide training to staff. Question: Can DSHS expand on this requirement? Are they envisioning train-the-trainer sessions, purely documentation-based training, other?   | While this question references the Platform RFP 2223-807 training approach, a similar approach is desired for the Product 1 vendor and state staff.   |
| 64 | Regarding the RFP, Page 3, The RFP states that the Status Tracker will initially be used for<br>"Supplemental Security Income (SSI) related Medicaid, Cash, and Food eligibility."<br>- Would it be possible to please provide a list of programs that are in that scope?<br>- Why were these programs chosen for the initial focus?<br>- Is an acceptable strategy to start with an MVP one that includes a limited number of programs and then incrementally add programs?   | The list of SSI related (non-MAGI) medical, cash and food programs can be found here: <a href="https://manuals.dshs.wa.gov/esa/automated-client-eligibility-system-aces/program-codes">https://manuals.dshs.wa.gov/esa/automated-client-eligibility-system-aces/program-codes</a><br><br>The final list of programs within scope will be determined during development based on level of effort and complexity but anticipate that it will include cash and food programs beyond TANF and SNAP.<br><br>These programs were chosen because data elements needed for tracker exist in the ACES legacy system. |
| 65 | Regarding the RFP Page 5, Section 4: What is the scope of the human centered design research the state is conducting? What deliverables will be produced?  | We are currently defining specific deliverables that will support Product #1. Note that input will be provided that supports human-centered design development and implementation.  |
| 66 | Regarding the RFP Page 6, "DSHS has performed some initial research, along with product and technical strategizing, in order to validate this concept. However, it is expected that the Product team will continue to iterate on that work as the project moves forward." What does "this concept" refer to?   | The concept is referring to using the agile and human-centered design principles to iteratively develop the eligibility and enrollment status tracker with the assistance of a contractor.  |
| 67 | Regarding the RFP, Page 8, Features (1) User Account Creation - What kinds of accounts do clients currently have? Do the programs included in the MVP currently provide online accounts?   | The client may also have a Washington Connection Client Benefit Account and/or a Healthplanfinder account. By having a Client Benefit Account, the client can see their program eligibility status for Food, cash, and certain medical programs. By having a Healthplanfinder account, clients can see their program eligibility for MAGI related medical programs.   |
| 68 | Regarding the RFP, Page 9, Features: (9) Status Notifications / Push Notifications - "Inform clients when there is a change in their eligibility status and benefit information." Does DSHS anticipate certain methods for push notifications? If so, what methods? Does DSHS or the HHS Coalition have existing push notification capabilities? If so, please describe.   | No specific methods have been identified. We will consider all proposed methods that meet the goal of the feature. Examples include email and SMS.<br><br>No push notifications exist within the current HHS functionality.   |



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| 69 | Regarding the RFP, Page 9, Features: (11) Content Management - Does DSHS or the HHS Coalition have any content management systems in use currently? If so, what are the systems and would they like to use that system in the future product?   | Neither DSHS or the HHS Coalition has any content management systems currently in use.   |
| 70 | Regarding the RFP, Page 9, item 12. How many languages will be required and by when? Is an incremental approach to adding languages acceptable? Will the Status Tracker vendor be provided with translated content? How will DSHS determine the number of languages? Do you anticipate the Status Tracker product vendor to provide translation services, to produce multilingual content, or primarily enable the capability of switching between languages? | More research is required to determine how many languages are required, when they will be added, and how the number of languages will be determined. An incremental approach may be acceptable, depending on timing, etc. The Vendor is not required to provide translation. The state utilizes a separate translation vendor, however, we would welcome guidance from the vendor regarding alternative translation processes. |
| 71 | Regarding the RFP, Page 11, Section 6, are the four DSHS roles full-time? Will they work as part of the vendor-led scrum team? If so, will they be fully-dedicated to the scrum team? Will they have responsibilities outside of the scrum team   | The intent is that they are full-time, working side-by-side as part of the Product #1 scrum team.  |
| 72 | Regarding the RFP, Page 11, Section 6, bullet point list of skills: please define what you mean by "Facilitation."  | Good facilitation skills includes advanced planning, clear communication, active listening, encouraging of questions, timekeeping, and creating an overall focus.  |
| 73 | Regarding the RFP, Page 11, section 6 - is it DSHS's belief that the optimal team of no more than twelve includes the "2-4 additional non scrum team staff..." or are these 2-4 additional team members in addition to the "no more than twelve"?   | Bidders must dedicate sufficient staff they feel are needed to develop and implement Product #1. Bidders should identify the Key Personnel and other proposed resources required to fully staff the requirements of the project.   |
| 74 | Regarding the RFP, Has the state mapped where the data is located within ACES that is needed to view and display in the Status Tracker? If not, is this in scope for the Status Tracker vendor?   | Yes, the state has mapped where the data is located.   |
| 75 | Regarding Attachment D, Section 2, page 6. "Since many proposals will be considered, we appreciate clear, concise writing that directly addresses how you plan to meet project objectives." Please provide an RFP reference to "project objectives."  | Refer to RFP Section 3 Product Vision and the goals that are defined, including faster time to benefits, fewer calls, progress towards the IE&E vision, and validation of the new IE&E platform. Refer also to the User Stories and Features found in RFP Section 4.   |
| 76 | Regarding Attachment D, Section 2, page 6, under "management plan" second bullet - should we include the DSHS staff in our allocation plan?   | It was our intent that the Management Plan includes bidder staff, however, it would be nice to understand state expectations and how you see state staff as part of the team.  |
| 77 | Regarding Attachment D, Section 2, page 6, under "management plan" third bullet - what do you mean by "Washington" - Washington staff? Washington users?  | This bullet is referring to support for the goals of Product #1 and the vision defined for Washingtonians.   |
| 78 | Regarding Attachment D, Section 2, page 6, under "management plan" fifth bullet - will the vendor have the authority to address and correct for low performance of the DSHS team members?   | The development and implementation of Product #1 is very important to us. It is our desire that any performance issues on the state side would be brought to our attention immediately as we will do the same regarding any vendor staff.  |
| 79 | Regarding Attachment D, Section 2, page 6, fourth bullet, what is the scope of "the project overall"? Do you mean the Status Tracker product?   | Section 2, Page 3, fourth bullet, the term "the project overall" is referring to the work involved in the development and implementation of the Eligibility and Enrollment Status Tracker.   |
| 80 | Regarding Attachment D, Section 5, are we to complete these tables based on our proposed team for Year 1 only? Our staffing level and team composition may change after Year 1.   | The estimated contract performance period is November 15, 2022 through June 30, 2024. The table in Section 5 should be completed to support the work that is needed to successfully complete development and implementation of Product #1.   |

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| 81 | Regarding the Solicitation Document, General: In order to facilitate state ownership of additional software and tools, does the State intend to purchase software licenses and maintenance on a license schedule for this contract and/or from an existing contract vehicle?  | All third party software will be the responsibility of the state.  |
| 82 | Regarding the Solicitation Document, User Stories > View application status: Can you describe the process and related data elements used between WA Connection and ACES to link an applicant with an application?   | When an application is submitted via WA Connection, the information is captured and is also saved as PDF. When the application is processed by staff, the application data such as the applicant name, DOB, program(s) they are applying for, etc. is saved to ACES.   |
| 83 | Regarding the Solicitation Document, User Stories > View Benefit information: Can you describe the process and related data elements used between WA Connection and ACES to link a client with a case?  | The client's benefit information in ACES can be displayed to the client in WA Connection if they have a Client Benefit Account (CBA) created within WA Connection. A web service is used to collect and display the client benefit info in the CBA. The data elements related to benefit info are many; benefit type, benefit amount, benefit status, household members, certification dates, etc. |
| 84 | Regarding the Solicitation Document, User Stories > Getting Help: Should Product #1 include the ability to designate a new authorized representative?   | This is not a feature included in the MVP and is currently completed in our eligibility system, and not anticipated to be included in the tracker at this point.   |
| 85 | Regarding the Solicitation Document, Architectural and Technical Decisions: Can you provide a list of existing legacy APIs from ACES and high-level description of functionalities?   | Please see all publicly available ACES technical documentation included as Addendum B to this Q&A Amendment.   |
| 86 | Regarding the Solicitation Document, Features > User Account Creation: For user account creation, can you provide a list of the different types of users supported by the EE tracker and describe each persona?   | We do not have personas, but at the minimum we will need client/applicant, authorized representative and different levels of support staff accounts. This may expand.  |
| 87 | Regarding Attachment D: How many hours constitutes Full Time for a month? Is it 160 hours?  | Approximately 160 hours a month.   |
| 88 | Regarding Attachment D: We're assuming a joint responsibility between the vendor partner and WA leadership in managing the user stories/backlog. Can you confirm?   | Yes, that is accurate.   |
| 89 | Regarding Attachment D: Would the state consider a 2 week extension to the submission date?   | We are unable to support a 2-week extension at this time.  |
| 90 | Regarding Attachment E: Are you requiring One Reference per resource that is bid? The Reference form basically allows one reference for multiple resources if they were on the same project - is that correct?  | Bidders must provide at least one completed resource reference form for all Key Personnel and Product Team members identified in Attachment D Section 5. Bidders may use a single reference form for multiple staff if the reference identified is applicable to each of them.   |
| 91 | Regarding Attachment D: There is an ask for 3 references in Section 1. In section 2, there is an ask for References again for the Minimum Qualifications (3 Requirements) - So, is the ask for 3 additional references mapped to each minimum qualification - as in this is not a Project case study but needs Reference contact information also? is that correct? | Attachment D Section 1 asks for 3 Bidder Firm general references.<br><br>Section 2 asks for bidders to reference or explain how they meet the minimum qualifications in their technical response.  |
| 92 | Regarding Attachment D: Section 5: Rates: The rates that we provide - How long (time frame) do we honor those rates? What about year over year COLA considerations?   | The hourly rates proposed by bidders will not be adjusted. Bidders should include their estimates or assumptions regarding inflationary increases in their proposals. If possible, assumptions should be clearly documented as part of their response.   |
| 93 | Our understanding is that we use the USWDS to build a web front end for Product 1 that can be viewed across various devices and a mobile app is not in scope. Please confirm the understanding?   | Yes, we would like to leverage USWDS best practices for the development of the web front end.  |
| 94 | Do we need to support Social Logins (Ex- Facebook, Apple, Google etc.) during User Creation and Login ?   | No.  |
| 95 | Is there an existing content management system that will be leveraged for announcements or does the implementation of the content management solution is in scope of Product 1.   | The implementation of a content management feature is in scope for Product #1. There is not an existing content management system that we anticipate leveraging.   |
| 96 | For notifications, does the platform team provide the gateway interfaces like SMS, Email etc.?  | We have not determined the end-to-end needs of notifications. If there are some "backend" requirements, these would likely be managed and provided by the Platform vendor.   |

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| 97  | Can you please provide an approximate number of APIs to be implemented for the Product 1.  | The number of APIs for Product #1 have not been determined yet. We are looking for a simplified architecture, so if one API (many endpoints/payloads) can be developed for all of Product 1 data needs and functionality, this would be ideal.   |
| 98  | In the Contract Under 'Special Terms and Conditions', many of the requirements included on pages 36 and 37 are for the Platform team instead of the product team. Is this correct?   | These are similar to the requirements for RFP 2223-807, including information on contract execution, security design review, insurance, non-endorsement, background checks, electronic payment, and COVID-19 Vaccination; however, they also apply to Product #1 and RFP 2223-814.   |
| 99  | Regarding Main RFP, Section A., 1. Purpose, page 3: Please expand on how DSHS envisions the awarded bidder from this procurement (RFP #2223-814) to work with the vendor awarded the separate Platform Design and Development IE&E Procurement #2223-807. Where will the work and associated responsibilities start/stop for each vendor?  | We are taking a logical approach to this division of work. Platform responsibilities will primarily be related to components that would likely need to be used across many products, and Product #1 responsibilities would be related to Product #1 specific development.  |
| 100 | Regarding Main RFP, Section 6. Key Personnel and Project Staffing, page 11 and Exhibit 1, Section 5. Key Personnel and Project Staffing, page 20: The main RFP and Exhibit 1 both provide varying staffing requirements. Please confirm the staff required to be named at this time with resumes is limited to the Scrum Master, Technical Lead, and Design Lead, with the remainder of the bidder's team further detailed upon award. | Resumes are requested for Key Personnel and Product Team members. This includes our examples of Key Personnel (i.e., Scrum Master, Technical Lead, Design Lead) as well as your own based on knowledge and experience. Again, this includes resumes for Key Personnel and Product Team members.  |
| 101 | Regarding Main RFP, Section 11. Funding, page 14: What is the anticipated maximum budget for this project?   | We are looking to the bidder to propose a solution they are familiar with and can share with us the costs that are needed to implement.  |
| 102 | Regarding Main RFP, Section 11. Funding, page 14: Has this project already been funded, or is legislative approval and funding still needed?   | The first year of Product #1 has already been funded. We are currently working on Decision Packages to support ongoing budget needs.   |
| 103 | Regarding Main RFP, Section 7. Acceptable Electronic Forms for Submission of Response, page 28: Please confirm Attachment D can be submitted in PDF format in lieu of Word since Word can open and display information differently depending on the user's system settings.  | This is acceptable.  |
| 104 | Regarding Attachment A. Sample Contract, Section 29. Ownership/Rights, page 14-16: Please clarify the intended ownership of the solution. Does DSHS intend for the vendor to own the IP, or is DSHS seeking a team to fully build the product which the State will then own?   | DSHS is seeking a team to fully build product #1, with the goal of State resources eventually owning (enhancing and maintaining) the solution.   |
| 105 | Regarding Attachment A. Sample Contract, Section 29. Ownership/Rights, page 14-16: Is the State open and interested in building on an existing development platform, similar to Salesforce?  | We are looking for a customizable web application that meets the requirements stated in the RFP. The solution will need to be highly customizable and flexible for future enhancements and product integration or expansion. Additionally, ownership of the solution would need to be transitioned to the state post MVP and enhancements. |
| 106 | Regarding Attachment D. Bidder Response: Please confirm Attachment D. Bidder Response can be transposed and submitted in the bidder's format and on their letterhead so long as the question sequence and order remain the same.   | This is acceptable, but not preferred.   |
| 107 | Regarding Attachment E. Resource Reference Form: Please confirm only 1 completed reference (Attachment E) is required per proposed team member.  | One reference is sufficient. It should be one that supports the responsibilities the team member will fill in the role they are being proposed.  |
| 108 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 8: Is a Client Identity and Access Management (CIAM) product already implemented? If not, is the selection and integration part of this RFP to support (1) User Account Creation, (2) User Login and (3) Role Based Account Management?   | Analysis is currently underway on an IAM strategy and approach but we are looking to the bidder to include this component as part of their solution to assist in this decision.  |
| 109 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 8: Are there any requirements around client consent management?   | No requirements for client consent management have been documented at this time.   |

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| 110 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 8: Are there any requirements around 3rd parties (power of attorney, or caregivers) having access to the status tracker on behalf of the real client (who may be a minor or not able to participate themselves)?  | We do have features and stories built out regarding those who are authorized to create a tracker account to view client information.   |
| 111 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 4: Can you share current state metrics around a) Number of registered users (split between citizens and DSHS users), b) Number of concurrent users using the current platform c) Average number of users interacting with customer support for application issues per day d) Number of duplicate or abandoned applications? | This information is out of scope for the bidding process. Further clarification and data can be provided to the ASB if the state determines it's relevant. The tracker alone is not replacing our current platform and includes functionality that doesn't currently exist in currently utilized systems, so the usage statistics do not directly translate. |
| 112 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 5: What databases/legacy applications should MuleSoft API be dependent upon to read Eligibility related details?  | For product #1, the only database/legacy application dependency is the ACES complex (current eligibility and enrollment engine).   |
| 113 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 7: Please confirm the assumption that DSHS will provide actual language translations for multi-language support. Please also list the languages that need to be supported by Product #1.  | Please see question 70.  |
| 114 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 8: Please list different types of citizens and stakeholders profiles who can create an account in the Tracker and what are their related roles/permissions.   | We do not yet have a detailed outline of permissions, but at a high level we anticipate clients/applicants, support staff, and authorized representatives, etc. to be able to create an account in the tracker.  |
| 115 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 10: Can we assume that all potential source data elements, listed on page 10 of the RFP, will be available through the implemented MuleSoft API, or should the Tracker application connect to other data sources?   | Eventually there may be a need for the tracker to connect to other data sources but for the initial engagement (Product #1 MVP), the API connection will be established by the Platform vendor and ready for the Product #1 vendor to develop on (Endpoints/payloads).   |
| 116 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 11: When DSHS refers to a team of "no more than 12", does this include DSHS's key personnel?  | We are looking to the vendor as a subject matter expert, we expect that you know what the team size will need to be to complete the work. We have recommendations for key resources; however, we are looking to you to propose. We are open to any prescribed team size, but these were created to follow Agile best practices.                              |
| 117 | Regarding 2223-814 IEE Product 1 Solicitation Document, page 11: Please confirm the assumption that the proposed 2-4 additional non-scrum vendor team staff is in addition to the recommended 12 member team.  | A 12 member team came as an example of Agile best practices. Please propose the team you believe is required based on your knowledge and experience.   |
| 118 | Regarding 2223-814 Exhibit 2 WA IEE Mod. Roadmap Report, section 9.1, page 43: DSHS has presented a high-level IE&E roadmap product schedule in section 9.1 of the 2223-814 Exhibit 2 WA IEE Mod. Roadmap Report pdf file. Can DSHS provide more details around Product #1, such as a planned production release timeline for Product #1 MVP?  | We do not have a detailed production release timeline, but anticipate that the MVP release will happen approximately 12 months after the vendor is onboarded.  |
| 119 | Regarding 2223-814 Exhibit 2 WA IEE Mod. Roadmap Report, section 9.1, page 43: When does DSHS anticipate the first production release for Product #1 happen?   | We anticipate the first production release to occur approximately 12 months after the vendor is onboarded.   |
| 120 | Is there any transition out period required for Product #1? If there is a transition out requirement, please share the length of that duration and the team to which to transition to.   | By "transition out requirement" it is assumed you are talking about a transition plan to operations. If this is true, this should be considered as part of implementing Product #1. The maturity of the state team and readiness to take ownership will influence the transition period.   |
| 121 | Is there any application support required after Product #1 production live? Please share any specific support requirements (ex: 24x7) and which team should be responsible for support activities.   | The Product 1 support requirements and support model will be developed in collaboration between the HHS Coalition and the Product 1 vendor.  |
| 122 | Regarding Exhibit 5 Prototype and Design: Please provide underlying technologies/frameworks leveraged by Design Direction 1, 2 & 3.  | Design direction 1, 2, & 3 were static images and not interactive prototypes. While we don't know for sure the exact technology, it could have been developed using any number of design software like Visio or Adobe products.  |

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| <b>123</b> | Regarding 2223-814 IEE Product 1 Solicitation Document, page 7: Are there any DSHS proposed solution for Product #1 Accessibility needs? Please share if there are any 3rd party tools or technologies already proposed by DSHS for this purpose.   | We have not proposed any DSHS or 3rd party tools or technologies for Product #1 accessibility needs.  |
| <b>124</b> | Regarding Exhibit 2, pages 9, 17, 18, 41: What discovery research has been conducted related to the IE&E Vision principles?   | The vision principles were developed with input from members of the HHS Coalition, internal/external interfaces, our community partners, as well as our clients.  |
| <b>125</b> | Regarding Exhibit 2, page 17: What research has been conducted in the last year to clearly understand digital behavior shifts? Background, insights have revealed exponential digital adoption during the pandemic, E.g. security, mobile payments, ear chives, eWallets, etc.  | The project has begun some work on human-centered design principles; understanding digital behavior shifts may be included in the human-centered design research on this project but has not been explored thus far.  |
| <b>126</b> | Regarding Exhibit 2, page 7, 57: How will Fujitsu CX team collaborate with 18F government Tech & Design Agency?   | 18F is no longer part of our project team, they supported us in our planning efforts.   |
| <b>127</b> | Regarding Exhibit 2, page 41, 57: How will the HHS Coalition employees be trained/educated on the new and evolving systems?   | This will be something planned and orchestrated through our OCM vendor.   |
| <b>128</b> | Regarding Exhibit 2: What maturity model(s) are we leveraging?  | Developing an OCM Plan will not be the responsibility of the Product #1 vendor. However, it will be the responsibility of the Product #1 vendor to work collaboratively with all vendors in order to support a successful implementation.   |
| <b>129</b> | Regarding Exhibit 2, page 41: What is a Super User? Will Super Users access Platform 1?   | A super user are those that would administer and maintain the system. In this regard, they would need access to Product #1.   |
| <b>130</b> | Regarding Solicitation Document, Section E, subsection 4 Evaluation of Cost Proposal/Quotations, page 30: In the second table under this subsection, should the 'Points Awarded' heading read "(Max 50 Points)"?  | The second table under this subsection is provided as an example of how the low-cost calculation will be performed and the information included is only for demonstration purposes. The maximum number of points that may be assigned with respect to Cost Proposal (Quotations) is 50 points for this RFP. |
| <b>131</b> | Regarding Attachment D. Bidders Response Form- section 5, page 9: Is the hourly rate table applicable to the services provided by the bidder through June 2024 solely, or does it include the extension years? Given that the services provided span multiple years and we are only providing one hourly rate for each resource, will DSHS allow for annual adjustments to the hourly rate, based on a recognized inflationary index? | The hourly rates proposed by bidders will not be adjusted. Bidders should include their estimates or assumptions regarding inflationary increases in their proposals. If possible, assumptions should be clearly documented as part of their response.  |
| <b>132</b> | Regarding 2223-814 IEE Product 1 Solicitation Document, Section G, page 35: Based on Security Design Review, you must develop passed on Standard 141.10. This will require data at rest encryption along with data in transit be encrypted. Please confirm you are accounting for that in your application design.  | We are looking to the bidder to propose an architecture that includes data at rest encryption and data in transit encryption where the data category type requires.   |
| <b>133</b> | Will the State accept a PDF copy of Attachment D that accurately reflects redacted content, in addition to the Word version with certain pages marked as proprietary?   | This is acceptable but not required.  |



RFP 2223-814 Amd. 02 Addendum A: Pre-Bid  
Conference Presentation

# HHS Coalition IE&E Modernization Project

Eligibility and Enrollment Status Tracker  
Pre-bidders Conference

08/01/2022

Washington State  
Health Care Authority

Washington  
healthbenefitexchange  
powering washington healthfinder

Washington State Department of  
*Health*

Washington State Department of  
CHILDREN, YOUTH & FAMILIES

Washington State - Office of the  
Chief Information Officer

Washington State  
Department of Social  
& Health Services  
*Transforming lives*

# Introductions

## Executive Champions

- Cathie Ott, HCA

## IE&E Program Management Office

- Clint Mitchels
- Dana McLean
- Bob Neumiller
- Renee HK LeBlond

## Technical Lead

- John Grieco

## Product #1-Eligibility and Enrollment Status Tracker

- Kydee Franck
- Kim Chea
- Thanh Tang

## Contracts

- Will Taplin

## Benefit Data Trust Goal 1

- Babs Roberts

# HHS Coalition IE&E Modernization Project Attendees



# IE&E Modernization – Vision



We envision a world where Washingtonians tell their story once when applying for public benefits letting the new system and underlying business processes security guide them through the possibilities



# Members of the HHS Coalition



## Ex-Officio Advisors

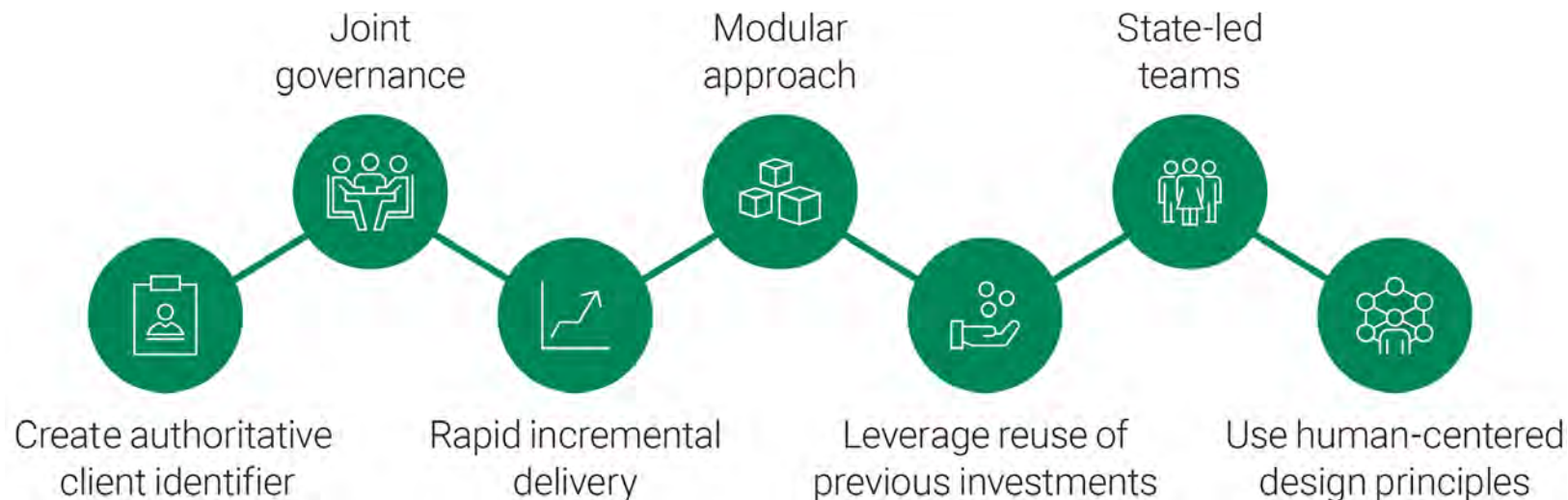


Office of Financial Management  
Better information. Better decisions. Better government. Better Washington.



Washington State - Office of the  
Chief Information Officer

# HHS Coalition IT Vision and Enabling Strategies 2021-2024



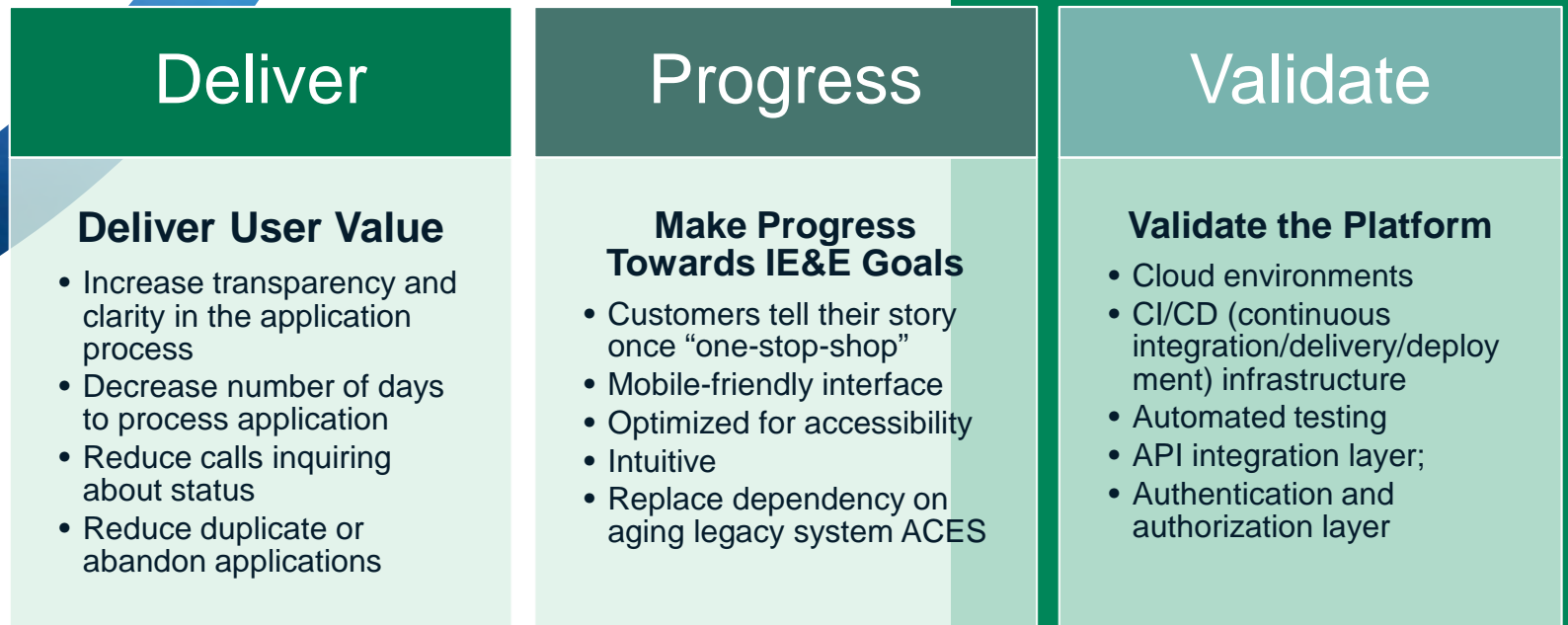
# Eligibility & Enrollment Status Tracker Vision

We want Washingtonians to have clarity about their application for benefits so that they can more quickly and easily navigate the process and receive the benefits they need.

The Eligibility and Enrollment Status Tracker will provide Washingtonians with a self-service, single point of access to understand eligibility and enrollment status across multiple HHS Coalition programs.

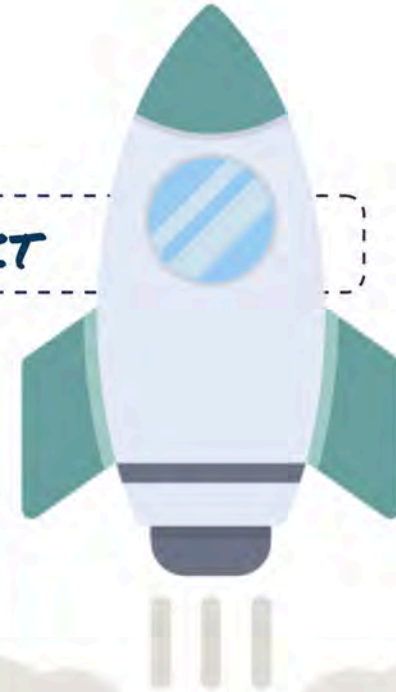


# Eligibility & Enrollment Status Tracker Goals



# Eligibility and Enrollment Status Tracker

## MINIMUM VIABLE PRODUCT

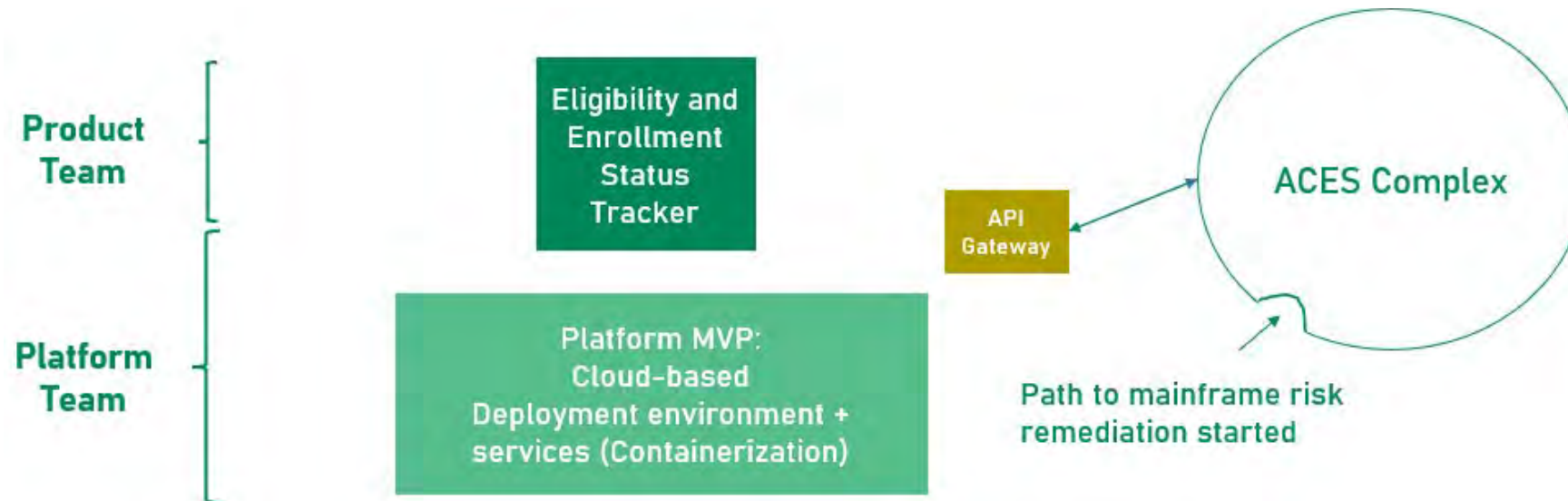




# Product Approach and Implementation Strategy

Vendor services during the first year will focus on the technology development of the Product 1 Minimum Viable Product (MVP). Product vendor responsibilities include:

- ✓ Web-based Application (hosted on the Platform)
- ✓ Microservices architecture
- ✓ API data integration (Endpoints and payloads)
- ✓ Simplified architecture
- ✓ Database type and structure (hosted on the Platform)
- ✓ CI/CD development and release (collaboration with the Platform team)
- ✓ DevSecOps



# Human-Centered Design

*Adopting human-centered design principles and practices as an essential component of the IE&E solution*

The HHS Coalition is currently engaged in a partnership with the Benefit Data Trust to conduct research, develop and implement a State Action Plan that supports the State's anti-poverty and health equity goals through streamlined access to benefits.

## Goal 1: Remove Barriers to Access for Client Benefits

### Strategy 1.1

- Conduct business discussions to create streamlined application data collection across HHS Coalition programs

### Strategy 1.2

- Establish a human-centered design community of practice within HHS Coalition organizations

## The Product 1 Vendor:

- ✓ Will be experienced in the integration of human-centered design techniques into their digital service design process.
- ✗ Will not be expected to conduct their own human-centered design research and analysis.

# Questions & Answers

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# Received Questions

1. Solicitation Document, General: Is it the state's intention to use Product #1 as the baseline Client access point and architecture to support subsequent Products where the client engages with Washington? In other words, will the Product #1 capabilities be expanded to support other client access components in later product deployments?
  - The goal of the IE&E Modernization Project is to create a "one-stop-shop" for clients to view information about their benefits. We anticipate that some of the future products may be integrated into the Eligibility and Enrollment Status tracker to become a self-service portal for clients, however we are not sure at this point to what extent future products will be integrated.

## Received Questions (cont.)

2. Exhibit 2, Modernization Roadmap, Page 46: Can the State provide the annual budgets for each of the Products across the timeline provided in Table 8: IE&E Cost Model?
  - The information provided in Section 9 of the IE&E Modernization Roadmap Report is the information we are ready to share at this time. Annual costs for each product are based on many factors, including current priorities, business needs, state mandates, etc. These factors are regularly reviewed by the IE&E Governance Roadmap team which could include changes to how we address future products.

## Received Questions (cont.)

3. Solicitation Document, Page 6: Page 6 States: *"The services to be provided will include all aspects of the software development process, including initial planning, design to include user research conducted by the HHS Coalition, software development and coding, prototyping, documentation, testing, and configuration, as well as ongoing refinement and maintenance."*

There is no further information which clarifies the detail requested to support the maintenance of Product #1. Should bidders provide the state a detailed description of the services required to support maintenance of the product and include as a separate proposed cost?

- The state is not looking for a separate proposed cost for maintenance; however, as part of bidder response to Section 3, Case Study 1 within Product 1 RFP Attachment D Bidder Response, we are looking for bidders to explain how you would "Collaborate with the state to build alignment with those standards and capacity for long-term ownership and maintenance of this system".

## Received Questions (cont.)

4. Solicitation Document, Page 5: Page 5 States: *“Staff need to be able to have access to the same information as customers, and they need to be able to troubleshoot if a customer has a question about the status tracker.”*

Do you envision that they login to the same site that citizens login or as a separate case worker application?

- We anticipate that there will be different access based on the user roles. Staff will need to have additional access to information so they can troubleshoot client access issues, etc. The eligibility system will be separate and feed information into the tracker.

## Received Questions (cont.)

5. Solicitation Document, Page 6: Page 6 States: *"Note that the DSHS Product team is standing up the agile process for the first time, so the Contractor will need to be responsible and accountable in support of our transition from waterfall to agile methodologies."*

When you say "accountable" what factors should be considered within a bidder's response?

- Our transition to agile methodologies touches nearly every aspect of the Product #1 Team. As a result, we are looking for bidders to propose the right people, processes, strategy, structure, and technology to support working in an agile way. We are looking for bidders to include how they will measure agile effectiveness, to increase transparency as part of accountability.



# Open Questions

# Contact Information & Resources

## Contact Info



William Taplin

RFP Coordinator

360-664-6046

[tapliwh@dshs.wa.gov](mailto:tapliwh@dshs.wa.gov)

## Resources



[HHS Coalition Legislative Report 2021](#)

[HHS Coalition IT Strategy 2021-2024](#)

[HHS Coalition Integrated Eligibility & Enrollment  
Roadmap Report](#)

[Infrastructure as Product | Thoughtworks](#)

[Mind the platform execution gap \(martinfowler.com\)](#)

RFP 2223-814 Amd. 02  
Addendum B: ACES Technical  
Information



# ACES Technical Information

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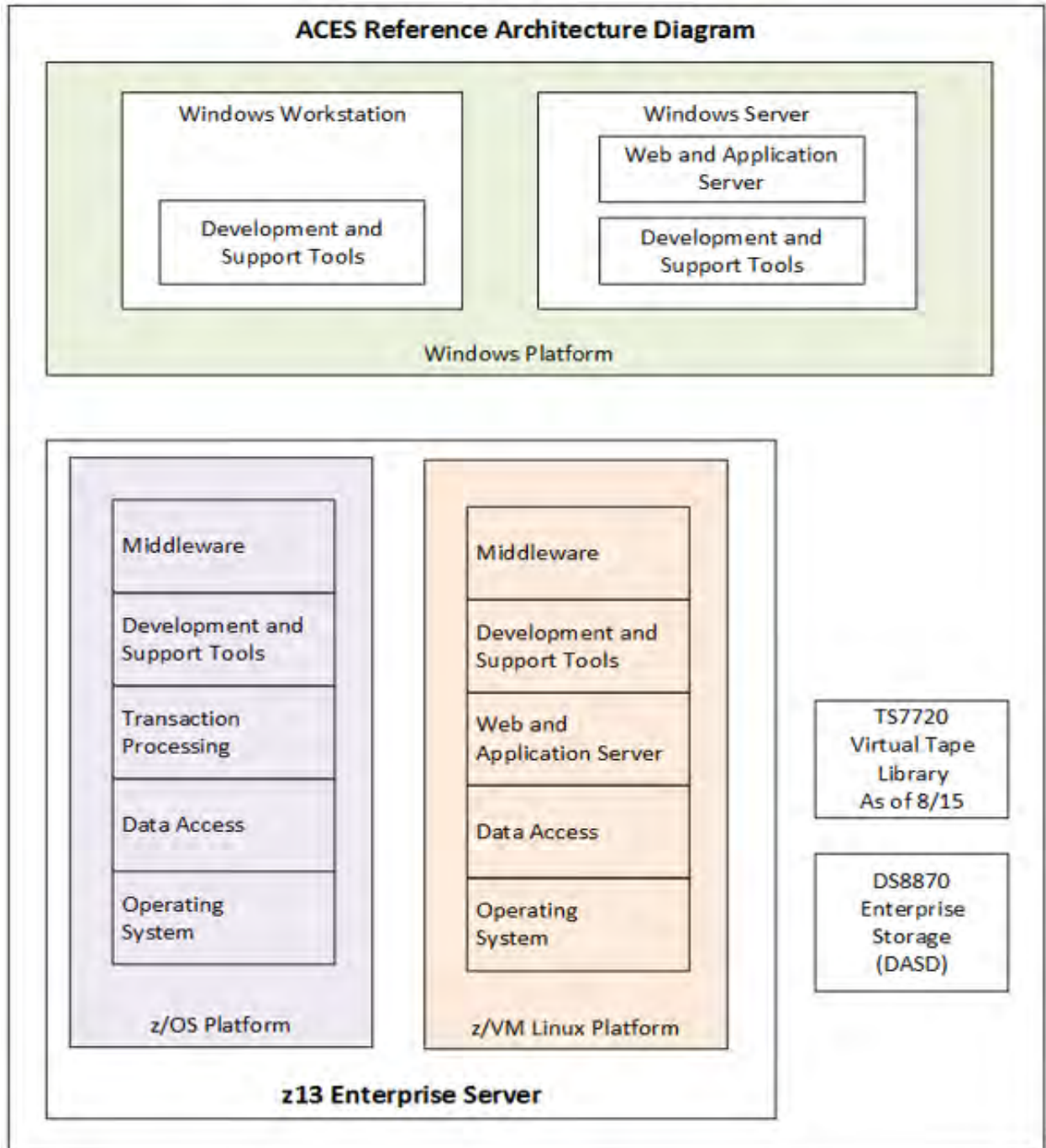
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| 5.   | Protection of Data. ....                                 | 74        |
| 6.   | System Protection. ....                                  | 77        |
| 7.   | Data Segregation. ....                                   | 77        |
| 8.   | Data Disposition.....                                    | 77        |
| 9.   | Notification of Compromise or Potential Compromise. .... | 78        |
| 10.  | Data shared with Subcontractors. ....                    | 78        |
| <b>Section 19 – IRS Publication 1075, Exhibit 7 .....</b>      |  | <b>79</b> |

## Section 2 - ACES Reference Architecture Diagram

The following ACES Reference Architecture Diagram describes the technical environments, corresponding hardware and software to support Automated Client Eligibility System (ACES) Complex of applications and its supporting systems.



The processor, an IBM z13, supports both the legacy and modernized components of the ACES application. It is a multi-technology platform. The legacy components are built on z/OS operating system using Common Business Oriented Language (COBOL) as the primary programming language. Information Management System (IMS) and Data Base 2 (DB2) are used as database management systems and CICS is used for transaction processing.

z/VM is the virtualization hypervisor and SuSE Linux Enterprise Server is the operating system. Java is the primary programming language, with DB2 as the database server. WebSphere Application Server (WAS) is the application server container for the Java programs. WebSphere Operational Decision Manager (ODM) is the Business Rules Management System (BRMS). Cognos provides Business Intelligence (BI) and analytics reporting services. InfoSphere Server is used for data Extraction/Transformation/Load (ETL) and data replication support.

The disk array, an IBM DS8870, provides data storage for both the legacy and modern technologies. The disk usage has historically grown in direct relationship to the caseload. In 2014 and 2015 there has been a significant increase in the storage resources used to support eServ and ACES modernization.

The current utilization state and capacity of the IBM DS8870 storage complex is:

| Annotation                            | Allocated (TB) | Free Space (TB) |
|---------------------------------------|----------------|-----------------|
| Usable Capacity on DS8870 (formatted) | 42.00          |                 |
| Total allocated space                 | 39.72          |                 |
| z/OS                                  | 10.18          | 16.67           |
| VM                                    | 2.18           | .99             |
| Linux                                 | 5.22           | 4.48            |

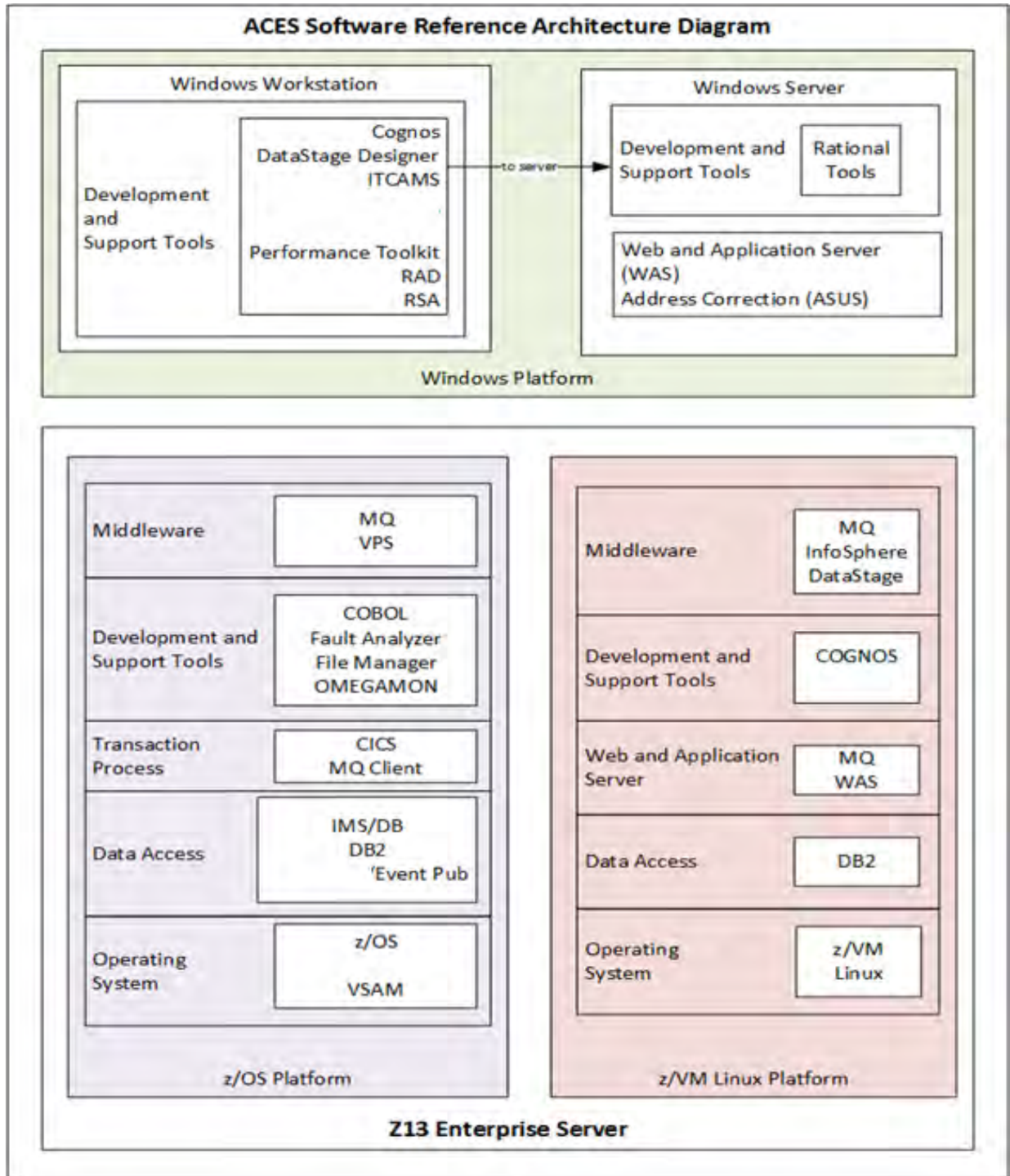
As the table indicates, 26.85 Tera-bytes (TB) is allocated solely to z/OS. Of that, 16.67 TB is free space. Expansion of these devices is not an option, as they are part of current mainframe lease.

The virtual tape server (IBM TS7720) provides data backup services for both the legacy and the System z-based Linux servers. The capacity of the tape server is measured in both total storage capacity and tape transports.

- TS7720 is 71.84 TB uncompressed capacity, utilization is 77%.
- Expansion of these devices is not an option, as they are part of the current mainframe lease.

### Section 3 - ACES Software Reference Architecture Diagram

The following ACES Software Reference Architecture Diagram describes the environment and the three (3) major platforms supporting ACES. Windows, z/OS, and z/VM Linux – each have a software stack that runs in the environment.

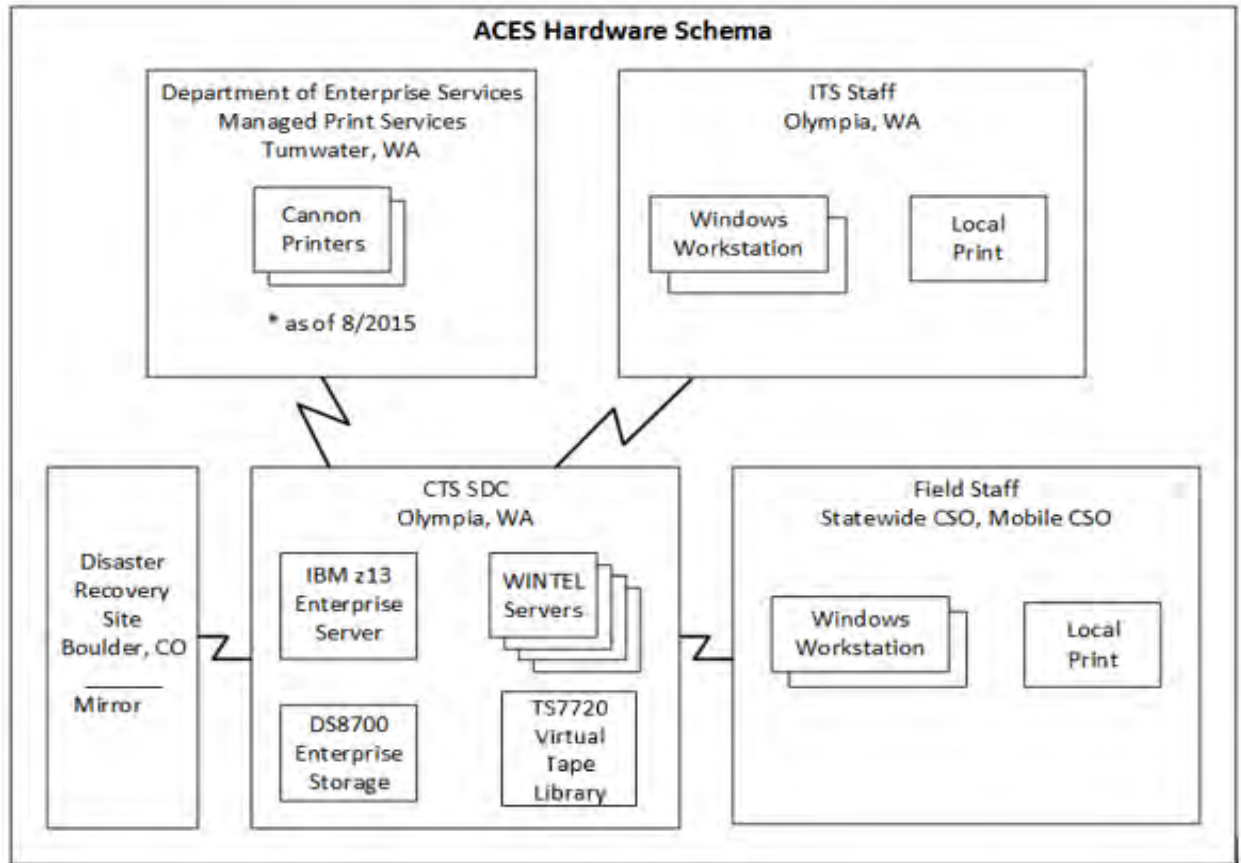


The Windows base install, with the Operating System (OS) is provided by Network Information Services (NIS).

Most of the system software for the ACES environment is provided through the ACES Maintenance & Operation (M&O) outsourcing contract. There are a limited number of items with a license type to indicate software that is provided by Department of Social and Health Services (DSHS). Most of the the software provided are IBM products, but non-IBM software that is provided by Independent Software Vendors (ISV).

## Section 4 - ACES Hardware Schema

The ACES Mainframe Complex resides at the Washington Technology Solutions (WaTech) State Data Center (SDC). The print services for the mainframe reside at the DES print facility. Under this new strategic initiative, print services are provided at a central location and ACES produces image files that are transferred for printing. DSHS pays for this service through an agreement with DES.



Both of these facilities have been reviewed for compliance with federal and state privacy and security standards. A previously identified gap with encryption of data at rest and data on portable media are to be addressed with encryption features installed with the upgraded disk and tape servers in June 2015.

The ITS team that maintains and operates ACES are all primarily located at a single DSHS office. However, there are thousands of field users across the state in Community Service Offices (CSOs) and Home and Community Services (HCS). ACES also supports two mobile CSOs with one usually in the Eastern part of the state and one in the West.

All of the ACES Mainframe Complex hardware is leased by DSHS. The print devices shown are for clarity, but these devices are not owned by DSHS. DSHS pays for printed output as a service charged through DES.

DSHS also has a contract for disaster recovery. The site is located in Boulder, Colorado and the hardware mirrors, or nearly mirrors, the ACES Mainframe Complex. Since this is a service, provided through a contract, the available equipment may always be an exact match to ACES. However, the

contract does require configuration that nearly matches ACES. It includes all of the basic equipment at the SDC that is part of critical business processing.

Mainframe data is backed-up to a VTL and replicated offsite. Non-mainframe data is replicated to two separate locations. One of those locations is also offsite.

The current DR Recovery Time Objective (RTO) is 72 hours, Recovery Point Objective (RPO) is 24 hours and it doesn't need to remain at Boulder, CO.

Networking for the ACES Complex of Applications and the disaster recovery site are provided by DSHS Enterprise Technology and Washington Technology Solutions (WaTech).



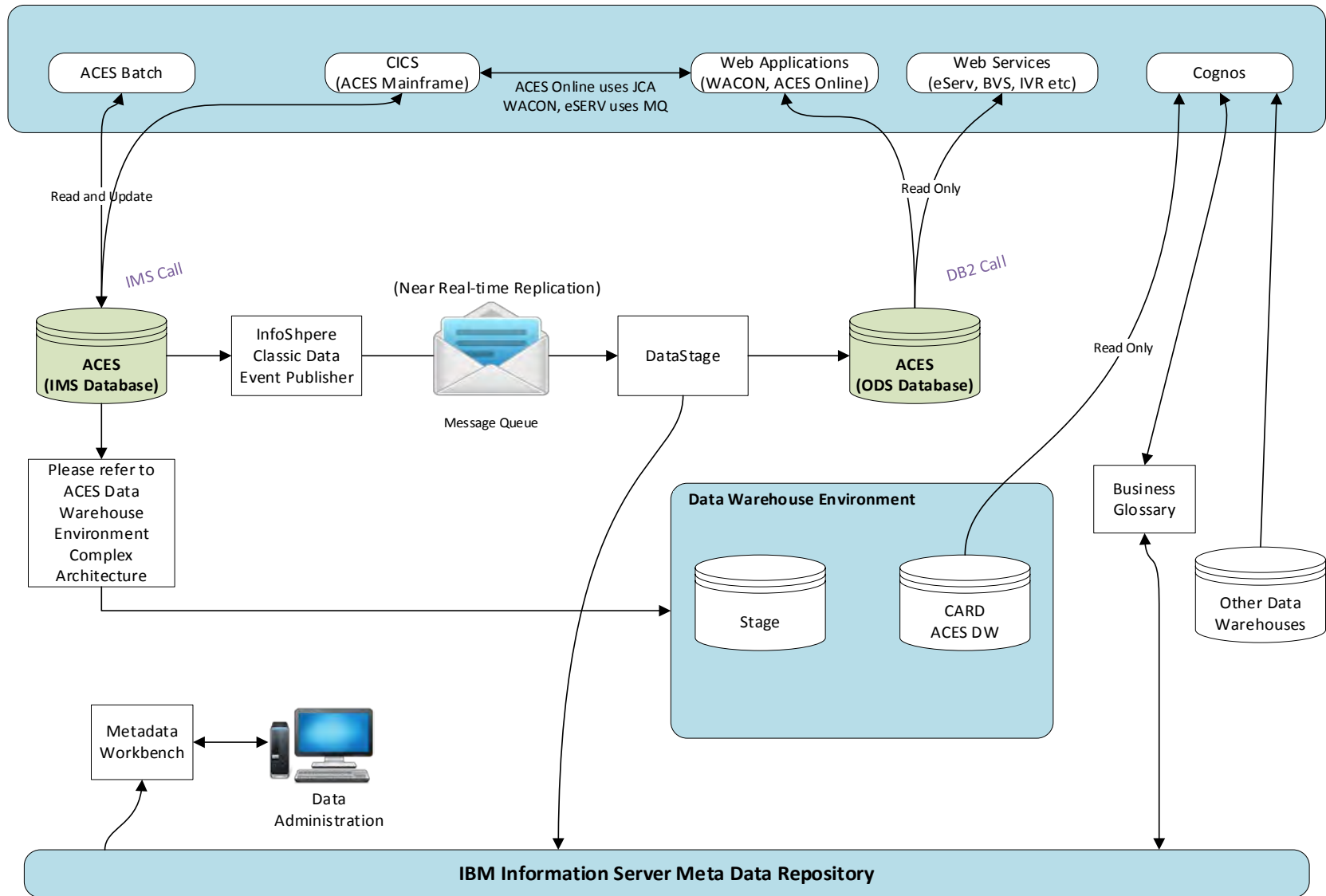
## Section 5 - ACES Applications

The overall technical environment as shown in **Section 8 (System Context Diagram)** that supports the various ACES application components are.

- **ACES Mainframe Customer Information Control System (CICS)** – This represents the legacy data collection process and application internal to DSHS. This is also used by Health Care Authority staff to support business functions. This process currently does everything ACES 3G supports and several miscellaneous processes. It has support of the parameters, alerts, issuance, QA/QC among other sub-systems. The data collection portions will be decommissioned once all the appropriate functionality has been moved to the web application, ACES 3G.
- **ACM and other supported functions** – This includes the processing of the actions that happen throughout the day and the issuance of benefits and letters to clients. ACES communicates the results of those actions to multiple agencies depending upon the type of assistance and the result of the action. ACES receives multiple inbound interfaces which trigger automated actions. ACM supports ongoing case management of eligibility for those items that are time event related.
- **Eligibility Service/Eligibility Subsystem** – The Eligibility Service is the component that supports eligibility related processes for the Affordable Care Act. It determines eligibility for Medicaid based on MAGI, which incorporates IRS rules and verification methods. This process also provides determination of APTC (Advanced Premium Tax Credit) eligibility. The Eligibility Subsystem determines eligibility for all of the other cash, food and classic Medicaid programs.
- **aces.online** – This is an intranet worker-facing Web application supporting screening, letters and inquiry functionality. Data collection and case actions (called 3G) are also accessed from aces.online. The process supports the data collection of household and client demographic information required to complete the eligibility determination process. This function facilitates the processing of an interview and finalization of the application. Based on the ACES Modernization Roadmap, this function will be expanded to handle everything done today in the mainframe green screens. It is not just a technological re-platform of the ACES application, but an enhanced version that brings new functionality that aids workers to increase productivity and accuracy.
- **WACON – Washington Connection** – This is an internet client-facing Web application designed to accept electronic data for applications, eligibility reviews and changes of circumstances. This process captures the application for economic assistance benefits such as food, child care, medical and cash assistance. It also includes an “am I eligible” feature and does referrals to other state and local agencies where clients may gain access to additional services.
- **Data Warehouse Environment** - The data warehouse is comprised of collections of DB2 databases that provide data staging and data reporting functions. The data bases are hosted on both z/OS and WINTEL platforms. There are two core functions of the DW. The first is to capture system data created by ACES and other systems. The second is to create and store transformed data for reporting purposes. The data warehouse provides data to support federal reporting, operational and analytical reporting for numerous state agencies.
- **Paper, phone, and walk up** – These are different communication channels for the same features provided in Washington Connection. This includes application, eligibility review, and change in circumstances.
- **PING** – This process is called the Request for Inquiry Ping. PING is the common term for a feature used by Healthplanfinder and ACES that communicates information back and forth as clients may switch from MAGI to Classic Medicaid or vice versa. It does not update eligibility, but only shares information. This includes both batch file and transactional communications.

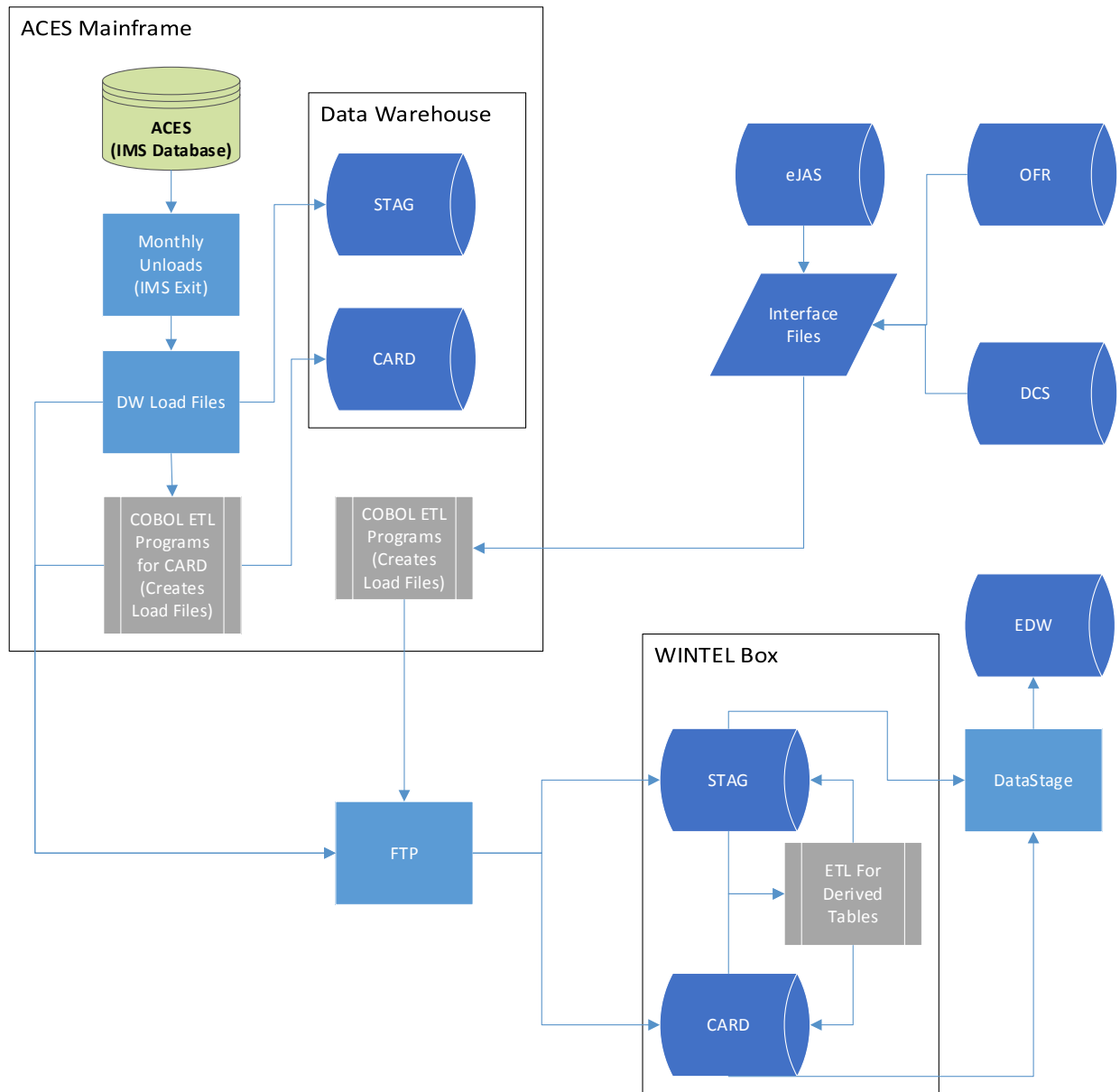
- **Healthplanfinder (HPF)** – This is an external system that provides access to health care for residents of the State of Washington. This portal is owned and administered by HBE. The application is named Healthplanfinder (HPF) and supports the collection of client demographics, including household composition, tax filing relationships and other information. This system integrates with ACES to determine Modified Adjusted Gross Income (MAGI) and Advanced Payment Tax Credits (APTC) eligibility for their clients.

## Section 6 - ACES Application Complex Architecture



## Section 7 - ACES Data Warehouse Complex Architecture

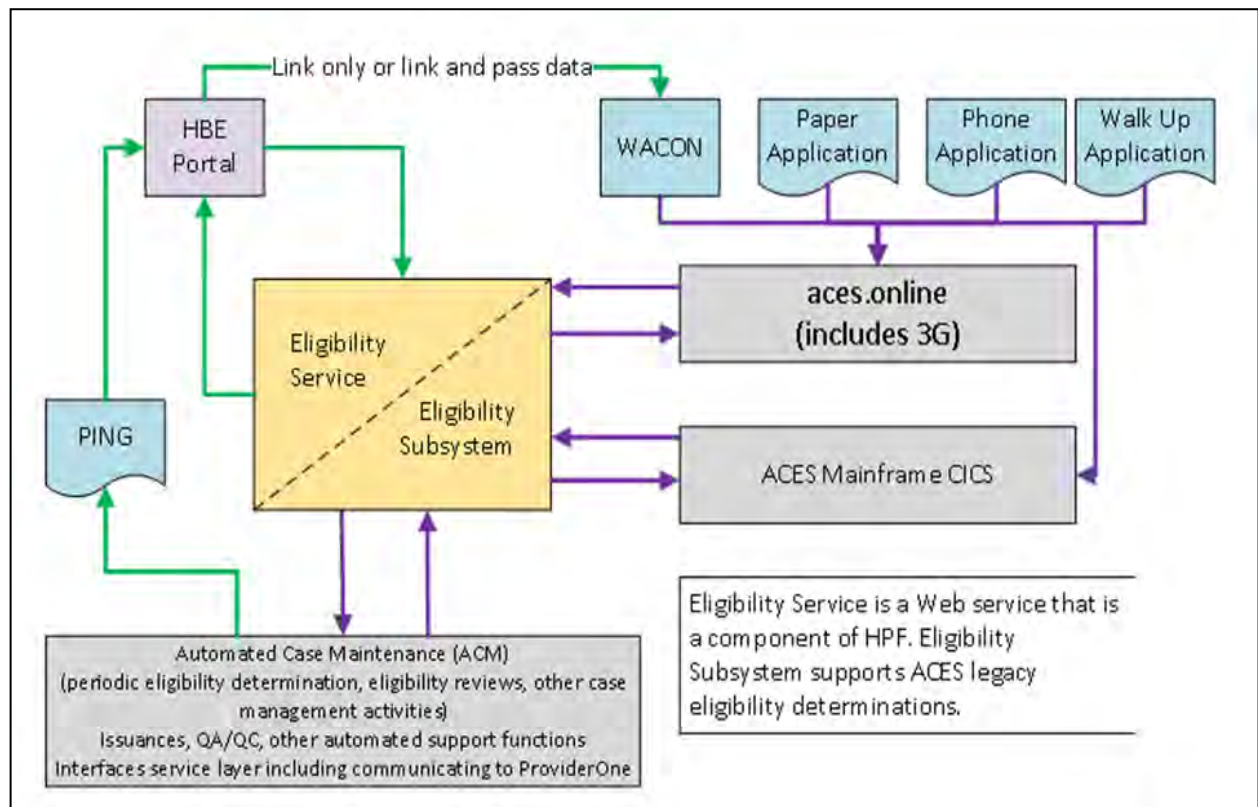
ACES Data Warehouse is a set of DB2 databases that was designed to meet the reporting needs of several agencies within DSHS. It consists of three databases. They are STAG, CARD and Metadata. STAG contains the same data that is in the ACES segments on the mainframe but will be refreshed once monthly and a fresh copy will be available on the first Wednesday after month begin batch process runs. The CARD database is a set of about 40 tables that contain data from one or more of the STAG tables. The metadata database is basically a data dictionary for the Data Warehouse.



## Section 8 - System Context Diagram

At an enterprise level, the System Context describes the primary users and systems and their interactions with the eligibility determination subsystem. The current Eligibility subsystem participates in an application-to-application interaction with the remaining functional components of ACES. These functional components include:

1. Mainframe data collection screens and aces.online (the Web page data collection component) are two entry points into the current Eligibility subsystem for real-time access.
2. Automated Case Maintenance (ACM) – This batch process includes the processing of the actions that happen throughout the day, generating issuance of client benefits and letters to clients. ACES communicates the results of those actions to multiple agencies depending upon the type of assistance and the result of the action. ACES receives multiple inbound interfaces which trigger automated actions. It supports ongoing case management of eligibility for those items that are time event related.



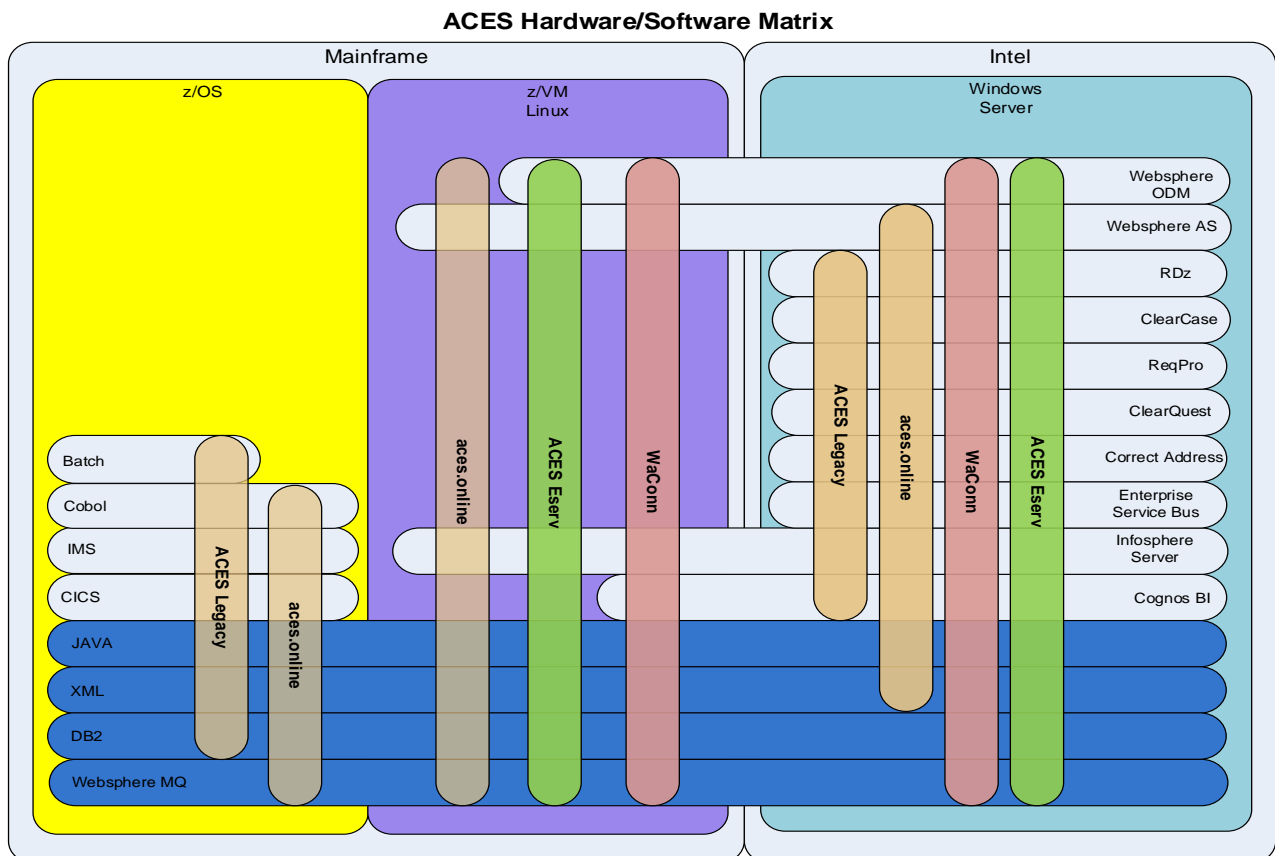
## Section 9 - ACES Hardware/Software Matrix

The following diagram illustrates various ACES application components and their corresponding hardware/software technical environments.

Java development is done using the Rational Application Developer (RAD) tool listed in ACES Windows Software Section 16 Part 3. Open source tools are also used in this environment and a list of ACES open source software used for development is included in Section 17.

Business rules management is done using Operational Decision Manager (ODM). The ODM Decision Center is used for rules visualization and development. ODM Decision Server provides the runtime execution services. .

ITS staff use Rational ClearQuest (CQ), Rational RequisitePro (ReqPro) being migrated to Rational DOORS NG, and Rational ClearCase in support of the System Development Life Cycle (SDLC). CQ is primarily a change management tool used to capture change requests (CRs), call records, and resulting problem reports (PRs). CRs and PRs are bundled and tracked as releases. CQ also supports testing scenarios and defects. ReqPro is a document repository for the detailed system changes required in support of CRs and PRs. ClearCase manages version control – used at ITS to manage JAVA software versioning. IBM Source Control Library Manager (SCLM) is used for source code management and versioning of COBOL code.



## Section 10 - ACES Central Print

ACES prints every day approximately 14,000 letters, monthly 464,500 letters and yearly 5,600,000 letters. ACES also prints several times a month large volumes of letters due to eligibility reviews, termination letters and 3 or 4 times a year ACES has mass modification which produces 100,000 – 500,000 letters in one day. The physical page volume varies due duplex rules and starting new forms or letter attachments on a face up page but it's averages 3 ½ - 4 pages per letter so for a monthly letters volume of 464,000 it equates to approximately 1,700,000 physical pages per month (not to be confused with images) or 21,000,000 physical pages per year.

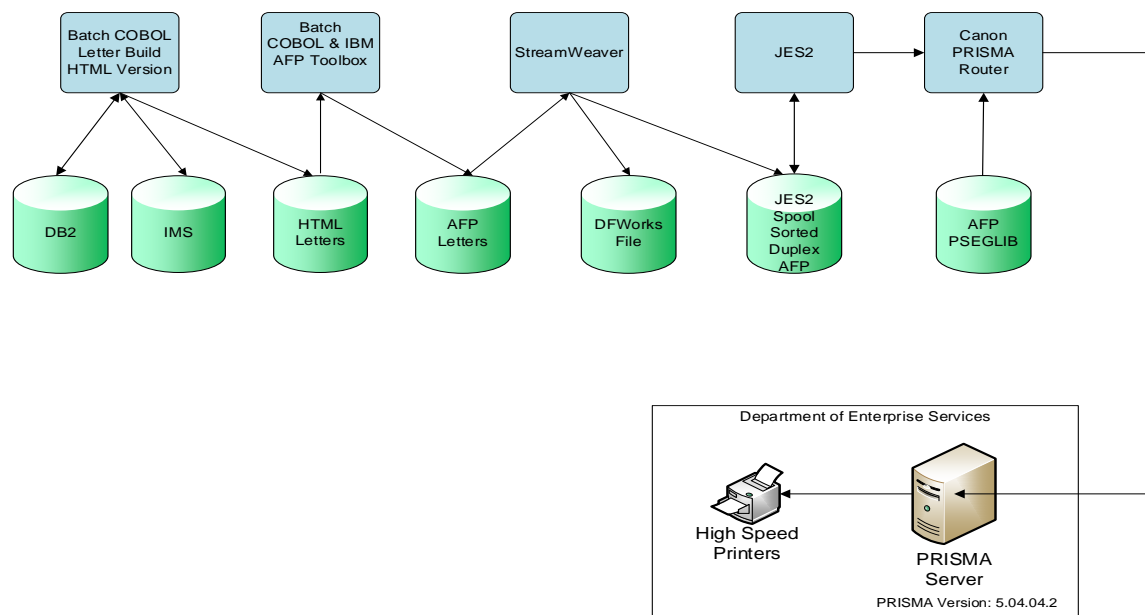
ACES produce letters from the system test region in very small quantities about 15,000 to 16,000 Letters consisting of 60,000 physical pages a month or 180,000 letters yearly consisting of 720,000 physical pages.

ACES also produces reports that is estimated at approximately 6,000 physical pages a month or 72,000 yearly (DSHS have a continuous effort to reduce physical print as much as possible and use electronic).

ACES Letters and reports total approximately are 21,792,000 physical pages yearly.

DES Print Services provides print encryption/packaging software for mainframe print as part of the service. Basically PRISMA Router is the controlling software that receives the print from the print queue and calls the encryption software then packages all the resources before sending the print file over TCIP to DES PRISMA Server which receives/unencrypts and puts it in their print queue

The following is the ACES Central print architecture.

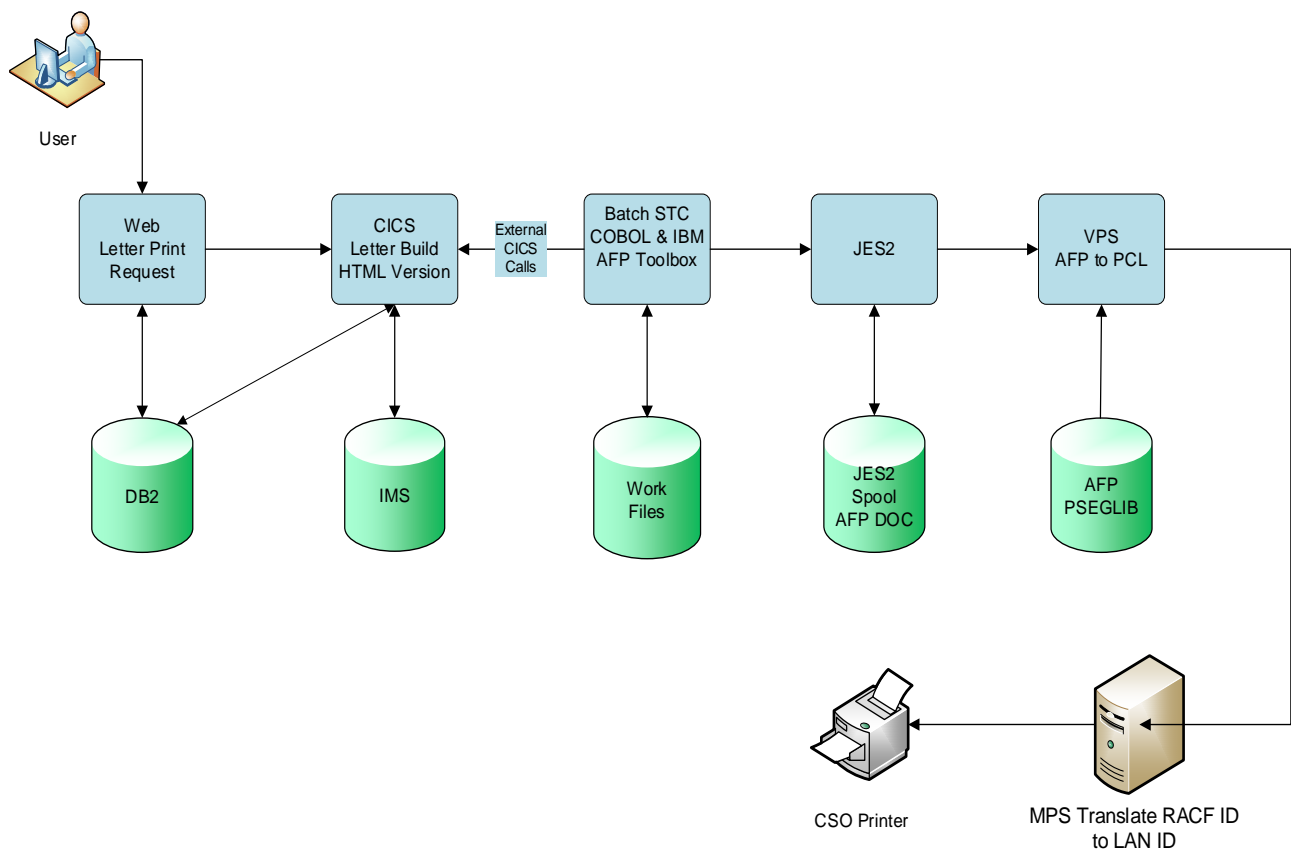


Encryption software ZIP 390 Release 6.7 from Data 21 Inc. Print Packaging software PRISMA Router from Canon

## Section 11 - ACES Local Letter Print

ACES users print approximately 1500 letters to clients every day locally. To do this, they use the Letter Print function in the ACES.online web application. The user is able to select one or more letters from the history database or create a new letter to be printed. The print request is sent from the web application to a CICS COBOL program. It retrieves the parts the letter to be printed and assembles a HTML version of the letter. The HTML version of the letter is placed in a CICS TD Queue. A long running batch COBOL program uses CICS EXCI interface to execute a program in CICS to read the TD Queue and return the HTML letter to the batch program. The batch program calls an Assembler sub-routine that dynamically allocates a JES2 SYSOUT dataset to contain the AFP version of the letter. Then executes the COBOL code that transforms the HTML version of the letter to a fully composed AFP document using IBM AFP Toolbox software. The AFP version of the letter is retrieved from the JES2 Spool by VPS software. VPS is a product supplied by vendor Levi, Ray and Shoup (LRS). VPS translates the AFP letter to HP PCL and ships it to Managed Print Servers (MPS) located in local offices. VPS merges external AFP resources during the translation. ACES has 35,000 AFP Page Segments (PSEG) used to support 8 languages. The MPS print servers translates the RACF ID of the requester to the Microsoft AD Lan ID used by the user to retrieve print from the MPS server.

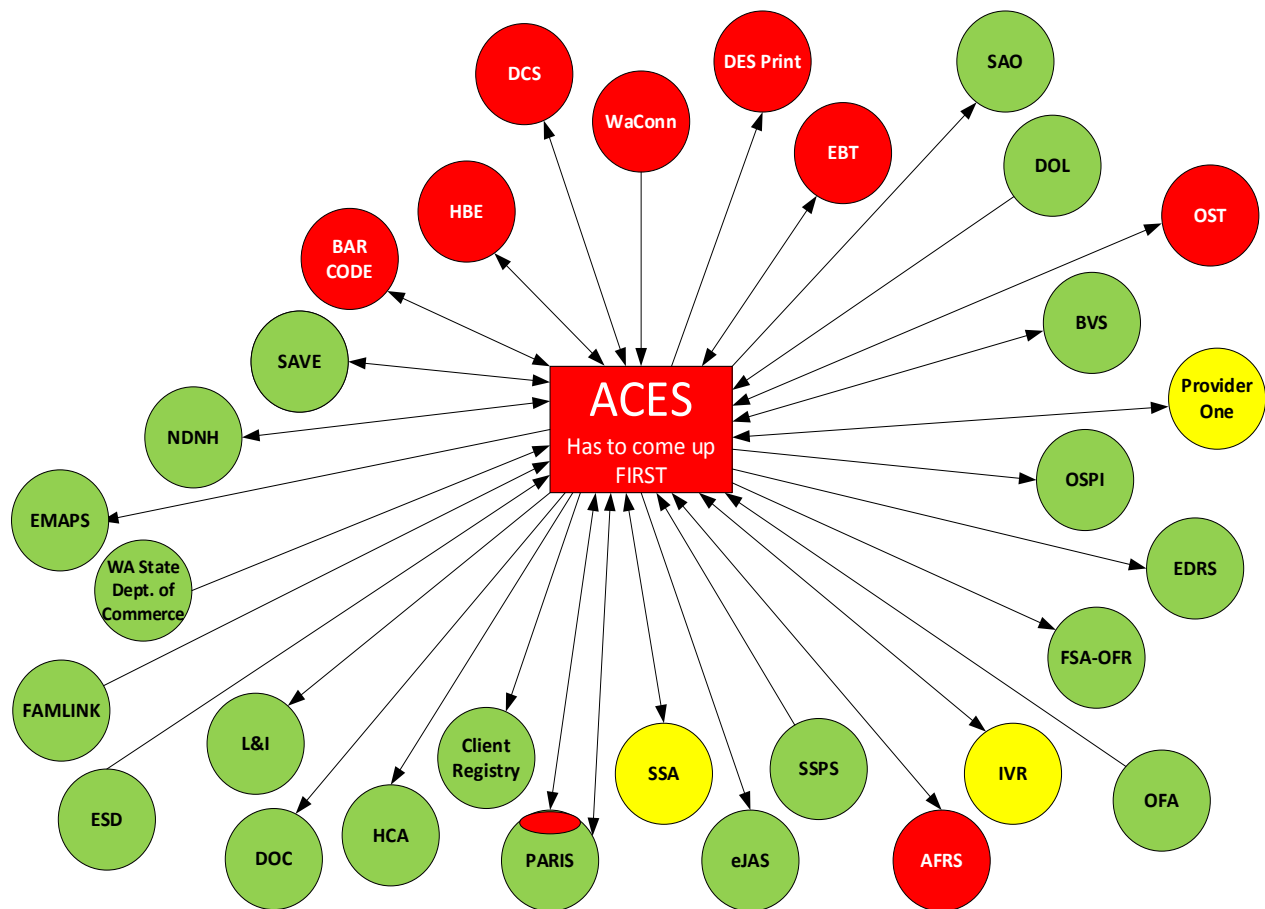
The following is the ACES Local Letter print architecture.





Section 12 - ACES Interface Ecosystem

1. ACES - Business Interaction Top Level View



Priority:

| High                         | Med.  | Low   |
|------------------------------|---|---|
| Payments:<br>Cash &<br>Food  | 2 <sup>nd</sup> Tier<br>Providing<br>of Service | Support & Verification<br>data transfers that<br>support partnership<br>agencies. |
| 0-3 Days<br>After ACES<br>up | 4-7 Days<br>After ACES<br>up                    | 8-31 Days After ACES<br>up  |

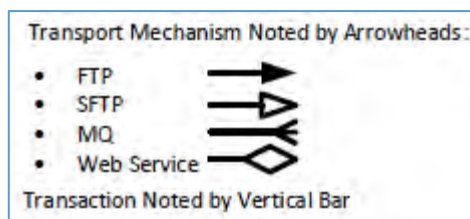
Volume

> 1.2 MIL clients/mo. food assist.  
> 150K clients/mo. cash assist.  
  
> \$150 MIL/mo. cash & food  
> \$500 MIL/mo. Medical through  
Provider One

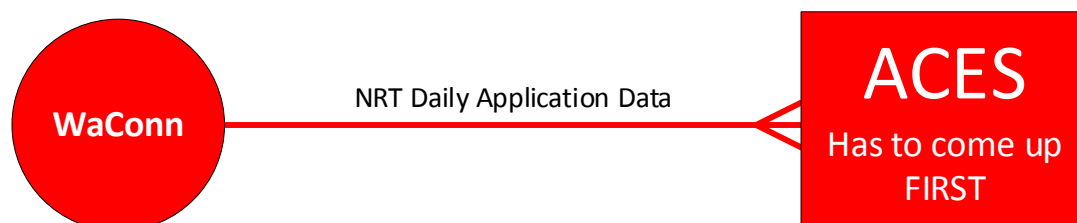
The 2017 ACES Interface Ecosystem map is intended to show the relationships, effective in 2017, between all relevant external and internal system using interfaces, yet it is not intended to be context diagram, which concentrates on internal product scope and the direct interaction performed by actors i.e. people and/or other systems. Creation of the ACES Interface Ecosystem map is for Disaster Recovery exercise documentation, thus phase “Has to come up FIRST” exists in many of the images.

## Section 13 - ACES Interface Ecosystem Details

The ACES Ecosystem details provides further information about each interface.



### 1. ACES - WaConn (Washington Connection)



**Washington Connection (WaConn)** is a web portal solution for residents seeking state/federal benefits in the state of Washington. **WaConn** is an internet application managed by the Information Technology Solutions (ITS) Division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency. For more information, visit <https://www.washingtonconnection.org/home/>.

**Subsystems in WaConn umbrella are as follows:**

**Washington Connection (Am I Eligible?)** offers a fast and easy way for families and individuals to apply for a variety of services such as Food, Cash, Child Care, Long-Term Care, and Medicare Savings Programs. Individuals that are age 65 or older, blind or disabled may also apply for medical assistance.

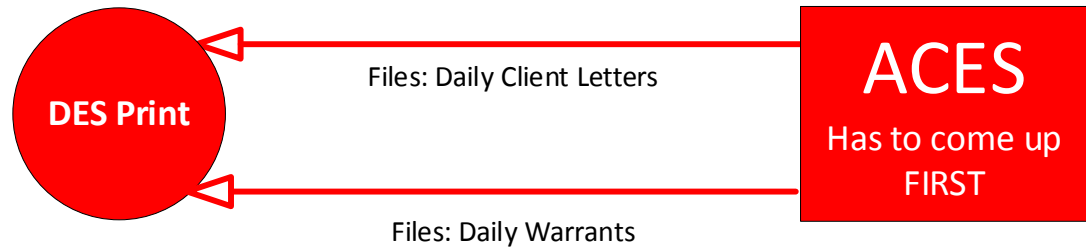
**Washington Connection (eAPP/Reviews)** is a subsystem that submits applications/Eligibility Reviews/Change of Circumstance (COC) for benefits. It offers access to saved applications to complete actions and offer a view of the information submitted as a PDF.

**Washington Connection CBA (Client Benefits Account)** is a subsystem that offers:

- A view of the client's benefit information.
- A view of documents submitted at a high level within last 30 days.
- A view of child care/provider information.

**Washington Connection CBO (Community Based Organization)** is a subsystem that manages partners and users profile, which is used by the ITS Division's Customer support staff and Customer Support Division staff.

### 2. ACES - DES-Print

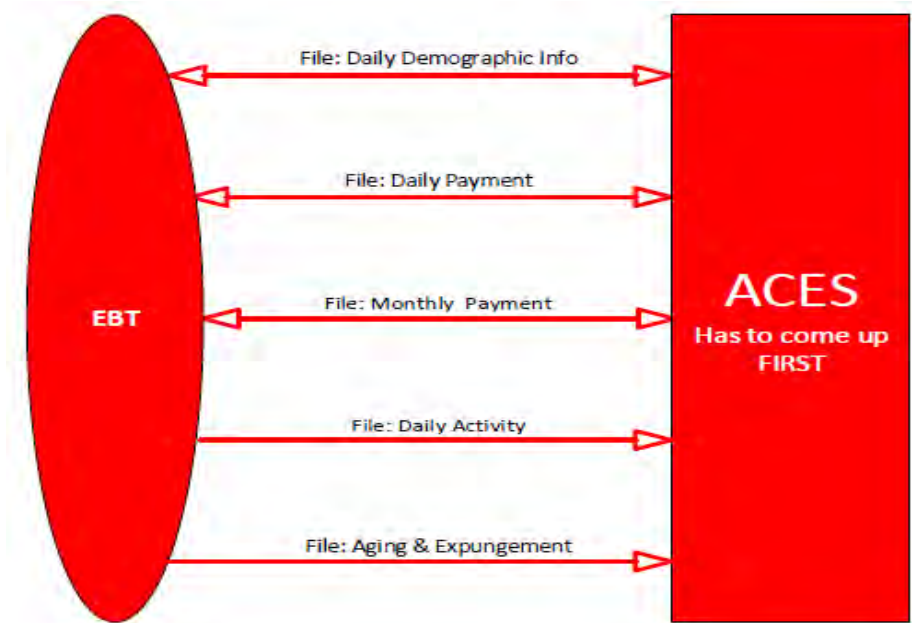


**DES (Department of Enterprise Services)** represents Printing and Mail Services Division of the Washington State Department of Enterprise Services (DES) Agency. For agency information, visit <http://des.wa.gov>. For services information, visit <https://des.wa.gov/services/printing-mail>.

#### What items are included in the DES Print interface?

- Printing, Attachment Insertion, Stuffing, and Mailing of Daily Client Letters.
- Printing, Stuffing, and Mailing of Daily Warrants.

### 3. ACES - EBT (Electronic Benefit Transfer)



**EBT (Electronic Benefit Transfer)** represents a government solution offered by Fidelity National Information Services, Inc. (FIS) with Washington State for benefits payments via prepaid cards for electronic benefits transfer (EBT), using FIS **ebtEDGE** <sup>SM</sup>. For more information about FIS, visit <https://www.fisglobal.com/About-Us/>.

#### What is Electronic Benefits Transfer (EBT)?

EBT is an issuance method where cash and basic food benefits are electronically sent to Fidelity Information Services (FIS) and then made accessible to clients using an EBT debit card.

#### What benefits are paid to clients by Electronic Benefit Transfer (EBT)?

Clients receiving assistance from the following programs have benefits issued by EBT:

- AF (TANF)
- EA (CEAP)
- FS (Basic Food)
- GA (Aged, Blind, or Disabled)
- GS (Pregnant Women Assistance)
- RF (Refugee)
- SL (Summer Lunch)
- SP (SSI State Supplement)
- WS (Working Family Support)

#### **When are Electronic Benefit Transfer (EBT) Issuances sent to Fidelity Information Services (FIS)?**

- Funds are deposited into EBT accounts through either a daily or monthly issuance.
- Daily issuances occur during ACES daily batch cycle processing no later than 11:59 p.m.
- Monthly issuances occur in the monthly issuance batch cycle no later than 11:59 p.m.
- EBT emergency issuances occur four times per day Monday through Friday and twice per day on Saturday.
- There are no emergency issuances on the Saturdays that ACES is not available, Sundays, or state holidays.

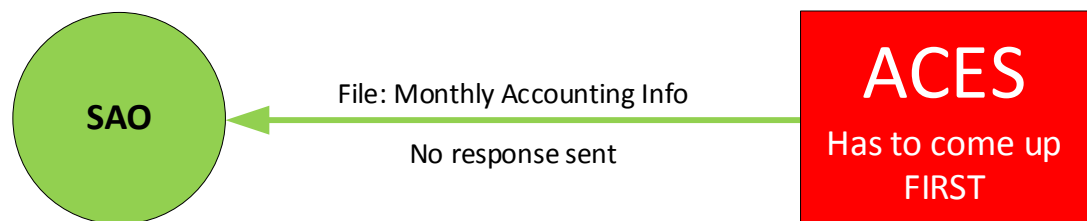
The emergency issuance time are:

|                        |  |
|------------------------|--|
| <b>Monday – Friday</b> | 9:30 a.m. 12:30 p.m. 3:30 p.m. 5:30 p.m. |
| <b>Saturday</b>        | 9:30 a.m. 1:30 p.m.                      |

#### **When are Cash and or Basic Food benefits available on the EBT card?**

Daily cash and non-emergent basic food benefits issuances are available the next business day at 6a.m Pacific Standard Time (PST).

#### **4. ACES - SAO (State Auditor's Office)**

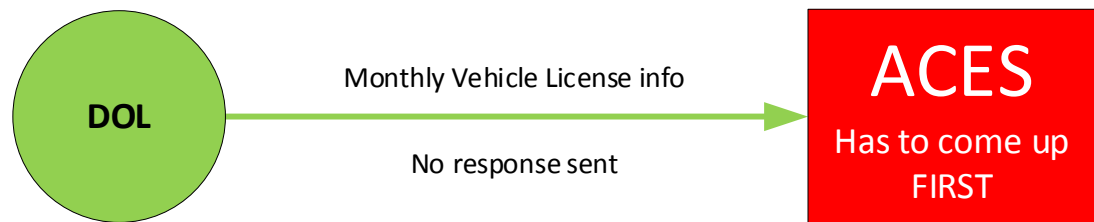


**SAO (State Auditor's Office)** represents a computer system managed Office of the Washington State Auditor. For more information, visit <http://sao.wa.gov/about/Pages/default.aspx>.

#### **What items are included in the SAO interface?**

Daily & Monthly Accounting Information.

## 5. ACES - DOL (Department of Licensing)

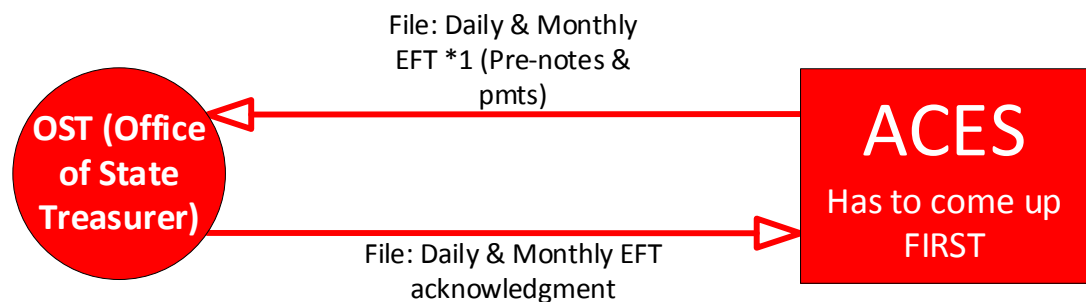


**DOL (Department of Licensing)** represents a computer system managed by Washington State Department of Licensing. For agency information, visit <http://dol.wa.gov/>.

### What items are included in the DOL interface?

- Detailed information for all vehicles registered in Washington State.
- Detailed information for all vessels registered in Washington State.

## 6. ACES - OST (Office of State Treasurer)



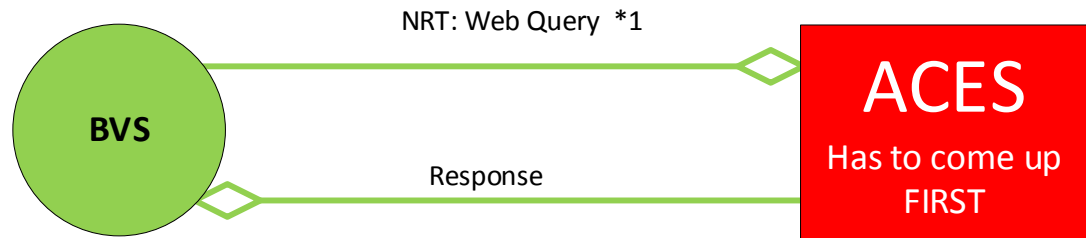
**OST (Office of State Treasurer)** represents a computer system managed by Washington State Office of the State Treasurer. For agency information, visit <http://tre.wa.gov/about/>.

### What other information is included in the Treasurer's Office interface?

The interface includes information about the following:

- Warrants
- Warrant Register
- Accounting information
- Combined/merged information for the State Auditor
- Batch Balance Report for the State Treasurer's Office
- Office of Civil Rights (OCR) warrant tape for the State Treasurer's Office
- OS cards tape for the State Treasurer's Office
- Register control tape for the State Treasurer's Office

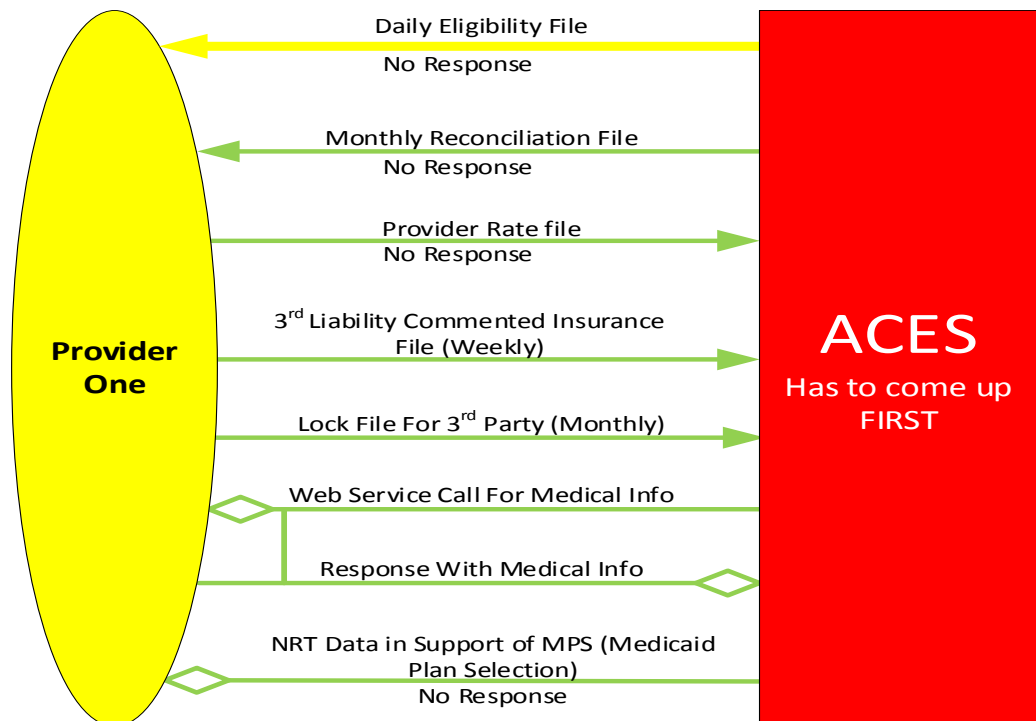
## 7. ACES - BVS (Benefit Verification System)



**BVS (Benefit Verification System)** represents a computer application, managed by the Information Technology Solutions (ITS) Division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency.

The **BVS (Benefit Verification System)** is a web based automated verification system that allows authorized users to verify specific, client level information online rather than placing a phone call to a DSHS employee. Depending upon the users' level of access, they may be able to confirm the clients benefit amount or simply verify if the client is receiving benefits.

## 8. ACES - Provider One



**Provider One** represents a computer system managed by Washington State Health Care Authority (HCA) Agency. For system information, visit <https://www.hca.wa.gov/billers-providers/providerone-resources>.

### What is the ProviderOne interface?

The ProviderOne interface is an exchange of information between ACES and the Health Care Authority (HCA) ProviderOne system. ProviderOne uses this information to authorize payment for medical bills from medical providers, generate reports, and obtain federal funding.

ACES uses the data received from ProviderOne to automatically update the appropriate screens with the new or updated medical information data, Third Party Liability (TPL) data, provider data, and rate information.

#### **How often does the ProviderOne interface take place?**

The ProviderOne interface takes place on a daily, weekly, and monthly basis depending on what client or provider information is being exchanged.

#### **What information is sent from ACES to ProviderOne?**

- The Eligibility Interface file contains ACES client demographic, medical eligibility, spenddown, and TPL information. ACES sends this file to ProviderOne in the overnight batch process.
- The real-time version of this interface is sent throughout the day at approximately 15 minute intervals for clients who need medical services the same day their medical application is approved.
- The Reconciliation file consists of ACES client level information that is sent monthly to ProviderOne. Prior to March 2017, the Reconciliation file consisted of counts for active medical clients on each coverage group.
- For ProviderOne web service, client information is sent to request medical info.

#### **What information is received from ProviderOne to ACES?**

The following files are received from ProviderOne and sent to ACES:

- The Provide Rate daily file provides demographic and rate information for the various Long Term Care and Take Charge medical providers. When new providers are added or changes are made to the information of existing providers, ACES updates the Provider Details with the new information on a daily basis.
- The Client TPL Insurance weekly file identifies clients who have medical coverage through a third party provider. The file provides information about the insurance organization and other pertinent information related to the client's coverage. ACES updates the client's Third Party Liability in ACES with the current TPL information that is received.
- The Medicare Buy-in data received from ProviderOne automatically updates changes of Medicare Part A and Part B premium payment data on the Third Party Liability page in the Paid By field. ACES also uses the transaction data to update clients' Medicare (Title XVIII) data and this interface file is received weekly.
- The Insurance Organization file identifies all the Insurance Organizations and all their pertinent information. ACES updates the TPL Organization Search page with the names, addresses, and carrier codes of all TPL carriers known to the state and this file is received monthly.
- ProviderOne web service call for medical information returns response which contain

Client Medical Information:

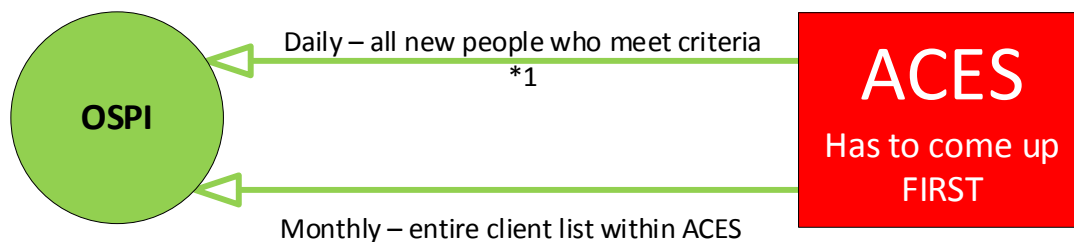
ProviderOne ID  
Medicare  
TPL Insurance  
Placement Code  
Hospice Indicator  
Restriction Indicator  
DDD Client Indicator

Managed Care Information:

Health Plan

Program  
Start Date  
End Date

## 9. ACES - OSPI (Office of Superintended of Public Instruction)



**OSPI (Office of Superintendent of Public Instruction)** represents a computer system managed by Washington State Office of Superintendent of Public Instruction. For agency information, visit <http://k12.wa.us/>.

### What is included on the file sent to the Office of the Superintendent of Public Institution (OSPI)?

The file includes all children under age 21 that are:

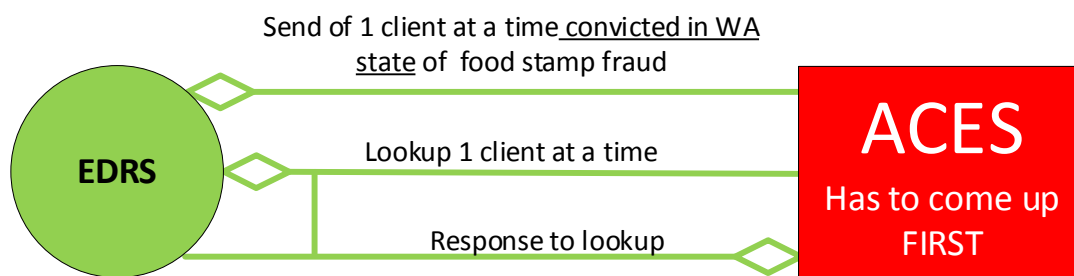
- In a household receiving at least \$1.00 in Supplemental Nutrition Assistance Program (SNAP) benefits.
- In an active Temporary Assistance for Needy Families (TANF) Assistance Unit (AU) regardless of the household monthly income.

Both the daily and the monthly files have the following data elements:

- First Name, Middle Initial, Last Name
- Date of Birth
- ACES Client ID Number
- ACES TANF AU ID Number
- ACES Food AU ID Number
- ACES Medical AU ID Number
- Residential Address – except on Foster Care (D01 or D02)
- Household Size
- Household Income
- Medical Coverage Group
- School Name – if there is no school name in ACES, the field is blank
- Last four digits of SSN
- Foster Care Indicator

## 10. ACES - EDRS (Electronic Disqualified Recipient System)





**EDRS (electronic Disqualified Recipient System)** represents a federal web service with the Food and Nutrition Services (FNS) Administration of U.S. Department of Agriculture (USDA). For EDRS system details, visit <https://www.fns.usda.gov/snap/fr-120806>.

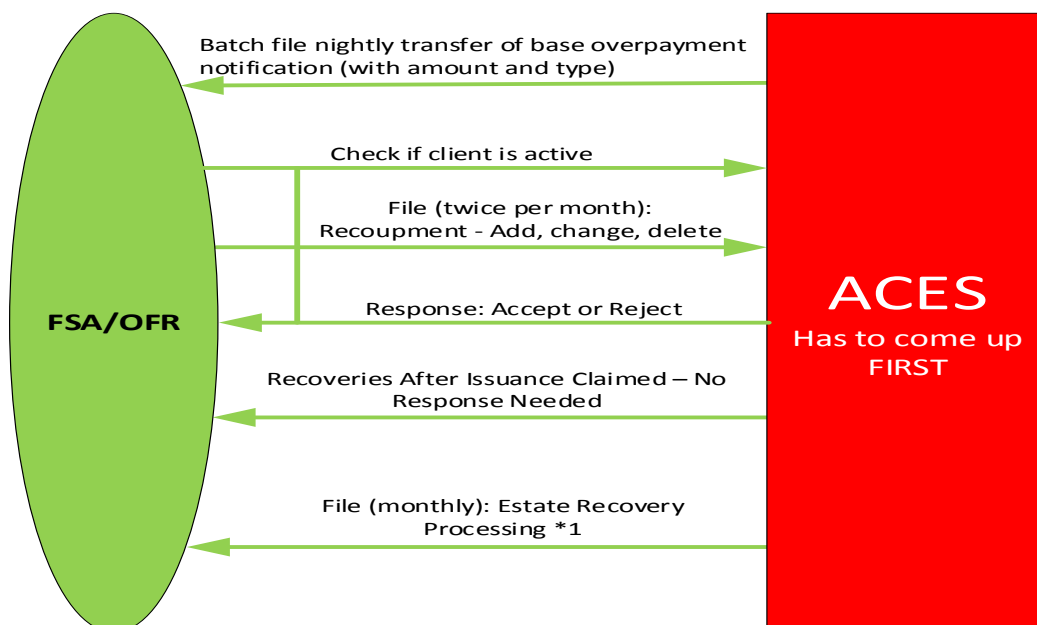
#### What is the Disqualified Recipient System (DRS) interface?

A data interface between the Federal Government and ACES, which contains information regarding Intentional Program Violations (IPV) in the Food Assistance Program.

#### How often does the Disqualified Recipient System (DRS) interface run?

DRS interface is a real time web service between ACES and the federal electronic Disqualified Recipient System (eDRS). Users can also do a manual search to see if a client has an Intentional Program Violations (IPV) in the DRS.

### 11. ACES - FSA-FA/OFR



**FSA/OFR** represents a computer system managed by the Financial Services Division (FSD) **Office of Financial Recovery (OFR)** within the **Financial Services Administration (FSA)** of the Washington State Department of Social and Health Services (DSHS) Agency. For more information, visit <https://www.dshs.wa.gov/esa/dcs-office-financial-recovery/office-financial-recovery>.

#### What is the Financial Services Administration (FSA) interface?

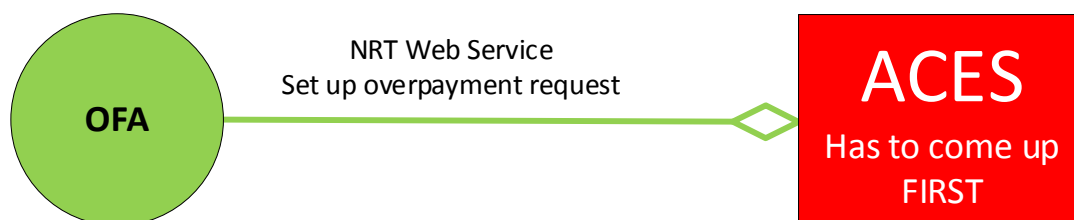
The FSA interface is the exchange of information regarding premium data for the following medical programs:

- **N13** - MAGI - CHIP Federal
- **N33** - MAGI - CHIP State
- **S08** – HWD

#### How often is information exchanged?

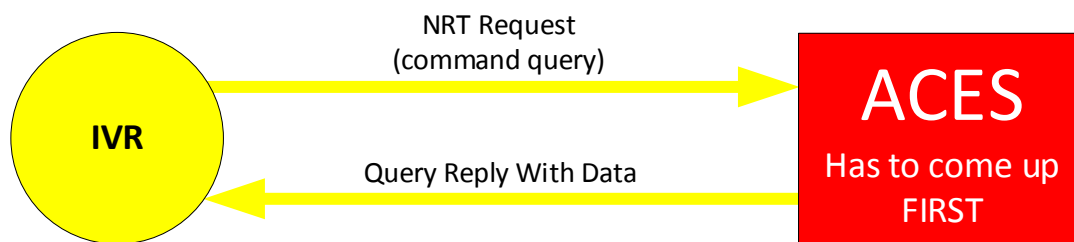
- ACES sends data to the Financial Services Administration (FSA) interface once per month during the Monthly Issuance weekend.
- FSA sends ACES delinquent premium information on the 16th of each month. The file contains Assistance Units (AUs) with an outstanding balance for each of the past three months.
- FSA sends ACES a daily interface that includes households that have paid their delinquent premiums.

### 12. ACES - OFA (Office of Fraud and Accountability)



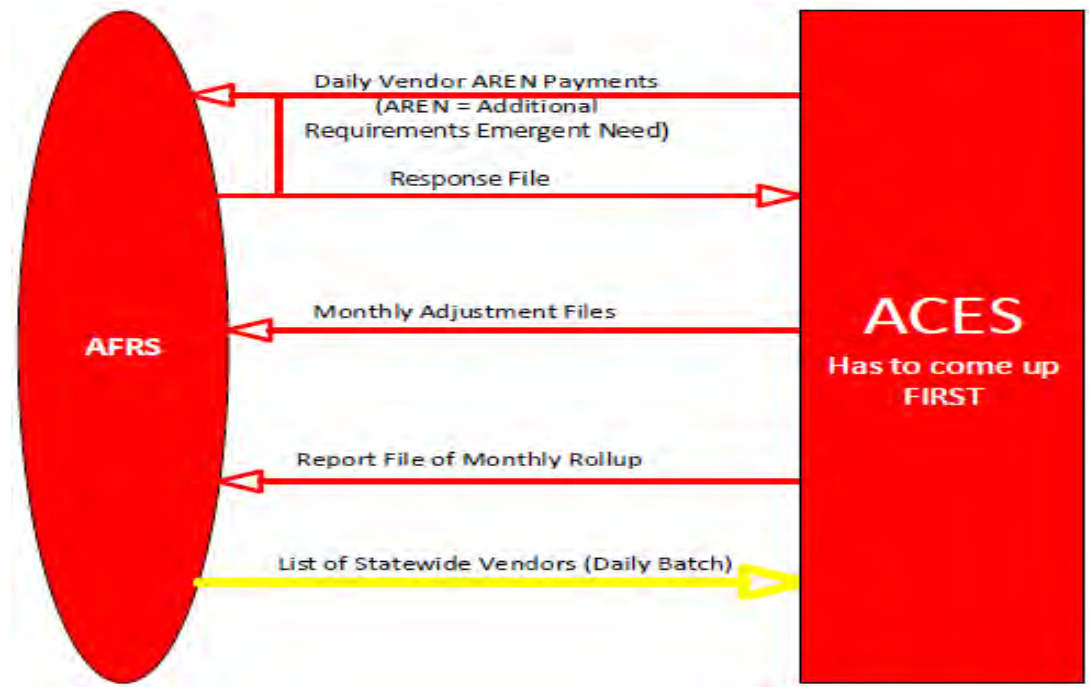
**OFA** represents a computer system managed by the **Office of Fraud and Accountability (OFA)** within the Services and Enterprise Support Administration (SESA) of the Washington State Department of Social and Health Services (DSHS) Agency. For more information, visit <https://www.dshs.wa.gov/sesa/fraud-and-accountability>.

### 13. ACES - IVR (Interactive Voice Response)



**IVR (Interactive Voice Response)** represents a collection of automation, managed by the Information Technology Solutions (ITS) Division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency.

### 14. ACES - AFRS (Agency Financial Reporting System)



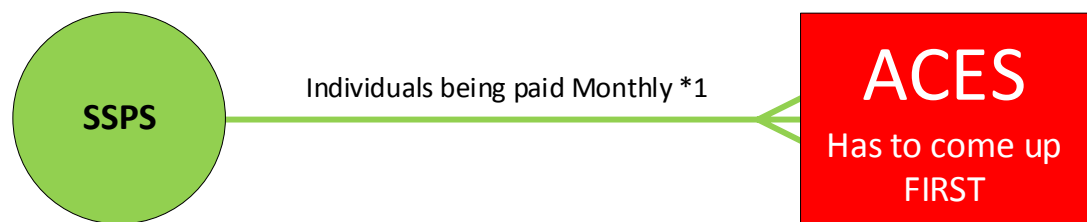
**AFRS (Agency Financial Reporting System)** represents a computer system managed by the Enterprise Technology (ET) Division within the Services and Enterprise Support Administration (SESA) of Washington State Department of Social and Health Services (DSHS) Agency. For system information, visit <https://watech.wa.gov/solutions/it-systems/agency-financial-reporting-system-afrs/>.

**What items are included in the Agency Financial Reporting System (AFRS) interface?**

The interface file contains information about:

- Warrants -warrant register, warrant cancellations.
- Accounting information for AFRS.
- Combined / merged information for the State Auditor.
- Batch Balance Report for the State Treasurer's Office.
- Office of Civil Rights (OCR) warrant file for the State Treasurer's Office.
- Chart of Accounts file for the State Treasurer's Office.
- Register control file for the State Treasurer's Office.

#### 15. ACES - SSPS (Social Service Payment System)



**SSPS (Social Service Payment System)** represents a computer system managed by the Enterprise Technology (ET) Division within the Services and Enterprise Support

Administration (SESA) of Washington State Department of Social and Health Services (DSHS) Agency. For system information, visit <https://www.dshs.wa.gov/sesa/enterprise-technology/social-service-payment-system/>.

### What is the Social Service Payment System (SSPS)?

SSPS provides authorization and payment processing to certain providers for social services such as childcare and in-home caregiver services.

### What is the Social Service Payment System (SSPS) interface?

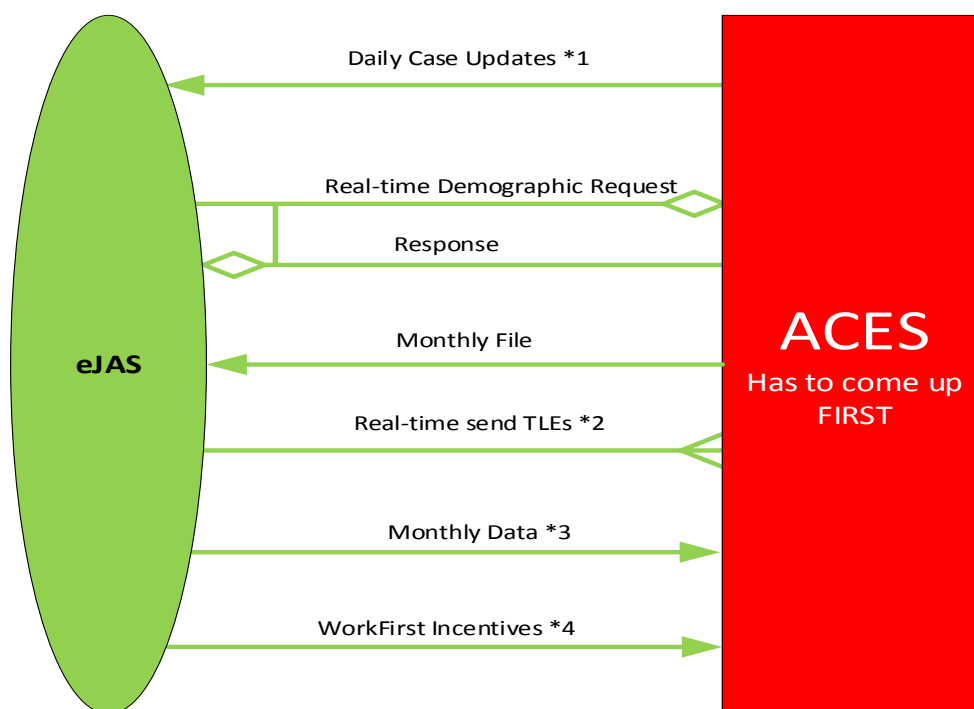
ACES receives information from SSPS on clients who receive SSPS payments. The purpose of the interface is to determine if a client is receiving payments from both systems (ACES and SSPS).

How often does the Social Service Payment System (SSPS) interface run?

The interface runs:

- When a new Assistance Unit (AU) is screened.
- When adding a person to an AU.
- One day prior to the date of an eligibility appointment.

## 16. ACES - eJAS (Electronic Jobs Automated System)



**electronic JOBS Automated System (eJAS)** is a computer application system managed by the Information Technology Solutions (ITS) Division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency.

### What is the eJAS interface?

- Daily Case Updates \*1 are extracted by ACES sent as an outgoing file transfer to eJAS.

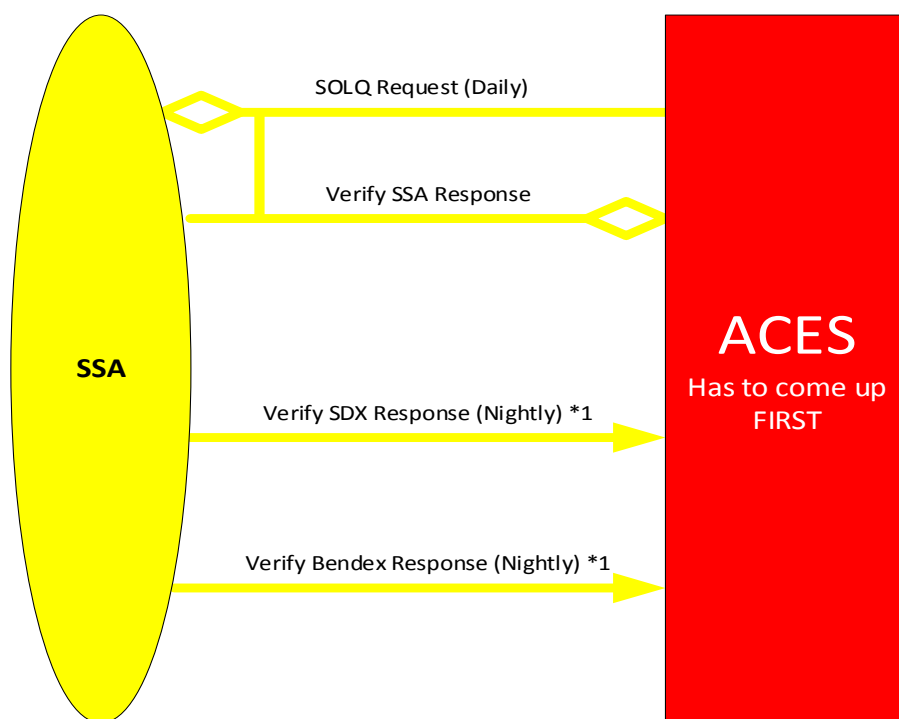
- Web Services are executed in ACES by eJAS, when eJAS needs to retrieve Client Details and Household Member information. In the future, eJAS shall retrieve this information from the Washing Connection (WaConn) computer application system.
- Near Real Time (NRT) CICS-based MQ background service is triggered in ACES when client TANF Extension review data is placed by eJAS into a message queue.
- WorkFirst Incentives \*4 data from EJAS is no longer being processed by ACES.

**Subsystems in eJAS umbrella are as follows:**

**eJAS (WorkFirst/BFET)** is Washington State's case management system for the families who are participating in the WorkFirst or the Basic Food Employment and Training (BFET) programs. It is a computer system that supports multiple end users, including staff from the Department of Social & Health Services (DSHS), Employment Security Department (ESD), Department of Commerce (COM), State Board for Community and Technical Colleges (SBCTC), and community-based service providers.

**eJAS (ORIA)** is Washington State's case management system to provide automation for clients programs offered by **Office of Refugee and Immigrant Assistance (ORIA)**. ORIA is located within the State of Washington, Department of Social and Health Services (DSHS), Economic Services Administration (ESA), Community Services Division (CSD). For more information, visit <https://www.dshs.wa.gov/esa/office-refugee-and-immigrant-assistance/>.

## 17. ACES - SSA (Social Security Administration)



**SSA (Social Security Administration)** represents a federal computer system, managed by U.S. Social Security Administration (SSA).

**What is the SSA (Social Security Administration) – State On-Line Query (SOLQ) Interface?**

CICS based service Real-Time external interface that allows ACES users to inquire on client data maintained by the Social Security Administration (SSA).

### What is the SSA (Social Security Administration) – State Data Exchange (SDX) Interface?

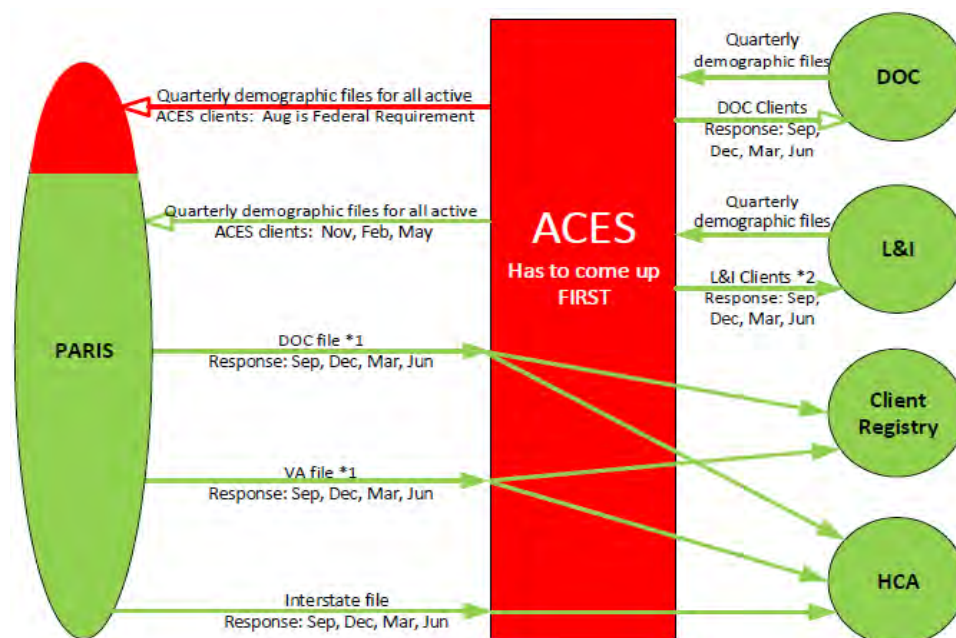
Daily incoming information ACES from Social Security Administration (SSA) on Supplemental Security Income (SSI) recipients living in Washington State.

### What is the SSA (Social Security Administration) – Beneficiary and Earnings Data Exchange (BENDEX) Interface?

The BENDEX interface provides ACES information about Social Security and Medicare entitlement for applicants and recipients.

This interface analyzes the incoming BENDEX data and compares it to the most current record on the ACES database. When appropriate, it compares against matching ACES case data to determine if the client requires an ACES AUTO update.

## 18. ACES - PARIS



**PARIS (Public Assistance Reporting Information System)** represents a federal computer system, managed by the Administration for Children and Families (ACF) of U.S. Health and Human Services, Department of (HHS). For PARIS system details, visit <https://www.acf.hhs.gov/paris>.

### What is the Public Assistance Reporting Information System (PARIS) interface?

PARIS is a data matching service matching recipients of public assistance to check if they receive duplicate benefits in two or more states. PARIS matches help identify improper payments and minimize fraud and abuse.

The quarterly PARIS interface provides the following information about benefits active ACES clients may be receiving from other states:

- Veteran's Administration (VA)
- Department of Defense (DOD)
- Interstate Match files

### What information is sent to the Federal Government?

The file sent from ACES contains information about clients who are active in the ongoing month at the time the file is created.

Clients who meet the following criteria are not included:

- Active on Take Charge Family Planning Services Only (P06) Medical.
- Active on Foster Care (FC)/Adoption Support (AS)/Juvenile Rehabilitation Administration (JRA) SSI Categorically Needy (D01) Medical or FC/AS/JRA Medical (D02).
- Financial responsibility of non-member and relationship other than spouse or child.

## 19. ACES - Client Registry

**Client Registry** represents a computer system, managed by the Research and Data Analysis (RDA) Division within the Services and Enterprise Support Administration (SESA) of Washington State Department of Social and Health Services (DSHS) Agency. For system information, visit <https://www.dshs.wa.gov/sesa/research-and-data-analysis/dshs-client-registry>.

### What is the PARIS - Client Registry interface?

- An interface where ACES sends client information to **Client Registry**, which ACES received from **DOC (Department of Corrections)** for PARIS interface processing.
- An interface where ACES sends client information to **Client Registry**, which ACES received from **Veteran's Administration (VA)** for PARIS interface processing.

## 20. ACES - HCA

**HCA (Health Care Authority)** represents a computer system, managed by the Washington State Health Care Authority (HCA) Agency. For agency information, visit <http://hca.wa.gov/>.

### What is the PARIS - HCA (Health Care Authority) interface?

- An interface where ACES sends client information to **HCA (Health Care Authority)**, which ACES received from **DOC (Department of Corrections)** for PARIS interface processing.
- An interface where ACES sends client information to **HCA (Health Care Authority)**, which ACES received from **Veteran's Administration (VA)** for PARIS interface processing.
- An interface where ACES sends client interstate match file information to **HCA (Health Care Authority)**, which ACES received from **PARIS**.

## 21. ACES - DOC (Department of Corrections)

**DOC (Department of Corrections)** represents a computer system, managed by the Washington State Department of Corrections (DOC) Agency. For agency information, visit <http://doc.wa.gov/>.

### What is the PARIS - DOC (Department of Corrections) interface?

An interface where ACES receives client information with SSN from the **DOC (Department of Corrections)** agency, sorted and merged by ACES with client information from other agencies, during quarterly PARIS interface processing.



## 22. ACES - L&I (Labor & Industries)

**Labor & Industries (L&I)** represents a computer system, managed by the Washington State Department of Labor & Industries (L&I) Agency. For agency information, visit <http://lni.wa.gov>.

### What is the PARIS - Labor and Industries (L&I) interface?

- An interface where ACES receives client information with SSN from the **Labor & Industries (L&I)** agency, sorted and merged by ACES with client information from other agencies, during quarterly PARIS interface processing.
- An interface where ACES sends a file to L&I that identifies active or pending cash recipients who are receiving worker's compensation payments.

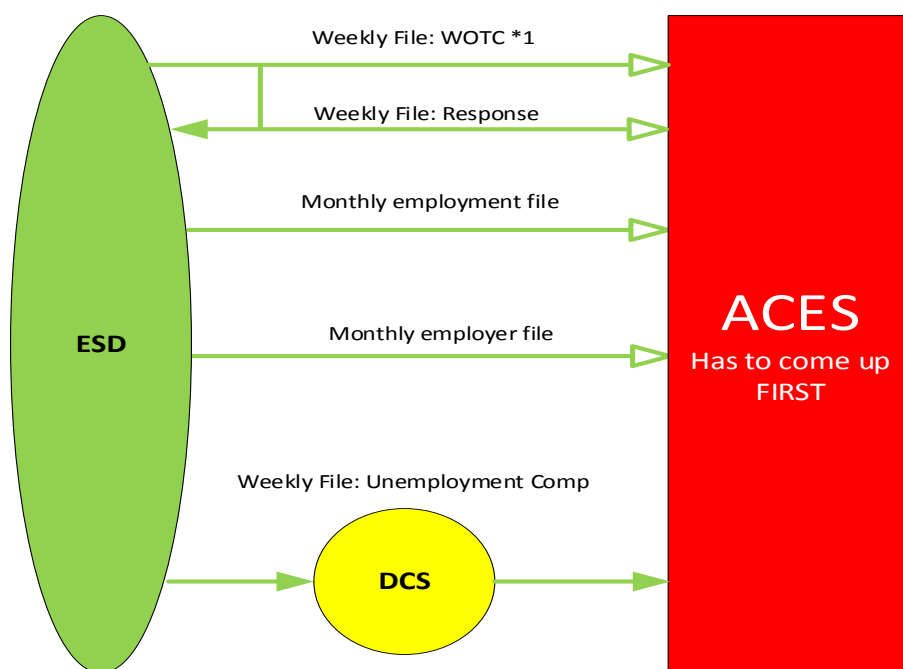
### How is information on this file used?

Matched records are sent to L&I and the Office of Financial Recovery (OFR) for possible overpayments.

### How often does the Labor and Industries (L&I) interface run?

The L&I interface runs weekly.

## 23. ACES - ESD



**Employment Security Department (ESD)** represents computer system/s, managed that Washington State agency. For agency information, visit <http://esd.wa.gov>.

### What is the Employment Security (ES) Wage interface?

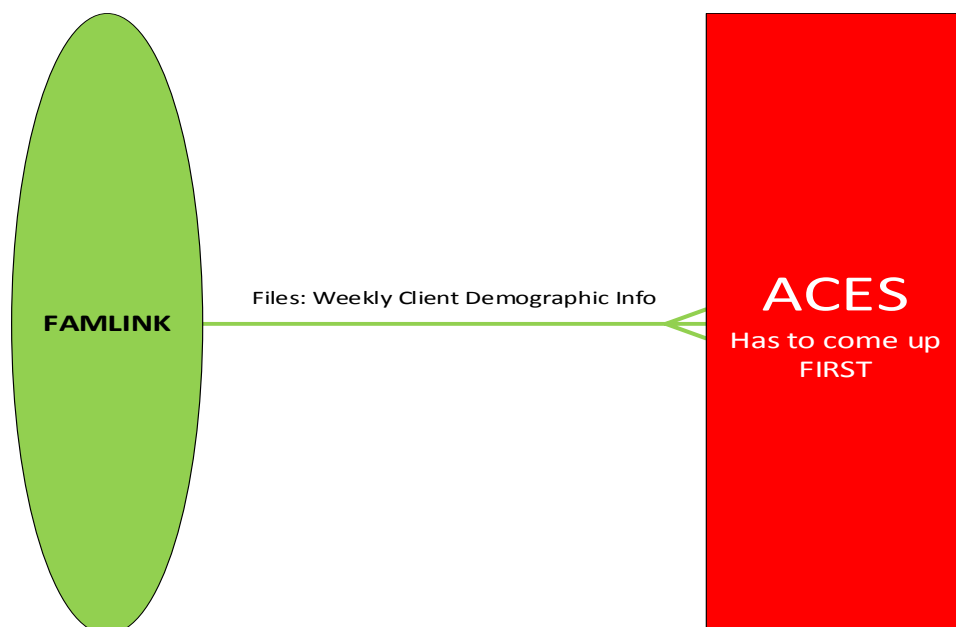
The ES Wage Interface is a monthly, one way interface sent from the Employment Security Department (ESD) to ACES which contains earnings data reported by employers in Washington.

### What is the Employment Security (ES) Unemployment Compensation (UC) interface?



The ES UC Interface is a weekly, one way interface from Employment Security Department (ESD) to ACES which contains unemployment data in Washington. Unemployment Tax and Benefits (UTAB) is the state's IT system for paying unemployment insurance (UI) benefits to workers who lose their job through no fault of their own.

## 24. ACES - FAMLINK

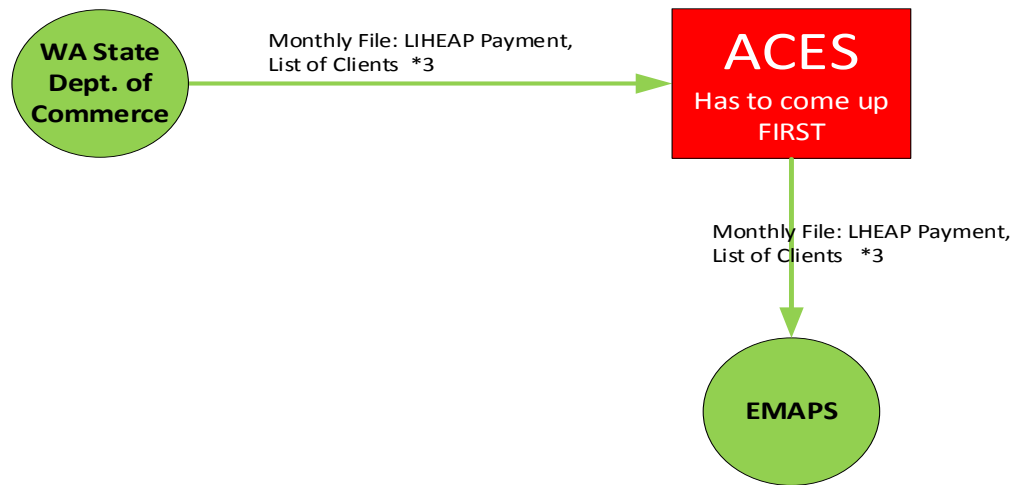


**FamLink** represents a computer system managed by Children's Administration (CA) of Washington State Department of Social and Health Services (DSHS) Agency. For DSHS Administration information, visit <https://www.dshs.wa.gov/ca/>.

### What is the FamLink interface?

FamLink is a case management system used by Children's Administration. The weekly interface from FamLink to ACES identifies foster care clients. Its purpose is to ensure households receive the correct Temporary Assistance for Needy Families (TANF) and Basic Food assistance when children have been removed from an active assistance unit.

## 25. ACES - WA State Department Of Commerce

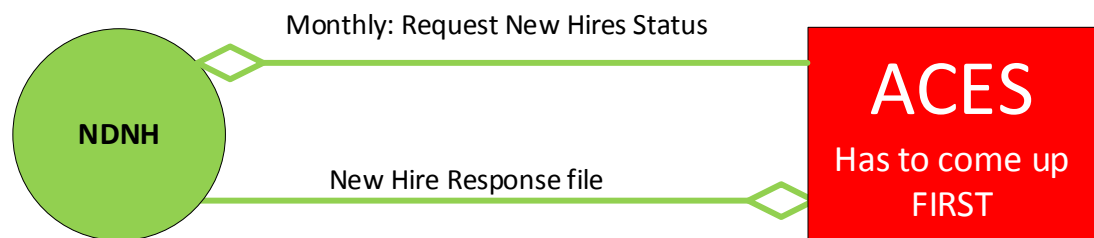


**WA State Department of Commerce** represents a computer system managed by a state agency. For agency information, visit <http://www.commerce.wa.gov/>.

#### What is the Department of Commerce Interface?

The Department of Commerce interface accepts information into ACES on a monthly basis. ACES receives the file on the first Tuesday of every month (or on the next business day if the first Tuesday is a holiday). The Department of Commerce provides a monthly file of recipients who received a Low-Income Home Energy Assistance Payment (LIHEAP) in the last 12 months. ACES refreshes the database monthly, which results in a rolling 12 month history. For LIHEAP information, visit <http://www.commerce.wa.gov/growing-the-economy/energy/low-income-home-energy-assistance/>

## 26. ACES - NDNH (National Directory of New Hires)



**National Directory of New Hires (NDNH)** represents a federal computer system, managed by the Office of Child Support Enforcement (OCSE) within the U.S. Administration for Children and Families (ACF) of the U.S. Health and Human Services Department (HHS). For NDNH system details, visit <https://www.acf.hhs.gov/css/resource/overview-of-national-directory-of-new-hires>

#### What is the National Directory of New Hires?

The NDNH is a national repository contains employment and unemployment insurance information that enables state child support agencies to be more effective in locating noncustodial parents and establishing and enforcing child support orders. State Directories of New Hires (SDNH), state workforce agencies (SWA), and federal agencies provide information to the NDNH.

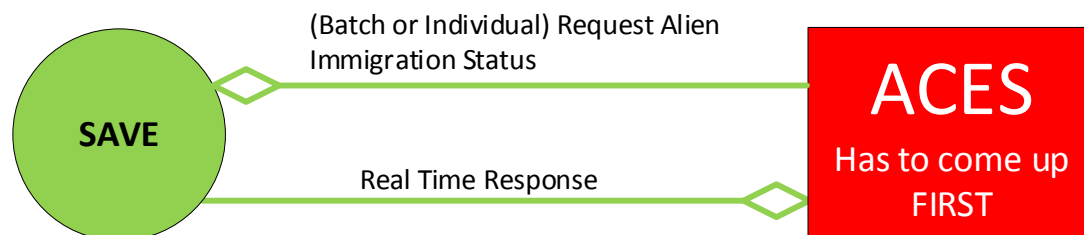
#### What clients does ACES send to the National Directory of New Hires (NDNH)?

- All applicants who have been approved for basic food (since the last outbound file) and all active basic food recipients with an Eligibility Review due within the next 2 months are sent to NDNH on a monthly basis.
- Clients with Work Only Social Security Numbers or listed as non-members will not be included in the outbound file.

#### When is information exchanged between ACES and the National Directory of New Hires (NDNH) Database?

- The outgoing file from ACES is sent on the last Friday of each month, containing client information to the NDNH to conduct matches.
- The incoming file from NDNH is received by ACES on the Monday following the last Friday of every month. ACES sends the information to Barcode on the same day.

### 27. ACES - Save (Systematic Alien Verification of Entitlements)

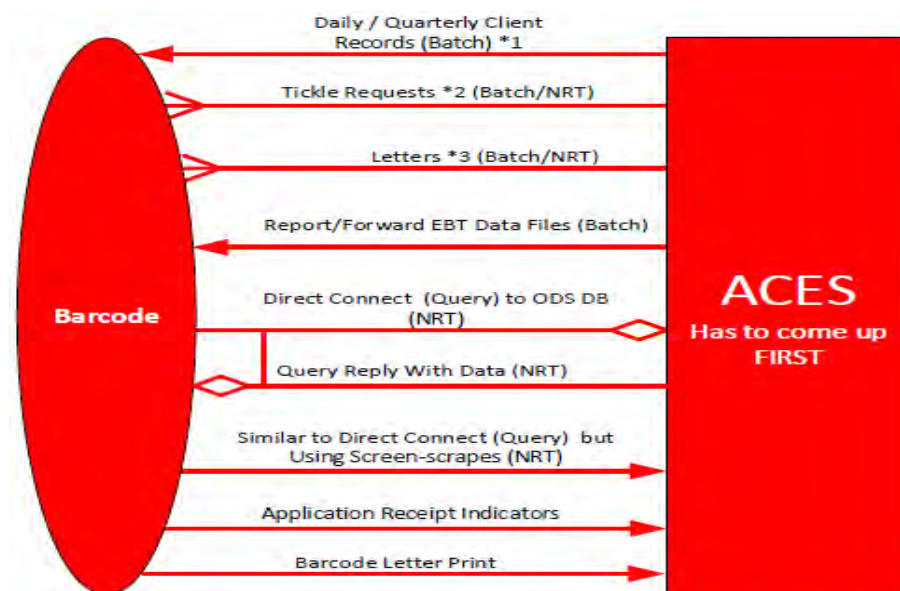


**Systematic Alien Verification for Entitlements (SAVE)** system interface consists of a federal web service with the U.S. Citizenship and Immigration Services (USCIS) Administration of the U.S. Department of Homeland Security (DHS). For SAVE system details, visit <https://www.uscis.gov/save>.

#### What is the Systematic Alien Verification for Entitlements (SAVE) interface?

The SAVE interface verifies immigration documents for documented aliens on Cash, Basic Food, or Medical assistance (except SSI Recipients), for both applicants and recipients. SAVE is an asynchronous application that runs in the background, after information is entered by the worker into ACES. This interface sends information to the United States Citizenship and Immigration Services' (USCIS) SAVE database and receives information back from USCIS' SAVE database.

### 28. ACES - Barcode

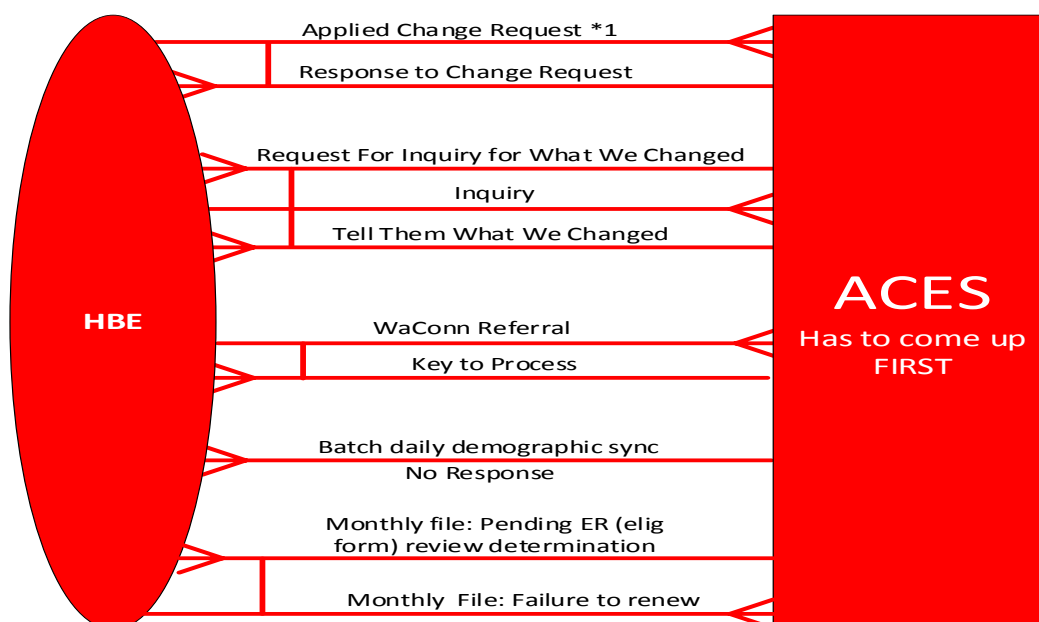


**Barcode** represents a collection of computer application sub-systems, managed by the Information Technology Solutions (ITS) Division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency.

**Barcode** provides computer application functionality to office workers for completing business processes, separate from Automated Client Eligibility System (ACES), such as, yet not limited to, the following subsystems:

- a. Document Management System (DMS) allows for scanning and indexing of documents, resulting in an Electronic Case Record (ECR);
- b. Local office workload scheduling and tracking of client appointments, including worker To-Do assignment tracking ("Tickles"), and office workload management reporting;
- c. Ad Hoc Queries against the Barcode database;
- d. Other business processes.

## 29. ACES - HBE (Health Benefit Exchange)



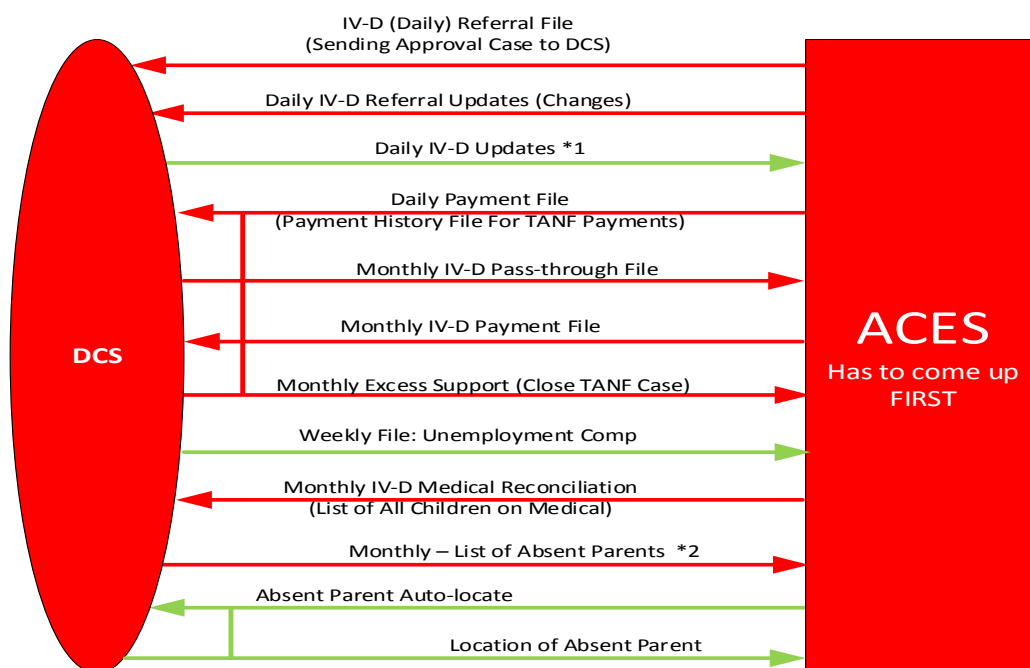
**Washington Health Benefit Exchange Organization** (<https://www.wahbexchange.org/>) represents a public-private partnership with Washington State for implementation of their state-based **Health Benefit Exchange**. To more information about the Washington State online marketplace, visit <https://www.wahealthplanfinder.org/>.

### What are the Healthcare Benefit Exchange (HBE) interfaces?

The HBE interfaces communicate data between ACES, the Eligibility Service (EServ) and the HBE to support eligibility determination and Medicaid expansion as required under the Affordable Care Act (ACA) of 2010. The required data is sent or received through the following interfaces or files:

- The Eligibility Service Request (Inbound) – This interface receives data elements required for eligibility determination from HBE.
- Eligibility Service Response (Outbound) – This interface sends data elements required for communicating eligibility results back to HBE.
- Request for Inquiry Service (Outbound) – This interface is to communicate the eligibility changes that take place in EServ and need to be updated in HBE.
- ACES to HBE Conversion File – This conversion file contains file layouts to transfer or convert existing active eligible ACES Medicaid client data to HBE. This facilitates an easier application and renewal process for clients.
- HBE – This data file is sent to the HBE notifying of any eligibility changes to MAGI clients due to changes made to ACES data. This is to ensure data remains in sync between eServ and HBE.
- HBE Data for Post Enrollment Review - This is a daily batch process interface from ACES to Health Care Authority (HCA). This interface provides HCA with information for Modified Adjusted Gross Income (MAGI) households that have income determined by EServ as not having reasonable compatibility to state or federal verification sources.

## 30. ACES - DCS (Division of Child Support)



**Division of Child Support** – DCS is a division within the Economic Services Administration (ESA) of Washington State Department of Social and Health Services (DSHS) Agency.

**What are the Division of Child Support (DCS) interfaces?**

ACES interfaces with Division of Child Support (DCS) to exchange information related to:

- Non-custodial parents,
- Child support payments,
- Health insurance coverage,
- Paternity, and
- New employment listings (New Hires File).

## Section 14 - ACES Modes of Operation

ACES operational complex currently supports seven different environments to manage application changes. They are the following:

- RELS:** Development and unit testing environment.
- DEVL:** Integration testing environment, also the environment where static code analysis and secure code analysis will be conducted
- SYTST:** System test environment by DSHS Testers for both manual and automated testing.
- UACPT:** User Acceptance Test environment.
- HBE-U:** User Acceptance environment exclusively for coordinated testing of Magi Eligibility Service and the Healthplanfinder.
- TRAIN:** Training environment.
- PROD:** Production environment.

## Section 16 - ACES Mainframe & Application Information

This section lists the current DSHS ACES application environment and its corresponding inventory. It is likely that there will be a variance between the system inventory shown below and that collected during the assessment phase due to normal Maintenance and Operations.

### 1. ACES Mainframe

| Description                   | Details                           | Comments  |
|-------------------------------|-----------------------------------|---|
| Current H/W Type and Model(s) | Processor Model: IBM 2964-N30-502 | Memory: 1.9 TB<br>Central Processors: 2<br>zIIP Processors: 2<br>IFL Processors: 10   |
|                               | Disk Model: IBM DS8870            | Capacity: 42 TB<br>Flashcopy: Yes<br>Connectivity: (4) 8GB FICON  |
|                               | Tape Model: IBM TS7720            | Capacity: 168 TB<br>Connectivity: (2) 8GB FICON   |
|                               | OSA Cards                         | (8) OSA-Express5S GbE SX 2 ports - 4 ports on 4 cards in use<br>(6) OSA-Express5S 10 GbE SR 1 port – Non in use at this time<br>(4) OSA-Express5S 1000BASE-T 2 ports – 2 ports on 2 cards in use for Console support  |
| Current O/S & Version No.     | z/OS 2.1<br>z/VM 6.4<br>SLES 12   |   |
| Serial Number                 | Serial Number can't be provided   |   |
| Memory                        | 1952 GB                           |   |
| Total MIPS rating of Server   | 1417                              | The actual usage depends on the daily online, batch and other activities, and varies throughout the month.)<br><br>z/OS<br>Peak production prime shift is 80% (1134 MIPS).<br>Peak off prime shift is 90% (1275 MIPS) |



| Description                         | Details  | Comments   |
|-------------------------------------|--|--|
|                                     |  | <p>CICS peak is 80% (1134 MIPS).<br/>Batch COBOL is 40% (567 MIPS).<br/>IMS is reported as part of CICS and batch due to how IMS is configured.</p> <p>DB2 varies from 15% to 50% based on adhoc workload. Some DDF DB2 calls from clients dispatch on the 2 zIIP processors.</p> <p>The zIIPs have 3370 MIPS. Prime shift peaks are 30% (1011 MIPS).<br/>z/VM Peaks<br/>Prime shift 4893 MIPS<br/>Off Shift 5460 MIPS</p> |
| Total number of LPARS or Partitions | 6  |  |
| LPARs Configuration:                | <b>PRD1 -</b><br>Primary Production, Test and Development                            | OS: z/OS 2.2<br>Memory: 32 GB<br>Processors: 2<br>zIIP: 2<br>Sub-Systems: CICS, IMS, DB2, WMQ, JES2  |
|                                     | <b>PRD5 -</b><br>High availability DB2 and WebSphere MQ<br>(Production only)         | OS: z/OS 2.2<br>Memory: 16 GB<br>Processors: 2<br>zIIP: 2<br>Sub-Systems: DB2, WMQ   |
|                                     | <b>TST4 -</b><br>Operating System Software Testing                                   | OS: z/OS 2.2<br>Memory: 12 GB<br>Processors: 2<br>zIIP: 2<br>Sub-Systems: CICS, IMS, DB2, WMQ  |
|                                     | <b>ACESVM21 -</b><br>Single System Image host number 1                               | OS: z/VM 6.4<br>Memory: 400 GB<br>IFL: 10  |
|                                     | <b>ACESVM22 -</b><br>Single System Image host number 2                               | OS: z/VM 6.4<br>Memory: 400 GB<br>IFL: 10  |
|                                     | <b>ACESVM23 -</b><br>Single System Image host number 3<br>(Used to roll maintenance) | OS: z/VM 6.4<br>Memory: 400 GB<br>IFL: 10  |
| Printers                            | Canon PRISMA router for central printing at Department of Enterprise Services        |  |

| Description   | Details  | Comments  |
|---|--|---|
| ISPF Panels   | 20   | These are general dialog panels are not connected to the application. Some of these called from CLIST   |
| Total Number of TSO end users                           | 100  | ISPF use is in direct support of applications. TSO users include application developers, testers and technical support teams.                             |
| Total Number of TSO concurrent users                    | 80   |   |
| CICS Environments                                       | 7  | Refer to the Section 14 - ACES Modes of Operations  |
| Total Number of CICS Regions                            | 17   | Refer to the Section 14 - ACES Modes of Operations  |
| Total Number of end users accessing CICS screens        | 3000   |   |
| Total Number of concurrent users accessing CICS Screens | 150  |   |
| Total Number of end users accessing Web Pages           | Intranet: 5400 end user<br>Internet: Unknown   | ACES.online: Intranet Washington<br>Connection: Internet  |
| Total Number of concurrent users accessing Web Pages    | Intranet: 3000 concurrent users<br>Internet: Unknown   | ACES.online: Intranet Washington<br>Connection: Internet  |
| RACF users  | <ul style="list-style-type: none"> <li>11,000 defined users</li> <li>3,200 active users</li> </ul>                           |   |
| RACF profiles, groups and resources                     | <ul style="list-style-type: none"> <li>1,200 dataset profiles</li> <li>509 groups</li> <li>2200 general resources</li> </ul> |   |
| Messaging Queue (MQ)                                    | Yes  |   |
| CICS Transaction Gateway (CTG)                          | Yes  |   |
| CTG JCA Resource Adapter                                | Yes  | The CICS JCA resource adapters are used to support connectivity from JEE application servers to CICS using the facilities of the CICS Transaction Gateway |
| CICS Web Services                                       | Yes  |   |

| Description                                      | Details                                   | Comments   |
|--|---|--|
| Universal Client (ECI) based capabilities of CTG | Yes                                       |  |
| Common Client (SNA, TCP/IP)                      | Yes                                       |  |
| CICS Sockets                                     | Yes                                       | Only via a single Web service  |
| CICSPlex Configuration                           | No  |  |
| Number of IMS DBCTL Sub-Systems                  | 7   |  |
| Number of DB2 for z/OS Sub-Systems               | 8   |  |
| Transaction Routing                              | No  |  |
| Emulator   | QUICK 3270                                | QUICK 3270 is used to access the mainframe and CICS  |
| 4GLs   | No  | No 4GLs exist in the environment   |
| Batch Scheduler                                  | Tivoli Workload Scheduler for z/OS V9R2M0 |  |
| FORMs / OVERLAYs                                 | No  | DSHS uses fully composed AFP print for ACES so the forms and fonts are included for 8 supported languages. |

## 2. ACES z/VM Linux Servers

These counts below are number of installations, not number of servers.

| Description                                     | Production | Non-Production |
|---|------------|----------------|
| WebSphere Application Server                    | 12         | 37             |
| WebSphere Application Server Deployment Manager | 5          | 13             |
| DB2   | 6          | 14             |
| InfoSphere Information Server                   | 2          | 4              |
| Cognos  | 1          | 2              |
| Operational Decision Manager                    | 2          | 8              |
| HTTP  | 5          | 18             |
| LDAP  | 3          | 8              |

|        |   |    |
|--------|---|----|
| Others | 4 | 11 |
|--------|---|----|

### 3. Application z/OS Application Counts

|  |   |
|--|---|
| <b>COBOL Batch</b>                     |   |
| # Programs                             | 689                                     |
| # Lines                                | 1.25 Million (excluding commented code) |
| # IMS PSB                              | 426                                     |
| # DB2 Packages                         | 94                                      |
| # DB2 Plans                            | 13                                      |
| <b>COBOL CICS</b>                      |   |
| # Programs                             | 552                                     |
| # Lines                                | 1.38 Million (excluding commented code) |
| # BMS Source                           | 254                                     |
| # BMS Lines                            | 67113                                   |
| # TRANIDS                              | 462                                     |
| # IMS PSB                              | 380                                     |
| # DB2 Packages                         | 88                                      |
| # DB2 Plans                            | 16                                      |
| <b>Common Copybooks</b>                |   |
| # COPYLIBS                             | 1813                                    |
| # DCLGEN                               | 889                                     |
| # INCLUDES                             | 2195                                    |
| # Lines                                | 476K (excluding commented code)         |
| <b>Pitney Bowes StreamWeaver Batch</b> |   |
| # Programs                             | 10                                      |
| # Lines                                | 4639                                    |

| <b>JCL's, Procedures &amp; SYSINS</b> |   |
|---------------------------------------|---|
| # JCL's/Jobs                          | 4600  |
| # JCL Lines                           | 300,000<br><i>(Includes BMP Jobs. JCL substitutions exists and Tivoli Workload Scheduler sets dates in JCL when the schedule is loaded every day. Jobs use INTRDR.)</i> |
| # Job Steps                           | 110000  |
| # JCL/Procedures                      | 1169  |
| # JCL/Procedures Lines                | 132000  |
| # Procedure Steps                     | 7000  |
| # SYSIN's                             | 4565  |
| # SYSIN's Lines                       | 105,000   |
| <b>Messaging Queues (MQ)</b>          |   |
| # MQ's                                | 80  |
| <b>Messaging Queues (MQ)</b>          |   |
| # Base GDG's                          | 1000  |
| # Total GDG's                         | 25,000  |
| <b>REXX</b>                           |   |
| # Programs                            | 100   |
| # Lines                               | 35,000<br><i>(REXX programs are used to support operations. They run on z/OS for operational purposes.)</i>   |
| <b>CLIST</b>                          |   |
| # Programs                            | 100   |
| <b>Assembler Programs</b>             |   |
| # Programs                            | < 10  |
| # Lines                               | 298<br><i>(The Assembler programs are not at macro level. The assembler source files are called directly in JCL.)</i>   |

|   |   |
|---|---|
|   | <p><i>The Assembler code is used to dynamically allocate and deallocate SYSOUT datasets when printing letters and alter IMS Segments when reloading databases as part of structural changes.</i></p> <p><i>One Application assembler module to dynamically allocate/de-allocate SYSOUT files. )</i></p> |
| <b>COBOL Stored Procedures</b>  |   |
| # Programs  | 8   |
| # Lines   | <p>6000</p> <p><i>(These stored procedures are used in application and to maintain specialized DB2 tables.)</i></p>   |
| <b>SQL Stored Procedures</b>  |   |
| <p><i>These stored procedures are triggered based on updates to ODS tables.</i></p> |   |

#### 4. Application z/Linux WEB Application Counts

|   |        |
|---|--------|
| <b>Java</b>   |        |
| <b>ACES Online – Intranet Application</b>           |        |
| # Classes   | 1872   |
| # Lines of Java Code                                | 287577 |
| # JSP Files   | 467    |
| # JavaScript Files                                  | 12     |
| # CSS Files   | 7      |
| <b>ACES 3G – Intranet Application</b>               |        |
| # Classes   | 2157   |
| # Lines of Java Code                                | 409765 |
| # JSP Files   | 104    |
| # JavaScript Files                                  | 13     |
| # CSS Files   | 11     |
| <b>Washington Connection – Internet Application</b> |        |

|   |        |
|---|--------|
| # Classes   | 1486   |
| # Lines of Java Code  | 190640 |
| # JSP Files   | 408    |
| # JavaScript Files  | 44     |
| # CSS Files   | 11     |
| <b>Eligibility Service (ESERV) – Intranet Service</b>         |        |
| # Classes   | 1059   |
| # Lines of Java Code  | 76125  |
| # JSP Files   | 8      |
| # JavaScript Files  | 0      |
| # CSS Files   | 3      |
| <b>Content Management System (CMS) – Intranet Application</b> |        |
| # Classes   | 363    |
| # Lines of Java Code  | 30942  |
| # JSP Files   | 50     |
| # JavaScript Files  | 57     |
| # CSS Files   | 14     |
| <b>Profile Management System (PMS) – Intranet Application</b> |        |
| # Classes   | 246    |
| # Lines of Java Code  | 33039  |
| # JSP Files   | 35     |
| # JavaScript Files  | 15     |
| # CSS Files   | 6      |
| <b>SAVE</b>   |        |
| # Classes   | 18     |
| # Lines of Java Code  | 2970   |

| <b>SAVE Admin – Intranet Application</b>   |       |
|--|-------|
| # Classes                                  | 88    |
| # Lines of Java Code                       | 6016  |
| # JSP Files                                | 20    |
| # JavaScript Files                         | 16    |
| # CSS Files                                | 7     |
| <b>Test Harness – Intranet Application</b> |       |
| # Classes                                  | 164   |
| # Lines of Java Code                       | 18554 |
| # JSP Files                                | 7     |
| # JavaScript Files                         | 3     |
| # CSS Files                                | 2     |
| <b>Logging Framework</b>                   |       |
| # Classes                                  | 65    |
| # Lines of Java Code                       | 2505  |

## 5. ACES Data (Production)

| <b>IMS Databases</b>                         |   |
|--|---|
| # Core Databases                             | 154   |
| # Copy for Analysis                          | 36<br><i>(These are copies made once a week of the major databases for analysis purposes)</i> |
| Core Database Size                           | 461 GB  |
| Copy for Analysis Size                       | 377 GB  |
| <b>DB2 Core Databases (ACES/ESERV/WACON)</b> |   |
| # Databases                                  | 30  |
| # Tables                                     | 575   |



|  |         |
|--|---------|
| # Views  | 108     |
| # Stored Procedures  | 4       |
| # Triggers   | 137     |
| <b>DB2 ODS Replicate Tables</b>  |         |
| # Databases  | 2       |
| # Tables   | 138     |
| # Views  | 3       |
| # Stored Procedures  | 4       |
| # Triggers   | 12      |
| <b>Data Warehouse on z/OS</b>  |         |
| # Databases  | 2       |
| # Tables   | 192     |
| # Views  | 192     |
| # Stored Procedures  | 0       |
| # Triggers   | 0       |
| <b>DB2 Database Size (Includes DB2 Core, DB2 ODS &amp; Data Warehouse)</b> |         |
| Total Size   | 1975 GB |
| <b>VSAM</b>  |         |
| # Files  | 65      |
| Total Size   | 7.2 GB  |
| <b>Sequential Files</b>  |         |
| # Files  | 12847   |
| Total Size   | 176 GB  |
| <b>PDS Files</b>   |         |
| # Files  | 408     |
| Total Size   | 14 GB   |
| <b>z/VM Linux Disk</b>   |         |

|                |         |
|----------------|---------|
| # Disk Volumes | 46      |
| Total Size     | 1497 GB |

## 6. ACES Data (Non-Production)

|  |       |
|--|-------|
| <b>IMS Databases</b>   |       |
| # Core Databases   | 984   |
| Core Database Size   | 42 GB |
| <b>DB2 Core Databases (ACES/ESERV/WACON)</b>                               |       |
| # Databases  | 189   |
| # Tables   | 3450  |
| # Views  | 768   |
| # Stored Procedures  | 24    |
| # Triggers   | 822   |
| <b>DB2 ODS Replicate Tables</b>  |       |
| # Databases  | 12    |
| # Tables   | 828   |
| # Views  | 18    |
| # Stored Procedures  | 24    |
| # Triggers   | 72    |
| <b>Data Warehouse on z/OS</b>  |       |
| # Databases  | 12    |
| # Tables   | 1152  |
| # Views  | 1152  |
| # Stored Procedures  | 0     |
| # Triggers   | 0     |
| <b>DB2 Database Size (Includes DB2 Core, DB2 ODS &amp; Data Warehouse)</b> |       |

|                              |         |
|------------------------------|---------|
| Total Size                   | 101 GB  |
| <b>VSAM</b>                  |         |
| # Files                      | 450     |
| Total Size                   | 10.6 GB |
| <b>Sequential Files</b>      |         |
| # Files                      | 23771   |
| Total Size                   | 23.1 GB |
| <b>PDS Files</b>             |         |
| # Files                      | 1948    |
| Total Size                   | 70 GB   |
| <b>z/VM Linux Disk</b>       |         |
| # Disk Volumes               | 137     |
| Total Size                   | 4284 GB |
| <b>z/VM Linux Spare Disk</b> |         |
| # Disk Volumes               | 34      |
| Total Size                   | 741 GB  |

## 7. ACES Mainframe Utilization

### a. Single Day Usage

|   |               |
|---|---------------|
| <b>CICS</b> <i>(The following table represents the single day usage 12/11/2017)</i> |               |
| <b>3270 Transactions</b>  |               |
| # Transactions  | 247,702       |
| Average Response  | 0.019 (Sec)   |
| CPU Consumed  | 444,778 (Sec) |
| IMS/DB2 Calls   | 15,891,714    |
| <b>WEB Transactions</b>   |               |
| # Transactions  | 1,610,781     |

|                              |                |
|------------------------------|----------------|
| Average Response             | 0.016 (Sec)    |
| CPU Consumed                 | 4078.907 (Sec) |
| IMS/DB2 Calls                | 162,742,344    |
| <b>z/OS Peak Hour</b>        |                |
| <b>CPU Utilization</b>       |                |
| Hour                         | 14:00 – 14:59  |
| PRD1 LPAR                    | 44.4%          |
| PRD5 LPAR                    | 8.3%           |
| TOTAL                        | 52.7%          |
| <b>z/VM Peak Hour</b>        |                |
| <b>IFL Utilization</b>       |                |
| Hour                         | 20:00 – 20:59  |
| ACESVM21 LPAR                | 126.53%        |
| ACESVM22 LPAR                | 146.13%        |
| ACESVM23 LPAR                | 273.38%        |
| TOTAL                        | 273.38%        |
| <b>Website Traffic</b>       |                |
| <b>ACES.online</b>           |                |
| Hour                         | 08:00 – 08:59  |
| # Hits                       | 296,044        |
| # Files                      | 154,921        |
| # Pages                      | 199,734        |
| <b>Washington Connection</b> |                |
| Hour                         | 11:00 – 11:59  |
| # Hits                       | 68,954         |
| # Files                      | 137,673        |
| # Pages                      | 17,345         |

## b. Historical

|   |             |
|---|-------------|
| <b>CICS</b> <i>(The following table represents historical high water marks – not at a single point in time)</i> |             |
| <b>3270 Transactions</b>  |             |
| # Transactions  | 450,000     |
| Average Response  | 0.019 (Sec) |
| <b>WEB Transactions</b>   |             |
| # Transactions  | 1,800,000   |
| Average Response  | 0.016 (Sec) |
| <b>z/OS Peak Hour</b>   |             |
| <b>CPU Utilization</b>  |             |
| PRD1 LPAR   | 90%         |
| PRD5 LPAR   | 15%         |
| <b>z/VM Peak Hour</b>   |             |
| <b>IFL Utilization (Note: 10 IFL = 1000%)</b>   |             |
| ACESVM21 LPAR   | 250%        |
| ACESVM22 LPAR   | 350%        |
| ACESVM23 LPAR   | 15%         |
| <b>Website Traffic Peak Hour</b>  |             |
| <b>ACES.online</b>  |             |
| # Hits  | 3,300,000   |
| # Files   | 2,600,000   |
| # Pages   | 3,100,00    |
| <b>Washington Connection</b>  |             |
| # Hits  | 75,000      |
| # Files   | 150,000     |

|         |        |
|---------|--------|
| # Pages | 95,000 |
|---------|--------|

## 8. ACES Mainframe Batch Window

- 8:00 PM to 4:00 AM (Monday thru Friday)
- 4:00 PM Saturday to 4:00 AM Monday (When ACES is scheduled to be available on Saturday)
- 8:00 PM Friday to 4:00 AM Monday (Due to scheduled batch processing activities for ex: monthly issuance, month begin/end processes)

## Section 16 - ACES Mainframe Application Software's

### 1. ACES z/OS and z/VM Software's

The following list contains the OS, Database Management System (DBMS), communication, monitoring, middleware, and other tools that run in the z/OS and z/VM environment.

License types:

- ALC – Annual License Charge
- MLC – Monthly License Charge
- MMC – Monthly Maintenance Charge
- OTC – One Time Charge

| Item #               | Vendor | Product Name                   | License Type | Purpose of Product  |
|----------------------|--------|--------------------------------|--------------|---|
| <b>z/OS Platform</b> |        |                                |              |   |
| 1                    | IBM    | DB2 v11 for z/OS               | MLC          | DB2 database support for mainframe                        |
| 2                    | IBM    | OMEGAMON/CICS                  | ALC          | Performance monitoring for CICS                           |
| 3                    | IBM    | OMEGAMON/MVS                   | ALC          | Performance monitoring for MVS                            |
| 4                    | IBM    | OMEGAMON for MQ z/OS           | ALC          | Performance monitoring for MQ                             |
| 5                    | IBM    | OMEGAMON XE for DB2 PE V4      | ALC          | Performance monitoring for DB2                            |
| 6                    | IBM    | IMS Database Manager v13       | MLC          | IMS database support                                      |
| 7                    | IBM    | AFP Font Collection for OS/390 | OTC          | Various fonts for mainframe printing                      |
| 8                    | IBM    | DB2 Utilities Suite            | ALC          | DB2 database utilities                                    |
| 9                    | IBM    | AFP Toolbox for MVS            | MMC          | Includes API used for Letters printing                    |
| 10                   | IBM    | IMS Index Builder              | ALC          | Recover and build IMS DB indexes                          |
| 11                   | IBM    | IMS HP Unload                  | ALC          | High Performance Load Utility (Backup/Recovery) for IMS   |
| 12                   | IBM    | IMS HP Load                    | ALC          | High Performance Unload Utility (Backup/Recovery) for IMS |

| Item # | Vendor | Product Name                            | License Type | Purpose of Product  |
|--------|--------|---|--------------|---|
| 13     | IBM    | Debug Tool Utils & AF V13.1             | ALC          | Provide developers with a tool to debug code during testing |
| 14     | IBM    | XML Toolkit z/OS                        | ALC          | XML Tools for z/OS, DB2, CICS                               |
| 15     | IBM    | IMS Library Integrity Utilities         | ALC          | Utilities to manage IMS DBD, PSB and ACB processes          |
| 16     | IBM    | PRT SRV FACILITY V4 for z/OS and OS/390 | MLC          | INFO 4000 printer driver                                    |
| 17     | IBM    | CICS Transaction Gateway                | ALC          | Web traffic gateway to CICS transactions                    |
| 18     | IBM    | CICS TS v5                              | ALC          | CICS Transaction processing                                 |
| 19     | IBM    | Data Encryption IMS and DB2             | ALC          | Data Encryption for HBE environment                         |
| 20     | IBM    | WebSphere MQ Base for z/OS v8           | MLC          | Message Queuing for mainframe platform                      |
| 21     | IBM    | Classic Event Pub IMS S&S               | ALC          | Capture and replicate IMS data to DB2 tables (ODS)          |
| 22     | IBM    | Enterprise Cobol V5.1                   | MLC          | COBOL language support                                      |
| 23     | IBM    | IMS Tools Base for z/OS                 | ALC          | Hardware (data file) compression for IMS                    |
| 24     | IBM    | Page Printer Formatting Aid / 370       | MMC          | ADM uses for generating new print formats                   |
| 25     | IBM    | z/OS Version 2.1                        | MLC          | Operating system for host and tape management               |
| 26     | IBM    | z/OS V2 XL C/C++                        |              | C /C++ Languages Compiler. No C/C++ application code exists |
| 27     |        | z/OS V2 DFSMS dsshsm                    |              | Backup, Recovery and Disk Space Management                  |
| 28     |        | z/OS V2 DFSMS rmm                       |              | Tape Management   |
| 29     |        | z/OS V2 DFSORT                          |              | Sorting Utility   |
| 30     |        | z/OS V2 HLASM Toolkit                   |              | High-Level Assembler tools                                  |
| 31     |        | z/OS V2 RMF                             |              | System Performance reporting                                |
| 32     |        | z/OS V2 SDSF                            |              | Search and Display Spool files                              |
| 33     |        | z/OS V2 Security Server                 |              | RACF  |
| 34     | IBM    | Fault Analyzer V13.1                    | ALC          | Fault Analyzer - organizes and simplifies abend dumps       |



| Item #               | Vendor               | Product Name                                   | License Type         | Purpose of Product  |
|----------------------|----------------------|--|----------------------|---|
| 35                   | IBM                  | File Manager V13.1                             | ALC                  | File Manager - for viewing files and data fixes                       |
| 36                   | IBM                  | DB2 Analytics Accelerator                      | ALC                  | High performance DB2 queries  |
| 37                   | IBM                  | Tivoli Decision Support (TDS) z/OS V1.8        | ALC                  | Performance Reporter - used for capacity planning                     |
| 38                   |                      | TDS-CICS Option                                |                      | CICS Feature  |
| 39                   |                      | TDS Sys Performance Option                     |                      | System Performance feature  |
| 40                   | IBM                  | NetView Access Services                        | ALC                  | Multi-session product - NVAS  |
| 41                   | IBM                  | Tivoli Workload Scheduler                      | ALC                  | Job scheduler for batch on MF   |
| 42                   | IBM                  | Tivoli Monitoring Services z/OS                | ALC                  | Tivoli Tools Framework  |
| 43                   | IBM                  | DB/DC Data Dictionary V1                       | MMC                  | IMS definitions repository  |
| 44                   | Allen Systems Group  | JOB/SCAN                                       | ALC                  | Change, verify and standardize JCL                                    |
| 45                   | GT Software          | ASSIST/GT                                      | ALC                  | Screen level and field level help support                             |
| 46                   | Levi, Ray & Shoup    | VTAM Printer Support (VPS)                     | ALC                  | Remote printer support  |
| 47                   |                      | VPS/PCL  |                      | Remote printer support - AFP to PCL conversion                        |
| 48                   |                      | VPS/TCP/IP                                     |                      | Remote printer support - TCP/IP feature                               |
| 49                   | BMC                  | Partitioned Database Facility (PDF) for IMS V3 | Site w/Annual Maint. | Better database performance for partitioning                          |
| 50                   | Pitney Bowes         | StreamWeaver                                   | <b>State License</b> | Pitney Bowes for Duplex Print, etc.                                   |
| 51                   | William Data Systems | FTPAlert                                       | ALC                  | Meet enhanced functional needs for file transfers to outside agencies |
| <b>z/VM Platform</b> |                      |  |                      |   |

| Item # | Vendor | Product Name                   | License Type | Purpose of Product |
|--------|--------|--------------------------------|--------------|--------------------|
| 52     | IBM    | Directory Maintenance Facility | ALC          | VM/Linux Support   |
| 53     | IBM    | Performance Toolkit            | ALC          | VM/Linux Support   |
| 54     | IBM    | z/VM Version 6                 | ALC          | VM/Linux Support   |
| 55     | IBM    | z/VM Single System Image       | ALC          | VM/Linux Support   |

## 2. ACES Linux Software

The following list contains the OS, DBMS, communication, monitoring, middleware and other tools that run in the Linux environment.

| Item # | Vendor         | Product Name  | License Type | Purpose of Product  |
|--------|----------------|---|--------------|---|
| 1      | Novell         | SUSE Linux Enterprise Server for X86, AMD64 & Intel EM64T, Itanium & IBM Power Processors | IFL          | Workstation based Linux for Linux administration                          |
| 2      | Novell         | SUSE Linux Enterprise Server for IBM zSeries  | ALC          | Linux servers for aces.online, eServ, ODM, etc.                           |
| 3      | Novell         | SUSE Manager for Linux  | ALC          | Provide efficient management of Linux servers.                            |
| 4      | IBM            | DB2 Enterprise Server Edition   | ALC          | DB2 for the Data Warehouse and z/VM environments                          |
| 5      | IBM WebSphere  | Application Server Network Deployment   | ALC          | aces.online application server for each environment                       |
| 6      | IBM InfoSphere | DataStage and QualityStage Designer Linux for System z                                    | ALC          | BI ETL Development workbench  |
| 7      | IBM InfoSphere | DataStage Linux for System z  | ALC          | BI ETL Tool - Production  |
| 8      | IBM InfoSphere | DataStage for Non-Production Environments Linux for System z                              | ALC          | BI ETL Tool - Development/Test  |
| 9      | IBM InfoSphere | Information Analyzer Linux for System z   | ALC          | BI Information Analyzer   |
| 10     | IBM InfoSphere | Information Analyzer Workbench Linux on System z  | ALC          | BI Information Analyzer Workbench   |
| 11     | IBM InfoSphere | Metadata Workbench for Linux on System z  | ALC          | BI Metadata Workbench   |
| 12     | IBM InfoSphere | Information Governance Catalog Linux on system z  | ALC          | BI Glossary, BI Glossary Workbench, BI Glossary Anywhere - Production PVU |

| Item # | Vendor         | Product Name  | License Type | Purpose of Product  |
|--------|----------------|---|--------------|---|
| 13     | IBM InfoSphere | Information Governance Catalog for Non-Production Environments on Linux for System z                      | ALC          | BI Glossary and BI Glossary Anywhere - Development/Test PVU |
| 14     | IBM Tivoli     | Storage Productivity Center Basic Edition Server  | ALC          | Storage management for disk array                           |
| 15     | IBM            | Security Key Lifecycle Manager - Basic  | ALC          | Store and manage encryption key for disk.                   |
| 16     | IBM            | Security Key Lifecycle Manager – Client Device  | ALC          | Store and manage encryption key for disk.                   |
| 17     | IBM WebSphere  | ODM Decision Center   | ALC          | Rules Engine development, testing and deployment            |
| 18     | IBM WebSphere  | ODM Decision Server Rules Edition for Linux on System z   | ALC          | Rules Engine runtime execution services                     |
| 19     | IBM WebSphere  | MQ for zEnterprise BladeCenter Extension and Linux on System z  | ALC          | MQ traffic for LINUX platform                               |
| 20     | IBM            | Web Content Manager Standard Edition for Linux on Z   | ALC          | Manage static web page content                              |
| 21     | IBM Cognos     | Business Intelligence Analytics Administrator for zEnterprise BladeCenter Extension and Linux on System z | ALC          | Admin for enterprise DW                                     |
| 22     | IBM            | Connections Authorized User for Linux on System z   | ALC          | Admin for enterprise DW                                     |

### 3. ACES Windows Software

The following list contains the tools that run in the Windows environment.

| Item # | Vendor                        | Product Name                          | License Type | Purpose of Product                         |
|--------|-------------------------------|---------------------------------------|--------------|--|
| 1      | Allen Systems Group (ASG)     | Cypress                               | ALC          | Reports management system                  |
| 2      | Intelligent Search Technology | CORRECTADDRESS (5 Servers)            | ALC          | Address verification                       |
| 3      | Motio, Inc.                   | Motio CI (3 Servers)                  | ALC          | Data Warehouse change management tool      |
| 4      | IBM                           | Database Enterprise Developer Edition | ALC          | For DBA development in Windows environment |

| Item # | Vendor       | Product Name   | License Type | Purpose of Product  |
|--------|--------------|--|--------------|---|
| 5      | IBM          | DB2 Connect Enterprise Edition 25 Floating Users           | ALC          | To support ODBC access to ODS in mainframe DB2                |
| 6      | IBM          | DB2 Connect Personal Edition Client Device                 | ALC          | Used for developers to access the mainframe DB2 UDB databases |
| 7      | IBM          | Host Access Client Package for Multiplatform               | ALC          | ACES Mainframe LAN (consoles)                                 |
| 8      | IBM Rational | Application Developer for Java                             | ALC          | Eclipse-based integrated development environment (IDE)        |
| 9      | IBM Rational | Architect Extension for Integrated Architecture Frameworks | ALC          | Web development tool for analysis and design.                 |
| 10     | IBM Rational | Software Architect   | ALC          | Web development tool for modeling and design.                 |

## Section 17 - Open Source Software

The following Open Source Software are used as part of ACES complex in web based applications.

|                    |                                       |   |
|--------------------|---------------------------------------|---|
| <b>AGLP</b>        | Affero General Public License         | GNU Affero General Public License is a free, copyleft license for software and other kinds of works, specifically designed to ensure cooperation with the community in the case of network server software. |
| <b>Apache</b>      | Apache Software Foundation            | <a href="http://www.apache.org/foundation/license-faq.html">http://www.apache.org/foundation/license-faq.html</a>   |
| <b>BSD</b>         | Berkeley Software Distribution        | BSD licenses are a family of permissive free software licenses, imposing minimal restrictions on the redistribution of covered software.  |
| <b>Freeware</b>    | Portmanteau of "free" and "software"  | Computer software that is available for use at no monetary cost, which may have restrictions such as redistribution prohibited, and for which source code is not available                                  |
| <b>GPL</b>         | General Public License                | GNU General Public License is a free, copyleft license for software and other kinds of works.   |
| <b>LGPL</b>        | Lesser General Public License         | <a href="https://www.gnu.org/licenses/lgpl.html">https://www.gnu.org/licenses/lgpl.html</a>   |
| <b>MIT License</b> | Massachusetts Institute of Technology | Permissive free software license that permits reuse within proprietary software provided all copies of the licensed software include a copy of the MIT License terms and the copyright notice.              |
| <b>MS-PL</b>       | Microsoft Public License              | <a href="http://www.microsoft.com/en-us/openness/licenses.aspx">http://www.microsoft.com/en-us/openness/licenses.aspx</a>   |

| Item # | Product Name               | Description  | License Type                     | Source  |
|--------|----------------------------|--|----------------------------------|---|
| 1      | IBM Installation Manager   | Used to download IBM software.                                   | Freeware                         | <a href="http://ibm.com">http://ibm.com</a>                                   |
| 2      | iText                      | JAVA library that allows you to generate PDF files on the fly.   | AGLP                             | <a href="http://www.lowagie.com/iText/">http://www.lowagie.com/iText/</a>     |
| 3      | Prototype                  | JavaScript library used for AdmEstimation Tool.                  | MIT license (GNU GPL Compatible) | <a href="http://www.prototypejs.org/">http://www.prototypejs.org/</a>         |
| 4      | Yahoo User Interface (YUI) | Client-side, JavaScript framework for building web applications. | BSD                              | <a href="http://developer.yahoo.com/yui/">http://developer.yahoo.com/yui/</a> |

| Item # | Product Name                 | Description  | License Type                | Source  |
|--------|------------------------------|--|-----------------------------|---|
| 5      | Microsoft Enterprise Library | Microsoft Enterprise Library targets issues like logging, validation, data access, and exception handling, as well as many others. Used in Online Service Application (OSA) and Address Validation Service (AVS) to provide support for logging.   | MS-PL                       | <a href="http://msdn.microsoft.com/en-us/library/cc467894.aspx">http://msdn.microsoft.com/en-us/library/cc467894.aspx</a> |
| 6      | Web Service Software Factory | Integrated collection of resources designed to help you quickly and consistently build Web services that adhere to well-known architecture and design patterns.  | MS-PL                       | <a href="http://msdn.microsoft.com/en-us/library/cc487895.aspx">http://msdn.microsoft.com/en-us/library/cc487895.aspx</a> |
| 7      | Apache FOP                   | Application that reads a formatting object (FO) tree and renders the resulting pages to a specific output. Driven by XSL formatting objects.   | Apache V2                   | fop.jar, Avalon-framework-cvs-100109.06.jar, batik.jar  |
| 8      | Log4J                        | With log4j it is possible to enable logging at runtime without modifying the application binary. The log4j package is designed so that these statements can remain in shipped code without incurring a heavy performance cost. Logging behavior can be controlled by editing a configuration file, without touching the application binary. Used in PrintService for Letters to PDF to provide support for logging. Java logging framework used by MotioCI for the version control and testing product for IBM Cognos. | Apache v2                   | <a href="http://logging.apache.org/log4j/1.2/">http://logging.apache.org/log4j/1.2/</a>                                   |
| 9      | clearant lib (for ClearCase) | This library is a collection of "value-add" Ant tasks for integrating IBM Rational ClearCase with Apache Ant.  | Apache Software license 2.0 | <a href="http://clearantlib.sourceforge.net/">http://clearantlib.sourceforge.net/</a>                                     |

| Item # | Product Name       | Description  | License Type                | Source  |
|--------|--------------------|--|-----------------------------|---|
| 10     | Spring framework   | The Spring Framework is an open source application framework for the Java platform. The framework provides MVC support and flexibility to integrate Messaging, aspect orientation, enterprise apps.                              | Apache Software license 2.0 | <a href="http://www.springframework.org/">http://www.springframework.org/</a>                             |
| 11     | JCAPTCHA           | JCAPTCHA stands for Java Completely Automated Public Test to tell Computers and Humans Apart. The open source java framework for captcha definition and integration.   | LGPL v2.1                   | <a href="http://jcaptcha.sourceforge.net/">http://jcaptcha.sourceforge.net/</a>                           |
| 12     | FreeTTS            | Speech synthesizer written entirely in the Java™ programming language  | BSD                         | <a href="http://freetts.sourceforge.net/docs/index.php">http://freetts.sourceforge.net/docs/index.php</a> |
| 13     | jQuery             | Fast, concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development.   | MIT & GPL                   | <a href="http://jquery.org">http://jquery.org</a>   |
| 14     | jQuery UI          | Provides abstractions for low-level interaction and animation, advanced effects and high-level, theme-able widgets, built on top of the jQuery JavaScript Library that can be used to build highly interactive Web applications. | MIT & GPL                   | <a href="http://jquery.org">http://jquery.org</a>   |
| 15     | Apache HTTP Server | Web Server to host static content  | Apache v2                   | <a href="http://www.apache.org">http://www.apache.org</a>   |
| 16     | Barcode4J          | Used to apply Barcode for form 14001 generated for Eapp, used in conjunction with FOP  | Apache v2                   | <a href="http://barcode4j.sourceforge.net/index.html">http://barcode4j.sourceforge.net/index.html</a>     |
| 17     | YUI Compressor     | Minifies JavaScript and CSS files to improve client side performance of web applications.  | BSD + MPL License           | <a href="http://developer.yahoo.com/yui/compressor/">http://developer.yahoo.com/yui/compressor/</a>       |

| Item # | Product Name | Description   | License Type                      | Source  |
|--------|--------------|---|-----------------------------------|---|
| 18     | Yslow        | Analyzes web pages and why they are slow based on Yahoo!'s rules for high performance web sites.  | MPL v1.1                          | <a href="http://developer.yahoo.com/yslow/">http://developer.yahoo.com/yslow/</a>                       |
| 19     | Checkstyle   | Development tool to help programmers write Java code that adheres to coding standards. It automates the process of checking Java code to spare humans of this boring (but important) task. This makes it ideal for projects that want to enforce a coding standard.               | GNU Lesser General Public License | <a href="http://checkstyle.sourceforge.net/index.html">http://checkstyle.sourceforge.net/index.html</a> |
| 20     | Metrics      | Provides metrics calculation and dependency analyzer plugin for the Eclipse platform. Measure various metrics with average and standard deviation and detect cycles in package and type dependencies and graph them.  | Common Public License 1.0         | <a href="http://metrics.sourceforge.net/">http://metrics.sourceforge.net/</a>                           |
| 21     | JDepend      | Traverses Java class file directories and generates design quality metrics for each Java package. JDepend allows you to automatically measure the quality of a design in terms of its extensibility, reusability, and maintainability to manage package dependencies effectively. | BSD License                       | <a href="http://clarkware.com/software/JDepend.html">http://clarkware.com/software/JDepend.html</a>     |



| Item # | Product Name       | Description  | License Type                      | Source  |
|--------|--------------------|--|-----------------------------------|---|
| 22     | PMD                | <p>PMD scans Java source code and looks for potential problems like:</p> <ul style="list-style-type: none"> <li>• Possible bugs - empty try/catch/finally/switch statements</li> <li>• Dead code - unused local variables, parameters and private methods</li> <li>• Suboptimal code - wasteful String/StringBuffer usage</li> <li>• Overcomplicated expressions - unnecessary if statements, for loops that could be while loops</li> <li>• Duplicate code - copied/pasted code means copied/pasted bugs</li> </ul> | BSD License.                      | <a href="http://pmd.sourceforge.net/">http://pmd.sourceforge.net/</a>                               |
| 23     | FindBugs           | Uses static analysis to look for bugs in Java code   | GNU Lesser General Public License | <a href="http://findbugs.sourceforge.net/index.html">http://findbugs.sourceforge.net/index.html</a> |
| 24     | jQuery Cross Slide | <p>jQuery plugin that implements common slide-show animations in Javascript, traditionally only available via Adobe Flash or other proprietary plugins. Cross Slide builds upon jQuery's animation facility, so it is as portable across browsers as jQuery itself (that is, a lot!). This plugin will be used on the Washington Connection home page to rotate/slide the pictures.</p>  | MIT / GPL License                 | <a href="http://tobia.github.com/CrossSlide/">http://tobia.github.com/CrossSlide/</a>               |

| Item # | Product Name         | Description  | License Type                | Source  |
|--------|----------------------|--|-----------------------------|---|
| 25     | jQuery Flexigrid     | <p>Lightweight but rich data grid with re-sizable columns and a scrolling data to match the headers</p> <ol style="list-style-type: none"> <li>1. Resizable columns</li> <li>2. Resizable height and width</li> <li>3. Sortable column headers</li> <li>3. Cool theme</li> <li>4. Can convert an ordinary table</li> <li>5. Ability to connect to an Ajax data source (XML and JSON [new])</li> <li>6. Paging</li> <li>7. Show/hide columns</li> <li>8. Toolbar (new)</li> <li>9. Search (new)</li> <li>10. Accessible API</li> </ol> <p>This plugin will be used in all the Summary Pages. The plugin loads the page faster when compared to JQuery</p> | MIT / GPL License           | <a href="http://flexigrid.info/">accordion.http://flexigrid.info/</a>                                       |
| 26     | jQuery Wijmo Tooltip | <p>jQuery wijtooltip widget allows showing a popup tooltip or an overlay that provides information about a target element in a callout or small box. Embed any HTML, images, and text to create a fully customized tooltip.</p> <p>This plugin will be used on the Washington Connection pages wherever the tooltip is required. This will be used more like help feature on the site.</p>   | GPLv3 License               | <a href="http://wijmo.com/wiki/index.php/Tooltip">http://wijmo.com/wiki/index.php/Tooltip</a>               |
| 27     | Spring Data-JPA      | Spring Data JPA - Simplifies the development of creating a JPA-based data access layer   | Apache Software License 2.0 | <a href="http://www.springframework.org/spring-data/jpa">http://www.springframework.org/spring-data/jpa</a> |

| Item # | Product Name              | Description   | License Type   | Source  |
|--------|---------------------------|---|--|---|
| 28     | Apache Santuario for Java | The Apache Santuario™ project is aimed at providing implementation of the primary security standards for XML XML-Signature Syntax and Processing. XML Encryption Syntax and Processing. The Apache XML Security for Java library supports XML-Signature Syntax and Processing, W3C Recommendation 12 February 2002 and XML Encryption Syntax and Processing, W3C Recommendation 10 December 2002. | Apache License, Version 2.0 (current)  | <a href="http://santuario.apache.org/javaindex.html">http://santuario.apache.org/javaindex.html</a> |
| 29     | Bouncy Castle             | Bouncy Castle Crypto APIs for Java is a lightweight cryptography API, A provider for the Java Cryptography Extension and the Java Cryptography Architecture. Bouncy Castle enables AES-GCM encryption. Bouncy Castle API is widely used as based JDK and does not provide capabilities for algorithms like AES-GCM.   | MIT License<br><a href="http://opensource.org/licenses/mit-license.php">http://opensource.org/licenses/mit-license.php</a> | <a href="http://santuario.apache.org/javaindex.html">http://santuario.apache.org/javaindex.html</a> |
| 30     | HDIV                      | HDIV as a Java Web Application Security Framework. HDIV extends web applications behavior by adding Security functionalities, maintaining the API and the framework specification.  | Apache License, Version 2.0 (current)  | <a href="http://www.hdiv.org/">http://www.hdiv.org/</a>   |
| 31     | dom4j                     | Open source Java library for working with XML, XPath and XSLT using the Java Collections Framework and with full support for DOM, SAX and JAXP. Copyright by MetaStuff Ltd. Used as part of gradle package.   | BSD  | <a href="http://www.dom4j.org/">http://www.dom4j.org/</a>   |

| Item # | Product Name        | Description  | License Type  | Source  |
|--------|---------------------|--|---|---|
| 32     | Apache Ant          | Java build and package utility used to manipulate files for aces.online code promotes and distributions, used as part of gradle package  | Apache v2   |   |
| 33     | Jaxen               | Jaxen is an open source XPath library written in Java. It is adaptable to many different object models, including DOM, XOM, dom4j, and JDOM. Is it also possible to write adapters that treat non-XML trees such as compiled Java byte code or Java beans as XML, thus enabling you to query these trees with XPath too. Java Xpath library used by MotioCI for the version control and testing product for IBM Cognos | Custom license located at <a href="http://jaxen.org/license.html">http://jaxen.org/license.html</a> | <a href="http://jaxen.coderhaus.org/">http://jaxen.coderhaus.org/</a> |
| 34     | commons-collections | Java collection framework extension tool used by MotioCI for the version control and testing product for IBM Cognos also used as part of gradle package  | Apache license 2.0  | <a href="http://commons.apache.org/">http://commons.apache.org/</a>   |
| 35     | commons-io          | Collection of I/O utilities used by MotioCI for the version control and testing product for IBM Cognos. Also used by the testing automation framework when searching for files created on a given date. Used as part of the gradle package.  | Apache license 2.0  | <a href="http://commons.apache.org/">http://commons.apache.org/</a>   |
| 36     | commons-lang        | Java.lang support tool used by MotioCI for the version control and testing product for IBM Cognos. Also by the testing automation framework when parsing date entries received from the user. Also used as part of gradle package  | Apache license 2.0  | <a href="http://commons.apache.org/">http://commons.apache.org/</a>   |

| Item # | Product Name | Description   | License Type              | Source  |
|--------|--------------|---|---------------------------|---|
| 37     | Maven        | Provides a uniform build system for Java projects and is packaged with m2e. Used as part of the gradle package.   | Apache license 2.0        | <a href="http://maven.apache.org/">http://maven.apache.org/</a> |
| 38     | Gradle       | Used for simplifying java projects automation build process and easy to manage the subprojects and libraries dependencies.  | Apache License Version 2. | <a href="http://www.gradle.org">http://www.gradle.org</a>       |
| 39     | SonarQube    | Used for analyzing and managing code quality. It covers the 7 axes of code quality - architecture & design, comments, coding rules, potential bugs, complexity, unit tests, duplications. | LGPL version3             | <a href="http://www.sonarqube.org">http://www.sonarqube.org</a> |

## Section 18 – DSHS Data Security Requirements

|   |  |   |
|---|--|---|
|  <p>Washington State<br/>Department of Social<br/>&amp; Health Services</p> <hr/> <p><i>Transforming lives</i></p> | <p><b>Outside Agency Agreement<br/>Data Security Requirements</b></p> <p>Exhibit</p> | <p>DSHS Contract Number:<br/>Click here to enter text.</p> <p>Contractor Contract<br/>Number:</p> |
|---|--|---|

### 1. Definitions.

The words and phrases listed below, as used in this Exhibit, shall each have the following definitions:

- a. “AES” means the Advanced Encryption Standard, a specification of Federal Information Processing Standards Publications for the encryption of electronic data issued by the National Institute of Standards and Technology (<http://nvlpubs.nist.gov/nistpubs/FIPS/NIST.FIPS.197.pdf>).
- b. “Authorized Users(s)” means an individual or individuals with a business need to access DSHS Confidential Information, and who has or have been authorized to do so.
- c. “Business Associate Agreement” means an agreement between DSHS and a contractor who is receiving Data covered under the Privacy and Security Rules of the Health Insurance Portability and Accountability Act of 1996. The agreement establishes permitted and required uses and disclosures of protected health information (PHI) in accordance with HIPAA requirements and provides obligations for business associates to safeguard the information.
- d. “Category 4 Data” is data that is confidential and requires special handling due to statutes or regulations that require especially strict protection of the data and from which especially serious consequences may arise in the event of any compromise of such data. Data classified as Category 4 includes but is not limited to data protected by: the Health Insurance Portability and Accountability Act (HIPAA), Pub. L. 104-191 as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH), 45 CFR Parts 160 and 164; the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. §1232g; 34 CFR Part 99; Internal Revenue Service Publication 1075 (<https://www.irs.gov/pub/irs-pdf/p1075.pdf>); Substance Abuse and Mental Health Services Administration regulations on Confidentiality of Alcohol and Drug Abuse Patient Records, 42 CFR Part 2; and/or Criminal Justice Information Services, 28 CFR Part 20.
- e. “Cloud” means data storage on servers hosted by an entity other than the Contractor and on a network outside the control of the Contractor. Physical storage of data in the cloud typically spans multiple servers and often multiple locations. Cloud storage can be divided between consumer grade storage for personal files and enterprise grade for companies and governmental entities. Examples of consumer grade storage would include iTunes, Dropbox, Box.com, and many other entities. Enterprise cloud vendors include Microsoft Azure, Amazon Web Services, and Rackspace.

- f. “Encrypt” means to encode Confidential Information into a format that can only be read by those possessing a “key”; a password, digital certificate or other mechanism available only to authorized users. Encryption must use a key length of at least 256 bits for symmetric keys, or 2048 bits for asymmetric keys. When a symmetric key is used, the Advanced Encryption Standard (AES) must be used if available.
- g. “FedRAMP” means the Federal Risk and Authorization Management Program (see [www.fedramp.gov](http://www.fedramp.gov)), which is an assessment and authorization process that federal government agencies have been directed to use to ensure security is in place when accessing Cloud computing products and services.
- h. “Hardened Password” means a string of at least eight characters containing at least three of the following four character classes: Uppercase alphabetic, lowercase alphabetic, numeral, and special characters such as an asterisk, ampersand, or exclamation point.
- i. “Mobile Device” means a computing device, typically smaller than a notebook, which runs a mobile operating system, such as iOS, Android, or Windows Phone. Mobile Devices include smart phones, most tablets, and other form factors.
- j. “Multi-factor Authentication” controlling access to computers and other IT resources by requiring two or more pieces of evidence that the user is who they claim to be. These pieces of evidence consist of something the user knows, such as a password or PIN; something the user has such as a key card, smart card, or physical token; and something the user is, a biometric identifier such as a fingerprint, facial scan, or retinal scan. “PIN” means a personal identification number, a series of numbers which act as a password for a device. Since PINs are typically only four to six characters, PINs are usually used in conjunction with another factor of authentication, such as a fingerprint.
- k. “Portable Device” means any computing device with a small form factor, designed to be transported from place to place. Portable devices are primarily battery powered devices with base computing resources in the form of a processor, memory, storage, and network access. Examples include, but are not limited to, mobile phones, tablets, and laptops. Mobile Device is a subset of Portable Device.
- l. “Portable Media” means any machine readable media that may routinely be stored or moved independently of computing devices. Examples include magnetic tapes, optical discs (CDs or DVDs), flash memory (thumb drive) devices, external hard drives, and internal hard drives that have been removed from a computing device.
- m. “Secure Area” means an area to which only authorized representatives of the entity possessing the Confidential Information have access, and access is controlled through use of a key, card key, combination lock, or comparable mechanism. Secure Areas may include buildings, rooms or locked storage containers (such as a filing cabinet or desk drawer) within a room, as long as access to the Confidential Information is not available to unauthorized personnel. In otherwise Secure Areas, such as an office with restricted access, the Data must be secured in such a way as to prevent access by non-authorized staff such as janitorial or facility security staff, when authorized Contractor staff are not present to ensure that non-authorized staff cannot access it.
- n. “Trusted Network” means a network operated and maintained by the Contractor, which includes security controls sufficient to protect DSHS Data on that network. Controls would include a firewall between any other networks, access control lists on

networking devices such as routers and switches, and other such mechanisms which protect the confidentiality, integrity, and availability of the Data.

- o. “Unique User ID” means a string of characters that identifies a specific user and which, in conjunction with a password, passphrase or other mechanism, authenticates a user to an information system.

## 2. **Authority.**

The security requirements described in this document reflect the applicable requirements of Standard 141.10 (<https://ocio.wa.gov/policies>) of the Office of the Chief Information Officer for the state of Washington, and of the DSHS Information Security Policy and Standards Manual. Reference material related to these requirements can be found here: <https://www.dshs.wa.gov/fsa/central-contract-services/keeping-dshs-client-information-private-and-secure>, which is a site developed by the DSHS Information Security Office and hosted by DSHS Central Contracts and Legal Services.

## 3. **Administrative Controls.**

The Contractor must have the following controls in place:

- a) A documented security policy governing the secure use of its computer network and systems, and which defines sanctions that may be applied to Contractor staff for violating that policy.
- b) If the Data shared under this agreement is classified as Category 4, the Contractor must be aware of and compliant with the applicable legal or regulatory requirements for that Category 4 Data.
- c) If Confidential Information shared under this agreement is classified as Category 4, the Contractor must have a documented risk assessment for the system(s) housing the Category 4 Data.

## 4. **Authorization, Authentication, and Access.**

In order to ensure that access to the Data is limited to authorized staff, the Contractor must:

- a) Have documented policies and procedures governing access to systems with the shared Data.
- b) Restrict access through administrative, physical, and technical controls to authorized staff.
- c) Ensure that user accounts are unique and that any given user account logon ID and password combination is known only to the one employee to whom that account is assigned. For purposes of non-repudiation, it must always be possible to determine which employee performed a given action on a system housing the Data based solely on the logon ID used to perform the action.
- d) Ensure that only authorized users are capable of accessing the Data.
- e) Ensure that an employee’s access to the Data is removed immediately:
  - (1) Upon suspected compromise of the user credentials.
  - (2) When their employment, or the contract under which the Data is made available to them, is terminated.
  - (3) When they no longer need access to the Data to fulfill the requirements of the contract.



- f) Have a process to periodically review and verify that only authorized users have access to systems containing DSHS Confidential Information.
- g) When accessing the Data from within the Contractor's network (the Data stays within the Contractor's network at all times), enforce password and logon requirements for users within the Contractor's network, including:
  - (1) A minimum length of 8 characters, and containing at least three of the following character classes: uppercase letters, lowercase letters, numerals, and special characters such as an asterisk, ampersand, or exclamation point.
  - (2) That a password does not contain a user's name, logon ID, or any form of their full name.
  - (3) That a password does not consist of a single dictionary word. A password may be formed as a passphrase which consists of multiple dictionary words.
  - (4) That passwords are significantly different from the previous four passwords. Passwords that increment by simply adding a number are not considered significantly different.
- h) When accessing Confidential Information from an external location (the Data will traverse the Internet or otherwise travel outside the Contractor's network), mitigate risk and enforce password and logon requirements for users by employing measures including:
  - (1) Ensuring mitigations applied to the system don't allow end-user modification.
  - (2) Not allowing the use of dial-up connections.
  - (3) Using industry standard protocols and solutions for remote access. Examples would include RADIUS and Citrix.
  - (4) Encrypting all remote access traffic from the external workstation to Trusted Network or to a component within the Trusted Network. The traffic must be encrypted at all times while traversing any network, including the Internet, which is not a Trusted Network.
  - (5) Ensuring that the remote access system prompts for re-authentication or performs automated session termination after no more than 30 minutes of inactivity.
  - (6) Ensuring use of Multi-factor Authentication to connect from the external end point to the internal end point.
- i) Passwords or PIN codes may meet a lesser standard if used in conjunction with another authentication mechanism, such as a biometric (fingerprint, face recognition, iris scan) or token (software, hardware, smart card, etc.) in that case:
  - (1) The PIN or password must be at least 5 letters or numbers when used in conjunction with at least one other authentication factor
  - (2) Must not be comprised of all the same letter or number (11111, 22222, aaaaa, would not be acceptable)
  - (3) Must not contain a "run" of three or more consecutive numbers (12398, 98743 would not be acceptable)

- j) If the contract specifically allows for the storage of Confidential Information on a Mobile Device, passcodes used on the device must:
  - (1) Be a minimum of six alphanumeric characters.
  - (2) Contain at least three unique character classes (upper case, lower case, letter, number).
  - (3) Not contain more than a three consecutive character run. Passcodes consisting of *12345*, or *abcd12* would not be acceptable.
- k) Render the device unusable after a maximum of 10 failed logon attempts.

## 5. **Protection of Data.**

The Contractor agrees to store Data on one or more of the following media and protect the Data as described:

### a. **Hard disk drives.**

For Data stored on local workstation hard disks, access to the Data will be restricted to Authorized User(s) by requiring logon to the local workstation using a Unique User ID and Hardened Password or other authentication mechanisms which provide equal or greater security, such as biometrics or smart cards.

### b. **Network server disks.**

For Data stored on hard disks mounted on network servers and made available through shared folders, access to the Data will be restricted to Authorized Users through the use of access control lists which will grant access only after the Authorized User has authenticated to the network using a Unique User ID and Hardened Password or other authentication mechanisms which provide equal or greater security, such as biometrics or smart cards. Data on disks mounted to such servers must be located in an area which is accessible only to authorized personnel, with access controlled through use of a key, card key, combination lock, or comparable mechanism.

For DSHS Confidential Information stored on these disks, deleting unneeded Data is sufficient as long as the disks remain in a Secure Area and otherwise meet the requirements listed in the above paragraph. Destruction of the Data, as outlined below in Section 8 *Data Disposition*, may be deferred until the disks are retired, replaced, or otherwise taken out of the Secure Area.

### c. **Optical discs (CDs or DVDs) in local workstation optical disc drives.**

Data provided by DSHS on optical discs which will be used in local workstation optical disc drives and which will not be transported out of a Secure Area. When not in use for the contracted purpose, such discs must be Stored in a Secure Area. Workstations which access DSHS Data on optical discs must be located in an area which is accessible only to authorized personnel, with access controlled through use of a key, card key, combination lock, or comparable mechanism.

### d. **Optical discs (CDs or DVDs) in drives or jukeboxes attached to servers.**

Data provided by DSHS on optical discs which will be attached to network servers and which will not be transported out of a Secure Area. Access to Data on these discs will be restricted to Authorized Users through the use of access control lists which will grant access only after the Authorized User has authenticated to the

network using a Unique User ID and Hardened Password or other authentication mechanisms which provide equal or greater security, such as biometrics or smart cards. Data on discs attached to such servers must be located in an area which is accessible only to authorized personnel, with access controlled through use of a key, card key, combination lock, or comparable mechanism.

**e. Paper documents.**

Any paper records must be protected by storing the records in a Secure Area which is only accessible to authorized personnel. When not in use, such records must be stored in a Secure Area.

**f. Remote Access.**

Access to and use of the Data over the State Governmental Network (SGN) or Secure Access Washington (SAW) will be controlled by DSHS staff who will issue authentication credentials (e.g. a Unique User ID and Hardened Password) to Authorized Users on Contractor's staff. Contractor will notify DSHS staff immediately whenever an Authorized User in possession of such credentials is terminated or otherwise leaves the employ of the Contractor, and whenever an Authorized User's duties change such that the Authorized User no longer requires access to perform work for this Contract.

**g. Data storage on portable devices or media.**

(1) Except where otherwise specified herein, DSHS Data shall not be stored by the Contractor on portable devices or media unless specifically authorized within the terms and conditions of the Contract. If so authorized, the Data shall be given the following protections:

(a) Encrypt the Data.

(b) Control access to devices with a Unique User ID and Hardened Password or stronger authentication method such as a physical token or biometrics.

(c) Manually lock devices whenever they are left unattended and set devices to lock automatically after a period of inactivity, if this feature is available. Maximum period of inactivity is 20 minutes.

(d) Apply administrative and physical security controls to Portable Devices and Portable Media by:

i. Keeping them in a Secure Area when not in use,

ii. Using check-in/check-out procedures when they are shared, and

iii. Taking frequent inventories.

(2) When being transported outside of a Secure Area, Portable Devices and Portable Media with DSHS Confidential Information must be under the physical control of Contractor staff with authorization to access the Data, even if the Data is encrypted.

**h. Data stored for backup purposes.**

(1) DSHS Confidential Information may be stored on Portable Media as part of a Contractor's existing, documented backup process for business continuity or

disaster recovery purposes. Such storage is authorized until such time as that media would be reused during the course of normal backup operations. If backup media is retired while DSHS Confidential Information still exists upon it, such media will be destroyed at that time in accordance with the disposition requirements below in Section 8 *Data Disposition*.

- (2) Data may be stored on non-portable media (e.g. Storage Area Network drives, virtual media, etc.) as part of a Contractor's existing, documented backup process for business continuity or disaster recovery purposes. If so, such media will be protected as otherwise described in this exhibit. If this media is retired while DSHS Confidential Information still exists upon it, the data will be destroyed at that time in accordance with the disposition requirements below in Section 8 *Data Disposition*.

**i. Cloud storage.**

DSHS Confidential Information requires protections equal to or greater than those specified elsewhere within this exhibit. Cloud storage of Data is problematic as neither DSHS nor the Contractor has control of the environment in which the Data is stored. For this reason:

- (1) DSHS Data will not be stored in any consumer grade Cloud solution, unless all of the following conditions are met:
  - (e) Contractor has written procedures in place governing use of the Cloud storage and Contractor attests in writing that all such procedures will be uniformly followed.
  - (f) The Data will be Encrypted while within the Contractor network.
  - (g) The Data will remain Encrypted during transmission to the Cloud.
  - (h) The Data will remain Encrypted at all times while residing within the Cloud storage solution.
  - (i) The Contractor will possess a decryption key for the Data, and the decryption key will be possessed only by the Contractor and/or DSHS.
  - (j) The Data will not be downloaded to non-authorized systems, meaning systems that are not on either the DSHS or Contractor networks.
  - (k) The Data will not be decrypted until downloaded onto a computer within the control of an Authorized User and within either the DSHS or Contractor's network.
- (2) Data will not be stored on an Enterprise Cloud storage solution unless either:
  - (a) The Cloud storage provider is treated as any other Sub-Contractor, and agrees in writing to all of the requirements within this exhibit; or,
  - (b) The Cloud storage solution used is FedRAMP certified.
- (3) If the Data includes protected health information covered by the Health Insurance Portability and Accountability Act (HIPAA), the Cloud provider must sign a Business Associate Agreement prior to Data being stored in their Cloud solution.

**6. System Protection.**

To prevent compromise of systems which contain DSHS Data or through which that Data passes:

- a. Systems containing DSHS Data must have all security patches or hotfixes applied within 3 months of being made available.
- b. The Contractor will have a method of ensuring that the requisite patches and hotfixes have been applied within the required timeframes.
- c. Systems containing DSHS Data shall have an Anti-Malware application, if available, installed.
- d. Anti-Malware software shall be kept up to date. The product, its anti-virus engine, and any malware database the system uses, will be no more than one update behind current.

**7. Data Segregation.**

- a. DSHS Data must be segregated or otherwise distinguishable from non-DSHS data. This is to ensure that when no longer needed by the Contractor, all DSHS Data can be identified for return or destruction. It also aids in determining whether DSHS Data has or may have been compromised in the event of a security breach. As such, one or more of the following methods will be used for data segregation.
  - (1) DSHS Data will be kept on media (e.g. hard disk, optical disc, tape, etc.) which will contain no non-DSHS Data. And/or,
  - (2) DSHS Data will be stored in a logical container on electronic media, such as a partition or folder dedicated to DSHS Data. And/or,
  - (3) DSHS Data will be stored in a database which will contain no non-DSHS data. And/or,
  - (4) DSHS Data will be stored within a database and will be distinguishable from non-DSHS data by the value of a specific field or fields within database records.
  - (5) When stored as physical paper documents, DSHS Data will be physically segregated from non-DSHS data in a drawer, folder, or other container.
- b. When it is not feasible or practical to segregate DSHS Data from non-DSHS data, then both the DSHS Data and the non-DSHS data with which it is commingled must be protected as described in this exhibit.

**8. Data Disposition.**

When the contracted work has been completed or when the Data is no longer needed, except as noted above in Section 5.b, Data shall be returned to DSHS or destroyed. Media on which Data may be stored and associated acceptable methods of destruction are as follows:

| <b>Data stored on:</b>               | <b>Will be destroyed by:</b>   |
|--------------------------------------|--|
| Server or workstation hard disks, or | Using a “wipe” utility which will overwrite the Data at least three (3) times using either random or single character data, or |

|  |  |
|--|--|
| Removable media (e.g. floppies, USB flash drives, portable hard disks) excluding optical discs                     | Degaussing sufficiently to ensure that the Data cannot be reconstructed, or<br><br>Physically destroying the disk                        |
| Paper documents with sensitive or Confidential Information   | Recycling through a contracted firm, provided the contract with the recycler assures that the confidentiality of Data will be protected. |
| Paper documents containing Confidential Information requiring special handling (e.g. protected health information) | On-site shredding, pulping, or incineration  |
| Optical discs (e.g. CDs or DVDs)   | Incineration, shredding, or completely defacing the readable surface with a coarse abrasive  |
| Magnetic tape  | Degaussing, incinerating or crosscut shredding   |

#### 9. Notification of Compromise or Potential Compromise.

The compromise or potential compromise of DSHS shared Data must be reported to the DSHS Contact designated in the Contract within one (1) business day of discovery. If no DSHS Contact is designated in the Contract, then the notification must be reported to the DSHS Privacy Officer at [dshsprivacyofficer@dshs.wa.gov](mailto:dshsprivacyofficer@dshs.wa.gov). Contractor must also take actions to mitigate the risk of loss and comply with any notification or other requirements imposed by law or DSHS.

#### 10. Data shared with Subcontractors.

If DSHS Data provided under this Contract is to be shared with a subcontractor, the Contract with the subcontractor must include all of the data security provisions within this Contract and within any amendments, attachments, or exhibits within this Contract. If the Contractor cannot protect the Data as articulated within this Contract, then the contract with the sub-Contractor must be submitted to the DSHS Contact specified for this contract for review and approval.

## Section 19 – IRS Publication 1075, Exhibit 7

### *Exhibit 7 Safeguarding Contract Language*

#### **CONTRACT LANGUAGE FOR GENERAL SERVICES**

##### **PERFORMANCE**

In performance of this contract, the Contractor agrees to comply with and assume responsibility for compliance by his or her employees with the following requirements:

- (1) All work will be performed under the supervision of the contractor or the contractor's responsible employees.
- (2) The contractor and the contractor's employees with access to or who use FTI must meet the background check requirements defined in IRS Publication 1075.
- (3) Any Federal tax returns or return information (hereafter referred to as returns or return information) made available shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Inspection by or disclosure to anyone other than an officer or employee of the contractor is prohibited.
- (4) All returns and return information will be accounted for upon receipt and properly stored before, during, and after processing. In addition, all related output and products will be given the same level of protection as required for the source material.
- (5) No work involving returns and return information furnished under this contract will be subcontracted without prior written approval of the IRS.
- (6) The contractor will maintain a list of employees authorized access. Such list will be provided to the agency and, upon request, to the IRS reviewing office.
- (7) The agency will have the right to void the contract if the contractor fails to provide the safeguards described above.
- (8) (Include any additional safeguards that may be appropriate.)

##### **I. CRIMINAL/CIVIL SANCTIONS**

- (1) Each officer or employee of any person to whom returns or return information is or may be disclosed shall be notified in writing by such person that returns or return information disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any such returns or return information for a purpose or to an extent unauthorized herein constitutes a felony punishable upon conviction by a fine of as much as \$5,000 or imprisonment for as long as five years, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized future disclosure of returns or return information may also result in an award of civil damages against the officer or employee in an amount not less than \$1,000 with respect to each instance of unauthorized disclosure. These

penalties are prescribed by IRCs 7213 and 7431 and set forth at 26 CFR 301.6103(n)-1.

- (2) Each officer or employee of any person to whom returns or return information is or may be disclosed shall be notified in writing by such person that any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Inspection by or disclosure to anyone without an official need-to-know constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as \$1,000.00 or imprisonment for as long as 1 year, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized inspection or disclosure of returns or return information may also result in an award of civil damages against the officer or employee [United States for Federal employees] in an amount equal to the sum of the greater of \$1,000.00 for each act of unauthorized inspection or disclosure with respect to which such defendant is found liable or the sum of the actual damages sustained by the plaintiff as a result of such unauthorized inspection or disclosure plus in the case of a willful inspection or disclosure which is the result of gross negligence, punitive damages, plus the costs of the action. The penalties are prescribed by IRCs 7213A and 7431 and set forth at 26 CFR 301.6103(n)-1.
- (3) Additionally, it is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is so prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.
- (4) Granting a contractor access to FTI must be preceded by certifying that each individual understands the agency's security policy and procedures for safeguarding IRS information. Contractors must maintain their authorization to access FTI through annual recertification. The initial certification and recertification must be documented and placed in the agency's files for review. As part of the certification and at least annually afterwards, contractors must be advised of the provisions of IRCs 7431, 7213, and 7213A ([see Exhibit 4, Sanctions for Unauthorized Disclosure](#), and [Exhibit 5, Civil Damages for Unauthorized Disclosure](#)). The training provided before the initial certification and annually thereafter must also cover the incident response policy and procedure for reporting unauthorized disclosures and data breaches. (See Section 10 ) For both the initial certification and the annual certification, the contractor must sign, either with ink or electronic signature, a confidentiality statement certifying their understanding of the security requirements.

## **II. INSPECTION**

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the contractor to inspect facilities and operations performing any work with FTI under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual and/or automated scanning tools to perform compliance and vulnerability assessments of information technology (IT) assets that access, store, process or transmit FTI. On the basis of such inspection, corrective actions may be required in cases where the contractor is found to be noncompliant with contract safeguards.