



# Asset Verification System (AVS)

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## Feasibility Study

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Prepared by Couloir Consulting

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## Contents

1. Executive Summary.....	7
1.1 Project Scope .....	9
1.2 Problem Statement.....	9
1.3 Benefits .....	10
1.4 Proposed Solution.....	11
1.5 Alternative Implementation Approaches Evaluated.....	14
1.6 Preferred Solution.....	15
1.7 Proposed Project Schedule .....	17
1.8 Summary .....	18
2.0 Background and Needs Assessment.....	20
2.1 Background .....	20
2.2 Business Environment.....	21
2.2.1 Organizational Structure.....	21
2.2.2 Business process .....	22
2.2.3 Systems environment .....	28
2.3 Business Needs .....	28
2.4 Technical Environment .....	29
2.5 Technical Needs .....	34
2.6 Statutory Requirements.....	35
2.7 Prior Studies and Solution Research.....	35
3.0 Objectives.....	37
3.1 Primary Objectives of the Feasibility Study .....	37
3.2 Guiding Principles.....	37
3.3 Opportunities to be Gained (problems to be solved).....	38
3.3.1 Business Opportunities .....	38
3.3.2 Technical Opportunities and Goals .....	38
3.4 Response to Statutory Requirements.....	39
4.0 Impacts.....	40
4.1 Inter-Agency and External Impacts.....	40



4.2 Intra-Agency Impacts .....	42
4.3 Agency Customers.....	42
5.0 Organizational Effects .....	43
5.1 Impact on Work Processes.....	43
5.2 Training Needs .....	43
5.3 Job Content.....	44
6.0 Proposed Solution.....	46
6.1 Commercial (COTS) Offerings in the AVS Marketplace.....	49
Public Consulting Group (PCG).....	50
Pros .....	50
Cons.....	50
Softheon.....	50
Pros .....	50
Cons.....	50
Equifax.....	51
Pros .....	51
Cons.....	51
New England States Consortium Systems Organization (NESCSO).....	51
Pros .....	51
Cons.....	51
6.2 Additional Technical Tools Used to Support the Solution .....	52
6.3 Major Functions Provided.....	52
6.4 New Organizational Structures and Processes Necessary to Support Implementation.....	52
7.0 Alternatives Considered.....	54
7.1 Revert to Paper-based, Self-declared Processes ("Do Nothing") .....	54
7.2 Expand AVS Statewide with Standalone Portal .....	54
7.3 Select new COTS vendor .....	54
7.4 Select a Long Term Solution, Implement Statewide, and Integrate .....	55
7.5 Evaluation Criteria.....	56
7.6 Comparison of Alternatives .....	57
7.7 Recommended Alternative and Rationale.....	58



8.0 Conformity with Agency IT Portfolio.....	59
8.1 Strategic Focus (Business and IT Goals) .....	60
8.2 Effect on Technology Infrastructure .....	61
8.3 Medicaid Information Technology Architecture (MITA).....	62
8.4 Other.....	62
9.0 Project Management and Organization.....	63
9.1 Project Governance – Roles .....	64
9.1.1 Executive Project Sponsors .....	64
9.1.2 Executive Steering Committee.....	64
9.1.3 Project Manager.....	64
9.2 Project Governance – Responsibilities.....	65
9.3 Issue Resolution and Other Project Decision-making Processes .....	67
9.4 Quality Assurance Strategies .....	67
10.0 Estimated Timeframe and Work Plan.....	68
10.1 Overview .....	68
10.2 Summary and Timeline .....	68
10.3 Work plan.....	70
10.4 Human Resources .....	70
11.0 Cost Benefit Analysis.....	71
11.1 Cost Estimates and Assumptions .....	71
11.2 Benefit Stream Assumptions.....	73
11.3 Benefits of Preferred Alternative.....	73
12.0 Risk Management .....	74
12.1 Risk Management Objectives .....	74
12.2 Risk Management Plan .....	74
12.3 Business/Organizational Risks.....	75
12.4 Technical Risks .....	75
12.5 OCIO IT Project Assessment Tool (ITPA) .....	76
12.6 Quality Assurance Strategy .....	76
13.0 Glossary.....	77
Appendix A – 2019 Washington Medicaid and Long-term Care Asset Limits.....	80



Appendix B – Estimated Costs .....	81
Appendix C – Market Research Summary.....	85
Appendix D – Time Study (AVS Pilot Standalone Portal) .....	87
Appendix E – AVS Pilot Lessons Learned .....	91
Appendix F – External Customers .....	93
Appendix G – Technical Requirements .....	94



## 1. Executive Summary

Section 1940 of the Social Security Act of 2008 (42 USC 1396w) requires all states to implement a system for verifying assets of aged, blind, or disabled applicants and recipients of Medicaid through the use of an electronic asset verification system (AVS). In Washington, this represents roughly 303,000 recipients (SSI-related, Long-term Care, waivered services, and Medicare Savings Program) out of the total Apple Health (Medicaid) caseload (1.8 million).

Even though it has launched a pilot AVS program, Washington is out of technical compliance with this requirement because the system has not been implemented state-wide across all impacted departments, administrations and clients as required by the Centers for Medicare & Medicaid Services (CMS). While CMS has verbally notified Washington Health Care Authority staff of its non-compliance, CMS has not yet provided Washington with formal notice. Non-compliance with CMS can lead to sanctions and loss of federal dollars. CMS has confirmed that while federal rule permits states to auto-renew Medicaid for the aged, blind and disabled populations, much like is done for the MAGI (Modified Adjusted Gross Income - test applied to primary Medicaid recipients) caseload, states must implement a compliant automated asset verification system in order to do so. Auto-renewing coverage for this population increases coverage access, reduces barriers and realizes staff efficiencies.

The Department of Social and Health Services (DSHS), in conjunction with the Health Care Authority (HCA), has taken steps towards state-wide selection and implementation of an Asset Verification System (AVS) as required under Federal Law. In December 2018, the Aging and Long-term Support Administration (ALTSA) and the Developmental Disabilities Administration (DDA) (under DSHS), implemented an AVS pilot under a sole source contract with Public Consulting Group, Inc. (PCG) to assess and gather data to procure a long-term solution that could be implemented statewide across DSHS.

PCG is the dominant Medicaid AVS service provider in the U.S. with approximately 23 states supported. PCG's technical architectural offering is an AVS front-end portal connected to Accuity Asset Verification Services, Inc. Accuity maintains connections to licensed financial institutions within the U.S. for broad coverage of applicant asset verification inquiries. One or two other companies have entered, or attempted to enter, the Medicaid Asset Verification solution marketplace in the past two years. An assessment of known AVS solutions is included in this document.

In the 2019 legislative session, the Washington State legislature directed DSHS to conduct an IT Feasibility Study to provide options and solutions for Washington to procure and implement a Centers for Medicare and Medicaid Services (CMS)-compliant Asset Verification System prior to January 1st, 2021 in order to avoid Federal Medical Assistance Percentages (FMAP) penalties across all federally-funded Medicaid dollars.

This IT feasibility study is due to the legislature by December 1st, 2019 with the main goals of:

- Providing options regarding AVS vendors in the market place;
- Completing an analysis of the costs and benefits offered by the different vendors;
- Developing a roadmap of the steps and options the Department can take to move from the current manual AVS solution to a solution that can be fully integrated into the state Automated Client Eligibility System (ACES);



- Providing the legislature with information and recommendations to make decisions on investments for a permanent AVS solution in the 2020 legislative session.

A joint DSHS and HCA priority is to implement an automated renewal process for the aged, blind, or disabled Medicaid population, principally aged, blind and disabled Medicaid recipients, in order to align processes with the MAGI renewal timelines and processes, reduce staff touch time, and free up staff to focus on accurate and timely eligibility determinations. Federal approval for automated renewals is contingent on securing an AVS vendor that can offer a fully-integrated solution with minimum manual and/or redundant data input by department staff.

This initiative specifically supports the goals of the Governor's Performance Management System: *Results Washington*, as follows:

- **Results Washington Outcome Measure 4** is to provide for Healthy and Safe Communities.

This program directly supports this goal by:

- Enhancing and expediting select (aged, blind, or disabled) Medicaid population eligibility determinations and renewals improving beneficiary access to primary and ancillary health care providers.
- Providing enhanced continuity of healthcare coverage to disadvantaged populations, substantially reducing breaks in service related to delays in eligibility renewal processing predicated on manual, paper-based processes.
- Replacing outmoded technologies (e.g. dual data entry processes associated with Medicaid eligibility processes) with integrated front-end business processes and proven data management and reporting practices.
- Supporting the migration of outdated Medicaid eligibility processing software and databases to modern platforms that will provide greater reliability and faster response times for external services and systems related to health and welfare of Washington State citizens. The modernization and integration of these software systems will aid DSHS and partner agencies in more efficiently managing the largest cost account in the state budget (Medicaid).
- Implementing new technologies that will increase software security to protect citizen information from unauthorized access.

- **Results Washington Outcome Measure 5** is to provide/deliver an Efficient, Effective and Accountable Government. Integral components of this goal are to:

- Replace paper-based manual processes with automation, streamlining Medicaid Asset Verification workflow.
- Improve Medicaid financial eligibility analytics including performance measurement and reporting of savings/costs over manual workflow and status quo operations.
- Improve standard and adhoc reporting capability for transmitting key indicator information to multiple oversight agencies including the HCA, Office of Financial Management (OFM), the Office of the Chief Information Officer (OCIO) and the Department of Enterprise Services (DES).

This program directly supports the tenets of an Effective, Efficient and Accountable Government by improving data supporting DSHS and partner agency client support services including customer self-service options, cross-agency reporting and cost management efficiencies.



## 1.1 Project Scope

Scope of the Asset Verification System Feasibility Study project is to support the following objectives:

- Provide a roadmap of strategies and next steps to move from the current manual AVS solution to a solution that can eventually be fully integrated into existing, as well as any future, eligibility system and comply with State of Washington security requirements
- Provide an analysis of integration strategies with existing legacy systems
- Provide an analysis of configuration options, to support multiple programs needs and workflow processes
- Provide an analysis of Cost/Benefits of current vendors in the marketplace
- Provide clear and concise cost and benefit rationale to assist in the investment evaluation process
- Provide analysis of technical, project, and financial institution help and support;

Accomplishment of the above objectives will support overarching state and agency goals of procuring and implementing an AVS that best meets its requirements and satisfies requirements for maximum allowed federal funding support.

AVS project scope includes:

- Procure at competitive cost to the state a proven, CMS-compliant Medicaid Asset Verification System (AVS)
- Integrate the system with ACES to optimize administrative workflow and maximize return on investment
- Implement the system statewide prior to January 1, 2021 to meet CMS deadlines and avoid Federal Medical Assistance Percentages (FMAP) penalties across all federally-funded Medicaid dollars

## 1.2 Problem Statement

The current AVS implementation employs an AVS portal or web-based front end supported by Public Consulting Group (PCG) integrated to a back-end financial asset verification application/network provided by Accuity Asset Verification Services Inc. This combined system represents the predominant AVS used today by most states that have an automated capability for verifying assets of aged, blind, or disabled Medicaid applicants and recipients as required by federal law. As employed in WA State, this system is characterized by the following constraints and challenges:

- Lack of integration between the AVS and ACES requires asset inquiry responses from the AVS to be reentered manually into ACES for final eligibility determinations, i.e. the aged, blind, or disabled Medicaid population eligibility determination work process is characterized by dual data entry. An AVS time study conducted by ALTSA in 2019 showed no staff time savings using the pilot system; the manual standalone portal increased processing time. This is because of the lack of integration currently in effect between the pilot asset verification system and ACES
- ACES itself is programmed for rehosting and subsequent replacement in the 2020 – 2022 time frame. This portability schedule adds further complexity to an already



challenging agency/administration IT migration environment. Because of pending ACES rehosting and reengineering issues, a goal of this feasibility study is to objectively assess vendor AVS options for ease of cross platform integration and local configuration

- Being responsive to changes mandated by the Federal Government for AVS. Though the core federal AVS requirements are:
  1. Verification inquiries must be sent electronically to financial institutions
  2. The system cannot be based on mailing paper-based requests
  3. The system must be able to accept responses electronically
  4. The system must conform to the National Institute of Standards and Technology (NIST) Security requirements

The system must also support flexible configuration management in order to be responsive to changes implementing new program requirements issued by CMS.

Additional limitations of the current system architecture include:

- The inability to rapidly update applications necessary for exchanging data with other local, state and federal agencies can result in time consuming manual work-arounds. This creates additional work backlogs and delays to clients in accessing Medicaid and necessary services, while increasing the risk for tort claims against the department if our work is not completed in a timely manner. Furthermore, a lack of responsiveness in meeting external entity information needs impacts these entities' operations which include providing vital public services including maintaining continuity of client healthcare coverage.
- DSHS has a limited number of organic and contractor staff with technical expertise to perform technical services required to integrate the AVS with ACES. This means the agency will need to contract with an IT integration services provider or rely on the AVS vendor via change order(s) to achieve this objective unless an integrated system, or one that flexibly supports integration with backend system(s), can be procured and customized.
- The current trial AVS implementation is useful for evaluating the costs and benefits of the predominant solution on the market in Washington State's IT environment. Lessons learned from this trial are summarized in this report.

### 1.3 Benefits

The benefits to be gained from implementing an integrated AVS include:

- An electronic, integrated AVS represents a substantial improvement in service to both clients and staff over the previous paper-based financial account attestation/verification process. Aged, Blind, or Disabled (ABD) Medicaid clients will no longer have to provide up to five years of financial statements to support their application for eligibility. With appropriate integration between the AVS and ACES, DSHS staff processing applications and renewals will no longer have to input and extract financial asset verification data to and from two separate systems.
- State-wide implementation of a conforming AVS will shield the state from being subject to potentially substantial Medicaid Federal Matching Assistance Program (FMAP) penalties for Federal rule compliance violations.
- Medicaid management program integrity will improve:
  - Eligibility determinations will be more accurate with fewer acceptances awarded to "over-threshold" applicants/clients.
  - Based on early referrals, it is anticipated that financial recovery claims will increase.



- Performance management reporting will improve through automation of key indicator information compiled and presented via the AVS portal.
- Real property asset verification can be easily added as a value-added benefit for future application.

## 1.4 Proposed Solution

The proposed solution is for Washington State to procure a reliable, compliant long-term AVS solution and deploy the system state wide. Following, or concurrent with, state-wide implementation, DSHS should integrate the AVS with ACES in phases. This is the best approach to move Washington into compliance with the federal AVS policy while procuring/implementing an AVS solution via a durable contract. Integration will be in phases because the department cannot perform the required level of integration now, to achieve desired operational efficiencies, because of the planned ACES replatforming and modernization. The pre-integration period will allow the agency to define and fully coordinate business requirements for supporting the proposed integration development work.

While extending the pilot project statewide to achieve compliance is also a possibility, there are some potential issues with this approach:

- Makes an assumption that has not yet been validated with all stakeholders that the department will continue with the current pilot vendor (PCG).
- Discussions with project principals suggest the current sole source contract vehicle may be difficult to extend beyond its expiration in December 2020 because the department has expressed interest in conducting a competitive procurement for the long term solution, though final procurement strategy has not yet been determined
  - This being the case, the department will not want to expand the pilot state-wide only to change platforms mid-stream, upon selection of a new Apparently Successful Bidder (ASB) from a competitive procurement.
- Economic Services Administration (ESA) at DSHS, in particular wants to see basic integration executed prior to implementation because of workflow inefficiencies represented by the manual standalone portal used in the pilot. This is another argument in favor of procurement of a more permanent solution sooner rather than later, so that integration work will only be completed once, on the long-term solution.

The current pilot AVS is a standalone web portal that does not interface with ACES. As a result, client data is input into AVS manually: a user logs in to the AVS portal and submits a verification request by manually entering the necessary demographic data and financial institution information. Users then have to log back into the AVS portal and check for returned verification results which are then input manually into ACES where eligibility determinations are finalized. This is an awkward and inefficient process, characterized by manual, dual data entry.

To address this major issue, the following integration levels are proposed. They can occur sequentially since full integration is not a realistic first option, in large part because of the planned replatforming and modernization of ACES. Fully integrating automated financial asset



verification into ACES is not the program's top priority. Therefore, a phased approach to integration is proposed.

### **Proposed integration phases:**

**Partial integration:** ACES generates an overnight batch file of new Medicaid application data and annual renewals to send to the AVS. Depending on the vendor, eligibility staff will add additional "direct search" banks once the case is added to the AVS. Eligibility staff will set a follow-up and check AVS results (in a portal). The eligibility staff will be responsible for updating ACES with the financial institution accounts and flagged transfers, and ultimately making an eligibility determination.

- Potential enhancement – direct searches are sent automatically based on accounts updated in ACES.
  - To enable direct searches, add a financial institution ID# field to ACES (cross-referenced to Accuity). If the known accounts coded in ACES include this field, then the direct search could be incorporated in the batch process. A financial institution table, including institution names and ID#s, may need to be added as a reference file to ACES, to enable direct search batch processing.
- Potential enhancement – AVS automatically alerts the eligibility worker when results are received (or when a designated time period has elapsed).

**Full integration:** ACES remains the sole system of record for eligibility determination, leveraging data provided by an AVS subsystem. All eligibility screening, determination and asset verification operations are performed within ACES. Components of full integration include:

- ACES generates an overnight batch file of new Medicaid application data and annual renewals to send to the AVS, including known bank accounts in ACES.
- AVS will poll financial institutions (FI) and return applicant asset information, FI accounts, flagged transfer information and, potentially, property information directly to ACES.
- New application and renewal eligibility determinations will still be the responsibility of eligibility staff; eligibility staff will review/validate the AVS results in ACES and reconcile discrepancies/resource exclusions with the client.
- Potential enhancement - automatic renewals for some programs can be considered for future implementation.

Business requirements, "to be" business processes and supporting integration specifications are in the process of being defined by DSHS/ALTSA/ESA.

The proposed integration phasing timeline is as follows:

- September 2019 – June 2020: develop integration business requirements
- April 2020 – June 2020: conduct procurement for a long-term AVS solution



- July 2020 – December 2020: complete batch processing integration with Long Term Solution (LTS) vendor. Expand AVS to all aged, blind, or disabled Medicaid programs statewide.

**Statewide AVS implementation must occur by December 31, 2020** to avoid CMS FMAP penalties.

- Phase 1 partial integration with ACES: July 2020 – June 2021
- Phase 2 full integration with ACES: July 2021 – June 2022

The maximum federal match rate Washington can receive for building in the required integration is 50%.

#### **Other essential components of the proposed solution**

- Establishment of a strong project governance/management structure emphasizing business requirements and business value optimization.
  - Reflecting the important nature of this project to the future of the department, a formal project management team has been established within the DSHS/ESA/Office of the Assistant Secretary (OAS) Program Management Office. The team includes a dedicated project manager, functional and technical SMEs involved in the Medicaid asset verification and eligibility business units and IT support functions, in addition to business analysts assigned to the project.
  - Business analysts and SMEs are currently working on defining system integration specifications and related business requirements related to eligibility determination, asset verification and workflow.

In summary, the proposed solution is to select the best AVS solution provider available, based on past performance, including integration experience and cost, and place them on a long-term contract. The recommended strategy then calls for implementation of this solution statewide before the end of Calendar Year 2020. There are different ways to accomplish the procurement aspect of this objective. This report will summarize the primary options.



## 1.5 Alternative Implementation Approaches Evaluated

The following alternative solutions were evaluated in the course of this analysis:

1. Do Nothing. Cancel the present pilot AVS initiative and revert to completely manual asset verification processes. This option is untenable because, as of January 1, 2021, the federally mandated and CMS enforced deadline for states to have operationalized electronic AVS solutions across their jurisdictions takes effect.<sup>1</sup>
  - For DSHS, the penalty for non-compliance has been estimated at \$8.8M in reduced Federal Matching Assistance Program funding in the first year
  - Statewide, the potential penalty rises to \$112M for the period FY2021 – FY2025 based on actual Medicaid spending growth rates projected forward.
2. Expand current AVS standalone web portal solution across all state verification resources, without ACES integration. Workflow inefficiencies, characterized by manual, dual data entry will not just continue but increase in magnitude. The standalone AVS configuration will add to existing workload for DSHS Medicaid eligibility staff as they come on-line with the system.

Pros	Cons
Minimal upfront implementation cost	Exacerbation of existing, separate “silo” systems state
Federal Compliance achieves substantial penalty avoidance objective	Manual look-up for staff; dual data entry and data extraction
Time to analyze business processes, data and responses	Medicaid financial eligibility units will require additional FTEs to support increased workload
	Potential contractual issues with extending a sole source contract in the absence of fair and open competition unless sole source contract criteria are satisfied

3. Select new Commercial Off the Shelf (COTS) vendor that offers full AVS integration with WA State's Medicaid eligibility system. There are one or two other vendors, besides PCG, in the AVS marketplace that promise compliance, integration and performance. However, these vendors are new to the market and do not have a track record of proven solutions successfully operating in major jurisdictions over time. Consequently, they represent higher risk options for the state and are therefore not recommended. Some elements of this option are similar to those relating to custom development where vendors new to the market will leverage and operate their first implementation as a beta test site. Other/new marketplace solutions are addressed in Section 6 of this study.

<sup>1</sup> The Jan 1, 2021, CMS deadline is prohibitively impactful for non-compliant states because it reduces FMAP funding across the entire state Medicaid population's federal support level as opposed to just the ABD (Aged, Blind, Disabled) population that is the basis for current penalties which have not been imposed to date



## 1.6 Preferred Solution

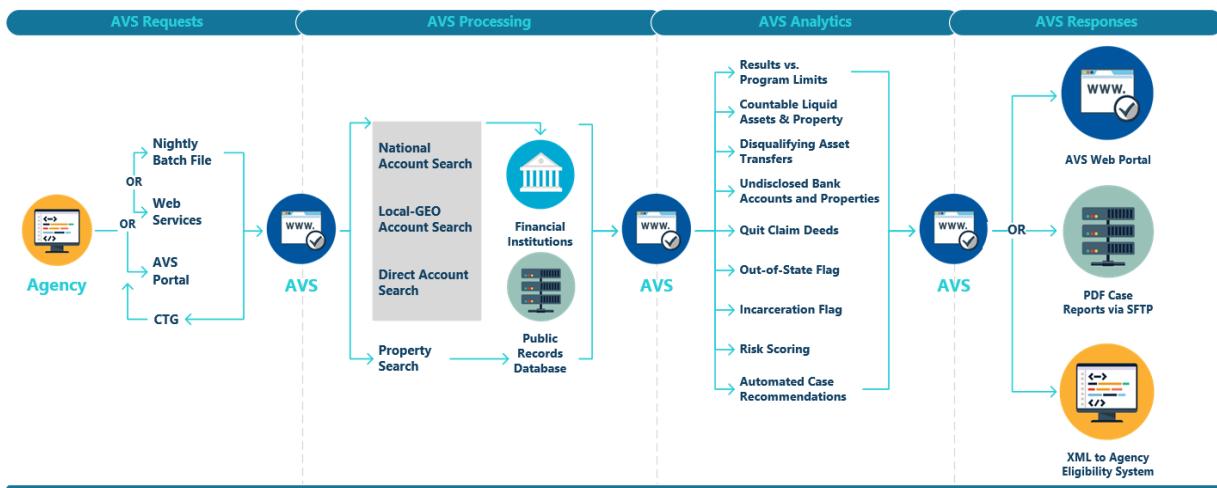
The preferred solution is to expediently procure the best long-term AVS solution available, deploy the system on a state-wide basis and integrate it with ACES in realistic/practical stages. This preferred option achieves the following benefits:

- Balances short-term priorities with a long-term vision
  - The short-term priority is compliance with the Jan 1, 2021 deadline for deploying a statewide system
  - The long-term vision is to retain a reliable and proven AVS vendor via an acceptable contractual vehicle and integrate the chosen solution with ACES
- Achieves compliance with Federal mandates avoiding potentially severe FMAP reduction penalties
- Reconciles workflow redundancies and inefficiencies over time
- Respects the complexity and difficulty of ACES rehosting and modernization while recognizing that ACES integration is key to AVS benefits realization

## Approach – conceptual model

The following diagram graphically depicts a simplified conceptual model for DSHS's AVS environment. This graphic depicts an “integrated architecture” that is envisioned approximately three years in the future, once ACES reengineering has stabilized and a robust interface or the desired level of system integration has been achieved. An integrated AVS solution will improve the performance of the organization across the spectrum of state Medicaid eligibility determination operations by reducing inefficiencies caused by disconnected, redundant processes.

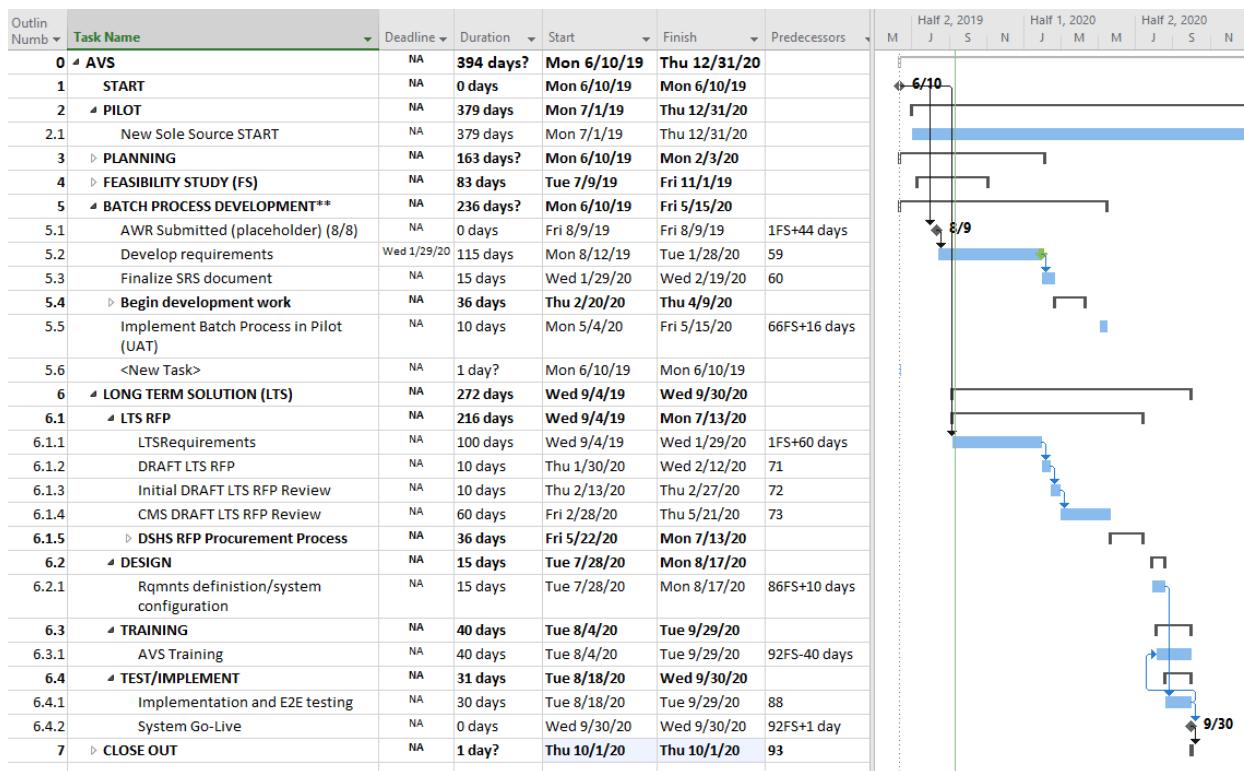
### AVS Conceptual Future Architecture





## 1.7 Proposed Project Schedule

The following project timeline illustrates the high level, project schedule reflecting early emphasis on requirements definition (e.g. batch process development, solution requirements), mid-term emphasis on Long-term solution selection/procurement of the current pilot and future emphasis on ACES integration<sup>2</sup>. Funding for the pilot project was obtained through an approved Decision Package in the FY 17 – FY 19 budget cycle. This schedule will be updated through the course of the project as changes occur.



### FY20 (current year) principal activities:

- Pilot operation and workflow integration planning
- Create/charter the AVS project team
- Conduct requirements definition
- Conduct initial coordination of integration requirements with the ACES project team
- Develop strategy to support AVS Long-Term Solution procurement
- Develop/submit reports (e.g. Feasibility Study; Legislative Report; Investment Plan)
- Legislative communications/coordination
- Conduct procurement, select vendor, commence state-wide implementation

<sup>2</sup> Note: integration requirements to be defined under the major task heading, Long Term Solution/LTS Requirements



## FY21 principal activities:

- Finalize statewide implementation prior to December 31, 2020
- Approve integration specifications
- Schedule integration specifications
- Conduct project analytics (design reports to benchmark desired metrics)
- Conduct procurement (if required)
- Update project schedule
- Update time study and calculate ROI

These are all major activities requiring a formal project management and governance structure under the umbrella and direction of the DSHS/ESA/OAS Program Management Office, the organizational component managing the project.

## 1.8 Summary

The timing constraints associated with the AVS project make it a challenging initiative. Balancing the requirements for compliance by the CMS deadline with the operational units' business process needs and integration in the face of the ACES rehosting and portability schedule make this a daunting project management endeavor in terms of major task alignment to meet schedule targets.

Clearly, DSHS and HCA must meet the Jan 1, 2021 deadline for state-wide CMS-compliant AVS deployment/operation. Because the department's pilot project is operating with a temporary contract, a more durable agreement should also be sought.

The AVS marketplace is dominated by one service provider, PCG, also the DSHS pilot vendor. There is precedent, within the Washington State IT Services contracting arena, for direct contracting when "market conditions" are compellingly declarative that only one vendor can reliably execute, based on a proven and extensive track record of past performance. Because of the prevailing market conditions, direct contracting is a strategy that should be explored until it is definitively ruled out. This is primarily because the market scan conducted in conjunction with developing this report does not point to a highly or even moderately competitive marketplace. The usual benefits of engaging a competitive procurement process in this case are not assured.

Moreover, to reduce project implementation risk, especially when schedule issues are a top priority and a mandatory deadline must be met, IT services buyers should carefully consider the risks inherent to selecting unproven solutions, when reliable and proven options are not only available but already in place. Proven solutions offer greater assurance of meeting hard project target dates. Direct contracting, therefore, is a potential opportunity that should be considered given the polarity in the AVS market place (i.e. "market conditions") and Washington State Government's critical timeline requirements.

Another available procurement option is leveraging the AVS solution (also PCG) available from the New England States Consortium Systems Office (NESCSO) master contract. Several states have signed up to purchase AVS services off this contract. However, WA State can likely reach equally favorable terms on its own accord, and also better manage unique requirements such as integration with ACES, via an exclusive contracting process.



Choosing not to implement a statewide AVS solution is not a viable option because it will invoke cost prohibitive FMAP penalties.

Selecting new, unproven solutions is untenable because of associated cost and schedule risks.

This leaves a thoughtful, well planned procurement strategy and expedient execution thereof to obtain a long-term solution as the recommended course forward. Relevant market conditions are such that direct contracting should not be ruled out. The critical deadlines that must be met also support serious consideration of a sole source procurement because of the inherent timing issues: a competitive procurement will require several additional months to conduct. Finally, as other departments that have conducted direct acquisitions have learned, direct procurement can also cost less, in terms of the time and effort spent on managing the procurement on the state's side and in terms of proposal generation costs on the vendor's side, which are typically passed on to the purchaser. The net result being a lower overall cost of ownership. In any case, input from several key state agencies will be required to make the best procurement strategy decision going forward.



## 2.0 Background and Needs Assessment

This section presents an overview of the Asset Verification System Feasibility Study including project background and an overview of the relevant DSHS business environment, existing processes, supporting systems and their limitations.

### 2.1 Background

Section 1940 of the Social Security Act of 2008 (42 USC 1396w) requires states to implement a system for verifying assets of aged, blind, or disabled applicants and recipients of Medicaid through the use of an electronic asset verification system (AVS). DSHS is obligated to conduct a financial asset test on Medicaid applicants within this population.

Countable assets are assets that can easily be converted to cash to help cover the cost of long-term care or other Medicaid services and include the following: Cash, stocks, bonds, investments, credit union, savings, and checking accounts, pension funds, and real estate in which one does not reside. However, for Medicaid eligibility, there are many assets that are considered exempt (non-countable). Exemptions include personal belongings, household furnishings, an automobile, irrevocable burial trusts, and one's primary home, given the Medicaid applicant or their spouse lives in the home; specific to long-term care, the home equity is limited to \$585,000 (2019).

There is also a maximum asset allowance that differs depending on the program or services that the applicant is applying for. Medicaid programs for low income applicants who are not seeking long-term care have a \$2000 resource test for a single person, and \$3000 for a married couple. When an applicant is applying for long-term care, there are federal spousal impoverishment rules in place for married couples to prevent the non-applicant spouse from having too little income and resources on which to live. Because Medicaid is for persons with very limited resources and very little income, a married couple might end up in the situation when one spouse enters a nursing home and the other spouse has no money on which to live. Therefore, if the couple's joint assets are \$60,075 (2019) or less in Washington State, the non-applicant spouse can keep 100% of the assets. This is referred to as the Community Spouse Resource Allowance (CSRA).

Single aged, blind or disabled Medicaid population members in Washington can have up to \$2000 in countable, assets while married couples are allowed up to \$3000 (both spouses applying). See Appendix A for more information on program thresholds.

In addition, there are higher asset tests for applicants who are seeking assistance for Medicare cost-sharing expenses.

The financial asset test is applied in present tense, at the time of application or renewal. However for long-term care services, the department must also look at assets for a 60 month (5 year) Medicaid Look-Back Period. During the look-back period, Medicaid rule requires the department to check all past asset transfers to ensure no assets were sold or given away under fair market value. This is done so one does not simply give away assets in order to meet Medicaid's asset limit or to avoid estate recovery. If an applicant or recipient is found to have completed a transfer without adequate consideration during the look-back period, a period of Medicaid ineligibility will result.



## 2.2 Business Environment

### 2.2.1 Organizational Structure

The Health Care Authority (HCA) is the single state Medicaid agency in Washington. DSHS is the Agency's designee relative to eligibility determination and ongoing case management work for the Aged, Blind, or Disabled Medicaid, Long-term Services and Supports, and Medicare Savings Program eligibility caseload. DSHS must work closely with HCA to develop the long-term strategy for an asset verification system that complies with federal requirements, maximizes efficient use of staff time, supports accurate client financial eligibility determinations, and incorporates relevant findings from the feasibility study.

In addition, both the HCA and DSHS are partners in the Health and Human Services Coalition (HHSC) which is a governance body providing oversight for IT projects which may have impacts across one or more coalition partners.

The Washington State Health and Human Services Coalition (HHSC) consists of the:

- Health Care Authority
- Department of Social and Health Services
- Department of Children, Youth and Families
- Department of Health
- Health Benefit Exchange
- Office of the Chief Information Officer (ex-officio)
- Office of Financial Management (ex-officio)

AVS is a project that is under the oversight of several entities and this adds complexity to the business environment and decision-making. For example, this feasibility study and the accompanying Legislative Report will be subject to reviews by the above agencies making meeting submission deadlines challenging. Consideration should be given to establishing a lead agency for this project with other agencies contributing as valued stakeholders. The final feasibility study deliverables are subject to reviews and approvals by members of the following organizations:

1. DSHS
  - Aging and Long Term Care Administration Executive Management
  - Developmental Disabilities Administration Executive Management
  - Economic Services Administration Executive Management
  - Community Service Division Management
  - IT Services Division Management
  - Enterprise Technology Management
2. HCA
3. Health & Human Services Coalition
4. Office of Chief Information Officer
5. Office of Financial Management



## 2.2.2 Business process

Per federal law, an electronic Asset Verification System (AVS) must be employed at eligibility determination and renewal for clients on, or applying for, aged, blind or disabled Medicaid programs subject to an asset test. Prior to utilizing asset verification, staff are required to receive an authorization from the client and spouse (if applicable). Currently, client authorization can be obtained via a signature on an application or renewal, or when the Public Benefit Specialist (PBS) reads a script and the client authorizes verbally. Starting in January 2020, if a client refuses to authorize AVS, the client will be denied eligibility for Medicaid.

- Aging and Long-term Support Administration (ALTSA) utilizes caseloads to serve their clients; cases are sorted by office (using zip codes) and then within each office, the Public Benefits Specialists (PBS), also referred to as Financial Workers, are given a portion of the alphabet to work. Applications are assigned to workers in a rotation. All HCS PBS staff utilize AVS.
- Economic Services Administration (ESA) utilizes “work pools” to accomplish their workload. Community Services Division (CSD) is proposing to establish a specialized work unit focusing on asset verification. This unit will represent a subset of the overall CSD workforce. PBSs are assigned specific pools, or work queues, based on client characteristics and/or document type. CSD envisions employing a specialized team to analyze and act upon AVS results. CSD is not yet “live” on the pilot AVS.
- CSD plays a critical role in determining client eligibility for Medicaid benefits. CSD PBSs manage a sustained, heavy financial workload of intake and eligibility determinations. PBSs conduct interviews, gather and review information and verifications and determine eligibility for cash, food, and medical benefits. Once access to AVS is established, PBS staff will both screen and process aged, blind, or disabled medical programs while also submitting and responding to AVS requests. They will follow-up on AVS results and determine Medicaid eligibility.
- Developmental Disabilities Administration (DDA) workflow represents a hybrid model composed of the two practices above: documents are queued into statewide pools based on document type, supervisors then go into the Barcode System and assign documents based on the workers specialty type and/or the number of items currently in their to-do lists in Barcode. All DDA PBSs work on applications and renewals. All DDA PBS staff utilize AVS.

For full AVS interoperability with ACES, the following level of integration is proposed:

### **Asset Verification system (AVS) and Aged, Blind, or Disabled Medicaid Auto Renewal**

Implementing automated electronic verification of current assets will allow for the eventual development of automated aged, blind, or disabled Medicaid renewals. Resources/assets need to be verified at each 12 month renewal interval. An asset verification system is a requirement in order to automatically renew SSI-related and long-term care medical coverage.



Integrating Asset Verification into the Medicaid Auto-Renewal workflow would save significant staff hours currently applied to manual data entry methods. The MAGI population<sup>3</sup> auto-renewal rates for the past 14 months are as follows:

Renewal Month (month certification period ends)	Total Individuals to Renew for the month	Auto Renewed
7/31/2018	98117	74%
8/31/2018	104050	76%
9/30/2018	101645	73%
10/31/2018	109466	72%
11/30/2018	131458	70%
12/31/2018	183980	75%
1/31/2019	130726	73%
2/28/2019	128984	74%
3/31/2019	110233	73%
4/30/2019	97145	73%
5/31/2019	98564	73%
6/30/2019	95801	73%
7/31/2019	104853	73%
8/31/2019	104725	76%

### Proposed Business Process:

Renewals occur every month for a portion of the caseload. Each month, approximately 70 days before the renewal due date, all recipients and their countable household members (e.g. spouses) will be sent through a batch process to the AVS.

Depending on performance and other criteria, but anticipated at 12-15 days, the responses from the AVS will be returned and stored for future processing.

Approximately 60 days before the renewal date (specific timeline TBD) a series of rules, based on the response or lack of response from AVS, will dictate which Medicaid enrollees are

<sup>3</sup> The MAGI population is not at this time subject to financial asset verification, however preliminary discussions are underway at the federal level that proposed moving in this direction.



automatically renewed and which need to re-attest to their current circumstances and provide verification.

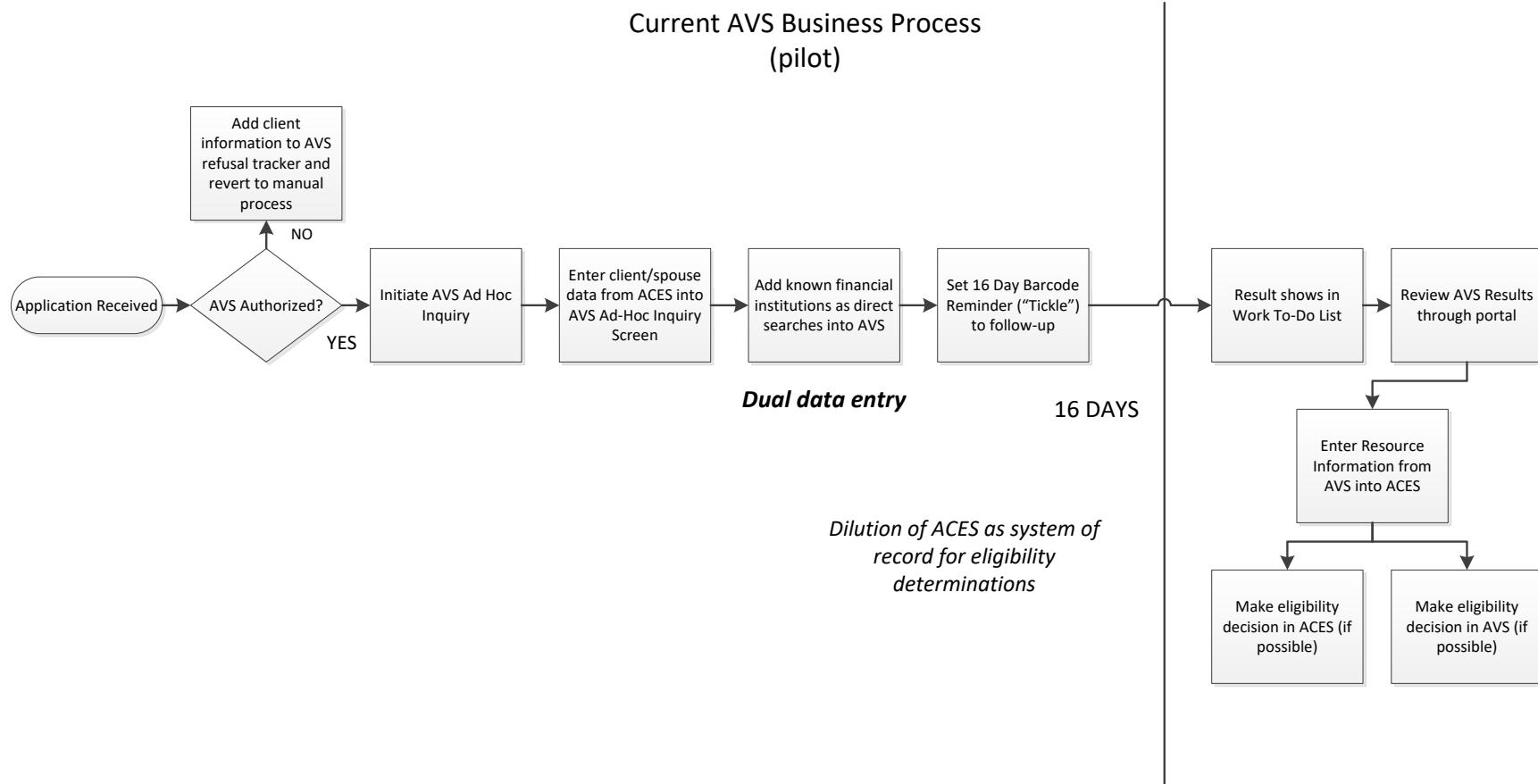
Examples of potential rules and the result:

- 1) If the AVS response confirms there are financial accounts but the sum of all the account balances are below the asset/resource limit, then coverage is renewed. A letter is sent along with a prepopulated renewal form and coverage is to continue another 12 months without any action by Medicaid family or by state staff.
- 2) If Medicaid enrollee *did not* previously report any financial accounts, then either no response from AVS or a response indicating accounts totaling less than the asset/resource limit will result in auto renewal. A letter is sent along with a prepopulated renewal form and coverage is to continue another 12 months without any action required by the Medicaid family or by state staff.
- 3) If AVS returns results with accounts that have a sum greater than the asset/resource limit, then auto renewal will not occur. A letter will be sent with a prepopulated renewal form. The enrollee will need to update the form with any new information and sign/return the form; the renewal form can be submitted online as well. Verification of the registrant's current accounts will be required. State staff would need to review the returned information and compare it to the AVS data results.

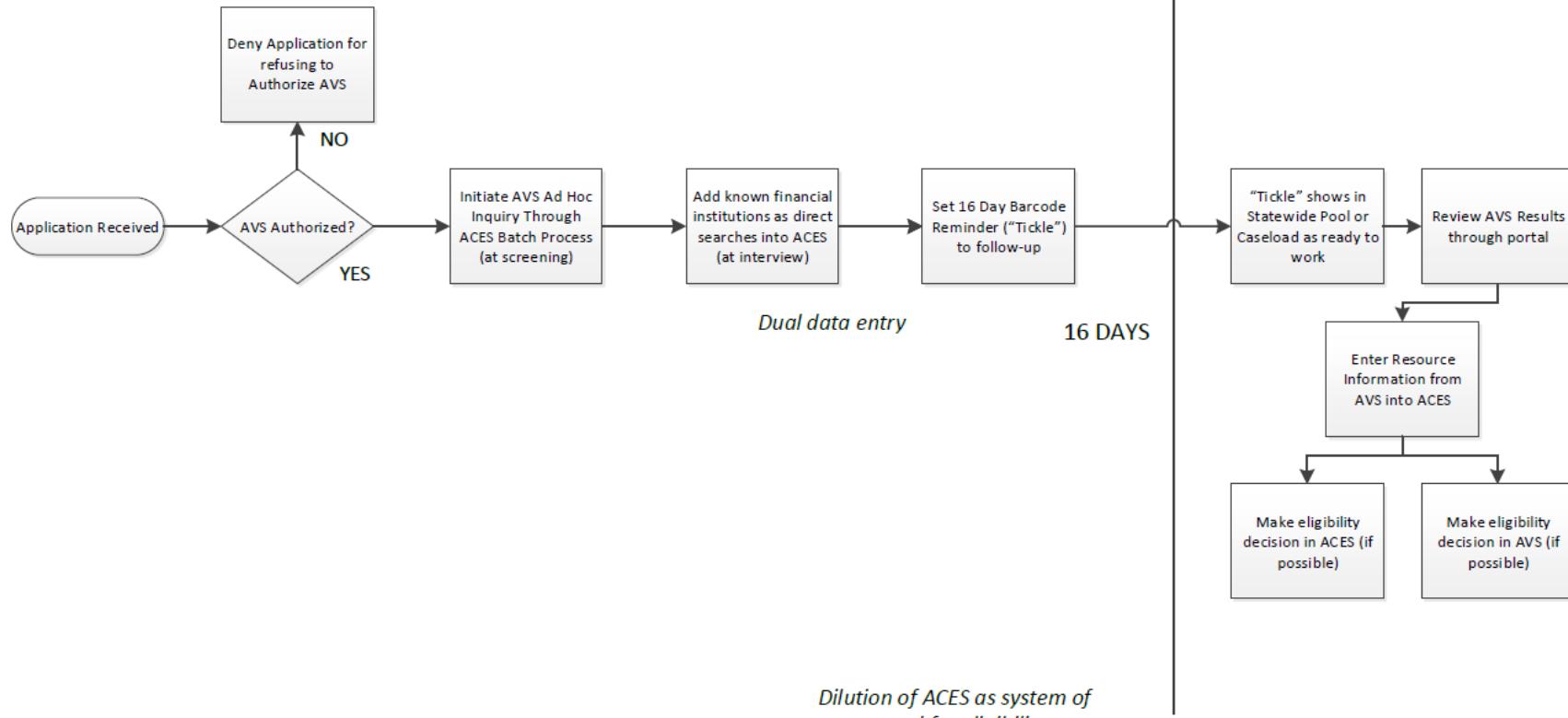
#### **High-level Timeline and process:**

- 70 days prior to renewal → All required demographic data sent to AVS.
- 70 to 55 days → AVS responses are automatically returned and stored.
- 55 days prior to renewal → rules are run utilizing AVS responses. Coverage is auto renewed or not based on AVS data and the rules. Letters are sent.
- 55 days to 0 days prior to renewal → any new AVS responses are received. If new data indicates excess resources for someone that auto renewed, then staff would review and take appropriate action.
- 10 days (or other designated date) → anyone who did not auto renew and failed to respond will have coverage automatically terminated without user action.

*Workflows illustrating the current, standalone pilot AVS with successive proposed integration levels are shown on the following pages. Manual processing steps that are no longer needed with increased levels of ACES integration are called out and shown as strike-throughs.*



### Future AVS Business Process (Partial Integration Batch Process)

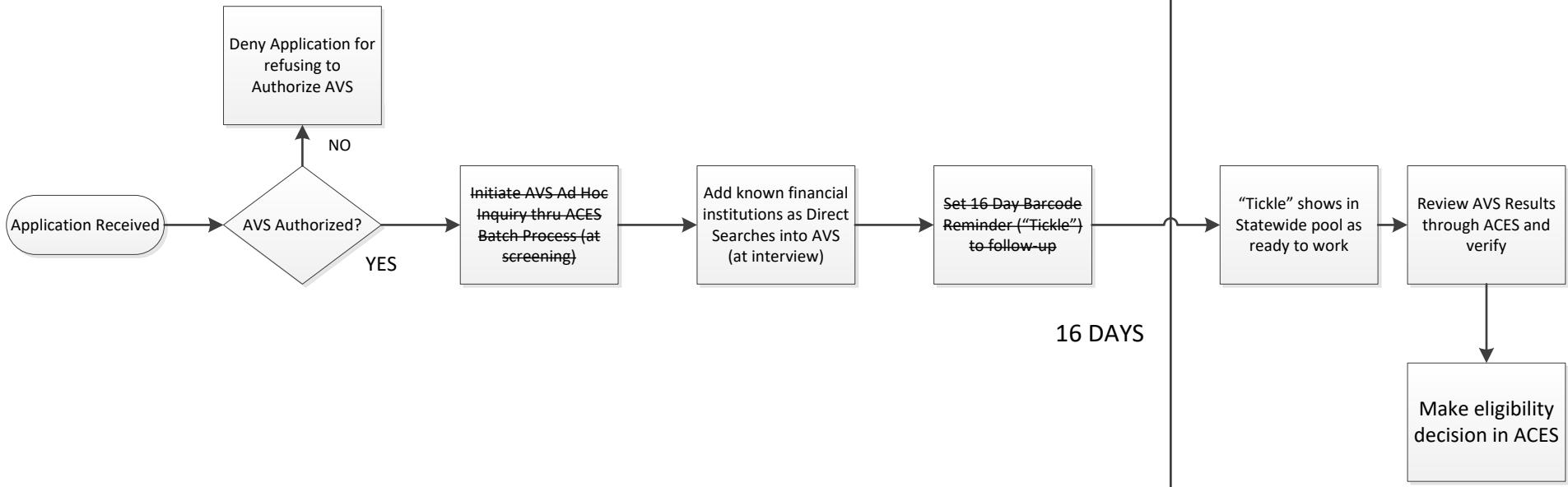


**Impact to workflow model WITHOUT integration:**

Steps that would need to be included:

- Initiate AVS Ad-Hoc inquiry through ACES Batch Process (at screening)
- Set 16 day Barcode reminder (Tickle) to follow-up
- Review and enter resource information from AVS to ACES

## Future AVS Business Process (Fully Integrated)



### **Impact to workflow model WITH integration:**

Steps that can be removed:

- Initiate AVS Ad Hoc inquiry through ACES Batch Process (at screening)
- Set 16 day Barcode Reminder (Tickle) to follow-up

"To Be" Workflow with Integration (Duties/Activities)

Financial Eligibility (Program Benefits Specialist)

- Manage financial workload of intake and on-going eligibility determinations. Conduct interviews, gather and review information, verify information, and determine eligibility for cash and food. Screen



### 2.2.3 Systems environment

Washington uses a legacy mainframe system [Automated Client Eligibility System (ACES)] to determine eligibility for all Medicaid applicants, including those enrolled in aged, blind, or disabled Medicaid programs that are subject to a test of financial assets prior to finding an individual eligible. The system is nearing the end of its useful life and the department is preparing to contract for a replacement system. Currently, approved ACES change requests may take several months of work before software updates can be included in quarterly ACES releases. With critical changes taking priority, changes of lower precedence may not make it through the change control approval process.

Next year, the ACES mainframe system is being re-hosted and DSHS will not be able to implement any system changes whatsoever during the period January 2020 – July 2020, making it challenging to integrate any solution with ACES prior to the end of December 2020. Any AVS solution must have the ability to connect with the current eligibility system in a way that makes it possible to be reconfigured to a new eligibility system after ACES modernization/replacement.

Washington is currently contracted with PCG to conduct a pilot of their asset verification solution. This pilot uses a web-based, manual, standalone portal that DSHS staff must log into, manually enter client information, and then manually retrieve banking information results. Information returned through the AVS portal must then be entered separately into the eligibility system (ACES). This process is labor intensive, error prone, and time-consuming for DSHS staff and has resulted in additional staffing costs to complete the manual input required, as well as causing delays in the eligibility determination for state Medicaid clients.

Each agency uses the same source system(s) for processing and determining client eligibility:

- ACES 3G (Automated Client Eligibility System) – is where all client information is entered and Public Benefits Specialists make eligibility determinations. Applications are initially screened in ACES 3G.
- ACES Online – staff can view client case information, add remarks, create client correspondence and inquire on case status, but are not able to enter other data or make eligibility determinations.
- The Document Management System is used as the central tracking mechanism for documents including applications and eligibility reviews. These documents are imaged into a client's electronic case record within the Barcode system and the system makes assignments according to the relevant workflow for each agency (to a pool, according to caseload, supervisor review, etc.).

## 2.3 Business Needs

Overarching DSHS Medicaid program AVS business related requirements are:

- Comply with Federal Government (CMS) mandatory requirements for aged, blind, or disabled Medicaid population financial asset verification
  - Achieve and maintain aged, blind, or disabled Medicaid population eligibility determination program integrity



- Avoid severe FMAP reduction penalties for non-compliance by the CMS deadline of January 1, 2021 by implementing a compliant, statewide AVS
- Sensibly integrate AVS with ACES to achieve workflow efficiencies and eliminate/reduce manual operations characterized by dual data entry
  - This represents a challenging objective since ACES rehosting and modernization will present a “moving target” for integration not to mention competing priority ACES change requests
    - Requires that the AVS solution chosen be highly portable in terms of eligibility system compatibility and migration “scalability” and also to have the capability for local configuration
  - Add property asset verification as an additional, future test for Medicaid eligibility determinations
  - Select a solution vendor that shares the department’s values of providing responsive and cost-effective customer service and who has proven through past performance that it will consistently meet project target dates on-time and on-budget
  - Enhance reporting and analytics visibility to management and staff
  - Comply with NIST and OCIO/WaTech Security Requirements for privacy/security of client information (computer data breach history of vendors should be an evaluation criteria)

## 2.4 Technical Environment

### Technical Environment

Virtually every viable AVS solution in the Medicaid asset verification market place is offered as a Software as a Service (SaaS) application, therefore these systems do not require on-site hosting nor have major client infrastructure impacts. Operation of the pilot, for instance, has not identified any infrastructure impacts though transaction volume will increase with the state wide rollout planned in CY2020.

The principal state IT environment the AVS application will interact with is the ACES eligibility system. Following is a description of the ACES technical environment that the AVS chosen as a long-term solution will need to interoperate with, though initially only at a batch file process (interface) level. ACES defines the relevant technical environment, and state technology perimeter, for this project.

ACES is the state’s automated public assistance system for cash, medical, and food programs. ACES was implemented in Washington State in April 1996 following a federal requirement that each state operate an “integrated eligibility system.”

Economic Services Administration (ESA), DSHS, provides the ongoing supplemental system maintenance and operation support for the Automated Client Eligibility System (ACES), Eligibility Service (that determines eligibility for MAGI-based Medicaid applications received through the Health Benefit Exchange), and Washington Connection through use of contracted resources. In addition to major contracted IBM resources, supplemental design and development efforts are provided by contracted staff within the IT Solutions Division of Economic Services Administration. ACES supports the eligibility determination and case maintenance process for Temporary Assistance for Needy Family (TANF), the Basic Food Program and aged, blind, or disability-based Medicaid Programs for the state of Washington.



The Eligibility Service was developed to support the Affordable Care Act and Washington's Health Benefit Exchange. Washington Connection is a public-facing web application supporting online application for public assistance benefits, eligibility reviews, and reporting changes in circumstances. The site is used by the public as well as by Community Based Organizations, and includes a Client Benefit Account for personalized benefit information. ACES and the ACES-related systems support federal and state policies and procedures for delivering benefits to clients statewide. ACES is a large and comprehensive, mission critical system, supporting up to 8,000 users in over 90 locations throughout the state and controlling over \$2 billion in annual client benefits.

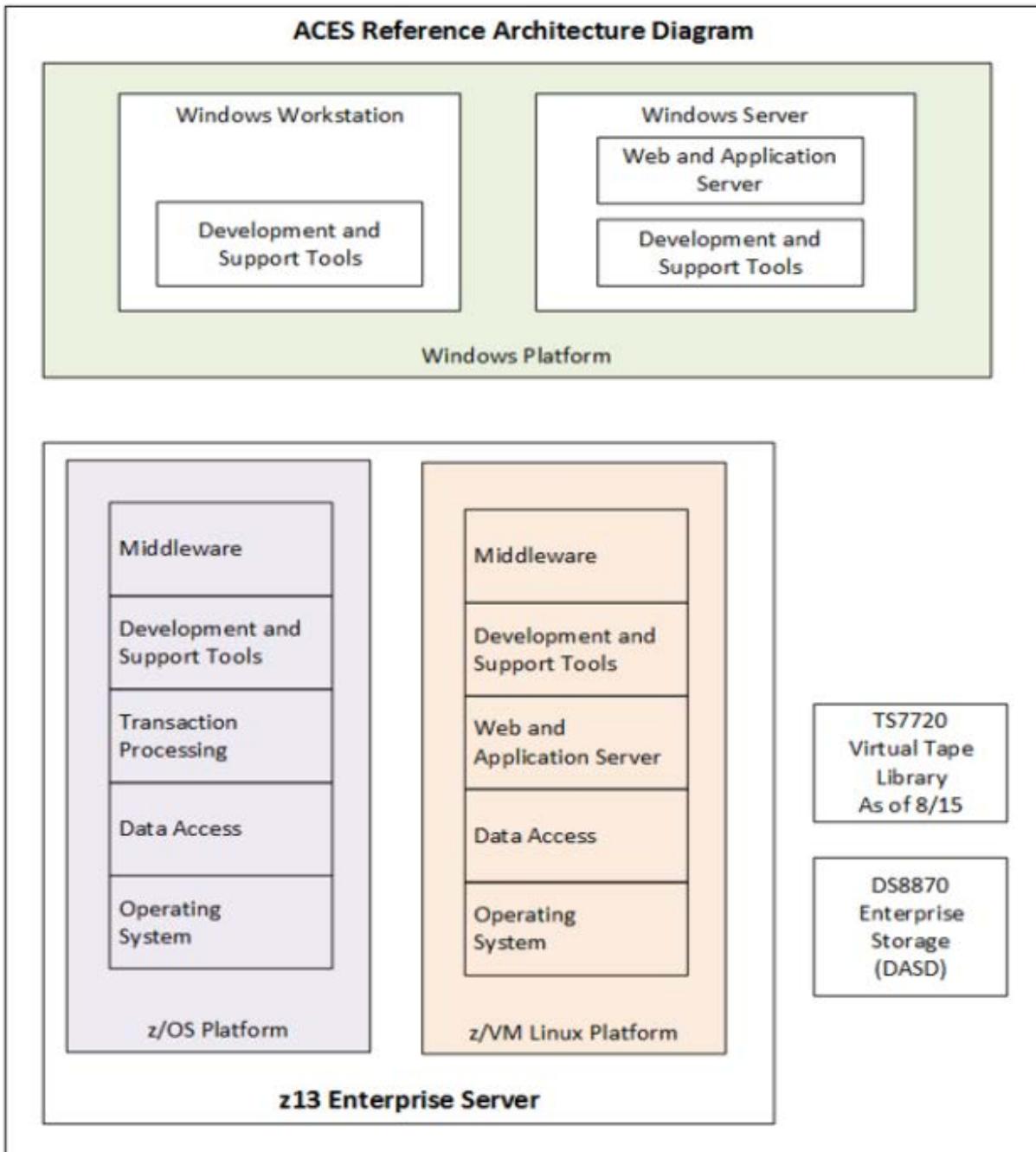
ACES supports a variety of statewide functions and payment processes including:

- Client intake and screening, including face-to-face and telephone
- Application processing, including "online" applications
- Scheduling for eligibility determination and review
- Multi-program eligibility determination
- Medicaid eligibility service (ES) determination for Health Plan Finder application
- Automated benefit calculation and benefit issuance (EBT and EFT)
- Client notifications including eligibility and benefit changes
- Over 70 state and federal interfaces
- Reports and inquiries needed for routine operation, as well as those required for primary research functions, forecasting, and budget purposes



## ACES Reference Architecture

The ACES Technical Environment is represented by this diagram showing the hardware and software applications supporting the program's complex of applications and supporting systems. This is the environment that the AVS will need to interoperate with as integrations are planned and implemented.





## ACES Major Components

ACES application is deployed using several different technologies to deliver service to clients, staff and partners.

- ACES legacy functions run on IBM z/OS mainframe operation system. This portion of the application is primarily written in COBOL programming language and uses IBM IMS and DB2 databases to store client data. IBM CICS is the transaction manager for real-time processing. Batch processing is executed in this environment and controlled by IBM TWS job scheduling software. This portion on the system is responsible for food, cash, long-term care and some Medicaid eligibility determinations. Other functions include automated case maintenance, client correspondence, data exchanging with most partners and issuance of benefits.
- ACES Online functions run on SUSE Linux servers hosted under IBM z/VM hypervisor OS. ACES Online is a web application written in Java and running on IBM WebSphere Application Server. The portion of the application is the primary case maintenance and inquiry facility for staff. Staff are able to screen-in clients, complete the interview process to collect all required data, view real-time eligibility, create client correspondence and inquire on case status but are not able to enter other data or make eligibility determinations.
- The case maintenance functions have real-time web interfaces to partners to gather current data prior to eligibility determinations. ACES Online interacts directly with DB2 databases, makes calls to CICS to access IMS databases and to execute the COBOL eligibility modules.
- Washington Connection functions run on SUSE Linux servers hosted under IBM z/VM hypervisor OS. It is a web application written in Java and running on IBM WebSphere Application Server. It uses IBM Operational Decision manager to analyze client input to make recommendations to which assistance program a client may be eligible to receive benefits. An electronic application is created from client input and routed to the ACES component for automation pre-loading of data into ACES databases and copies of the application information is sent to partners for further actions by them.
- Eligibility Service functions run on SUSE Linux servers hosted under IBM z/VM hypervisor OS. It is a web service written in Java and running on IBM WebSphere Application Server. It uses IBM Operational Decision manager to determine Medicaid MAGI or Tax Credits eligibility as prescribed by the Affordable Care Act. This web service is used exclusively by the Health Plan Finder application run by Washington Health Benefit Exchange that was created as part of the Affordable Care Act. Output from this service is sent to ACES to record the results of the eligibility determination, forward the new Medicaid information to Washington Health Care Authority for further processing by them and to synchronize data between ACES and Health Plan Finder.
- Data Warehouse functions run on Intel Servers running Windows OS. A monthly snapshot of the ACES databases are created in DB2 on Windows. This data is used for required monthly federal reporting and feeds the ACES BI reporting. BI processing uses IBM InfoSphere DataStage software to build and maintain custom data marts. IBM Cognos



Analytics software is used to generate reports from the data marts. Several ACES partners access this data to supplement their reporting

## **ACES Processing Platform**

ACES application uses an IBM mainframe and Intel servers to deliver the application functions.

The mainframe runs two IBM operating Systems, z/OS for the legacy components and z/VM as a hypervisor to host Linux servers. Microsoft Windows is the primary OS for the Intel servers.

### **z/OS V2.1 – Technologies**

- JES2 V2.1 to manage batch programs
- CICS V5.2 to run COBOL online programs
- IMS V13.0 hierarchical database manager
- DB2 V11.0 Relational database manager
- WebSphere MQ V8.0 manager for both transaction and file exchanges
- TN3270 allow terminal access to legacy real-time functions
- FTP for exchanging files with partners and between ACES components
- TWS for z/OS V9.2 job scheduler
- Omegamon for monitoring the z/OS, CICS and DB2
- Enterprise COBOL V5
- RACF Security sever
- IBM Guardium data monitor for IMS and DB2

### **z/VM V 6.4 – Technologies**

- Performance Toolkit for monitoring z/VM and Linux OSes
- Dirmaint VM directory manager for managing the VM guests definitions
- RACF Security server
- SUSE SLES V12 Linux OS

### **SLES V12 – Technologies**

- WebSphere Application Server ND V8.5.5
- IBM Operational Decision Manager V 8.9
- WebSphere MQ V8.0 manager
- InfoSphere Information Manager V 11.7 (DataStage)
- Cognos Analytics V
- IBM Security Directory Services
- IBM HTTP Server
- DB2 for LUW V10, V11

### **Windows – Technologies**

- Correct Address for postal address validation/standardization



- Windows IIS servers for reports serving and HTTP services
- DB2 for LUW V9.7
- NetCobol
- FTP

The ACES rehosting schedule is as follows:

97%	Initiation Phase	200 days	1/10/2019	10/21/2019
96%	2 - Analysis and Detailed System Review Phase	249 days	1/10/2019	12/27/2019
29%	2, 3 & 4 - Review/Design/Migration	378 days	2/5/2019	7/20/2020
0%	5 - Deployment Phase	75 days	3/2/2020	6/12/2020
0%	GO-LIVE	55 days	4/13/2020	6/26/2020
0%	Post Implementation Phase	127 days	6/29/2020	12/22/2020
0%	PROJECT MILESTONES	150 days	11/29/2019	6/26/2020
0%	PROJECT OVERVIEW	334 days	3/15/2019	6/26/2020

As a result of this schedule, ACES interoperability and integration development activity will be restricted for at least the first six months of CY2020. After that interval, system changes and development work will be subject to the ACES configuration change control process with prioritization of only the most urgent work requests receiving immediate attention.

## 2.5 Technical Needs

Primary technical requirements for the Asset Verification System include:

- Single Integrated Eligibility System: The AVS solution will interoperate with ACES in such a way as to allow that system to serve as the department's single system of record for Medical eligibility determinations. The AVS will be configurable as an eligibility platform subsystem. Ease of integration, portability and configurability are key characteristics of the new system.
- Compliance with National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53 or equivalent. SP 800-53 sets industry security standards for the protection of information in federal systems and has become a defacto security policy for non-Federal systems and networks.
- System up-time of 99+% with allowance for scheduled system maintenance.
- Solution vendor to have business continuity plan tested and in place for system restoration in case outage; plan will include fail-over protection and secure, redundant data repositories.
- Technical staffing: ACES maintenance staff are heavily tasked in designing and making program changes while also planning for system migration; WA state technical staffing shortages will be mitigated by using contract resources where possible.

In the event of a planned procurement of a new COTS SaaS AVS solution, a complete set of proposed technical requirements is referenced in Appendix G.



## 2.6 Statutory Requirements

Approved by Congress in 2008, the statutory Asset Verification Program (AVP) provision requires states to have a mechanism in place to verify assets for purposes of determining or redetermining Medicaid eligibility for aged, blind and disabled Medicaid applicants or recipients (Supplemental Appropriations Act, 2008, Pub. L. No. 110-252; **Section 1940 of the Social Security Act**). The Affordable Care Act added the additional requirement that the AVP systems be electronic (e-AVP).

Section 1940 language regarding the mandatory state implementation requirement is as follows:

(i) Payment under the preceding provisions of this section<sup>4</sup> shall not be made—

(24) if a State is required to implement an asset verification program under section 1940 and fails to implement such program in accordance with such section, with respect to amounts expended by such State for medical assistance for individuals subject to asset verification under such section, unless—

(A) the State demonstrates to the Secretary's satisfaction that the State made a good faith effort to comply;

(B) not later than 60 days after the date of a finding that the State is in noncompliance, the State submits to the Secretary (and the Secretary approves) a corrective action plan to remedy such noncompliance; and

(C) not later than 12 months after the date of such submission (and approval), the State fulfills the terms of such corrective action plan;

The Medicaid Extenders Act of 2019 (Public Law No. 116-3). The bill reduces the federal medical assistance percentage (i.e. Medicaid federal matching rate) for states that have not implemented statewide asset-verification programs for determining Medicaid eligibility. Since the penalties are applied to the full FMAP across all Medicaid populations, **the estimated overall penalty for non-compliance could potentially amount to \$112M in reduced federal Medicaid matching funding for the period 2021 – 2025.**

The Deficit Reduction Act (DRA) of 2005 extended the look-back period for possible transfer of assets, to mask true net worth, to five years. As a result of the DRA, 60-month financial asset review is required for a compliant asset verification process. The main financial network solution provider (Accuity) supports five year financial account look-back.

## 2.7 Prior Studies and Solution Research

DSHS has not conducted an RFI. However, the agency and HCA have conducted the following marketplace assessments and/or technology trials:

- Compiled nationwide research on available solutions (Appendix C)
  - The agency, state coalition partners or its representatives have communicated with eight states (NY, CO, TX, WV, KY, NM, OR & IN) about their AVS approaches and/or vendor contracts

<sup>4</sup> Reference is made to the general conditions under which Medicaid Federal Matching Assistance Payments are made to states. Failure to implement an Asset Verification Program is one of 27 discrete conditions that will result in Medicaid matching funds being withheld from states by the Federal Government



- Initiated an AVS pilot with PCG/Accuity beginning in December 2018 that has yielded valuable lessons learned about the dominant solution in the market place
- Obtained actual AVS solution contract information from other states for benchmarking purposes
- Attended Medicaid management workshops and seminars to cross-talk vendor experiences and lessons learned

Primary Lessons Learned from the PCG Pilot include:

- Meeting schedule gates for major tasks proved challenging especially without an early project management structure; once this structure and associated controls were put in place, the project was better managed and the pilot project implemented.
- Because of the collective of agency stakeholders involved, formal designation of a “lead agency” should be considered. The lead agency would have primary authority for the project and final say in critical decisions. Within the lead agency, an executive sponsor should be appointed/designated to oversee the initiative and facilitate interagency communications.
- A number of process-oriented lessons learned were identified. Chief among them was the requirement for “*direct financial asset searches*” to be initiated in addition to the “geo-search” functions offered by the application. The geo or proximity searches for client accounts often did not return complete data.
- Improved integration of the client AVS authorization process into workflow should be considered to reduce cumbersome manual processes associated with obtaining client permission to conduct AVS.

A complete compilation of lessons learned from the pilot AVS project is located in Appendix E.



## 3.0 Objectives

### 3.1 Primary Objectives of the Feasibility Study

- Document at a high-level Washington State's business and technical requirements for a Medicaid Asset Verification System
- Analyze potential alternatives for an asset verification solution including the relative merits, cost, benefits, and risk of each alternative. This evaluation will include a Cost Benefit Analysis (CBA) for the primary alternative
- Provide a recommended approach for moving forward with a long-term asset verification solution procurement and project planning
- Propose integration phasing and timing with respect to and in consideration of ACES modernization
- Submit the feasibility study for approval. A Legislative Report will also be developed that summarizes findings and recommendations from the Feasibility Study

### 3.2 Guiding Principles

- Align the ACES modernization strategy with business process improvement efforts underway at the agency
- Establish ACES as the official system of record for aged, blind, or disability-based Medicaid eligibility determinations
- Identify short-term technology improvements to improve major problem areas with the current headquarters systems and improve ongoing maintenance efforts
- Improve documentation of existing systems and business logic: capture requirements and rules for AVS-impacted business areas
- In the short-term, identify low-risk and short-term improvements that can be implemented with respect to current systems, reducing the risk and staff time required to maintain the systems (e.g. batch processes, partial integration)
- Identify the higher return on investment integrations, features and longer term solutions that would result in significant benefits in the form of fully reengineered systems that meet current requirements, and are easily modified
- Identify and evaluate all system interfaces and collaborate on state IT modernization efforts
- Define on-going project modernization efforts based on a design that aligns with business process re-engineering efforts
- Use proven methodologies, technology, and adhere to system architectural principles that reduce maintenance costs in the future
- Craft an easy to communicate modernization vision for key stakeholders and legislators and develop a Communications Plan that delivers both the vision and regular project communications to stakeholders
- Field an integrated solution that complies with current Agency and State IT/IS standards
- Use a phased or incremental improvement approach to transform DSHS's information systems, delivering business value sooner, reducing the risk associated with large system replacement projects and distributing funding requirements over multiple biennia
- Plan and implement a relevant pilot project or proof of concept to validate the proposed approach early in the project
- The state will remain in full control of the project and not relinquish control, e.g. "delegation by contract," to a third party contractor or vendor



### 3.3 Opportunities to be Gained (problems to be solved)

#### 3.3.1 Business Opportunities

Modernizing the agency's core systems will open up the following business opportunities for DSHS:

- Achieve compliance with CMS mandates for asset verification. Eliminate the potential for assignment of penalties due to non-compliance by implementing a compliant system on a statewide basis before the regulatory deadline (Jan 1, 2021)
- Integrate the AVS with the state's Medicaid eligibility system based on a rational requirements assessment to eliminate workflow inefficiencies
- Provide modern, more flexible systems that support current business needs and allow DSHS to be more responsive to business and legislative changes while supporting delivery of outstanding customer service, e.g. through the implementation of a single, integrated Medicaid eligibility system
- Establish ACES as the official Medicaid eligibility system of record for aged, blind, or disability-based programs. Define requirements and integrate functions of contributing systems with ACES or its replacement post-rehosting
- Enhance financial recovery performance relative to invalid or fraudulent Medicaid applications through improved accuracy of available financial data
- Implement required business driven changes more rapidly and economically
- Support future business process engineering initiatives
- Support the development of more secure systems
- Improve system performance

#### 3.3.2 Technical Opportunities and Goals

Technical opportunities and goals include:

- Give priority to a COTS-based SaaS long-term solution offering to minimize maintenance and support impacts to the state
- Adopt industry standards that in turn are based on federal Medicaid requirements: minimize changes to the standard solution configuration. Improve system flexibility and configurability options without resorting to change orders for other than essential, major system changes. Improve system maintainability by reducing complexity and streamlining design
- Plan and execute a sensible integration strategy in phases remaining mindful of ACES modernization schedule gates and priorities
- Employ security standards that reflect industry best practices such as those represented by NIST 800-53
- Adhere to technical standards stipulated in the State OCIO's Technology Manual. Provide the manual as a reference in project procurements
- Improve system performance, reliability of data and, most importantly, service to DSHS customers



### 3.4 Response to Statutory Requirements

DSHS and HCA's response to the Supplemental Appropriations Act, 2008, Pub. L. No. 110-252; (Section 1940 of the Social Security Act) that required implementation of an Asset Verification System and the Affordable Care Act that required such systems to be electronic was to form the AVS coalition and establish a governing structure as described in section 2.1.1 of this report.

The coalition conducted research on market solutions meeting compliance requirements and networked with other states regarding their AVS implementations. The coalition then chartered the pilot AVS that was implemented in December 2018. Lessons learned have been compiled (Appendix E) and, along with further research conducted in association with the preparation of this feasibility study, were leveraged in development of the proposed solution contained herein.

Procurement of a long-term state-wide solution is planned for 2020.

The Deficit Reduction Act (DRA) of 2005 extended the look-back period for identifying instances of transfer of assets, to mask true net worth, to five years. As a result of the DRA, 60 month financial asset review is required for a compliant asset verification process. The current and future implementations of AVS must address the 60 month look-back for applicant eligibility screening.



## 4.0 Impacts

This section identifies stakeholders, internal and external, who are impacted by the proposed long-term AVS solution and the nature of those impacts.

### 4.1 Inter-Agency and External Impacts

The Centers for Medicare & Medicaid Services (CMS), previously known as the Health Care Financing Administration (HCFA), is the federal agency within the United States Department of Health and Human Services that administers the Medicare program and works in partnership with state governments to also administer Medicaid, the Children's Health Insurance Program, and health insurance portability standards.

CMS sets Medicaid program policy, establishes pricing and Federal Medical Assistance Percentages (FMAPs) used in determining the amount of Federal matching funds for State expenditures for assistance payments for medical and select social service payments. FMAP allotments may be withheld or reduced for state programs that are found to be non-compliant.

For FY2019, WA State's FMAP rates for aged, blind, or disabled Medicaid population and the Children's Health Insurance Program, are as follows:

FMAP	Enhanced FMAP <sup>5</sup>	Enhanced FMAP with ACA 23 Pt increase <sup>6</sup>
50%	65%	88%

### Business Partners

Several agencies cooperatively manage the state's Medicaid program. Health Care Authority (HCA) is the lead Medicaid Agency—HCA works directly with the Centers for Medicare & Medicaid Services (CMS) to ensure Washington Administrative Code (WAC) and Medicaid programs are in compliance with the Code of Federal Regulations (CFR). HCA is the central health care purchaser for the state and is ultimately responsible for administrative and financial execution of the state's largest cost account, Medicaid (referred to as Apple Health in WA State). Other members of the Washington State Health and Human Services Coalition (HHSC) that provide oversight to interagency health service projects include:

- Department of Social and Health Services
- Department of Children, Youth and Families
- Department of Health
- Health Benefit Exchange
- Office of the Chief Information Officer (ex-officio)
- Office of Financial Management (ex-officio)

Note: OCIO provides oversight to the IT projects across the coalition and OFM provides fiscal guidance

<sup>5</sup> Enhanced FMAP (eFMAP) is FMAP increased by 30 percent of the number of percentage points by which (1) such FMAP for the state is less than (2) 100 percent, but in no case shall the enhanced FMAP for a state exceed 85%

<sup>6</sup> Section 2101(a) of the Affordable Care Act (ACA) increased eFMAP by 23 percentage points, but not to exceed 100%, for the period Oct 1 2015 to Sept 30, 2019

These organizations meet regularly to represent their agencies and constituencies in managing cross-departmental technology and business initiatives.

### Tribal impacts

Tribes may offer a variety of services to meet Medicaid Long-Term Services and Supports (LTSS) needs in their communities. Those services can range from simpler services that cost less, such as providing referrals for patients to receive LTSS care elsewhere, to costly services that require a great deal of tribal commitment, such as providing direct care services.

The graphic below describes a range of ways tribes can be involved, from the least tribal involvement required to the most. Each type of involvement is described in more detail in the sections that follow.



In the graphic above, second process: Eligibility Assessments, the use of an AVS will lessen the impact on tribes as they frequently assist applicants in gathering documentation required for LTSS eligibility determinations.

### Legislature

Legislative sessions, scheduled and special, invariably introduce changes that must be implemented by DSHS and HCA. A typical legislative session introduces several bills that impact the agency's systems. Each bill in turn can result in hundreds to even thousands of hours in analyst/programmer time in order to make requisite changes to legacy systems (e.g. ACES). A design goal for the new AVS will be to select a proven, commercially available system that allows for local and flexible configuration of business rules reducing the requirement for formal change orders and software reprogramming.



## 4.2 Intra-Agency Impacts

Intra-Agency impacts include the following categorical issues:

Organizational components of DSHS, Home and Community Services (HCS), Developmental Disabilities Administration (DDA), and Community Services Division (CSD) all play critical roles in adjudicating Medicaid eligibility and managing services for their respective clients. These organizations serve clients who apply for, and/or are recipients of SSI-related Medicaid and long-term services and supports. Each DSHS administration or division responsible for supporting Medicaid has different workflows and processes, but all utilize the same eligibility systems and programs to serve Washington's aged, blind, or disabled population.

HCS serves adult clients who are seeking long-term services and supports (LTSS). These clients can receive LTSS in conjunction with other programs such as Basic Food, cash assistance and Medicare Savings Programs which overlap with those programs administered by DDA and CSD.

DDA serves individuals with development disabilities in Washington State who are in need of LTSS, including children. Those clients who are not in need of long-term services and supports, but are looking for medical coverage or Medicare Savings Programs, and meet the aged, blind, or disabled Medicaid requirements apply for and receive services through the CSD's Community Services Offices located throughout the state.

## 4.3 Agency Customers

DSHS is a primary customer-facing agency for the State of Washington with many external constituents and stakeholders. Please see Appendix F for a complete list of agency AVS customers and stakeholders.

The clients affected by Medicaid asset verification compose the Aged, Blind, or Disabled Medicaid population, numbering approximately 303,000 in Washington State. Impacts to these clients from the CMS asset test rule and implementation of the asset verification system include:

- Fuller personal accountability for meeting Medicaid means thresholds for liquid financial assets
- Spousal accountability – joint assets are electronically verified against compliance limits when applicant is married or has a domestic partner
- Implementation of an automated method to verify assets during the 5-year lookback period for asset transfers will minimize the burden on clients to provide paper documentation during this extended period when applying for long-term care
- Property (e.g. real estate) verification may also be considered as a future system enhancement (available currently as a verification system solution option)

Building in requisite integration with ACES is essential to improving customer service to the target population. Integration will enhance the customer – agency experience by making encounters faster, more efficient and accurate by decreasing reliance on paper based processes and reducing dual systems data entry.



## 5.0 Organizational Effects

### 5.1 Impact on Work Processes

Adding the additional step of financial asset verification to Medicaid eligibility determination impacts the affected DSHS work units within Community Services Division (CSD), Home and Community Services (HCS), and Developmental Disabilities Administration (DDA).

The number of FTEs performing asset verification services in the respective DSHS work units will be:

Work Unit	CSD	HCS	DDA
FTEs	36	220	27

CSD is reorganizing its Community Service support staff operation to form a financial asset verification unit supported by 36 requested FTEs. This will separate out aged, blind, and disabled Medicaid eligibility and asset verification work from other CSD programs.

HCS and DDA has introduced asset verification into its workflow through use of the pilot system and has experienced the following staffing impacts quantified by the Time Study exhibited in Appendix D and summarized here. The figures represent the aggregate time (in HCS only) spent by staff executing financial asset verification duties:

FTEs – Annualized	Applications	Renewals
Paper Verification Process	14.7	4.5
AVS Pilot	22.2	11.4
Variance (Difference)	+7.5	+6.9

Primary reasons for the negative results (additional FTEs required) are that unintegrated automation creates more work because of the dual data entry required with respect to entering client data into two separate systems, in addition to subsequently having to refer between two systems to make final eligibility determinations. Also, the volume of renewals is approximately 2.3 times that of applications so dual data entry inefficiencies are amplified in terms of an FTE % difference (for renewals). Also important to understanding these results is that when financial asset inquiry results are received and they are not consistent with the client's application, additional work to reconcile the two must occur.

Work processes during ACES rehosting and subsequent modernization/reengineering will be substantially impacted. Options to support contingency operations during ACES migration are being developed by the ACES program area.

### 5.2 Training Needs

PCG conducted staff training for the pilot – in both classroom and webinar delivery modes - augmented by DSHS eligibility staff teaching modules on eligibility issues related to asset verification. Training on the AVS pilot application was straight forward and well received. AVS training was provided to HCS and DDA financial eligibility staff, supervisors, and regional program managers. HCA representatives also attended. Approximately 225 Public Benefits Specialist (PBS) staff, located across the state, received AVS training. Classes were three



hours in length with morning and afternoon sessions being offered the first week of December 2018 prior to pilot “go live.”

Approximately 283 DSHS PBS staff will require training if the long-term solution is new to the agency, not counting HQ and regional management. Less than fifty staff will require training if the long term solution selected is the same as the pilot system. In addition to the training modes used for the pilot there are additional methods that can be considered to optimize the quality and impact of the training experience for employees, while also developing an internal cadre of expert AVS resources.

For the state-wide and/or long-term solution rollout, in addition to vendor supported classroom and webinar based training, the following training options may also be considered:

- Leveraging the state’s learning management system (LMS) capability to proliferate AVS training utilizing the state government network infrastructure
  - For this alternative, AVS solution specific courseware will need to be developed or purchased.
- Training “super-users” to in-turn train other impacted staff in their offices using the AVS portal’s training (demo) application.

Benefits of the “train the trainer” approach include:

- Build a team of application experts that can serve as long-term, dedicated departmental resources to trouble shoot issues and operate as Subject Matter Experts and system analysts in supporting integration phases, testing new features and making configuration changes
- Empowers employees and improves retention
- Creates a culture of learning within the organization
- Improves organizational knowledge management (an area receiving increased management attention and formal recognition as a discipline with high return on investment within leading private and public organizations)
- Builds a common language or lexicon and maintains cultural consistency

### 5.3 Job Content

Asset verification duties and processes will be added to the job content and scope of work assigned to DSHS Medicaid Public Benefits Specialist (PBS) staff. For staff within HCS and DDA, asset verification is an additional, mandatory task requiring multiple extra steps to confirm or deny eligibility for the aged, blind, or disabled population. For the anticipated, new asset verification work group to be established within Community Services Division (CSD), asset verification duties will represent the major area of focus for those staff assigned to work therein.

Based on data from the pilot, using a standalone AVS portal with no integration with ACES will result in the following costs over the manual process:

- Per Application – 10 minutes loss per application processed
- Per Renewal – 5 minutes loss per renewal processed<sup>7</sup>

<sup>7</sup> The amount of processing time lost per application and renewal is associated with the dual data entry required.



The proposed solution introduces ACES integration in stages that will reduce the time loss reflected in partial integration and convert current losses to time savings upon full integration (Appendix D).

To assess how the new system will impact state employee duties, a job design team will review current staffing levels and workflow, evaluate how employees are classified and how the new system will alter the way business is accomplished. With the job design team's input, DSHS management will be able to adjust office structure and job classifications, redistribute existing and new workload and better define the skill sets required to perform work in the new environment. Training will be provided in the new skill sets required as well as on the new system, before respective module rollout. Further training will be provided on the selected commercial platform components, e.g. real property asset verification. Additionally, in the event of implementation of a new long-term solution, operational staff will need to flex and adapt in their organizational roles as some may be matrixed from their functional work areas to also contribute to testing and configuration of the new solution as part of the project team. Job descriptions can be rewritten during the annual review period to reflect these considerations.

These job assessment, alignment and training processes will allow DSHS staff to exploit the efficiencies and integrated capabilities offered by the new system while, at the same time, continuing to deliver responsive, high quality service to state citizens.



## 6.0 Proposed Solution

The immediate, primary requirement is for the state to meet federal compliance mandates for a state-wide system. The second requirement is to satisfy the objective to procure and implement a long-term AVS solution replacing the pilot. These are two congruent but not completely aligned goals, principally because of timing issues.

State-wide implementation must be achieved prior to Jan 1, 2021 to avoid potentially debilitating FMAP penalties. Procuring and implementing a new Long Term Solution (LTS) may take longer, if it is a new solution, because of start-up issues including implementation, configuration and training affected staff across the state on a new asset verification platform. Procurement activities alone can be expected to take at least three to four months, start to finish, but cannot begin until requirements are defined. Requirements are not yet fully documented for this project. Not to mention coordinating the requirements and procurement process across the HHSC. To achieve an end of CY2020 statewide implementation, procurement of a new solution would need to occur no later than mid-CY2020, according to the project schedule<sup>8</sup>.

A breakdown of the available options by which to achieve both these results is:

1. Implement CSD into current standalone web portal with ALTSA and DDA with NO Automation
  - a. Implementation of CSD will satisfy the “state-wide” objective
  - b. CSD will experience workflow disruption implementing a standalone AVS because it results in the significant workflow inefficiencies addressed earlier, in particular if CSD has to turn around a few months later and implement a different vendor
    - i. CSD’s volumes are significantly higher than ALTSA/DDA so a manual process results in a sharply amplified impact
  - c. This option is potentially jeopardized based on the sole source pilot contract with PCG that has a period of performance expiring Dec 2020, ending at the time state-wide implementation is required
2. Implement CSD into current PILOT with ALTSA and DDA with Batch Automation
  - a. CSD is more comfortable with this option because it eases workflow impact
    - i. Nevertheless, there is still disruption to their current workflow
  - b. This option also entails significant risk because the current sole source pilot contract with PCG expires Dec 2020, ending at the time state-wide implementation is required<sup>9</sup>
3. Procure and implement a Long Term Solution, with or without Batch Automation
  - a. Minimal disruption to CSD with only ONE implementation
  - b. Resolves current contract expiration issues
  - c. Can be implemented with NO automation initially, if only to meet the statewide implementation requirement

<sup>8</sup> To allow more time for critical tasks such as training, configuration and integration, an earlier procurement window is recommended.

<sup>9</sup> However, because of prevailing market conditions and the looming federal deadline imposing considerable FMAP reductions for non-compliance, direct contracting might be considered.



- d. Integration strategies can be evaluated based on the Feasibility Study results and Legislative Report outcomes
- e. *Requires the procurement process to be put on a Fast Track*

Because of the inefficiencies, and potential wasted effort/cost (e.g. going state-wide with a system that could be replaced) associated with the first two options, the third implementation option is recommended, with a potential modification.<sup>10</sup>

Within this option, combining the Long Term Solution with a state-wide implementation, a phased approach to integration is recommended.

Integration would be in staged future phases because DSHS cannot perform the required level of integration now, to achieve desired operational efficiencies, because of the planned ACES replatforming and modernization. The pre-integration period also will allow the agency to define and fully coordinate business requirements for supporting the proposed integration development work, in addition to the procurement.

The proposed Long Term Solution will represent a COTS-SaaS model which is preferable to the other options considered: Do Nothing; Expand Standalone AVS statewide; and procurement of a new COTS solution. A proven commercial system offered as a SaaS model, utilizing a top tier web service hosting platform, results in the least impact to already stretched state functional and technical resources.

The current pilot AVS is standalone in that it doesn't interface with ACES. As a result, client data is input into AVS manually: a user logs in to the AVS portal and submits a verification request by manually entering the necessary demographic data. Users then have to log back into the AVS portal and check for returned verification results which are then input manually into ACES where eligibility determinations are finalized. This is an awkward and inefficient process, characterized by manual, dual data entry.

To address business workflow inefficiencies resulting from a standalone AVS application, the following integration levels are proposed. They can occur sequentially since full integration is not a realistic first option, in large part because of the planned replatforming and modernization of ACES. Fully integrating automated financial asset verification into ACES is not the program's top priority.

#### Partial integration:

ACES generates an overnight batch file of new Medicaid application data and annual renewals to send to the AVS. Depending on vendor, eligibility staff will add additional "direct search" banks once the case is added to the AVS. Eligibility staff will set a follow-up and check AVS results (in a portal). The eligibility staff will be responsible for updating ACES with the financial institution accounts and flagged transfers, and ultimately making an eligibility determination.

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<sup>10</sup> In the event procurement of the Long Term Solution results in the same vendor being selected as is currently operating the pilot, it may be possible to merge options 2 & 3 and realize the combined benefits therefrom, including leveraging the learning curve effect already assimilated from pilot operation in HCS



- Potential enhancement – direct searches are sent automatically based on accounts updated in ACES. During the pilot, approximately 65% of asset verification results were received from direct search submissions.
  - To enable direct searches, add financial institution ID# field to ACES (cross-referenced to Accuity). If the known accounts coded in ACES included this field, then the direct search could be incorporated in the batch process. A financial institution table, including institution names and ID#s, may need to be added as a reference file to ACES, to enable direct search batch processing.
- Potential enhancement – AVS automatically alerts the eligibility worker when results are received (or when a designated time period has elapsed).

Timeframe:

- September 2019 – June 2020: develop integration business requirements
- July 2020 – December 2020: complete Phase 1 batch processing integration with Long Term Solution vendor and ACES

Full integration:

ACES remains the sole system of record for eligibility determination, leveraging data provided by an AVS subsystem. All eligibility screening, determination and asset verification operations are performed within ACES. Components of full integration include:

- ACES generates an overnight batch file of new Medicaid application data and annual renewals to send to the AVS, including known bank accounts in the ACES.
- AVS will poll financial institutions (FI) and return applicant asset information, FI accounts, flagged transfer information and, potentially, property information directly to ACES.
- New application and renewal eligibility determinations will still be the responsibility of eligibility staff; they will need to review/validate the AVS results in ACES and reconcile discrepancies/resource exclusions with the client.
- Potential enhancement - automatic renewals for some programs can be considered for future implementation.

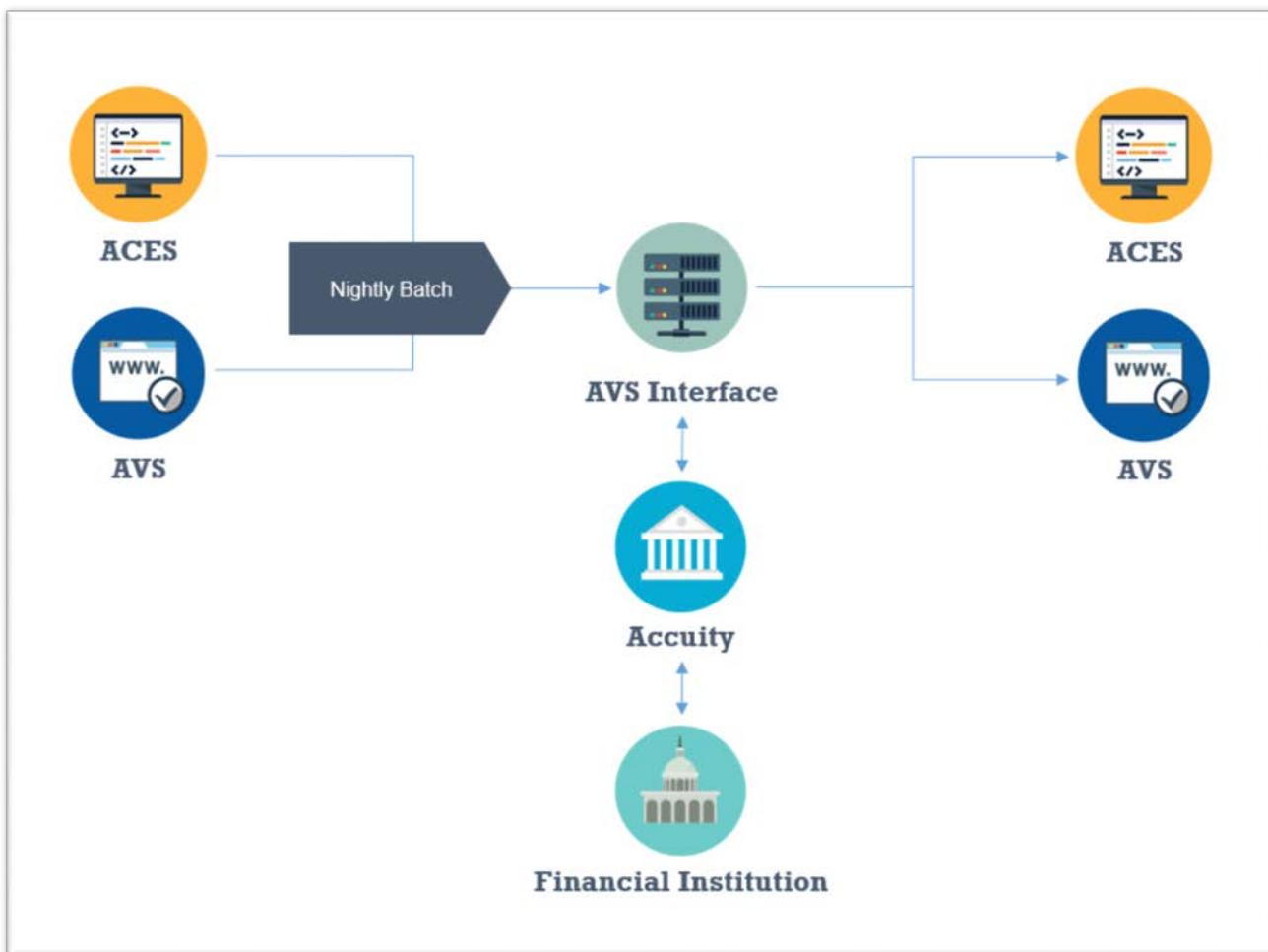
Timeframe:

- September 2019 – June 2020: develop integration business requirements
- July 2020 – December 2020: complete Phase 1 batch processing integration with Long Term Solution vendor and ACES
- July 2021 – June 2022: complete Phase 2 full integration with ACES

## 6.1 Commercial (COTS) Offerings in the AVS Marketplace

There are a few companies nationwide that have built interfaces/portals to facilitate the return of asset verification data to clients, however, the commonly accepted data set for compliant client financial asset information, with only one or two exceptions<sup>11</sup>, originates from the same source, Accuity Asset Verification Services, Inc. Accuity works with financial institutions in the United States to gather AVS results and return them to the AVS vendor/portal.

The very high level model is as follows:



<sup>11</sup> Equifax indicates they use Early Warning Systems (EWS), in their prototype AVS implementation in Kentucky. EWS reportedly includes connectivity to 50% of the nation's banks.



## Asset Verification Vendors/Options for procuring AVS services

Commercial AVS solution vendors (or other potential AVS sources such as regional collaboration agencies) include the following:

Public Consulting Group (PCG)	
Pros	Cons
The leading AVS solution provider in the Medicaid marketplace with approximately 23 states	Limited Targeted Asset Search capabilities
Most experienced staff in AVS portal solutions: deep bench in technical, functional and Medicaid SME skillsets	Workflow compatibility questions (but there will be with any solution)
Integration capabilities (firm references multiple states in which they have performed some level of eligibility system consulting/integration)	With so many states as clients, receiving undivided, dedicated support may be an issue
Ability to integrate other searches/cross-matches	
Because of deep experience in <u>actual AVS implementations</u> , PCG stands alone at the top of the solution provider pyramid	
Remaining with PCG, and pressing forward with ACES integration, represents lowest project risk option	

Softheon	
Pros	Cons
Established cloud based, purpose built infrastructure ("Medicaid Administration Cloud"); experience with electronic Medicaid eligibility processing that may be relevant to WA State's need for AVS/ACES integration	Limited implementation experience may represent greater risk.
WV went "live" with Softheon's integrated solution in April 2019. WV reports it has been a successful implementation	Could not confirm contract award in New Mexico despite attestation to that effect in its June 14, 2019 letter to DSHS. Confirmed contract awards in WV and IN.
Initial contract (WV) shows lower implementation and transaction costs than the competition	
Ability to integrate other searches/cross-matches	



Analytics, reports, graph capabilities	
Assigns asset risk scores	

Equifax	
Pros	Cons
One of the largest, if not the largest, credit verification services worldwide. Has Early Warning Systems (EWS) as a backend FI connectivity partner. EWS reportedly has 50% of the nation's FI's in its network.	Neutral factor: Previous focus has been on other forms of financial verification such as income, employment, property, mortgage & motor vehicle vs financial institution assets
Selected as the AVS provider in Kentucky.	Neutral factor: have not confirmed implementation status in Kentucky
Previous focus has been on other forms of financial verification such as income, employment, property, mortgage & motor vehicle vs financial institution assets	

New England States Consortium Systems Organization (NESCSO)	
Pros	Cons
NESCSO has negotiated a master contract with PCG for AVS services that states may participate in.	Consortium's standard contract may offer fewer, less flexible customization and integration options. Change order options may be fixed and not address individual state needs. States may have to lobby for priority and will need to pay for unique requirements that offset benefits from participating in a nationwide (or regional) master contract.
Neutral factor: Rates are approximately equivalent to what states can negotiate themselves. Integration services would likely have to be separately negotiated in any case.	
Ability to integrate other searches/cross-matches.	
May represent a slightly lower initial cost of ownership to states for common AVS requirements depending on how many states join the consortium and depending on the terms of master contract pricing	



## 6.2 Additional Technical Tools Used to Support the Solution

As this is a SaaS application, there were no special technical tools required for implementation of the pilot. Set up primarily required configuration of the web portal (identifying IP address) and setting user security permissions.

With the rapid growth in SaaS application usage across State Government operations, sufficient internet/intranet bandwidth must be available. If not already conducted, DSHS CIO in concert with WaTech should consider undertaking an agency user cloud application usage survey, incorporating projections for expected future growth and plan SGN, internet connectivity and bandwidth scalability accordingly.

## 6.3 Major Functions Provided

A compliant asset verification system (AVS) supports the following requirements.

Primary functions required:

- Request and response system must be electronic
- System security based on recognized industry standards
- Maintains a database of U.S. financial institutions (national and local account search functions)
- Responses must include information on open and closed accounts going back five years
- Must provide evidence search was completed even if no assets found

Additional (optional) functions requested or desired:

- Ad hoc search request feature
- Direct financial institution search function
- Case dashboard work management capabilities - configurable
- Program integrity support (e.g. fraud detection/reporting)
- Interface to, or integration with, state Medicaid eligibility system (ACES)
- Real property search
- Analytics for real time reporting
- Authorization management
- Testing and training environments

## 6.4 New Organizational Structures and Processes Necessary to Support Implementation

Economic Services Administration (ESA) established a Program Management Office (PMO) with the following governance and organizational components to manage the AVS project:

- ESA, ALTSA, and DDA Assistant Secretaries serving as the project Executive Sponsors.
- Executive Steering Committee: The AVS Executive Steering Committee has overall responsibility within DSHS for the execution of the AVS project. The AVS Executive Steering Committee is led by the Co-Executive Sponsors who are the Assistant Secretaries for ESA,



DDA and ALTSA respectively. The Steering Committee is composed of a multi-disciplinary group of HHSC executive management members each responsible for providing overall guidance and direction to the project, representing their agencies' interests and ensuring that each of the projects within their agency/program's jurisdictions are coordinated in their efforts on behalf of the project.

- Program Management Office (ESA)
  - Provides oversight and operational and policy support to project managers and teams (see below responsibilities)
- Project Management Team:
  - Project Manager
  - Matrixed resources as required
    - Business Requirements Analyst
    - Technical Writer
    - Functional Subject Matter Experts (SME)
    - Administration management (e.g. Office Chief LTC Financial Eligibility and Policy; HCA Mgmt. Analysts; ESA ACES Program Mgmt.)
- Contractor staff TBD through RFP process in accordance with the Resource Management Plan: contractor technical staff and business analysts will be fully integrated with DSHS staff into design and development teams
- Organizational Change Manager overseeing the integrated business process improvement activity

The PMO structure summarized above will ensure the following standardized processes are clarified and in place:

- **Clear Goals and Objectives** – the PMO will establish clear goals and objectives for effective execution of each project management process
- **Phased Implementation with Stage Reviews** - applying lessons learned in previous phases to future ones, thereby continuously improving performance
- **Process Owner** – the PMO will designate an “owner” for each project management process so that performance responsibility is clear; process owners will generally be in the business domain, as appropriate
- **Process Repeatability** – Project management processes are defined and yield consistent process results/outcomes – this includes establishment and promulgation of standardized PM plans and procedures where appropriate
- **Assigned Roles and Responsibilities** – defines unambiguous roles, activities, and responsibilities for each project management process to ensure efficient project execution
- **Knowledge Transfer** – facilitate the transfer of technical and domain knowledge between contractor and line staff, and vice versa, through improved ‘as built’ documentation processes and structured in-house training sessions. This process will be enacted and facilitated by the Organizational Change Manager referenced above
- **Process Performance Evaluation** – objectively measures the performance of each project management process against defined goals and objectives



## 7.0 Alternatives Considered

This section describes the four alternatives that were evaluated as potential primary approaches for implementing a Long Term AVS solution. Custom design (non-COTS) was not seriously considered because it clearly represents a very high-risk, if not misguided, option (given that proven commercial software is available and in use) and in the best interest of time and resources available, it would have not added value to this project to further explore and cost out a “grand design” alternative.

### 7.1 Revert to Paper-based, Self-declared Processes (“Do Nothing”)

Cancel the present pilot AVS initiative and revert to completely paper-based asset verification processes. This option is infeasible because, as of January 1, 2021, the federally mandated and CMS enforced deadline for states to have operationalized electronic AVS solutions across their jurisdictions takes effect. For DSHS the penalty for non-compliance has been estimated at \$8.8M in reduced Federal Matching Assistance Program funding in the first year. Statewide, the potential penalty rises to \$112M for the period FY2021 – FY2025 based on actual Medicaid spending growth rates projected forward.

### 7.2 Expand AVS Statewide with Standalone Portal

Expand the PCG AVS standalone web portal across all state verification resources, without ACES integration. Workflow inefficiencies, characterized by manual, dual data entry will not just continue but increase in magnitude. The standalone AVS configuration will add to existing workload for DSHS Medicaid financial eligibility staff as they come on-line with the system.

Pros	Cons
Minimal upfront implementation cost	Separate system “silos” persist
Federal Compliance achieves substantial penalty avoidance objective	Manual look-up for staff; dual data entry and data extraction
Time to analyze business processes, data and responses	Medicaid financial eligibility units will require additional FTEs to support increased workload  Potential contractual issues with extending a sole source contract in the absence of fair and open competition unless sole source contract criteria are satisfied

### 7.3 Select new COTS vendor

Select new COTS vendor that offers full AVS integration with WA State’s Medicaid eligibility system. There are one or two other vendors, besides PCG, in the AVS marketplace that promise compliance, integration and performance. However, these vendors are relatively new to the market and do not have a track record of proven solutions successfully operating in major jurisdictions over time. Consequently, they represent higher risk options for the state and are therefore not recommended given DSHS’s critical timing and workflow requirements.

Some elements of this option are potentially similar to those relating to custom development where vendors new to the market will leverage and operate their first implementation as a beta test site. Existing marketplace solutions are addressed in Section 6 of this study.



## 7.4 Select a Long Term Solution, Implement Statewide, and Integrate

This option is for Washington State to procure a reliable, CMS-compliant long-term AVS solution and deploy the system statewide. Following, or concurrent with, state-wide implementation, DSHS should integrate the AVS with ACES (state aged, blind, or disabled Medicaid eligibility system) in phases. This approach would move Washington into compliance with the federal AVS policy while procuring/implementing an AVS solution via a durable contract. Integration may need to be in phases if the department cannot perform the required level of integration now, to achieve desired operational efficiencies, because of the planned ACES re-platforming and modernization. The pre-integration period will allow the agency to define and fully coordinate business requirements for supporting the proposed integration development work.

The proposed solution is to select the best AVS solution provider available, based on past performance and cost, and place them on a long term contract. The recommended strategy then calls for implementation of this solution statewide before the end of Calendar Year 2020. There are different ways to accomplish the procurement aspect of this objective.

Because prevailing market conditions paint a compelling picture of only one vendor performing successfully on a *sustained and broad basis* across the United States implementing successful AVS applications, with the nearest two competitors having approximately three states between them, direct contracting could be considered. Direct contracting offers the following clear benefits:

- Reduces procurement time by 75% or more, a factor highly relevant to WA State in terms of it meeting the Jan 1, 2021 CMS deadline for state wide implementation
- State experience with direct contracting of major IT service procurements shows it can potentially reduce state costs due to vendor proposal cost savings that are reflected in lower line item pricing
- When only one vendor in the COTS marketplace shows they have the depth of experience required to implement with a high degree of confidence, direct or sole source contracting may be considered as a procurement strategy

If schedule to meet the compliance date takes precedence, option 4 may be the best option for the reasons previously described.<sup>12</sup> If cost takes precedence, then option 3, should not be ruled out.

If “best value” means other factors besides only cost considerations (e.g. quality, experience, leveraging learning curve already assimilated, confidence in meeting target dates) then the recommended alternative represents a combination of both the “Expand AVS Statewide with Standalone Portal” and “select a Long Term Solution vendor” alternatives because the agency may, in that case, already have its Long Term Solution in place. And, though the procurement process is not necessarily simple, the agency needs only to place this relationship on a firmer contractual footing and rationally build in integration to reduce or eliminate workflow inefficiencies to realize the full benefits of this recommended way forward. Direct contracting can include renegotiation of rates based on market competition.

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<sup>12</sup> Schedule imperatives, integration, learning curve path already traveled, vendor relationship established.



## 7.5 Evaluation Criteria

Each of the four alternatives above was analyzed against a set of evaluation criteria. The evaluation criteria are described briefly below.

1. **Degree of Fit with DSHS Business Requirements** – This criterion refers to the extent to which an alternative meets DSHS's business requirements for the modernized system.
2. **Degree of Fit with State/Agency Strategic Business Direction** – This criterion refers to the extent to which the alternative is aligned with State of Washington and DSHS business objectives and strategic plans.
3. **Consistency with the State/Agency IT Direction** – This criterion refers to the extent to which an alternative aligns with State, and DSHS, information technology standards and direction. This includes the extent to which it will leverage and/or support the implementation of the envisioned modernization roadmap for Medicaid eligibility and financial systems. Other aspects to be considered under this criterion include customer service capability, system sustainability, process efficiencies, security, development platform, database management software, system integration, and reduction of redundant agency or shadow systems, among others.
4. **Life Cycle Costs/Total Cost of Ownership** – This criterion is based on a comparison of the cost of supporting the system over its lifecycle. Costs include estimates for AVS system implementation/set-up; monthly maintenance/transaction fees; per transaction fees vis-à-vis estimated volume plus the cost of partial integration (working on obtaining an estimate for full integration with ACES). Also factored in is the cost of penalties for non-compliance with federal regulations for deploying a statewide AVS system before the January 1, 2021, deadline.
5. **Degree of Risk** – This criterion is based upon the relative degree of risk of each alternative, including the risk associated with becoming a (new) technology first adopter and the relative risk of the availability and stability of the development team during development and post-deployment.
6. **Speed of Implementation** – This criterion refers to the expected duration of the initial implementation project from the procurement through go-live, and with a period of post go-live support. This factor is critical to Washington State with potentially severe FMAP reduction penalties taking effect January 2021.
7. **Long-Term Support Considerations** – This criterion is designed to address the relative level of support required post-implementation. Factors to be considered under this criterion include whether the solution can be internally supported, whether the state will be dependent on a third party for software maintenance and upgrades, the ease of completing and implementing these upgrades, and the type and number of staff and skills required for DSHS to maintain modernized applications internally.

The next section provides a tabular comparison of the four AVS alternatives against these evaluation criteria.



## 7.6 Comparison of Alternatives

Alternative	Fit with DSHS Business Requirements	Fit with State/Agency Strategic Business Direction	Consistency with State/Agency IT Direction	Total Cost of Ownership	Degree of Risk	Speed of Implementation	Long Term Support Considerations	Total
Revert to paper-based, self-declared Processes (“Do Nothing”)	1	1	1	1	3	5	3	15
Expand AVS Statewide with Standalone Portal	3	4	4	2	5	5	4	27
Select new COTS AVS vendor	3	4	3	2	1	1	2	16
Select LTS, Implement State-wide, and Integrate	4	4	5	4	5	3	4	29

For each criterion each alternative is rated on a scale of one to five, where “5” is high, except for the cost/risk/schedule related criteria, where a “1” reflects a very high cost/high risk or low speed of implementation, and a “5” reflects a very low cost/low risk or high speed implementation potential. This variance will keep the evaluation in balance from a total point perspective; the higher the total score the more attractive the alternative based on this criteria set.



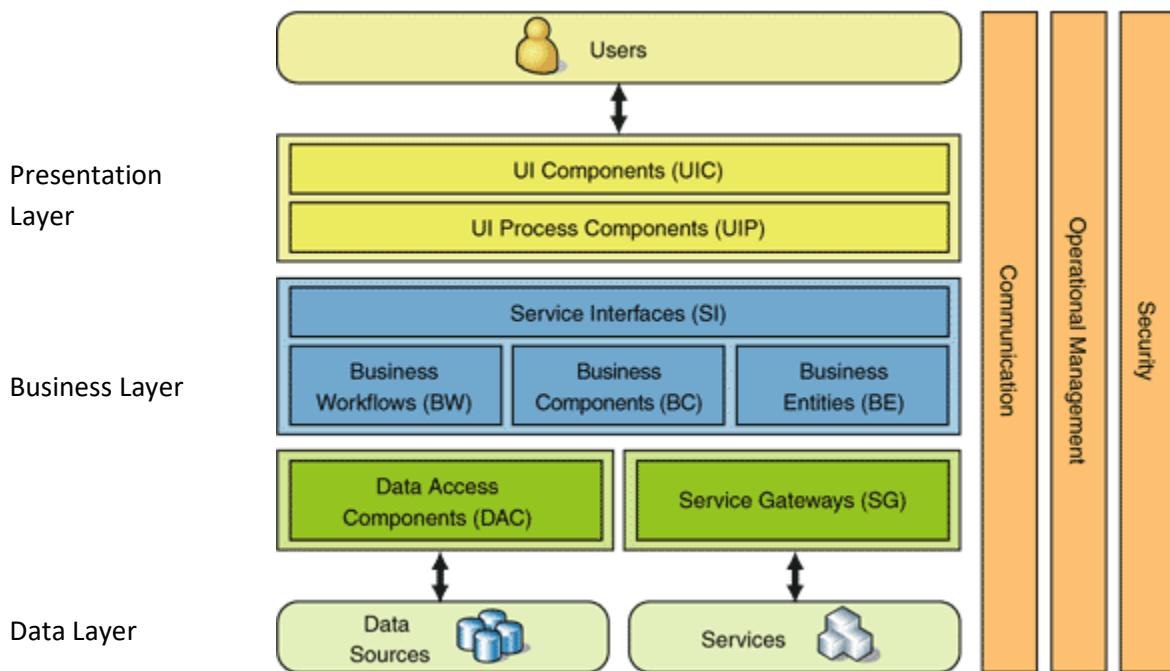
## 7.7 Recommended Alternative and Rationale

A combination of option 2, Expand the AVS Statewide with Standalone Portal, and option 4, enact a Long Term Solution (contractually – to solidify the existing vendor relationship and build in integration options) represents the best solution, considering the higher risks inherent to the other options. This blended option offers the following benefits:

- Retains the most experienced vendor that has two dozen successful, live AVS implementations – no other vendor comes close to representing that level of experience and successful performance vendor in the AVS space
- Retains investment made to existing pilot in terms of funds already expended (e.g. pilot implementation fees), staff learning curve, training, and the vendor relationship
- Offers greatest chance of meeting the Jan 1, 2021, statewide deployment deadline, with workflow integration
- Avoids the risks and inefficiencies of starting over with a new vendor mid-stream
- If approved by responsible state agencies (ATG; DES; DSHS; OCIO), direct contracting potentially offers DSHS the straightest path forward to meeting its objectives
- If this combined alternative is selected, rates with the present contractor should be renegotiated and applied to whichever contract vehicle (or procurement strategy) is chosen

## 8.0 Conformity with Agency IT Portfolio

AVS COTS solutions selected will conform to the following state and/or agency technology standards (e.g. Microsoft architecture foundation) and be applied across the common multi-layer architecture:



In this model, three layers are principal. These layers and the associated technological standards, or representative components, adopted by the agency are as follows:

**Presentation:** The presentation layer provides the application's user interface (UI). Use of Windows forms for smart client interaction and ASP.NET for browser based interaction and Windows Presentation Foundation (WPF) are development tools used in this layer to develop rich client interfaces.

**Business:** The business layer supports the application's functionality. Components of this layer are typically implemented using one or more .NET enabled programming languages. Components may be augmented with Microsoft .NET Enterprise Services for scalable distributed component solutions and Microsoft BizTalk Server for workflow implementation and transaction support. Other business rules engines and supporting components compatible with Microsoft enterprise architecture standards will also be considered for deployment in this layer.

**Data:** The data layer provides access to external systems such as databases. The primary .NET technology involved at this layer is ADO.NET. .NET XML is used here, also. MS SQL Server is the relational database management system supporting database components in this layer. Compatible data warehouse solutions and accompanying tools for analytics and ETL functions etc. will be considered to support a robust data layer. Additionally, in a customer



centric architectural model, third party CRM products will be considered if they are compatible with the overall architectural direction outlined above. MS SQL 2012 will be the target relational database structure and is compatible with top COTS product database requirements.

## 8.1 Strategic Focus (Business and IT Goals)

Primary business and strategic goals of the DSHS AVS Project include:

Overall – Program Management

- Clearly defined scope and requirements
- Carefully managed scope and requirements
- One party must clearly be in charge to avoid control conflict (concept of “lead agency”).
- Project risks will be identified and managed with a balanced scope
- Transparency and honest are paramount
- Adequate budgets and contingencies must be planned and judiciously executed
- The prevailing culture will be a spirit of cooperation and collaboration with a shared vision among stakeholders of the path to success

Primary Strategic Goals - Business

- Fully comply with CMS mandates for AVS implementation and deployment
- Improve program integrity, auditing and financial recovery capabilities
- Clear enunciation of business requirements including for integration
- Reduce/eliminate workflow inefficiencies including redundant input processes and dual data entry
- Supporting/maintaining ACES as system of record for aged, blind, or disabled Medicaid eligibility determination
- 360 degree view of customer information provisioning
- Improve asset verification analytics, reporting and transparency
- Support quality / productivity management and training
- Identify integration opportunities across platforms (Document Management System/Barcode; AVS; ACES)
- Develop a comprehensive approach to business rule management



## 8.2 Effect on Technology Infrastructure

The AVS selected as the Long Term Solution (LTS) will be a COTS application delivered via a Software as a Service (SaaS) model, meaning it will have reduced impact on state technology infrastructure when compared to an on-premise hosted application. SaaS applications are consistent with State OCIO IT modernization policy and direction.

The State's Business Transformation and IT Modernization Blueprint ("One Washington") supports broader implementation of SaaS applications:

"One Washington implemented a Facilities Portfolio Management tool as a successful first effort in implementing Software as a Service (SaaS) statewide"<sup>13</sup>

"The One Washington program has selected a SaaS approach, also described as a cloud approach, to technology deployment."<sup>14</sup>

The state is moving in the direction of becoming SaaS-centric because such a policy offers obvious benefits when compared to on-premise hosted applications:

- Lower cost of entry. SaaS solutions typically cost much less than on-premise solutions because SaaS contracts are typically structured for users to "pay for what they use" and nothing more. Infrastructure, maintenance and support costs are no longer part of the overall cost profile for SaaS implementations. Flexible, if not very competitive, pricing is the norm
- Faster implementation: SaaS (or "cloud") platforms have already been provisioned and vetted by the solution provider, reducing schedule risk
- Security is equivalent or better than many on-premise hosted application environments and customers do not have to establish and finance associated security infrastructure and staffing complements
- Software upgrades and release management are handled by the solution provider, often executed automatically, removing a significant software maintenance burden from the customer

SaaS model benefits notwithstanding, there are some important factors to not take for granted:

- Robust internet bandwidth is essential: CIO's must insure high speed bandwidth for current and future applications, supporting rapid growth of SaaS solutions as legacy systems are replaced. SaaS solution response times are dependent on network bandwidth
- Less internal control of the application environment makes proper vetting of cloud service providers imperative, so that mutual trust between service provider and customer is established at the outset of the relationship. Having said that, configuration and customization requirements should be negotiated up front, based on documented requirements, so users retain contractual control over system upgrades (including integration and interoperability requirements)

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<sup>13</sup> History of the One Washington Program, One Washington Program Blueprint, June 2018

<sup>14</sup> Technology Deployment Model, One Washington Program Blueprint, June 2019



### **8.3 Medicaid Information Technology Architecture (MITA)**

CMS affirmed the overarching MITA 3.0 Framework with the applicable final rule at 42 CFR Part 433 titled, Medicaid Program: Federal Funding for Medicaid Eligibility Determination and Enrollment Activities, Final Rule (Federal Register, Vol. 76, No.75) effective April 19, 2011 (see <http://www.gpo.gov/fdsys/pkg/FR-2011-04-19/pdf/2011-9340.pdf>). This rule provides states with the opportunity to receive enhanced Federal funding in order to improve interaction and interoperability across the Medicaid Enterprise. The rule requires that states complete a State Self-Assessment (SS-A) to help determine their “as is” environment across the Medicaid Enterprise. CMS is providing 90 percent federal financial participation for the completion of the SS-A.

The MITA Framework is dynamic, therefore as relevant policies and technology evolve, CMS will issue updates for the other business areas in subsequent releases. At this juncture CMS is encouraging states to complete their MITA 3.0 SS-A and submit to CMS. Upon receipt of state submission, CMS will consider this requirement met.

Inquiries to the CMS MITA office should be made to determine the opportunity for federal match funding for AVS ⇔ ACES integration development work.

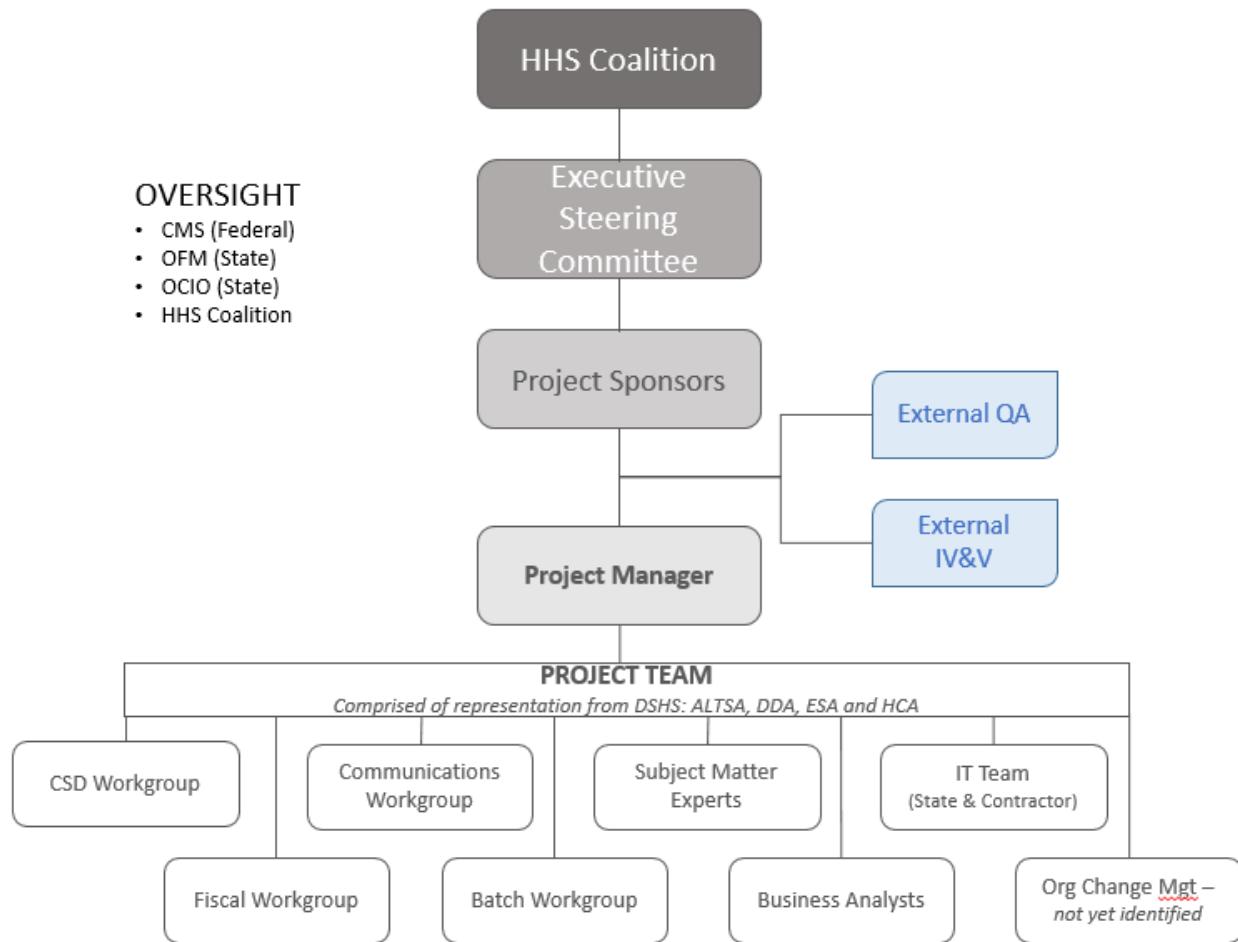
### **8.4 Other**

The proposed solution will be aligned with applicable OCIO policies and technical standards. In the event there is a forthcoming RFP, it will include applicable OCIO and WaTech technical standards as well as state a compliance requirement for offered solutions to conform to applicable WA State contractual policies and regulations.

## 9.0 Project Management and Organization

This section defines the proposed project management and organization structure for the Asset Verification System (AVS) initiative including the proposed governance structure and the key roles and responsibilities of various stakeholders. This section also outlines suggested project decision-making processes and recommended procurement and quality assurance strategies for the project.

The proposed project management structure for the AVS initiative is as follows:



Executive sponsorship will be provided by the participating DSHS Administration Assistant Secretaries. The Washington State Health and Human Services Coalition (HHSC) serves as the Executive Steering Group for the initiative. The HHSC will provide overall direction and major risk and issue resolution for the AVS initiative. DSHS will serve as “Lead Agency” facilitating communications and decision-making among the coalition. ESA PMO will provide project management resources and structure to the project.

The Executive Sponsors will be responsible and accountable for execution of the AVS project. This position will lead the AVS initiative and associated operations. The PMO will also serve as overall execution agent for the initiative, coordinating, deploying and executing resources



against project deliverables and milestones. The PMO will further serve as project communications agent; coordinating progress, status and requirements with stakeholders, partners and customers.

Project oversight will be provided by internal QA resources assigned to Public Knowledge (External QA Vendor). Project oversight on behalf of the HHSC will be provided by internal IV&V resources assigned to Public Knowledge. Project oversight will also be supported by the assigned OCIO IT Oversight consultant.

## 9.1 Project Governance – Roles

### 9.1.1 Executive Project Sponsors

Due to the interagency impact of the AVS initiative and its criticality to state Medicaid program fiscal integrity, the state's largest cost account, the program's executive sponsorship is represented by the participating administration's Assistant Secretaries.

Name	Role	Position
David Stillman	Co-Executive Sponsor	DSHS ESA Assistant Secretary
Bill Moss	Co-Executive Sponsor	DSHS ALTSA Assistant Secretary
Evelyn Perez	Co-Executive Sponsor	DSHS DDA Assistant Secretary

### 9.1.2 Executive Steering Committee

Suggestion: form an Executive Steering Committee from coalition members

Name	Role	Position
David Stillman	Co-Executive Sponsor	DSHS ESA Assistant Secretary
Bill Moss	Co-Executive Sponsor	DSHS ALTSA Assistant Secretary
Evelyn Perez	Co-Executive Sponsor	DSHS DDA Assistant Secretary
Nicole Ross	Co-Project Sponsor	DSHS ESA Deputy Assistant Secretary
Catherine Kinnaman	Co-Project Sponsor	DSHS ALTSA Deputy Director, HQ Ops
Beth Krehbiel	Co-Project Sponsor	DSHS DDA Acting Office Chief
Amy Dobbins	Steering Committee member	HCA Section Manager
Amy Pearson	Steering Committee member	OCIO Consultant
Tom Hornburg	Steering Committee member	DSHS ESA Deputy IT Director
Sergio Palma	Steering Committee member	DSHS ALTSA IT Director
Cindy Palko	Steering Committee participant	DSHS ESA PMO Administrator

### 9.1.3 Project Manager

Name	Role	Position
Marie Constantineau	Project Management	Project Manager



## 9.2 Project Governance – Responsibilities

This subsection outlines various project roles and responsibilities relative to the AVS Project, including oversight roles performed by other agencies and Governor's Office staff functions.

### Washington State Office of the Chief Information Officer (OCIO)

The OCIO is responsible for establishing state information technology policy and standards, providing overarching project oversight, periodically receiving and reviewing project progress reports, and authorizing the project to proceed at periodic milestones or “gates” throughout the project lifecycle.

### Washington State Health and Human Services Coalition (HHSC)

The HHSC is a collaboration between the five Washington state health and human services agencies that provides strategic direction, cross-organizational information technology (IT) project support and federal funding guidance across Washington’s health and human services organizations.

### AVS Executive Steering Group

The AVS Executive Steering Group has overall responsibility within DSHS for the execution of the AVS project. The AVS Executive Steering Group is a multi-disciplinary team of HHSC executive management members each responsible for providing overall guidance and direction to the project, representing their agencies’ interests and ensuring that each of the projects within their agency/program’s jurisdictions are coordinated in their efforts.

### Asset Verification System Project Sponsors

The Project Sponsors’ critical role is indicative of the paramount importance of the success of the Asset Verification program to agency mission accomplishment. The Project Sponsors will chair the Project Executive Steering Group and are responsible for policy direction and issue resolution requiring escalation to executive management.

### Project Manager

The Project Manager is responsible for planning and execution of all project related activities including scheduling, resource assignment, vendor procurements, risk management, status reporting, scope management and change management. The Project Manager will be responsible for the day-to-day management of the AVS initiative and will work in close coordination with, and oversee the activities of the Business and Technical leads.

This position has planning and execution responsibilities (scope, cost, and schedule) for the following primary organizational elements of the Washington State AVS initiative:

- Long Term Solution Procurement
- Pilot expansion
- ACES integration
- Implementation and support



The Project Manager will reconcile dependencies across project tasks and bring issues and risks to the attention of the Program Manager and the Executive Steering Group, as appropriate. The PM will manage the project budget and develop and maintain the project schedule. This position will report project status to the Executive Steering Group and maintain the project's SharePoint website.

### **Business Process Improvement/Organization Change Manager**

This management position has overall responsibility for the Business Process Improvement (BPI) methodologies, including planning, definition and implementation and knowledge management activities associated with the project. BPI is a critical first phase of the overall modernization effort and is of paramount importance in establishing protocols for and obtaining continuous business value through the life of the project. Knowledge management activities will include performance improvement; assimilating/communicating project lessons learned; designing constructs for vendor to client knowledge transfer; and design/development of a knowledge library. This position will also be responsible for project communications, policy development and collaborating on the development of the project training curriculum.

### **IT Team**

Advises the Executive Steering Group on technology related matters including solution evaluation and procurement. Helps resolve/mitigate technology related risks such as consulting on complex interfaces or integration tasks. In an advisory capacity, helps the Project Manager set the overall technological direction for the program.

### **AVS Team – Workgroup Leads, Business Analysts, SMEs, IT Specialists**

AVS Team Members – Workgroup Leads, Business Analysts, SMEs and IT Specialists - will be responsible for supporting the business and technical requirements definition process, including business analysis, providing business and technical expertise to the conversion and configuration management activity and working with the vendor to deliver a successful implementation. These positions will either report directly to the Project Manager or be matrixed to the PM. Either way they will be dedicated resources to the AVS Project. Vendor staff may also augment this team.

### **Test Team**

The Testing team will be responsible for coordinating all AVS testing efforts. This team will consist of DSHS staff, working in collaboration with the team of the selected AVS solution vendor. The responsibilities of this team will include establishing standards and providing quality control and oversight of the unit/integration level testing performed by the selected vendor relative to module conversion and solution configuration; providing guidance to the system and parallel testing effort as well as monitoring the progress and quality of unit/integration/testing activities; and planning for and managing execution of DSHS's user acceptance testing (UAT) effort.



### 9.3 Issue Resolution and Other Project Decision-making Processes

Issue resolution and other decision-making processes will flow upward through the project organization. Working with the selected vendor and through the program office, the agency Project Manager will be responsible for resolving issues within the implementation team. Issues that either the Project Manager or the PMO director believe require management input and direction because they affect policy and/or project scope, schedule, budget or other factors will be discussed with the Executive Steering Group. If issues require immediate resolution and cannot wait until the next meeting of the steering group, the Executive Sponsor may choose to resolve the issue and/or informally poll committee members for input prior to making a decision.

### 9.4 Quality Assurance Strategies

An independent third party contractor will perform quality assurance and independent verification and validation (IV & V) services for the AVS initiative. The external quality assurance consultant will report to the OCIO. External quality assurance is an important part of DSHS's AVS strategy. The external IV&V contractor will be charged with providing the following IV&V services:

- Independent verification and validation activities, including schedule, budget and deliverable review
- Evaluation and recommendations concerning project governance and individual, sub-project management (e.g. data cleansing; business process improvement; domain code base renovation – task scheduling/dependencies; resourcing and staffing; resolving potential maintenance and development conflicts)
- Progress reviews at both the tactical and strategic levels of project operations
- The external IV&V consultant may be installed as a member of the Executive Steering Group, subject to decision by the Executive Sponsor

An OCIO Oversight Consultant will also be assigned to provide project oversight.



## 10.0 Estimated Timeframe and Work Plan

This section outlines the proposed project schedule and work plan for the AVS solution with key milestones and decision points. It includes the planned project timeline (i.e. major phases) through implementation, and a description of the major tasks to be accomplished in each phase. This is the best projection available at this time, but is subject to change based on funding and resource constraints.

### 10.1 Overview

This proposed implementation schedule/roadmap was developed in concert with the multi-agency, multi-administration project team and represents the best information available at this time, including modeling based on the pilot experience with DSHS ALTSA and DDA. A phased implementation approach is adopted because it offers significant risk reduction advantages and also supports the OCIO's direction of designing major technology projects with "short duration milestones that deliver measurable operational or end-user improvements."<sup>15</sup>

### 10.2 Summary and Timeline

Initial, preparatory, and planning work consisted of the following:

- Support and development of AVS Feasibility Study and Legislative Report
- Project Management framework, project plan development and establishing appropriate project rigor
- Identification and response strategy development of Risks and Issues
- Development of project budgets for OFM and CMS review and approval

Detailed requirements generation is in process. Results of the detailed business requirements will support long term solution efforts.

Current project focus also includes maintaining existing Pilot activities for DSHS ALTSA and DDA. Additionally, the project team is evaluating opportunities to implement a statewide solution to include minimal integration with a batch process that will minimize duplicate data entry for new applications and annual renewals.

The project team is further working on developing the AVS/ACES batch process, with the benefits of this work effort reaching across DSHS administrations, and the procurement strategy for the long term solution, assuming initial integration to be manual or with minimal integration supported by the batch process. There are dependencies within DSHS ESA and the ACES system that may not allow for the batch process development work to be implemented prior to the federal deadline for statewide implementation and therefore, initially requiring a manual process for statewide AVS implementation.

A high level view of the overall project schedule is included on the next page.

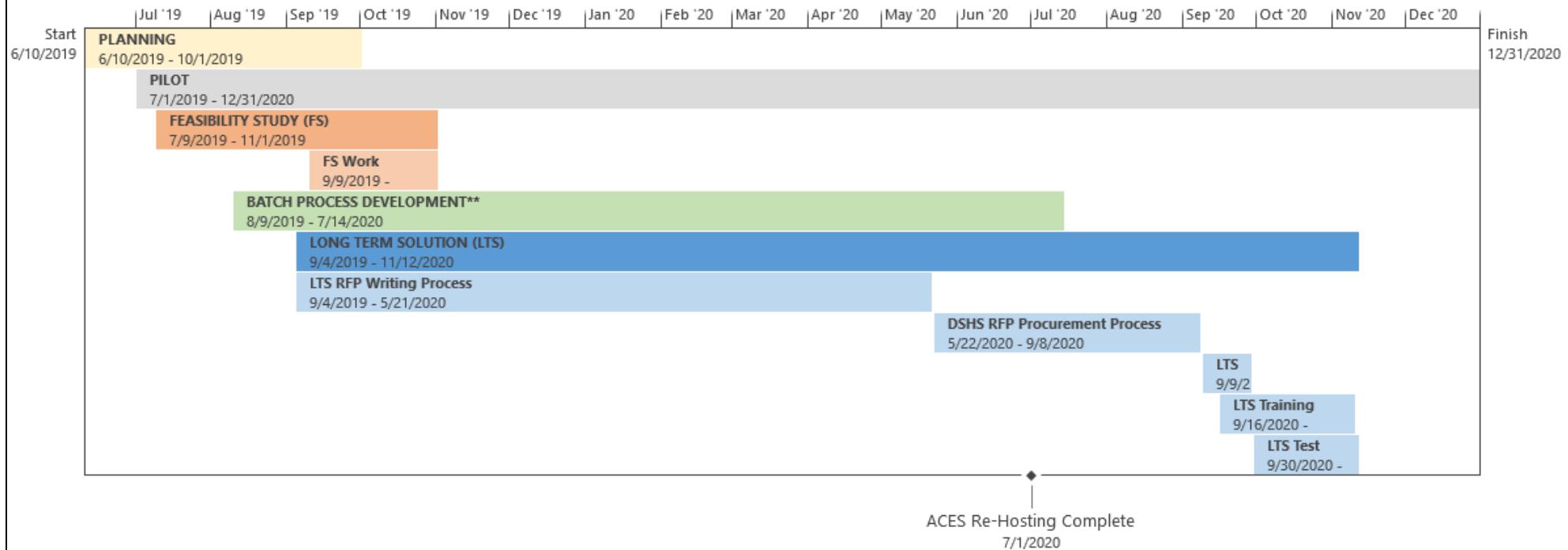
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<sup>15</sup> Biennial Report on Information Technology, OCIO (Washington State), January 2013



## AVS Project Implementation Schedule

This information is based on current known activities and timeline guessti in Microsoft Project schedule.



## 10.3 Work plan

Following is the general, high level task order of precedence for rolling out AVS at DSHS:

PHASE	KNOWN TARGET ACTIVITIES	TARGET END DATE
INITIATION		
	PCG Sole Source Contract implemented	7/1/2019
	Charter	10/1/2019
	Strategy Document	10/1/2019
PLANNING		
	Feasibility Study & Legislative Report	12/1/2019
	Legislative decisions from Feasibility Study and Legislative Report	3/30/2020
EXECUTION		
	Implement Multi Factor Authentication (MFA)	12/1/2019
	Publish Long Term Solution RFP	6/1/2020
	Implement Batch Process work	7/1/2020
	Contract start for Long Term Solution Vendor	9/1/2020
	Implement statewide AVS	11/1/2020
	Close out PILOT Sole Source	12/31/2020
CLOSE		
	Finalize transition of AVS to operational status	1/31/2021
	Close out project and project reporting	1/31/2021

## 10.4 Human Resources

Human resources requirements are included in the cost projections in the following section. FTEs were estimated based on a formal Time Study conducted by ALTSA during operation of the AVS pilot and compiled in a collaborative effort between ALTSA, DDA and ESA. The Time Study took into consideration previous manual workflow and level of effort (LOE) and compared manual process LOE to FTE strength models created for expected efficiencies projected for partial and full integration.

## 11.0 Cost Benefit Analysis

### 11.1 Cost Estimates and Assumptions

Solution cost estimates were derived from actual AVS contract costs in WA (pilot AVS), and estimates that were received from the current pilot contractor for statewide deployment and integration development. The New England States Consortium for Systems NESCSO Consortium Systems Organization (NESCSO), which has its own AVS contractual vehicle for participating states, and other states' AVS contracts with different solution vendors were also benchmarked in preparation of the cost estimates below.

FTE impacts and associated cost estimates were drawn from an updated FTE AVS workload spreadsheet prepared by ALTSA and coordinated among the three administrations impacted by AVS workload: ALTSA, ESA, and DDA. FTEs were factored for the following levels of AVS↔ACES integration:

- Manual method: using the AVS in a standalone fashion, as it is presently configured, with no integration
- Partial integration as defined in this report (see sections 1.4 and 6.0)
- Full integration as defined in this report (see sections 1.4 and 6.0)

FTE workload assumptions were based on an actual time study conducted against the AVS pilot with projections made on duties related to dual system (redundant) data entry and screening that could be reduced or eliminated with systems integration.

#### AVS Solution Costs

Description	Estimated Cost	Comment
AVS Set up/Integration fee <sup>16</sup>	\$200,000	FY2021
Monthly transaction cost	\$116,375	Assumes 24,500 transactions/month @ \$4.75
Estimated FY2021 costs	\$1,597,000	Assumes 12 months of transaction costs and expenditure of the \$200K setup fee

#### Recurring Annual Costs (FY2022 into the future)

Annual transaction cost	\$1,438,000	Assumes estimated 3% price increase
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<sup>16</sup> WA has paid \$150,000 of \$350,000 setup fee, leaving \$200K to be paid for statewide deployment; the current AVS vendor recently said this amount would also include the integration fee – for partial or full integration development.

## Combined FTE and Solution Costs

### Manual Method - Standalone AVS

SUMMARY	FY20	FY21	19-21 Biennium	FY22	FY23	21-23 Biennium
<b>FTE</b>	17.7	59.2	38.5	59.2	59.2	59.2
<b>Staff</b>	2,098,000	6,554,000	8,652,000	6,314,000	6,314,000	12,628,000
<b>System</b>	333,000	1,597,000	1,930,000	1,438,000	1,438,000	2,876,000
<b>Total</b>	2,431,000	8,151,000	10,582,000	7,752,000	7,752,000	15,504,000
<b>State Share</b>	1,287,000	5,340,000	6,627,000	5,050,000	5,050,000	10,100,000

### Partial Integration

SUMMARY	FY20	FY21	19-21 Biennium	FY22	FY23	21-23 Biennium
<b>FTE</b>	8.7	17.6	13.2	15.4	15.4	15.4
<b>Staff</b>	1,503,000	2,451,000	3,954,000	1,770,000	1,770,000	3,540,000
<b>System</b>	333,000	1,597,000	1,930,000	1,438,000	1,438,000	2,876,000
<b>Total</b>	1,836,000	4,048,000	5,884,000	3,208,000	3,208,000	6,416,000
<b>State Share</b>	1,135,000	2,704,000	3,839,000	2,089,000	2,089,000	4,178,000

### Full Integration

SUMMARY	FY20	FY21	19-21 Biennium	FY22	FY23	21-23 Biennium
<b>FTE</b>	3.8	(3.6)	0.1	(5.8)	(5.8)	(5.8)
<b>Staff</b>	990,000	200,000	1,190,000	(427,000)	(427,000)	(854,000)
<b>System</b>	333,000	1,597,000	1,930,000	1,438,000	1,438,000	2,876,000
<b>Total</b>	1,323,000	1,797,000	3,120,000	1,011,000	1,011,000	2,022,000
<b>State Share</b>	880,000	1,222,000	2,102,000	646,000	646,000	1,292,000

Note: the table directly above shows cost projections for full integration if this level of integration were developed and implemented now. However, this is not possible given the schedule for ACES rehosting (section 2.4). Therefore, the *table below* was prepared to present estimated costs based upon a realistic, graduated integration schedule considering eligibility system modernization. This presentation is consistent with the project schedule shown in section 1.7.

## **Estimated Costs (aligned with project schedule): combining standalone AVS (FY2020); Partial Integration (FY2021) & Full Integration (FY2022 – future years)**

Assumptions:

- Partial integration (batch process between ACES and AVS) to be developed and implemented by the end of FY20 to realize immediate partial benefits in streamlining workflow (nominal FTE benefits to begin showing in FY21)
- Full integration to be implemented by FY22 to allow scheduled time for ACES rehosting and modernization. The expected positive results in terms of workflow efficiency improvement, reflected in the below FTE projections, have been extensively modeled, however they are based upon point in time information that may be subject to change.
- State-wide/integration charge of \$200,000 paid to vendor by the end of FY21
- Nine months of paying transaction fee of \$333,000 in FY20 and the full transaction fee of \$1,397,000 in FY21 are included below, consistent with ALTSA's staffing and system cost model, however this amount will likely be reduced because statewide implementation may be deferred until later in FY20
- FMAP of 35% for system implementation costs including FTE staffing expenditures FY21

	FY20	FY21	19-21 Biennium	FY22	FY23	21-23 Biennium
<b>FTE</b>	17.7	17.6	17.7	(5.8)	(5.8)	(5.8)
<b>Staff</b>	2,098,000	2,451,000	4,549,000	(427,000)	(427,000)	(854,000)
<b>System</b>	333,000	1,597,000	1,930,000	1,438,000	1,438,000	2,876,000
<b>Total</b>	2,431,000	4,048,000	6,479,000	1,011,000	1,011,000	2,022,000
<b>State Share</b>	1,287,000	2,704,000	3,991,000	646,000	646,000	1,292,000

### **11.2 Benefit Stream Assumptions**

The primary financial benefit of the AVS is cost avoidance. By deploying a compliant AVS statewide, the state can avoid up to \$112M in FMAP reduction penalties from FY2021 – FY2025. FTE time savings, accruable with full integration, also yield a pro forma benefit stream as shown above.

### **11.3 Benefits of Preferred Alternative**

Benefits for the recommended alternative, state-wide deployment of current pilot with incorporation of partial, and subsequently full, integration are:

- Assurance of compliance with federal AVS regulations that will preempt assignment of grave FMAP reduction penalties (penalties estimated at \$112M from 2021- 2025)
- Improved capture of aged, blind, or disabled Medicaid financial asset data preventing unqualified applicants from receiving benefits
- With full integration (vendor quote of \$200,000 received for both full integration and state wide stand-up), efficiencies will accrue to all affected work units eventually.

## **12.0 Risk Management**

This section describes the objectives of the DSHS IT portfolio risk management process as will be applied to the AVS project.

### **12.1 Risk Management Objectives**

The objectives of project risk management are to decrease the probability and impact of events adverse to the project. Risk management begins during project planning and continues throughout the lifecycle of the project. Any assumptions made in the development of a plan, schedule, or resource allocation should be considered for documentation as a risk. Factors external to the project may also have an impact on the team's ability to deliver, and should be included.

### **12.2 Risk Management Plan**

Once the project is initiated, a formal Risk Management Plan will be created. The plan will support the following risk management activities:

1. **Risk Identification** - This is the process of identifying risks that could affect the project and their characteristics. Several techniques will be utilized to identify potential risks including: review of Lessons Learned from previous projects; the experience of the consultant team; discussions with Washington State Health and Human Services Coalition (HHSC) members and discussions with other project stakeholders (Appendix F). Each identified risk will be documented in a risk log. The project team will classify the risk as either business, organizational, or technical. The risk will also be classified as internal (under the control of DSHS/ALTSA or the project team) or external (the result of factors over which the project has limited control).
2. **Risk Analysis and Prioritization** - For each risk identified in step 1, the team will assess the probability of occurrence using a standard probability scale (from 0.1 to 1.0) and the level of impact using a standard impact assessment matrix (from 1 to 10 based on team member judgment) in the event that the risk does occur. The product of probability and the impact yields the risk score that will help to determine risk planning. Risks that have a risk score of 6.0 or higher are considered "High" risk, those with a risk score between 2.5 and 6.0 are considered "Medium" risk, and those with a risk score less than 2.5 are considered "Low" risk. Risks so identified and categorized will be added and monitored in the project risk register.
3. **Risk Planning** - This step involves identifying an owner of the risk and devising a risk response plan for handling each of the high-priority risks identified in risk analysis and prioritization. During preparation of the feasibility study, this activity primarily involved iterative discussion with the AVS pilot initiative core team and HHSC members. As the project is formalized, the project structure defined in section 9 will manage risks with a defined escalation policy. Guidance on establishing/improving the risk planning process will also be solicited from the quality assurance consultant.
4. **Risk Control and Monitoring** - This step includes executing the appropriate risk response plan during the project lifecycle to reduce the probability of a risk occurring or to mitigate its impact should it occur. This includes monitoring the progress in handling all risks that have occurred and continuing to identify and assess new risks that may emerge throughout the project.

For purposes of the feasibility study, risk categories have been described as either business/organizational risks or technical risks. Each of these risk categories is described below and the various risks that are eventually identified in each category will be inventoried, prioritized, and appropriate risk response strategies identified as appropriate.

### **12.3 Business/Organizational Risks**

Business risks include those risks that impact existing DSHS business operations. For example, risks in this category could include items such as the need to change existing processes and procedures, the need for organizational change management, and the need to implement standardized processes.

Organizational risks relate to the impact of the project on DSHS's organization and the organization of other partners involved in the project. Issues that should be considered in this regard include items such as:

- Level of executive and staff support for the change being proposed
- Agency's demonstrated ability to manage projects of this size and complexity
- Skills and experience available to implement this approach
- Agency's ability to manage internal and external (contractor) staff
- Number of users impacted
- Level of training that might be required
- Length of time DSHS has to complete the project or implement an alternative

### **12.4 Technical Risks**

Technical risks include issues that might impact systems analysis, programming, integration, or testing activities. A primary technical risk relative to this project is uncertainty surrounding the ACES rehosting and modernization schedule and planning. The benefits of AVS/ACES integration will not be realizable until ACES portability/modernization plans are finalized; this includes definition of future specifications so that partial integration (batch file exchange) can be planned, tested, and implemented.

Other examples of risks or constraints in this category may include:

- Lack of availability of personnel with the required technical skills sets in the ACES program area (the AVS vendor is responsible for technical resources on the verification solution side)
- Integrating updated electronic eligibility forms in the AVS business process
- Automating the AVS authorization process
- A large number of technically complex tasks on the critical path
- New or undefined requirements (e.g. extension of asset verification to the general Medicaid population)
- An insufficient number of proficient testers available for the life cycle of the project

## **12.5 OCIO IT Project Assessment Tool (ITPA)**

The IT Project Assessment Tool is used to assist Washington state agencies and the Office of the Chief Information Officer (OCIO) assess the cost, complexity, and statewide significance of an anticipated information technology project (RCW 43.105.245).

Running the ITPA against the AVS project on 10/2/2019 resulted in a score of 43, assessed as follows.

Below 34: No OCIO Oversight required

Between 34 – 45: Gray zone, will require review/discussion with OCIO consultant

Greater than 45: Automatic OCIO Oversight and QA

However, because AVS is a Gated Funded project, it is automatically under OCIO oversight and requires external QA in any case.

## **12.6 Quality Assurance Strategy**

Based on the risk factors above, this initiative is rated level “2” (external QA is recommended for Level 2 projects), therefore funding for an external quality assurance consultant has been included in the project budget. This consultant will perform quality assurance and independent, verification and validation activities including schedule, budget and deliverable review. External quality assurance is appropriate for a program of this size and complexity.

QA will be engaged as per OCIO requirements and initially for review of the Feasibility Study (FS) and Legislative Report (LR).

Public Knowledge (vendor) will be engaged to provide external QA oversight of the project. DSHS is working on a Change Request to the IV&V Work Order held by the OCIO for this initial scope of work. Once we have a more formal plan for the project moving forward, based on the legislative response to the Feasibility Study recommendations, we will extend QA activities accordingly and also in accordance with the scoring from the OCIO IT Project Assessment tool.

DSHS will develop appropriate project management documentation. Good documentation, a strong governance structure and effective project tracking controls reduce risk. Documentation will include a project management plan, resource allocation table, risk register and project management plans in functional areas (e.g. communications plan, quality assurance plan, risk management plan and configuration management plan). The project governance structure will assign controls with accompanying accountability. DSHS and OCIO will also include this project in their respective Information Technology portfolios for oversight and active monitoring.

## 13.0 Glossary

**ABD** – Aged, Blind, or Disabled (ABD) population of Medicaid applicants/recipients. Also refers to a Cash Assistance program for low-income adults who are age 65 or older, blind or determined likely to meet federal Supplemental Security Income (SSI) disability criteria.

**ACES** – Automated Client Eligibility System. Primary system of record for determining Medicaid eligibility, issuing benefits, management support and data sharing internally to DSHS and between agencies.

**AVS** – Asset Verification System mandated by the Section 1940 of the Social Security Act of 2008 and enforced by the Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services.

**Batch Process** - scripted running of one or more programs, as directed by Job Control Language, with no or minimal human interaction. File transfers can easily be embedded into batch process programs.

**BFA** - Program provides food assistance to individuals and families with income at or below the Federal Poverty Level (FPL) for their household size who meet the remaining federal eligibility requirements.

**Business Analytics** - Business analytics (BA) is the practice of iterative, methodical exploration of an organization's data with emphasis on statistical analysis. Business analytics is used by companies committed to data-driven decision making. BA asks the questions: Why did it happen? Will it happen again? What will happen if we change "x"? What else does the data tell us that we never thought to ask?

**Business Intelligence (BI)** - Business intelligence (BI) is a broad category of applications and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions. BI applications include the activities of decision support systems, query and reporting, online analytical processing (OLAP), statistical analysis, forecasting and data mining.

**CMS** – Centers for Medicare and Medicaid Services, Department of Health and Human Services, U.S. Government. Through management of the Medicare and Medicaid programs in the U.S., CMS provides health coverage for more than 100 million people. As such, CMS is the largest health care payor in the U.S. CMS sets policy and enforces public law relative to Medicare and Medicaid program administration including determining states' compliance with Federal policy and carrying out enforcement actions as required.

**CSD** – Community Services Division of Economic Services Administration, Department of Social and Health Services. Community Services Division provides programs to support the Mission of the Department of Social and Health Services including providing eligibility determination and benefit support services to Apple Health (Washington Medicaid) beneficiaries through a statewide network of Community Services Offices (CSO)

**DDA** – Developmental Disabilities Administration, Department of Social and Health Services. DDA provides a broad range of residential and non-residential support services to developmentally disabled citizens of Washington State

**EBT** - Electronic Benefit Transfer-an issuance method where cash and basic food benefits are electronically sent to Fidelity Information Services and then made accessible to clients

**FMAP** – Federal Medical Assistance Percentage: used in determining the amount of Federal matching funds for State Medicaid expenditures for assistance payment for certain social services and State medical and medical insurance payments

**HCS** - Home and Community Services, Aging and Long-Term Services Administration (ALTSA), DSHS, provides and administers long-term services and supports to eligible individuals and collaborates with Area Agencies on Aging to share community service options

**HEN** - Housing and Essential Needs program administered by the Department of Commerce - Provides access to essential needs items and potential housing assistance for low-income adults who are unable to work for at least 90 days due to a physical incapacity, mental incapacity, or substance use disorder

**IID** - Interactive Interview Declaration- staff conduct in-person applications for benefits and all eligibility reviews when the customer has not yet completed an Application for Benefits of Eligibility Review form

**LTS** – Long Term Solution. An acronym used by the AVS project team to differentiate the future, “permanent” AVS solution vs the pilot solution currently in limited operation. A competitive procurement is being planned to select the LTS

**MAGI** – standard Modified Adjusted Gross Income determination methodology for establishing Medicaid eligibility. This methodology considers income, household composition and family size in eligibility benefits determination

**PBS** - Public Benefits Specialists (formerly Financial Service Specialist) – DSHS client support staff who conduct interviews and determine financial eligibility for cash, food and medical programs

**SFA** - State Family Assistance: Cash assistance program of persons ineligible for TANF for specific reasons

**SSS** – Social Service Specialist - Staff that provides professional level social services and specialized case management to clients

**TANF** - Temporary Assistance for Needy Families: Cash Assistance program

**TCO** - Total Cost of Ownership: A type of calculation designed to help consumers and enterprise managers assess both direct and indirect costs and benefits related to the purchase of any IT component. The intention is to arrive at a final figure that will reflect the effective cost of purchase, all things considered. TCO analysis originated with the Gartner Group many years ago and has since spread to many other Corporations, Government organizations and IT entities

**WF** – WorkFirst: Program that provides job search assistance, employment, education and skills training, and work supports to TANF recipients

**WFPS** – WorkFirst Program Specialist: Staff that provide professional case management, conduct interviews, develop Individual Responsibility Plans (IRP), review plans, and evaluate the needs and activities of TANF recipients

**Workflow** - a term used to describe the tasks, procedural steps, organizations or people involved, required input and output information, and tools needed for each step in a business process



## Appendix A – 2019 Washington Medicaid and Long-term Care Asset Limits

### Aged, Blind, or Disabled Medicaid

Effective January 1, 2019

Household Size	Monthly Income Limit	Resource Limit
1	\$771	\$2,000
2	\$1,157	\$3,000

\*State Spousal Resource Limit (07/01/2019) \$58,075 for long-term care Medicaid programs.

### Medicare Savings Program

Resource Limits–Effective April 1, 2019

Medicare Savings Program	Resource Limit – One Person	Resource Limit – Two Persons
QMB	\$7,730	\$11,600
SLMB	\$7,730	\$11,600
QI-1	\$7,730	\$11,600
QDWI	\$4,000	\$6,000



## Appendix B – Estimated Costs

### Transaction Costs

	Transaction Count	Cost
ALTSA/DDA	7000	\$37,000
ESA	11,000 (included in original quote of 18,000 statewide)	\$48,500
ESA	$6,500 \times \$4.75$	\$30,875
Totals	24,500	\$116,375 per month
<b>Annual:</b>	<b>294,000</b>	<b>\$1,396,500</b>



## FTE Costs by Integration Option - Manual Method

SUMMARY	FY20	FY21	19-21 Biennium	SUMMARY	FY22	FY23	21-23 Biennium
FTE	17.7	59.2	38.5	FTE	59.2	59.2	59.2
State	1,121,000	4,276,000	5,397,000	State	4,105,000	4,105,000	8,210,000
Federal	977,000	2,278,000	3,255,000	Federal	2,209,000	2,209,000	4,418,000
<b>Total</b>	<b>2,098,000</b>	<b>6,554,000</b>	<b>8,652,000</b>	<b>Total</b>	<b>6,314,000</b>	<b>6,314,000</b>	<b>12,628,000</b>
ALTSA	FY20	FY21	19-21 Biennium	ALTSA	FY22	FY23	21-23 Biennium
FTE	13.8	17.6	15.7	FTE	17.6	17.6	17.6
State	791,000	979,000	1,770,000	State	970,000	970,000	1,940,000
Federal	790,000	979,000	1,769,000	Federal	970,000	970,000	1,940,000
<b>Total</b>	<b>1,581,000</b>	<b>1,958,000</b>	<b>3,539,000</b>	<b>Total</b>	<b>1,940,000</b>	<b>1,940,000</b>	<b>3,880,000</b>
DDA	FY20	FY21	19-21 Biennium	DDA	FY22	FY23	21-23 Biennium
FTE	1.9	2.4	2.2	FTE	2.4	2.4	2.4
State	105,000	127,000	232,000	State	127,000	127,000	254,000
Federal	104,000	127,000	231,000	Federal	127,000	127,000	254,000
<b>Total</b>	<b>209,000</b>	<b>254,000</b>	<b>463,000</b>	<b>Total</b>	<b>254,000</b>	<b>254,000</b>	<b>508,000</b>
ESA	FY20	FY21	19-21 Biennium	ESA	FY22	FY23	21-23 Biennium
FTE	2.0	39.2	20.6	FTE	39.2	39.2	39.2
State	225,000	3,170,000	3,395,000	State	3,008,000	3,008,000	6,016,000
Federal	83,000	1,172,000	1,255,000	Federal	1,112,000	1,112,000	2,224,000
<b>Total</b>	<b>308,000</b>	<b>4,342,000</b>	<b>4,650,000</b>	<b>Total</b>	<b>4,120,000</b>	<b>4,120,000</b>	<b>8,240,000</b>



### FTE Costs - Partial Integration

SUMMARY	FY20	FY21	19-21 Biennium	SUMMARY	FY22	FY23	21-23 Biennium
FTE	8.7	17.6	13.2	FTE	15.4	15.4	15.4
State	969,000	1,639,000	2,608,000	State	1,144,000	1,144,000	2,288,000
Federal	534,000	812,000	1,346,000	Federal	626,000	626,000	1,252,000
<b>Total</b>	<b>1,503,000</b>	<b>2,451,000</b>	<b>3,954,000</b>	<b>Total</b>	<b>1,770,000</b>	<b>1,770,000</b>	<b>3,540,000</b>
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ALTSA	FY20	FY21	19-21 Biennium	ALTSA	FY22	FY23	21-23 Biennium
FTE	4.3	5.1	4.7	FTE	5.1	5.1	5.1
State	270,000	310,000	580,000	State	307,000	307,000	614,000
Federal	270,000	310,000	580,000	Federal	307,000	307,000	614,000
<b>Total</b>	<b>540,000</b>	<b>620,000</b>	<b>1,160,000</b>	<b>Total</b>	<b>614,000</b>	<b>614,000</b>	<b>1,228,000</b>
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DDA	FY20	FY21	19-21 Biennium	DDA	FY22	FY23	21-23 Biennium
FTE	0.2	0.3	0.3	FTE	0.3	0.3	0.3
State	11,000	16,000	27,000	State	16,000	16,000	32,000
Federal	10,000	16,000	26,000	Federal	16,000	16,000	32,000
<b>Total</b>	<b>21,000</b>	<b>32,000</b>	<b>53,000</b>	<b>Total</b>	<b>32,000</b>	<b>32,000</b>	<b>64,000</b>
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ESA	FY20	FY21	19-21 Biennium	ESA	FY22	FY23	21-23 Biennium
FTE	4.2	12.2	8.2	FTE	10.0	10.0	10.0
State	688,000	1,313,000	2,001,000	State	821,000	821,000	1,642,000
Federal	254,000	486,000	740,000	Federal	303,000	303,000	606,000
<b>Total</b>	<b>942,000</b>	<b>1,799,000</b>	<b>2,741,000</b>	<b>Total</b>	<b>1,124,000</b>	<b>1,124,000</b>	<b>2,248,000</b>



## FTE Costs - Full Integration

SUMMARY	FY20	FY21	19-21 Biennium	SUMMARY	FY22	FY23	21-23 Biennium
FTE	3.8	(3.6)	0.1	FTE	(5.8)	(5.8)	(5.8)
State	713,000	158,000	871,000	State	(300,000)	(300,000)	(600,000)
Federal	277,000	42,000	319,000	Federal	(127,000)	(127,000)	(254,000)
<b>Total</b>	<b>990,000</b>	<b>200,000</b>	<b>1,190,000</b>	<b>Total</b>	<b>(427,000)</b>	<b>(427,000)</b>	<b>(854,000)</b>
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ALTSA	FY20	FY21	19-21 Biennium	ALTSA	FY22	FY23	21-23 Biennium
FTE	(0.1)	(0.8)	(0.5)	FTE	(0.8)	(0.8)	(0.8)
State	37,000	(6,000)	31,000	State	(6,000)	(6,000)	(12,000)
Federal	36,000	(5,000)	31,000	Federal	(5,000)	(5,000)	(10,000)
<b>Total</b>	<b>73,000</b>	<b>(11,000)</b>	<b>62,000</b>	<b>Total</b>	<b>(11,000)</b>	<b>(11,000)</b>	<b>(22,000)</b>
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DDA	FY20	FY21	19-21 Biennium	DDA	FY22	FY23	21-23 Biennium
FTE	(0.3)	(0.4)	(0.4)	FTE	(0.4)	(0.4)	(0.4)
State	(16,000)	(21,000)	(37,000)	State	(21,000)	(21,000)	(42,000)
Federal	(15,000)	(21,000)	(36,000)	Federal	(21,000)	(21,000)	(42,000)
<b>Total</b>	<b>(31,000)</b>	<b>(42,000)</b>	<b>(73,000)</b>	<b>Total</b>	<b>(42,000)</b>	<b>(42,000)</b>	<b>(84,000)</b>
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ESA	FY20	FY21	19-21 Biennium	ESA	FY22	FY23	21-23 Biennium
FTE	4.2	(2.4)	0.9	FTE	(4.6)	(4.6)	(4.6)
State	692,000	185,000	877,000	State	(273,000)	(273,000)	(546,000)
Federal	256,000	68,000	324,000	Federal	(101,000)	(101,000)	(202,000)
<b>Total</b>	<b>948,000</b>	<b>253,000</b>	<b>1,201,000</b>	<b>Total</b>	<b>(374,000)</b>	<b>(374,000)</b>	<b>(748,000)</b>



## Appendix C – Market Research Summary

**Accuity Asset Verification Services** is the predominant Financial Asset Verification service identified by this market survey. Accuity serves as the backend, and in some cases primary, Financial Institution (FI) query/response system for the vast majority of Medicaid AVS solution implementations.

Of the 41 states/jurisdictions (projected to be 45 total states/jurisdiction by the end of the year) using Accuity Asset Verification Services LLC (this is a total figure, includes PCG, Softheon and other “intermediated” states), 16 or 17 have direct Accuity contracts. This means Accuity contracts with states directly as well as through intermediaries. Primarily, Accuity has direct contracts with states that don’t require significant custom integration work with or to their eligibility systems. For these states, Accuity offers a straightforward but not highly flexible nor infinitely changeable batch file (or web services) client record exchange feature: Batch file with client info sent to Accuity by state eligibility system; Accuity returns a batch file with client and financial asset data to eligibility system or, in some cases, to a separate database that is subsequently “harvested” by the state’s eligibility system. No eligibility judgements, rule decisions or threshold violation determinations are made or returned by Accuity; these are completely up to the state/state’s eligibility system(s). Only financial asset data associated with the client is returned.

When you direct contract with Accuity you do not get a “partner markup.” Pricing with Accuity is transaction based (WA’s rate is ~ \$3.65/tx at current volume though PCG has proposed a higher transaction rate in line with other states for statewide pricing). There is an implementation (setup) cost for direct contract states (\$250K)<sup>17</sup> but WA shouldn’t have to pay it again if it has already been paid, were WA to go “direct” with Accuity. There is also a standard monthly maintenance fee of \$5000 that Accuity thought WA had negotiated down to \$3500.

**Other vendors** in the Medicaid asset verification space include:

- **Softheon**: AVS integrated solution contractor in West Virginia; we have the contract and it was used to benchmark projected costs presented in this feasibility study
- **Equifax**: awarded an AVS contract with Kentucky; use a different financial network service provider than PCG/Softheon. Equifax uses Early Warning System (EWS) which reportedly has connections to 50% of the nation’s FIs. Equifax offers a host of other credit, income and employment verification functions.
- **HMS** apparently previously offered a front end to Accuity’s network but now focuses more on providing project mgmt. services; however, HMS still serves as “Prime” contractor to “subcontractor” Accuity in two states (Arkansas; SC)
- **Accenture** is the vendor maintaining the Medicaid eligibility system in Ohio and has a contract with Accuity and thus serves as Prime contractor for AVS; apparently Accenture has built/is building an interface/integrated portal for Ohio
- **Deloitte** has done the same thing – as Accenture has in Ohio - in Georgia (i.e. Deloitte has a subcontract with Accuity, allowing Deloitte to serve as Prime contractor for the

<sup>17</sup> For regular (non-Pilot) contracts, PCG charges a one-time \$200,000 implementation or set-up fee



asset verification service in that state, and performs work on integration with the state eligibility system). Deloitte also manages the eligibility system in Michigan however, in that state, Accuity has a direct state contract for provision of asset verification services.

- **Public Consulting Group (PCG)** is the dominant AVS portal vendor with approximately 23 state contracts and has the strongest, or at least the largest, contract partner relationship with Accuity. According to Accuity, PCG would be a good partner to work with in terms of “portability” and custom integration because of their experience and deep bench.

Other: reportedly, Congress (perhaps at the subcommittee level) has begun preliminary deliberations about extending financial asset determination to all Medicaid eligible/applicants (not just aged, blind, or disabled Medicaid) because of the cost savings demonstrated by early implementations of AVS within the aged, blind, or disabled Medicaid population, even though there is not an asset test for MAGI Medicaid programs presently. Other States have extended AVS to other Health & Human services programs such as TANF and SNAP determinations.



## Appendix D – Time Study (AVS Pilot Standalone Portal – completed February 2019)

Applications:	Renewals	FTE
Assumptions: <ul style="list-style-type: none"><li>• No extra time for Lexis Nexis property screening since this is current work</li><li>• Total volume of apps per year = 45,896</li><li>• 1 FTE works 1332 hours per year</li></ul>	Assumptions: <ul style="list-style-type: none"><li>• No extra time for Lexis Nexis property screening since this is current work</li><li>• Total volume of renewals per year = 37,527</li><li>• 1 FTE works 1332 hours per year</li></ul>	
Current time per application based on manual review (rounded): <ul style="list-style-type: none"><li>• Entering resource data to ACES (5 mins) <math>45,896 \times 5 \text{ mins} = 229,480 \text{ mins}</math></li><li>• Writing a request letter-85% of cases (5 mins) <math>(45,896 \times 85\%) \times 5 = 39,012 \times 5 = 195,060 \text{ mins}</math></li><li>• Reviewing provided information and entering into ACES 75% of cases (20 mins) <math>(45,896 \times 75\%) \times 20 = 34,422 \times 20 = 688,440 \text{ mins}</math></li></ul>	Current time per renewal based on manual review: <ul style="list-style-type: none"><li>• Entering resource data to ACES (5 mins) <math>37,527 \times 5 \text{ mins} = 178,635 \text{ mins}</math></li><li>• Writing a request letter-35% of cases (5 mins) <math>(37,527 \times 35\%) \times 5 = 39,012 \times 5 = 65,672 \text{ mins}</math></li><li>• Reviewing provided information and entering into ACES 30% of cases (10 mins) <math>(37,527 \times 30\%) \times 10 = 11,258 \times 10 = 112,581 \text{ mins}</math></li></ul>	Combined Total for Manual Review (Apps & E/Rs)  $14.7 + 4.5 = 19.2 \text{ FTE}$



- Sending subsequent request letters in 15% of cases (5 mins)

$$(34,422 \times 15\%) = 5163 \times 5 = 25,815$$

- Reviewing provided information in 10% of cases (10 mins)

$$(34,422 \times 10\%) = 3,442 \times 10 = 34,422 \text{ mins}$$

Total:  $229,480 + 195,058 + 688,440 + 25,815 + 34,422 = 1,173,215$  minutes/60 = 19,554

hours/1332 hrs per FTE per year = 14.7 FTE

- Sending subsequent request letters in 5% of cases (5 mins)

$$(11,258 \times 5\%) = 563 \times 5 = 2,815 \text{ mins}$$

- Reviewing provided information on 3% of cases (10 mins)

$$(563 \times 3\%) = 17 \times 10 = 170 \text{ mins}$$

Total:  $178,635 + 65,672 + 112,581 + 2,851 + 170$

359,909 minutes/60 = 5,998 hours/1332=

4.5 FTE

Projected time per application based on AVS:

- Entering resource data to ACES (5 mins)

$$45,896 \times 5 \text{ mins} = 229,480 \text{ mins}$$

Projected time per renewal based on AVS:

- Entering resource data to ACES (5 mins)

$$37,527 \times 5 \text{ mins} = 187,635 \text{ mins}$$

Combined Total for AVS (Apps & E/Rs)

- Time to enter client data into AVS (6 mins)

$$45,896 \times 6.4 \text{ mins} = 293,734 \text{ mins}$$

- Cases requiring direct search added after initial request-85% of cases (9 mins)

$$(45,896 \times 85\%) = 39,011.6 \times 8.8 = 343,302.1 \text{ mins}$$

- Reviewing provided information and entering into ACES and close out AVS case 96% of cases (20 mins)

$$(45,896 \times 96\%) = 44,060.2 \times 20 = 881,204 \text{ mins}$$

- Sending subsequent request letters in 4% of cases (5 mins)

$$(45,896 \times 4\%) = 1,836.8 \times 5 = 9,179$$

- Reviewing provided information in 3% of cases (10 mins)

- Time to enter client data into AVS (6 mins)

$$37,527 \times 6.4 \text{ mins} = 240,172.8 \text{ mins}$$

- Cases requiring direct search added after initial request-85% of cases (3.2 mins)

$$(37,527 \times 85\%) = 31,898 \times 3.2 = 102,073.6 \text{ mins}$$

- Reviewing provided information and entering into ACES and close out AVS case 96% of cases (10 mins)

$$(37,527 \times 96\%) = 36,025.9 \times 10 = 360,259 \text{ mins}$$

- Sending subsequent request letters in 4% of cases (5 mins)

$$(37,527 \times 4\%) = 1,501 \times 5 = 7,535$$

- Reviewing provided information in 3% of cases (10 mins)



$$(45,896 \times 3\%) = 1,376.9 \times 10 = 13,769 \text{ mins}$$

$$(37,527 \times 3\%) = 1,126 \times 10 = 11,260 \text{ mins}$$

$$\text{Total: } 229,480 + 293,735 + 343,302.1 + 881,204 + 9,179 + 13,769 = 1,770,669.1 \text{ minutes}/60 = 29,511.2$$

$$\text{Total: } 187,635 + 240,172.8 + 102,073.6 + 360,259 + 7,535 + 11,260 = 908,935.4 \text{ minutes}/60 = 15,148.9$$

$$22.2 + 11.4 = 33.6 \text{ FTE}$$

$$\text{Total FTE based on AVS} = 29,511.2 \text{ hours}/1332 \text{ hrs per FTE per year} = 22.2 \text{ FTE}$$

$$\text{Total FTE based on AVS} = 15,148.9 \text{ hours}/1332 \text{ hrs per FTE per year} = 11.4 \text{ FTE}$$

## Appendix E – AVS Pilot Lessons Learned

### Project Management and Governance

From a key project stakeholder:

- The single biggest thing that stands out for me are timelines. Even when we pad the timeline things seem to always take longer than anticipated or we have to hurry to make something work which often leads to an inferior product. When we started this project (pilot) we didn't have real project management oversight so there was not a single voice to lead the agency collective (coalition) and coordinate activities (other than the contractor). My lesson learned is that you need independent oversight on a project this large.
- Establish a formal structure and decision-making process. We (the coalition of state Medicaid agencies) tend to work well together but having defined roles and responsibilities and PMO support tends to give projects more legitimacy and makes acquiring resources easier. There were a number of delays: I think it was the looming federal deadline and associated penalties for noncompliance that created a sense of urgency to get a pilot up and going.

### AVS Functionality

- When processing applications, the application date, which is required for processing, was not a mandatory field and was causing errors and delaying case processing. There were also fields that were not mandatory that were useful in case filtering, which would have been helpful to have implemented early in the pilot.
- In using the portal only approach, it would have been helpful to have cases set to directly filter to the workers individual caseload and not default to a statewide view that the worker has to manually filter. There is also the option of filtering by unit, and we chose not to utilize that, however, it appears that in larger offices such as Holgate, it would've been beneficial.
- Our staff found that the AVS logged them out too quickly in the absence of keystrokes or cursor movement, so we requested that the AVS vendor lengthen the amount of time the portal stays active before it times out.
- It would have been beneficial at the outset of the pilot for staff to understand how important the direct search is in obtaining valid and complete AVS results. Initially, HCS staff were only relying on the geo-search, believing that we didn't have to use the direct search as long as the financial institution was relatively close geographically. However, we soon learned that physical proximity was not the only factor that determined whether we'd get results, especially given the maturity of on-line banking and proliferation of regional/national FIs.
- Pilot vendor may have oversold the capabilities of what the geo-search was going to accomplish. Staff consequently encountered a steep learning curve on the geo-search and direct search best practices. Direct search has become a mainstay process in ensuring complete coverage of FIs for AV inquiries.

## Processes

- Staff requested that there be an AVS reminder (“tickle”) created for Barcode (Document Management System (DMS)) and set for 16 days, as that’s how long it generally takes AVS to return results. We didn’t implement this until approximately 6 months into the pilot.
- AVS authorization language was not, and is still not, placed on all of the forms in ACES, meaning that staff have to contact every client who submits an application or has an eligibility review due to make sure they authorize AVS. This manual process is cumbersome and represents a heavy burden on staff. The AVS authorization process can and should be better integrated into eligibility determination workflow.

## Communication

- There should have been better communications with Social Services and Case Managers prior to the roll out of the pilot as the AVS inquiry-response waiting period sometimes impacts their ability to finalize cases.

## **Appendix F – External Customers**

### **External Customers of Medicaid Asset Verification Services**

#### **Principal customers:**

- 303,000 Aged, Blind, or Disabled Medicaid applicants and recipients in the state of Washington, their families, guardians or authorized representatives

#### **Washington State Health and Human Services Coalition (HHSC) members:**

- Health Care Authority
- Department of Social and Health Services
- Department of Children, Youth and Families
- Department of Health
- Health Benefit Exchange
- Office of the Chief Information Officer (ex-officio)
- Office of Financial Management (ex-officio)

#### **Additional Stakeholders:**

- Centers for Medicare & Medicaid Services (CMS) (Federal DHHS)
- Aging and Long Term Care Administration Executive Management
- Developmental Disabilities Administration Executive Management
- Economic Services Administration Executive Management
- Community Service Division Management
- IT Services Division Management
- Enterprise Technology Management
- Health & Human Services Coalition
- The Affiliated Tribes of Northwest Indians (Northwest Tribal Council Coalition)
- Office of Fraud and Accountability within DSHS
- Potentially, the Division of Child Support within DSHS
- Office of Financial Recovery (Estate Recovery)
- Area Agencies on Aging
- Behavioral Health Administration including state mental health facilities
  - System will facilitate expediting eligibility determinations at discharge
- Individual Providers and DSHS home care workers
  - Ultimately less churn at renewals will bring more stability to home care providers and caregivers

## Appendix G – Technical Requirements

General Requirements		
1.1	Single Integrated Eligibility System	The AVS solution will interoperate with ACES in such a way as to allow that system to serve as the department's single system of record for Medical eligibility determinations. The AVS will be configurable as an eligibility platform subsystem.
1.2	Business Rules Management	The system shall provide business rules management capabilities that allow the agency to incorporate, track, and modify business rules that, in turn, will predictably modify the behavior of the system.
1.3	Data Conversion	The vendor shall provide a data conversion plan that supports migration of legacy data sets to the new architecture and will lead the effort in executing the legacy system data conversion plan.
1.4	Interfaces	The AVS vendor will program any required site-specific interfaces to extend the functionality of the system to/from ACES and any other DSHS or HCA applications
1.5	Project Management Plan	The vendor will collaborate with the DSHS Project Manager in developing and updating a project management plan that includes delineation of tasks, dependencies, timeline, resource allocation and a risk management plan/issues migration process. The vendor's project manager will participate in reporting progress against the plan and will also contribute to issue identification/ resolution discussions at regularly scheduled project steering group meetings.
1.6	Rollout	The vendor will support existing to new commercial off the shelf system cutover by developing a legacy system cutover and new module rollout plan in collaboration with the DSHS Project Manager to include coordinating tasks, timelines and resources. The vendor will provide resources to prepare for and execute the rollout plan including supporting system testing and performance during the cutover period and through stabilization.
1.7	Testing	The vendor shall support and successfully perform in the testing of all components of the new system through: <ul style="list-style-type: none"> <li>• Collaboration with DSHS in developing a Test Plan and Test Scripts that support DSHS's Business Rules, and which</li> </ul>

		<ul style="list-style-type: none"> <li>• leverages experience from previously implemented jurisdictions</li> <li>• Provision of system test and/or QA environments</li> <li>• Provision of appropriate test tools</li> <li>• Test Plan execution</li> <li>• Resolution of all test defects</li> <li>• Assistance in developing and executing end-to-end test routines including validating performance of internal and external interfaces</li> </ul>
1.8	Training	<p>The vendor shall provide comprehensive training support for the new system. Training support will include, but not be limited to, the following components:</p> <ul style="list-style-type: none"> <li>• “Train the Trainer” support to include comprehensive training in the new solution’s features, functions and user interface, reporting and other capabilities to a cadre of DSHS staff designated as AVS solution trainers. Training will be sufficient in scope to allow trainers to become proficient and provide subsequent training to impacted staff</li> <li>• Training documentation</li> <li>• Computer Based Training (CBT), Learning Management System (LMS), or web based training platform/curriculum</li> </ul>
<b>Technical</b>		
2.1	Web-enabled	The application will operate as a Software as a Service (SaaS) application in a web-enabled environment, fully feature-accessible to all staff with an internet connection
2.2	SOA Based	The system shall be based on a Service Oriented Architecture (SOA).
2.3	Standard GUI	The system shall provide for and support an intuitive, standard Graphical User Interface (GUI) throughout the application.
2.4	Table Driven	The system shall provide the capability to be table-driven with online screens to control parameters.
2.5	Data Conversion	The vendor shall provide a data conversion plan that supports migration of legacy data sets to the new architecture and will lead the effort in

		executing the legacy system data conversion plan.
2.6	Training	<p>The vendor shall provide training support relative to implementing and maintaining the new system. It is expected that training support will include, but not be limited to, the following components:</p> <p>“Train the Trainer” support to include comprehensive training in the new solution’s features, functions and user interface, reporting and other capabilities to a cadre of DSHS staff designated as COTS solution trainers. Training will be sufficient in scope to allow trainers to become proficient and provide subsequent training to Public Benefits Specialists (PBS), also known as Financial Workers</p> <p>Training documentation</p> <p>Computer Based Training (CBT), Learning Management System (LMS) or web based training platform/curriculum</p>
2.7	Testing	<p>The vendor shall support the testing of all components of the new system through:</p> <p>Collaboration with DSHS in developing a Test Plan and Test scripts, DSHS’s Business Rules and previous jurisdiction experience</p> <p>Provision of system test and/or QA environments</p> <p>Provision of appropriate test tools</p> <p>Test Plan execution</p> <p>Resolution of test results</p> <p>Assistance in developing and executing end-to-end test routines validating performance of internal and external interfaces</p>
2.8	Rollback Plan	The vendor shall provide a structured plan for the rapid and orderly return to the prior (current) version or environment if the transition/promotion effort for any element of the new environment

		(during cutover and for the period up to final acceptance) begins to fail in production.
	Business Rule Related Changes to System	The system shall enable DSHS staff to implement business rule related changes including end to end verification prior to production release.
2.9	Archive reporting	The system shall provide a method to access, query, and report against historical data.
2.10	Centralized Relational Database	The system shall use a common, centralized database that uses current relational database technology. The system will leverage, employ or be compatible with the latest version(s) of MS SQL Server.
2.11	Configurable	The system shall be configurable with appropriate drop down lists, options, business rules, user profile options and parameters to tailor the system to DSHS's needs.
2.12	Conform to DSHS Technical Architecture	The system shall conform to DSHS Technical Architecture as promulgated by the DSHS IT Architectural Review Board.
2.13	Customer Focused	The system shall be customer focused with centralized customer records. Vehicle title and registration records should be associated with the customer driver and/or business records. History and reporting must also support a customer centric view of driver and transaction history, customer ownership, correspondence, etc.
2.14	Data updates	The system shall support a relational data model (e.g. a single record entry/update takes effect throughout the entire system)
2.15	Descriptive error messaging	The system shall provide the capability to provide clear and descriptive error messages.
2.16	Record retention	The system shall provide the capability to meet provisions of the records retention schedule as defined by Washington State law and DSHS policy.

2.17	Effective-dated Transactions	The system shall provide the capability to register, manage and process effective-dated transactions.
2.18	Electronic access	All system documentation and manuals shall be available and accessible electronically.
2.19	Internet Self-Service Functionality	The system shall have Internet based self-service functionality to allow customers to be able to complete selected transactions on their own via the Internet.
2.20	Web-Enabled	The system shall be an Internet/Web-enabled application operating over IP with Virtual Private Networking (VPN) technology. User access shall be enabled from any location with an internet connection and workstations with industry standard web browsers.
2.21	Logical deletion	The system shall allow deleted records to be marked for deletion but not be removed from the database until they are archived.
2.22	No Client or Thin Client	The system shall support No Client (Browser-based) or Thin Client architecture for both headquarters and field office users.
2.23	On-line Real-time System	The system shall be an on-line, real-time system, while retaining essential batch processing capabilities. Any updates at any location will be immediately available at all other locations.
2.24	Standard Query Language	The system database shall provide standard query language (SQL) capabilities for database queries.
2.25	User-defined documentation	The system shall enable users to incorporate user-defined documentation into system documentation.
<b>Infrastructure</b>		
3.1	Application Servers	The system application servers and database servers shall utilize Microsoft/Microsoft Windows compatible operating system(s).

3.2	Printer Support	The system shall be able to handle locally attached printers as well as network printers. To the degree possible, the system shall use universal printing methods to support the widest range of printing solutions.
3.3	Compatible with State Network Protocols	The system shall be compatible with the State Government Network (SGN) that provides connectivity between state agencies in support of cross-agency mission fulfillment.
3.4	Electronic Signatures and Digital Certificates	The system shall provide the capability to support electronic signatures.
3.5	Output Options	The system shall provide the capability to support Fax, email, PDF and MS Office templates as output options.
3.6	SFTP/FTP File Transfer	The system shall support the use of secure SFTP/FTP to accommodate file transfers.
3.7	Online and Batch Entry	The system shall provide both online and batch entry of data.
3.8	Virtual Servers	The system shall provide technologies that support Hyper-V virtualization for efficient resource control.
3.9	Web Servers	The system shall interoperate with web servers that utilize a MS Windows operating system.
3.10	Web Services	The system shall leverage and interoperate with Web Services where necessary, e.g. external interfaces.
<b>Operations</b>		
4.1	Availability	The system shall be available 24 hours per day, 7 days per week, throughout the calendar year, with minimum downtime allotted for maintenance as necessary.
4.2	Backup /Restore/Archive Scheduling	The system shall provide robust scheduling and control functions for automatic and/or manually designated system/database backup, restore,

		purge and job control schedules, including batch process control and scheduling.
4.3	Remote Monitoring and Administration	The system shall provide the capability for remote monitoring and administration of all applications.
4.4	Response Time	The system shall provide sub-second system response time (internally in the application excluding the network).
4.5	Software Promotion (multiple environment support)	The system shall be available in different environments including development, QA/test, training, and production. The system shall provide a clearly defined promote-to-production process that enforces a strictly defined methodology for movement from development to Quality Assurance (QA) and production, with the ability to “roll back” to a previous version in each of these environments.
4.6	User Counts	The system shall be able to support a population of 2,000+ users and support user growth while performing a combination of concurrent motor vehicle and driver license transactions throughout the course of a normal business day.
4.7	User/Technical Manuals	The solution shall provide comprehensive user and technical reference manuals including user-friendly navigation and ‘search for term’ functionality
<b>Security and Audit</b>		
5.1	Access Limits Based on User ID	The system shall provide role based access capability in terms of allowing, disallowing, or limiting access or permissions- based on users' level of security as established by their user IDs/profiles.
5.2	Access Logging - Audit Trails	The system shall provide the capability to log insert, update, delete and select actions with respect to predetermined system data, including options for logging access for ‘view only’ & configuration change actions. Predetermined

		and ad hoc reports will support regular review of such access.
5.3	Active Directory	The system shall support the use of WA State Microsoft Active Directory for client authentication and password control / authentication.
5.4	Attempted/Failed Access Alert	The system shall issue an alert to the end-user and notify the System Administrator after a specified number of unauthorized login attempts. The system will capture/track history of relevant user access activity including maintaining a record of failed access attempts.
5.5	Certificate-based Authentication	The system shall support certificate based authentication for external customers.
5.6	Encryption	The system shall have the capability to encrypt data at rest and during transmission.
5.7	Internal Controls and Audit Trails	The system shall have proper internal controls to provide for separation of duties, prevent fraud and misuse and shall provide audit trails of all system activity to detect any unauthorized activity.
5.8	IT Security Standards	The system shall conform with DSHS IT Security Policy, and Washington State Office of the Chief Information Officer (OCIO) security standards: <a href="https://www.ocio.wa.gov/policies/141-securing-information-technology-assets/14110-securing-information-technology-assets">https://www.ocio.wa.gov/policies/141-securing-information-technology-assets/14110-securing-information-technology-assets</a> .
5.9	Log File Access	The system shall provide the capability to restrict access to logs / files containing sensitive data.
5.10	Maintenance Table Updates	The system administration function shall provide an automated and secure process for updating and tracking system maintenance via maintenance tables or other system based templates.
5.11	Masking of information	The system shall provide for the masking of personally identifiable information (PII) within the development and test environments.

5.12	Mobile devices	The system shall support secure access from mobile devices to on-line customer self-service functions.
5.13	NIST Conformity	The system shall conform to NIST (National Institute of Standards and Technology) Special Publication 800-53.
5.14	Password Management	The system shall provide the system security administrator or other authorized system administrator with the ability to manage user passwords, including establishing and enforcing modern conventions relative to password strength, password change, password reset, and system administrator assigned parameters.
5.15	PCI Compliance	The system shall comply with PCI security standards.
5.16	Single Sign-On	The system shall provide a single sign-on capability allowing user access to authorized application components without having to log-in separately to installed/integrated modules/features.
5.17	System Restore/Recovery	The system shall provide the capability to recover applications and data within established recovery requirements and timeframes back to the most recent restorable configuration.
5.18	System Vulnerabilities/Event Logging	The system shall identify and address system vulnerabilities and policy violations using a security information and event management tool.
5.19	Table Update Logs	The system shall provide the capability to maintain historical records of table updates, e.g. table update audit trails.
5.20	Third-Party Access and Transactions	The system shall maintain an audit trail of all transactions, including inquiries for pre-determined records, performed by contracted Authorized Third Parties. Third party staff or systems shall have discrete logins.
5.21	Timeouts	The system shall provide the capability to timeout a user session or suspend a user after a

		predetermined period of non-activity at the workstation or on a device. The solution should also be configurable to maintain session-state beyond default browser or server default session lengths.
5.22	User Identity and Access management	The system shall provide a user identity and access management (IAM) platform.